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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI | FORT ATKINSON, WIS., JULY 26, 1918 | Number 1

FREE MILK FOR FRANCE

ALEX KOLBE, NEW YORK

"FREE Milk for France" is the slogan of a committee organized by two prominent women in New York City, with headquarters at 675 Fifth Avenue. A ton of dry milk, which is equivalent to 8,400 quarts in liquid form, is the daily need in France for wounded soldiers, and for our own boys who are among them, dying babies, and tuberculosis sufferers.

A huge milk can stands in front of the headquarters, with a slit in its top, through which may be dropped contributions for the committee's fund. By the side of the can a big sign reads: "Give of the Milk of Human Kindness, for France is Famishing for Milk."

The publicity circular sent out by this organization reads in part as follows:

"France faces a milk famine! Above national privation looms this big problem. Milk for babies! Milk for wounded soldiers! Milk for men and women dying of tuberculosis! The need is tragic!

"So short is the supply of milk throughout France that infants are fed the diet of older children. Young babies are given soups and stewed vegetables. Thin, diluted milk falls to the lot of little children. Wounded soldiers, carried bleeding from battle, receive heavy soups when a few drops of milk would mean life.

"While in France innocent children, wounded soldiers, and wasting consumptives are suffering for lack of milk, in the United States there is abundance and to spare. Shall not America hail this dire necessity as another opportunity to show that spirit of friendliness that has bound the two republics together for a century and more? We must help. No question of international diplomacy or political expediency is involved. It is the appeal of heart to heart. It is a human cry of need!

"War has plunged its ugly hand into the very vitals of France. Beyond the village and hamlet it has gone out into the pastures and farm lands. Cows have been requisitioned by the army and not replaced. Owing to the shortage of feed, farmers have had to kill off their cattle. At least 2,000,000 thus have been lost. The total decrease in the number of cattle has been over 16 per cent. The falling off in the milk yield has been proportionately heavy. France is now producing only one gallon where two and one-half were produced before the war.

"To conserve milk the French government is taking vigorous measures. Great care is devoted to the protection of milch cows. From bombarded towns, under military escort, two or three at a time are led back to places of safety. Farmers are constantly urged to make all sacrifices possible to provide proper feed for them. Within the city of Paris a herd of cows is kept under civic care. Government restriction now forbids the serving of milk or cream for any purpose in restaurants, hotels, or public eating places after nine o'clock in the morning. In private homes, whether noble or humble, milk is voluntarily restricted to young children and the sick. This is a widespread effort to put the inadequate supply of milk to the most essential uses. Yet available milk in Paris today is so scant that it costs 32 cents a quart.

"Milk is the most perfect human food. For the young child or baby it contains properties essential to growth. There is no equal substitute for the infant.

"The shipment by the Committee for Free Milk for France of a ton of dry milk a day, or 8,400 quarts, means sustaining nourishment for 8,400 French babies. This is a veritable gift of life. For the death rate of babies in warring Europe ranges from 58 to 98 per cent. If milk will save some of those poor little souls, born into the world to be snuffed out at the end of a few months, America will surely send generously.

"For the adult, milk is a balanced ration. It is more easily digested than any other food and is concentrated nourishment. For the pain racked, bruised, and torn body of the wounded soldier, milk is an absolute necessity.



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PRETTY MILKMAIDS ON MOTOR TRUCK SEEK MONEY TO SEND MILK TO FRANCE

With the slogan "Free Milk for France" a batch of pretty milkmaids started out on this truck to secure funds in a week's campaign. They want to raise enough money to send a ton of dried milk to France daily so that babies and wounded soldiers will be supplied.

"Thousands of tubercular soldiers can be cured only by fresh air and adequate nourishment. Milk is absolutely necessary to them in their weakened condition."

Dairymen and others who may be interested may write Mrs. Josephine Osborne, 675 Fifth Avenue, New York City, for further information; or make checks payable to Free Milk for France, Inc., and send to Henry C. Cooper, Treasurer, 37 Wall St., New Work City.

A Dairy Day Dream

HOARD'S DAIRYMAN:—In company with my son I went out into the field one day not long ago, where a fine bunch of full-blooded heifers were pasturing. It was a beautiful day, still and calm, not a puff of wind blowing. The sun was shining brightly, turning into gold the backs of our young stock, grazing so peacefully in the kneedeep grass. As we went along we had been talking things over. At the sound of our voices the heifers looked up and started toward us.

"Don't you think they are fine, father? We never had heifers like these. Look at this one, now."

The pretty little thing had come up to my son. His arm was over her neck and she was looking up into his face with all the love and confidence such a creature can show. The others pressed so closely about us that we were in danger of being swept off our feet. It seemed as if they knew we loved them and wanted to show their love to us. We backed off a little way, only to be followed quickly by our fine friends of the tender heart and the inarticulate tongue.

"They surely are fine!" How could I help saying it? "They will make cows that we will be proud of, won't they? It has cost something to get them, but it is worth while, isn't it?"

Then we let our thoughts run back to the beginning of our dream of better stock. When we brought home the first little heifers with their mate, leaving behind $105.00 for the three, it seemed like quite a price to pay. Would we ever realize the worth of our money? The question would come up; but hope kept saying, "Surely you will. Just be patient, keep on dreaming and working toward the end you have in sight and everything will come out right."

We gained slowly. It was not all sunshine. When we would have liked heifer calves, calves of the other kind came. There were some losses. These, I am sure, did not discourage us, although it was a bit hard for my boy to nurse one of the choicest heifers in the time of her first great crisis as faithfully as any doctor ever cared for a patient, watching over her night and day, only to see her gradually slip away across the boundary to the land where I am sure all good, gentle, tender spirits go. That was an experience calculated to make us all better, and to cause us to wonder just where is the dividing line between man and his mute, uncomplaining farm helpers.

But we did get ahead slowly, and

(Continued on page 26)

Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any adver tiser's dealings with a subscriber are in b faith or evidence a lack of business honor. Advertisers generally recognize the reade Hoard's Dairyman as an up-to-date c farmers, who farm with business-like and we hold our columns for the pa only those with whom our reade deal with profit and satisfaction.

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Campaigns Against Rats

To reduce the $200,000,000 loss in food and other property destroyed annually by rats, the Bureau of Biological Survey of the United States Department of Agriculture is giving advice as well as assistance in a number of state and local campaigns against this worst of pests. Statewide campaigns are in progress in in Mississippi, West Virginia, and Georgia, while Maryland, Minnesota, and Alabama are planning to take up such work in a few weeks. These campaigns are usually made through county agents and emergency workers, by co-operation with the States Relations Service. The Board of Health of Kansas has been making a state-wide educational campaign against rats, while many local organizations in cities, village, and rural communities have been engaged in active efforts to eliminate these animals. An indication of the increasing interest taken by the public in this work is shown in the steadily increasing demand for anti-rat bulletins and posters published by the Department.

A good cow can produce her own value every year, but every cow—good, bad, or indifferent—is a good eater, and many a bossy is petted and fondled and tolerated who eats her head off every year without saying a word about it. Now dairying is not a matter of sentiment but of business. The values involved are large; the consumption is heavy; the labor is excessive; the risks are many; the public is exacting, intelligent, and critical, and only the best of modern business methods will insure a continuance of patronage or a balance on the right side of the ledger.—Eugene Davenport.



The DAIRY OPTIMIST

W. LIVINGSTON LARNED

Jealous of the Farm

The big cars rumble past our place,
With fancy trimmings and the like,
And, on again, at city pace,
Upon a pleasure-loving hike.
But, honest, I can see them look
From out the frummery and fuss,
Upon the old barn and the brook
As if they truly envied us.

"That's pretty," we can hear 'em say,
"It's peaceful there, beneath the trees,"
And it's the plaintive, earnest way
They talk, that somehow seems to please.
For one brief moment, as they pass,
Deep in their hearts, they'd like to bide,
Here, with the fields of dew-wet grass,
And lowing herds, on every side.

The city! Oh, it's good enough,
If that's the only thing you know.
But when a man's hand's brown and rough
His heart by toil is softened so.
He grows to love the humble earth,
And all the bounty of it's range.
You keep the town for what's it's worth—
I wouldn't change—I wouldn't change.

Of all the slackers on earth, durin' these war times, th' one that makes me th' maddest is th' farm hand that claims he's too sick to get out of bed, but wants his strawberry short-cake sent up to him.

Observations of the Oldest Dairyman

"War can't be quite as bad as five farmers in a country store, arguin' pro and con, about alfalfa."

There's this difference betwixt men and cows—a cow will chew a cud an' say nothin', but th' average man not only chews his cud but talks politics at th' same time.

When I see my herd out grazin' in the orchard, with the blue sky above and grass an' clover as fer as th' eye can reach, I'm mighty glad that Mr. Hoover hasn't got around to pasture-land yit.

"The farmers over at Mountaintop tried an experiment. They all chipped in and bought a fine pure-bred Guernsey bull, and signed an agreement for co-operating breeding."

"How did it turn out?"

"All right, until the various wives started differences and didn't speak. That started the men fussing. Now when one on 'em wants the bull, he goes over and says: 'You low down, good-fer-nothing whippersnapper, I don't like you and I won't talk to you but lend me our bull'."

The Way it Works Out

"What do you think of the way your hogs are coming along this year?"

"Well, they looked mighty fine to me, until one of those balanced ration gents came around with diagrams and phtographs and warnings and mineral-ingredient charts. Ever since then I somehow have the feeling that my hogs are as fat as a pen full of fine tooth combs."

Drinkin' Cream

The little girl is drinkin' cream,
(The roses in her cheeks are red)
And, on her lips, sweet clovers seem
To bloom instead.
She sips it with contented air,
And:—"Oh, it's goody!" hear her say;
Then, with the south wind in her hair
She runs to play.

The little girl is drinkin' cream,
(Health looks from out her dancing eyes)
And I can see the pastures dream
Beneath fair skies.
The blessing of the herd is here;
A treasure, born of grassy wealth.
And cows that dot the bright fields near
Mean world-wide health!



You Can't Afford This

No farmer is rich enough to feed 40-cent butter to his hogs or his calves in partially skimmed milk.

It's a waste of money.

It's a waste of food.

It's a waste that your pocketbook, your neighbors, your country, all condemn.

But it's a waste that is going on today on every cow-owner's place where an inferior or half-worn-out cream separator is being used, or where the farmer is skimming by the wasteful "gravity" method.

And its a wholly unnecessary waste, too.

Because a De Laval Cream Separator will soon save enough cream to pay for itself, and put a stop to all the waste of cream and time and labor for many years to come.

There is no other cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, freedom from repairs, and durability. It's the world's greatest cream saver.

Order your De Laval now when you need it most and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Company

165 Broadway, New York **29 E. Madison St., Chicago**

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The Small Grain Separator

J. L. JUSTICE, Indiana

FARMERS who grow a great deal of small grain, such as wheat, oats, rye, and barley, often suffer big losses due to delay in waiting for a threshing outfit. A few days of wet weather and high winds after the grain is cut and in the shock not only reduce the quality of the grain in many instances but reduce the yield as well.

It was for the purpose of getting their grain threshed as soon as it was in condition to be threshed that two young farmers in my neighborhood invested in a small separator last year. They already had a tractor, and as the neighbors in their old ring offered to patronize them they considered their investment worth while, for they were farming two hundred acres of land with their tractor and had a great deal of grain of their own.

The result was they threshed out two other rings besides their own, threshing 82,000 bushels of oats and 5,000 bushels of rye, wheat, and buckwheat. They had never before had any experience with a grain separator. Here is what they say about it:

"Our separator is a 28-40. Most of the larger separators are 40-60s, but we did practically as much work with ours as they did with the larger ones. It may seem hard to believe, but I'll tell you the reason why we did it. We kept our machine going all the time, we never had to stop. Usually if a larger machine has to stop it is to wait for the bundle wagons.

"Our separator will take the oats just as fast as two bundle pitchers—one on each side—can throw them in. It will take wheat and rye through just about as fast, but the self-feeder has a regulator on it so that in case the bundles are thrown in too fast the self-feeder automatically slows down or stops until the grain inside the separator gets to flowing smoothly. In this way we get perfect separation of grain and straw, no grain is blown over, the screens are not crowded and therefore the grain is well cleaned, and there is no unusual strain on the machine."



SEPARATES WHEAT, OATS, RYE, AND ALL SMALL GRAINS

This machine threshed on our farm and the quality of work it does cannot be excelled by the bigger separators. The owners operate it with 10-20 horse power tractor, using the tractor other seasons of the year for work on the farm. This tractor furnished an abundance of power for operating the separator under all conditions, but they were careful to thresh only dry grain.

FIRST HAND DAIRY EXPERIENCE

A New Hampshire Farmer's Story as Related to a Meeting of Farmers in Maine

NOW, when you stop to think of it, how many of you have better cows than you had twenty years ago? Have you done your part in bringing up the production of your herds? If you are keeping a 4,500-lb. cow, do you realize what it would mean to you if you could put in her place a 6,500-lb. cow? The minute you made the change you would automatically reduce the cost of producing any given amount of milk from 20 to 22 per cent. Why? Because the cow producing the smaller amount consumes just as much roughage and requires just as much time and care as the other cow. The expenses outside of the grain cost are practically the same.

I will tell you briefly what I did in my own herd and why I did it. I was forced to do one of three things—to decrease the cost of production, because I could not increase the price for which I was selling—or to go out of the dairy business and adopt some other system of farming—or to go off the farm. There was no other business open to me at that time but the dairy business.

In the year 1898 my father died, leaving me the management of the home farm, heavily mortgaged. At his death I had not only the farm but the obligations which had to be met. For a while everything went along smoothly. We had what was considered a good dairy herd at that time. We were getting a living, and now and then I would reduce the mortgage a little; but as the price of feed and labor began to advance, increasing the cost of production of the herd and, as the price of the product did not advance in proportion, the margin became less and less until, at the end of the year 1903 when we took an inventory and tried to settle the bills and start on a good business basis for the next year, I found myself some $200 or $300 short of enough to meet the expenses. I assure you it was a serious problem to me, with the obligations hanging over me and with no other methods that I could adopt, so far as I knew, that would change conditions. I took a day off and used my head a little. And, by the way, I think that if our farmers generally would take a little more time to study conditions, and do a little more thinking, and study their own business a little more, perhaps they might be able to adopt some methods that would be worth while.

After doing that I said to myself, 'we have here 16 cows. There are 16 machines that I am using to convert the products of my farm into cash— a cash income and a profit, if I can get any. They are the market for the crops I grow and if those machines can handle that more economically, my income will be so much more. If one can handle what she consumes more economically than the other, she is the more efficient machine.' So after thinking the matter over carefully I decided that on the first day of January I would open an account with each individual cow. I knew that I had some good cows, as every dairyman has. I thought perhaps I might have some that were not as good as I could get.



AN IMPROVED DAIRY HERD

"If you are keeping a 4,500-pound cow, do you realize what it would mean to you if you could put a 6,500-pound cow in her place?"

On the first day of January I opened an account with each cow, and I am going to tell you briefly just what I found after a year's work. I found that the best cow I owned at the end of the year 1904 had produced 6,115 lbs. of milk, or 339 cans of 8½ quarts each, and her average test was 4.2 per cent. She produced 256.84 lbs. of butterfat. She made a pound of butter for every 20.2 lbs. of milk. In those days of labor cost and feed cost that was a profitable cow. If I had owned a herd of that kind I should not have had the deficiency I had to meet. Unfortunately for me, they were not all that class of cows.

For the purpose of comparison, I want to divide that herd of 16 cows into two herds of 8 cows each, one containing the 8 best and the other the 8 poorest cows. The 8 best cows in 1904 averaged 258 cans of milk and 258 lbs. of 85 per cent butter. The 8 poorest cows averaged 192 cans of milk and 200 lbs. of butter; a difference of 58 lbs. of butter per cow. You see what that means in cash. The 66 cans of milk at 56 cents a can would amount to $36.96, or a total difference on the 8 cows of $295.68.

I want to show you what I was able to accomplish after ten years' work. The records of that first year were a lesson to me. I had to take another half day to study and find out what was best. I decided that I would dispose of all the cows in my herd that did not produce $10 worth more of dairy products than the feed cost. That would give me a basis to start on. Then I would go out and buy a pure-bred sire from a good producing cow out of a herd where records were kept and I could judge from the production point of view. I have followed that work from that time to this. I have not only kept the records but I have weeded out the poor cows. Instead of selling my best cows when the dealer came along I have sold the unprofitable cows, until in 1914 we had as a best cow one that would produce 9,580 lbs. of milk, or 532 cans, with an average butterfat test of 5.1 which would mean 488.77 lbs. of butterfat.

For purposes of comparison I want to take the best half of the herd in 1904 and the best half of the herd in 1914. In 1904 the best half of the herd produced an average of 258 cans of milk, and 258 lbs. of butter. In 1914, the best 16 cows averaged 7,144 lbs. of milk, or 397 cans, 379.84 lbs. of butterfat, or 446.87 lbs. of 85 per cent butter; a difference of 139 cans of milk and 188.87 lbs. of butter. This was an increase of 54 per cent in milk production and 73 per cent in butter production. Let us see what the value of the increase is. One hundred thirty-nine cans of milk at 56 cents per can is worth $77.84. Now we come to what it costs to produce that milk. In our herd we feed on the basis of one pound of grain to 3½ lbs. of milk. We claim that the cow producing the extra milk does not consume any more roughage than the other cow, but she does need more grain—more concentrates. Figuring on the basis of one pound of grain to 3½ lbs. of milk, and figuring grain at what I was paying for it last month, the extra milk would cost $18.08. The net value of the increase in milk would therefore be $59.76 per cow, which in a herd of 20 cows would amount to $1,195.20.

I want you to look very carefully at these figures. I want you to realize what it would mean to you if you could increase the production of your herds to that extent, and I want you to know that I have had to labor under the same disadvantages, and meet the same obstacles, the same drawbacks, that every farmer has to meet. We meet with these at some time, all of us, but if we continue at the job, using our best judgment in the weeding out and selection of cows, and in the breeding, we can all of us improve our conditions materially, and I see no reason why we cannot improve them to the extent that I have been able to do.—From Bulletin of Maine Dept. of Agr.

Marketing Butter and Cheese by Parcel Post

By LEWIS B. FLOHR and ROY C. POTTS, U. S. Department of Agriculture

BUTTER is highly perishable unless it is handled under proper conditions, yet the fact that many consumers obtain their supplies direct from producers by parcel post indicates that parcel post marketing of butter is feasible. It is usually an economical method, as the cost of market distribution through the regular wholesale and retail channels of trade is relatively high in comparison with the cost of shipments by parcel post from the first and second and sometimes more distant zones.

Experimental Parcel Post Shipments

Shipments of butter aggregating more than 10,000 lbs. have been made by the Bureau of Markets, under various conditions and in packages carrying from 1 to 10 lbs., over both long and short distances, in order to test various kinds of shipping containers, methods of packing, and the possibilities of parcel post shipping of butter during the summer and other seasons. These experimental shipments consisted of (1) shipments of fresh butter from four creameries to the Bureau, and (2) shipments of the butter received from the creameries by the Bureau to experiment stations and return shipments of the same.

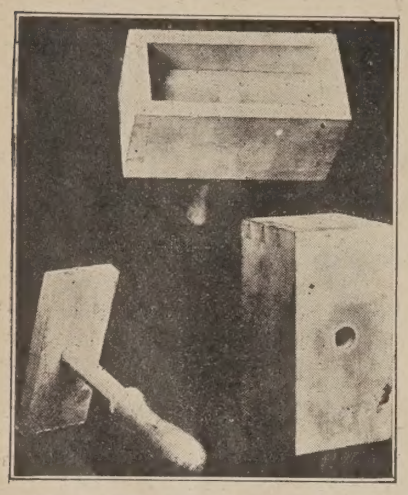


Fig. 1—Two views of hand printer for 1-pound prints.

Although many of these shipments were made during the heat of summer, only 14 of the 454 shipments, or 3.1 per cent, were received in an unsatisfactory condition. These very satisfactory results may be attributed to the care exercised in the proper packing of the butter in suitable shipping containers and the precooling or thorough hardening of the butter at the creameries before shipment.

The experimental shipments to the state experiment stations were satisfactory where the temperature and distance were not too great. Butter which had softened much in transit from the creamery to the Bureau when later shipped to the experiment stations did not arrive in as good condition as that in which the grain had not been previously injured. In general, the shipments from Washington were successful when forwarded as far north as Maine and as far west as Michigan and Indiana. Shipments into the South were successful for shorter distances.

The results of these experimental shipments indicate that well-made butter, thoroughly chilled before shipping, when packed in a suitable container, may be marketed satisfactorily by parcel post when extreme high temperatures are not encountered. Under ordinary conditions, where the butter does not melt, and a firm or semi-firm condition is maintained, the shipping of butter by parcel post generally may be successful. Even though proper safeguards were taken, the shipments made during extremely hot weather frequently arrived in an oily and unsatisfactory condition.

Quality and Condition of Butter

As parcel post shipments of butter are likely to be subjected to conditions, especially during the summer, which may cause deterioration and injure the quality of the butter, it is highly desirable that every possible precaution be taken before shipment. Particularly is this true of farm-made butter, because conditions affecting its quality and condition usually can not be controlled as easily on farms as in creameries. However, farm-made butter should be marketed just as satisfactorily as creamery-made butter when it is properly made and prepared for shipment.

It is necessary to maintain proper conditions in the care of the milk and cream and the making of butter if a marketable product is to be produced. Too much importance cannot be given to the maintaining of cleanly conditions in the stable and in other places where the milk, cream, or butter are produced or kept, for they absorb odors and spoil very quickly. It is important, too, that these products be kept in a cool place. High temperatures should always be avoided, as heated cream or butter produces a soft, oily condition in the finished product which is undesirable. In manufacturing butter on the farm or in a factory the buttermilk must be removed and washed out, and the proper amount of salt must be incorporated evenly. Frequently parcel post shipments of farm butter are unsatisfactory to customers because proper methods were not used in making it, and thereby the quality and condition of the butter were injured before it was shipped. For the satisfaction of customers it is important that a uniform quality of butter be produced.

Preparation for Parcel Post Shipping

The methods used in preparing butter for parcel post shipping depend largely upon the local conditions and the style of package used. To insure delivery in the best possible condition, butter, after being packed or printed and placed in cartons, should be chilled or hardened thoroughly before it is shipped.

One of the most satisfactory ways of preparing butter for shipment is in the form of regular 1-pound prints. The standard print measures 2½ by 2½ by 4⅝ inches. A hand butter printer or mold should be used in forming the prints. The printer shown in figure 1 is so made that it can be taken apart readily and thoroughly cleaned. The print of butter is easily removed from the mold by the false bottom. Another style is made with the sides and ends hinged to the bottom and held in place by hooks across the ends. After the butter is packed in the mold the sides are unhooked, so that the butter can be removed from the printer. One-pound hand printers similar to these styles may be secured from dairy supply companies or they may be made on the farm.

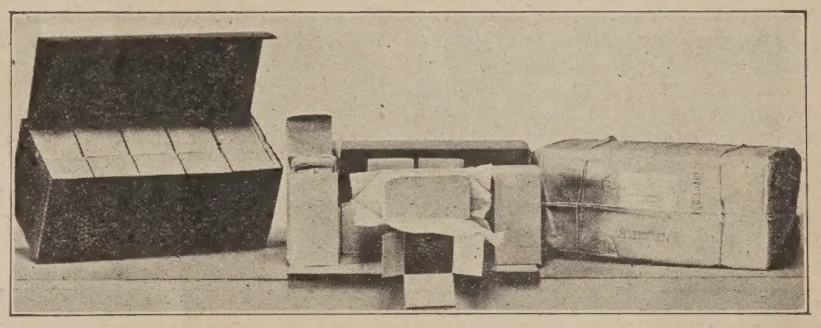


Fig. 2—Three stages of a parcel post package of butter: wrapped, opened, showing print of butter.

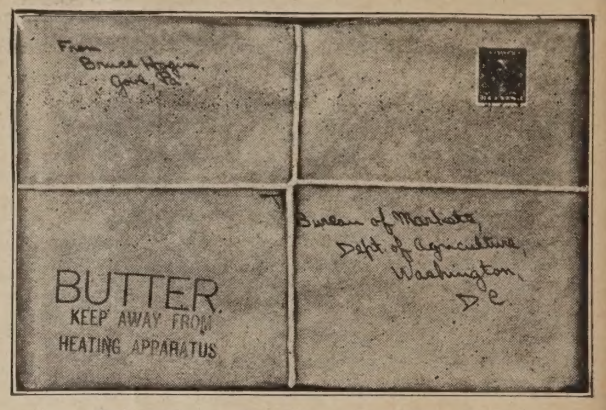
Each pound print should be neatly wrapped in regular butter parchment or paper. A second thickness of such paper has been found to add materially to the carrying possibility of the butter. Waxed paper may be used for the second wrapping. As a further disposition to the print, it should be placed in heavy manila paraffined cartons, which may be obtained from folding paper box companies for about one-half cent each when unprinted or at a slightly additional cost when printed as a stock carton or with a special private brand.

Shipping Containers for Butter

Corrugated fiber board shipping containers of various sizes may be obtained for shipping 1-pound prints of butter. (See fig. 2.)

These boxes or containers practically insulate the butter and furnish much protection against heat. Further protection may be obtained by wrapping the container in stout wrapping paper. The whole should be tied securely with a strong cord. In tying the twine, it should be drawn tightly around the package so as to insure its proper carriage. Not infrequently packages are broken open or otherwise damaged because they are insecurely tied. The corrugated containers are also useful for carrying shipments of butter put in other styles.

Some persons ship butter by parcel post in improvised or "home-made" containers. Clean, discarded, corrugated paper board cartons are obtained from the grocer or other merchant at small cost or frequently without cost. It is possible to cut a piece of paper board in such shape and size that when it is folded it will form a satisfactory carton. In figure 3 is shown a piece of paper board that is cut so as to provide a carton for shipping 3 lbs. of butter that is wrapped in parchment paper and several thicknesses of newspaper.



Parcel Post packages, like other mail matter, should be carefully addressed. A rubber stamp for butter shipments bearing the statement, "Butter—keep away from heating apparatus", may be used to show that the parcel is perishable and should be handled accordingly by postal employees.

For this carton the paper board was so cut that it was 7½ inches wide and 25 inches long with projections in the middle of the length which were 4½ inches wide and extended 8½ inches on each side. This provided a carton with dimensions, when folded, as shown in the illustration, of 4½ by 6 by 7½ inches.

Butter shipped in an improvised container should be wrapped in parchment paper and several thicknesses of newspaper and then should be securely tied with string. The package should then be inclosed in the piece of corrugated paper board with the projections of the paper board so folded as to form a container. The container should then be tied with twine, wrapped in heavy wrapping paper, and again tied securely with a strong twine.

If butter that is prepared for shipment in this manner is thoroughly chilled before being mailed, it should carry safely even in warm weather if it is not in transit over 24 to 36 hours.

Examples of Successful Marketing

A few of the many instances which have come to the attention of the Bureau will indicate with what success butter may be marketed by parcel post.

A farmer's wife who was making a good quality of butter was securing but little more than half retail price a pound for it when a trial shipment was made by parcel post to a consumer in a large city. As a result of this shipment, a demand was developed and customers obtained for the

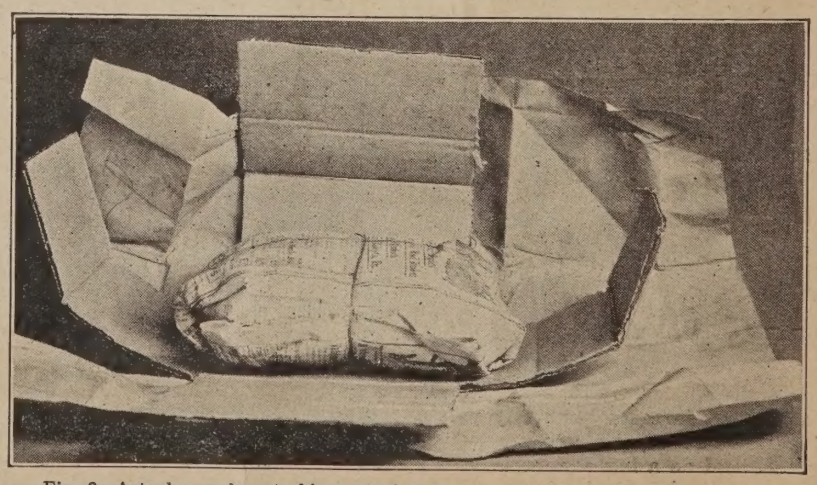


Fig. 3—Actual parcel post shipment of 3 pounds of butter wrapped in parchment paper, several thicknesses of newspaper, corrugated paper-board carton, and finally an outside wrapper of heavy wrapping paper.

entire product at an advance in price to the farmer's wife and with a considerable saving to the customers under the retail price of the best creamery butter.

A number of creameries have developed an extensive parcel post business. One which has a large output markets practically its entire product direct to consumers or retail distributors, except in the flush of production in spring and early summer. Another has developed a substantial parcel post trade by sending out a weekly price list. Formerly this creamery used newspaper advertisements, but the manager says that the quality of the butter is sufficient advertisement.

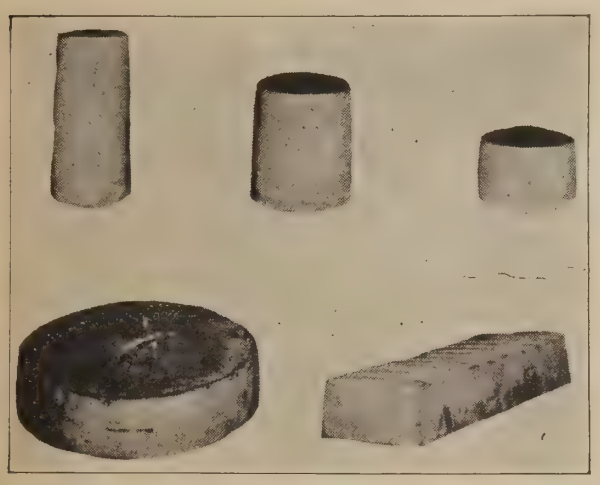


Fig. 4—Cheese for parcel post mailing. In some of the important cheese producing sections Swiss and other varieties of cheese are frequently cut into suitable blocks for parcel post shipping.

Essentials for Success

Successful parcel post marketing of butter requires that extreme care be taken to insure the delivery of a satisfactory product to the customers. The following are a few of the important considerations to be observed to market butter successfully by parcel post:

1. A uniformly high quality product should be produced.
2. It should be properly packed in neat and attractive packages.
3. The shipping container used should amply protect the butter from deterioration and damage.
4. The packages should bear the address of the sender and be properly addressed to the customer.
5. The most expeditious mail service from the mailing office should be used to insure the delivery of the butter in the best condition.



Longhorn (Wt., 12 lbs.) Flat (Wt., 21 lbs.) Young America (Wt., 8 lbs.) Brick, (Wt., 10 lbs.) Midget (Wt., 4 lbs.)

Fig. 5—Various styles of American Cheddar cheese suitable for parcel post shipping.

Varieties and Styles of Cheese

Most varieties of cheese, being firm and not subject to damage by high temperature as butter, may be shipped any distance by parcel post without difficulty. (See fig. 4.)

The two important varieties of cheese produced on farms are cottage cheese and American (full cream or whole milk) cheese. Cottage cheese is soft and quickly perishable, therefore it is consumed while fresh. When made rather dry and packed in moisture-proof packages it may be shipped to points where delivery may be made within 24 to 36 hours. The first and second zones are usually the practical limits of shipping cottage cheese by parcel post.

As American, Swiss, Brick, and several other of the firmer varieties of cheese are ripened or cured and paraffined before they are marketed, they can be more successfully shipped by parcel post than the soft varieties, such as cottage cheese. The more common styles or forms in which the firmer varieties of cheese are marketed are prints, bricks, and cylindrical shapes. The prints are made by cutting the larger styles of cheese into square "prints" weighing usually 1 pound each. Bricks are made in molds of the desired size. Cylindrical-shaped cheese, both flat and long, are commonly known by various trade names such as Midgets, Picnics, Young Americas, Longhorns, Daisies, and Flats. On the Pacific Coast a type of cheese called "Jack," which closely resembles the "Daisy" size, is marketed by parcel post. The usual weight and shape of several styles of cheese, suitable for parcel post shipping, are shown in figure 5.

Packaging Cheese for Shipping

General care should be exercised in the packaging of cheese for shipment by parcel post. The surface of the cheese should be clean and, if necessary, paraffined. As a protection to the cheese it should be wrapped in several layers of paper, preferably with a waxed paper next to the cheese. Corrugated or other fiberboard containers or wooden boxes may be used as shipping containers. (See figure 6.) When rather weak fiber board or wooden boxes are used they should be wrapped with several sheets of tough paper.

Addressing and Mailing Parcel Post Packages

Parcel post packages, like other mail matter, should be carefully addressed, including the street number of the person to receive the parcel. In the upper left hand corner the name and address of the sender should be plainly written. It is preferable to place all addresses on the package itself rather than on a tag tied to the package, for if the tag becomes detached the addresses of both the sender and receiver are lost. A rubber stamp for butter shipments bearing the statement: "Butter—keep away from heating apparatus," may be used to show that the parcel is perishable and should be handled accordingly by the postal employees, the letters in the word "Butter" should be one-half inch high, the others one-fourth inch high.



Fig. 6—Suitable container for shipping cheese.

In shipping by parcel post such a perishable product as butter, which is affected by exposure to heat, inquiry should be made of the post office regarding the daily mail service for parcel matter from that point to the destination of the shipment. Arrangements should be made to post the packages as near as practicable to the mail time in order to obtain delivery in the quickest possible time.

Consideration should be given to the practicability of using night mail service when available, as the temperature is usually cooler at night than in the day time. Night shipments to points within the first and second zones ordinarily are delivered early the next day.

In a general way the foregoing precautions suggested for butter should be observed in shipping cheese.

Postal Requirements

Postal regulations provide that—

When it (butter) is so packed or wrapped as to prevent damage to other mail, it will be accepted for local delivery either at the office of mailing or on any rural route starting therefrom.

Butter will be accepted for mailing to all offices to which in the ordinary course of mail it can be sent without spoiling when suitably wrapped or inclosed or when packed in crates, boxes, or other suitable containers to prevent the escape of anything from the package, and so constructed as to properly protect the contents. More than 50 pounds can not be sent beyond the third zone.

The firmer varieties of cheese, not being liable to cause damage in the mails, need no special consideration when properly packaged. In some cases it will be found that the express can be used to better advantage than the parcel post.

The rates on parcel post packages vary according to their weight and the distances shipped. Persons not familiar with the postal regulations governing parcel post shipments may obtain specific information at any post office regarding the rates and limits of weight and measurement applicable to shipments to any other office.

Canned Milk vs. Can Milk

HOARD'S DAIRYMAN:—The American dairy farmer presents the spectacle today of quaking in his boots when some innocent bystander chances to mention the cost of cattle feed and hired labor. You wearily hear that milk in some sections of the country is a drug on the market, although the theorists have startling figures to prove that the demand should far exceed the supply. Likewise butter and cheese, instead of being welcome company on every well regulated table along with meat, wheat, and eggs, are plainly told they're a crowd. Ice cream is now considered a luxury inasmuch as it requires sugar—hence one more thrifty outlet for milk has gone glimmering. As a consequence, the subdued and discouraged dairyman is told that until more ships become available for sending the surplus abroad and until the reluctant consumer realizes the importance of increasing her milk consumption and paying the necessary price for it—he must needs accept short prices for his commodities and if he can gamely hang on for a few years—the Lord will provide.

Here enters the case of Canned Milk vs. Can Milk—a situation in the dairy world which has quietly and strongly been developing right under our noses for several years past but which I have never seen discussed as a powerful factor in our present low-prices-and-surplus-condition. In New York State the Borden's Farm Products Company are about to unload their highly efficient and highly expensive milk plants onto the willing and waiting shoulder of certain local Dairymen's League branches who believe that they will be consummating a clever stroke of business sagacity thereby. I do not pretend to be well enough informed in these matters to absolutely know whether or not these contemplated investments will prove glorious successes or disheartening failures—but it would seem to one on the outside looking in that this is an inauspicious time for any dairying community to contract a debt of several hundred thousand dollars if the Bordens are unable, with their well known training and talents, to make these plants pay. But the illuminating fact which stands out in connection with these deals is that the other sister company, the Borden's Condensed Milk Company, is not offering their plants for sale. As I understand it, these latter factories are mainly located in the middle west where top prices for milk are not received, and if one were to investigate the finances and outlook of the latter company and other great companies similarly engaged, it might be surprising to find them decidedly prosperous and quite up to par.

The Farm Products Company devotes the greater part of its resources to bottling and shipping milk and cream to New York City. Even at the present low prices paid the producer and the so-called high prices paid for milk by the consumer, the profits to the middlemen have not been sufficient to insure fat dividends of the old Borden standard and in cases the milk dealers have gone to the wall as well as the despised dairy farmer—a well known incident of the kind having occurred when the late lamented Mutual-McDermott companies ignominiously retired from high milk life. Therefore, since there is no profit in handling just milk owing to a demoralized market and chaotic war conditions and because the use of fresh whole milk is decreasing instead of increasing as we would fondly believe, the Bordens are getting out from under with speed and shrewdness—and if there are some who fail to see the way the wind is blowing, it will prove highly profitable and pleasant to the former milk trust.

The reason why fresh milk may be doomed to exist only for a beverage in the future is found in one little word of six letters—CANNED. Some of us little realize the great and growing use of evaporated and condensed milk. It is time we batted our eyes open and looked around to see the ones who have quietly made off with a large part of our market while we slept.

As we are well aware, the consumer balks at paying from twelve to sixteen cents a quart for milk. That she balks not wisely but too well does not help matters in the least. But she must have milk—a certain quantity, and incidentally that which she now chooses is uniform in quality and always good. She finds her answer on

(Continued on page 27)



Dairy Supplies or Equipment of Any Kind

We are manufacturers as well as dealers and we are therefore in a position to give the dairyman the very best value for his money considering the high quality of our goods.

The following are some items selected from our big Dairy Catalog. They are pieces of equipment which every dairyman can use to advantage and are sold under The Creamery Package Mfg. Company's guarantee of quality.

New Elgin pattern Milk Can, 10 Gal. size	$5.55
Duro Sanitary Milking pail with hood, 10 qt. size	1.60
Chapman Changeable Strainer	1.70
Jupiter Can Brush	1.75
Pail balancing scale 30-lb. capacity	2.85

Complete description of these and all other equipment in our catalog will be sent on request. Send your check for items you want and they will be shipped direct to you.

The Creamery Package Mfg. Company
68 W. Kinzie Street, Chicago, Ill.

PURITY

You may not be able to control the original quality of the milk, but you can easily protect it from loss if the proper cleaning material is used.

Milk utensils washed with

Wyandotte Dairyman's Cleaner and Cleanser

are considered by experts who understand milk production as being free from everything that might cause the milk to become impure.

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in every package

Ask your dealer to fill your order for this cleaner.

It Cleans Clean.

The J. B. Ford Co., Sole Mnfrs., Wyandotte, Mich.

Send in Your Order Today

For a Hoard's Dairyman Heavy, Serviceable Cloth Binder.
Keep every issue, and USE the index. **Price, $1.00 Postpaid.**

Is Peat a Stock Feed?

A. C. McCANDLISH, Iowa

AT all times there are a large number of benevolently inclined individuals ready and willing to assist the farmer in solving his most perplexing problems. The "gentry" are probably more numerous than ever before and a very enticing proposition put forward by many of them is the utilization of peat in stock feeds.

The peat deposits of America are large, there being about twenty million acres of peat in the United States and thirty million acres in Canada, and consequently they have at times attracted a considerable amount of attention. Vast as these areas are, they wane to insignificance when compared with the peat deposits of Europe. Continental Europe possesses about one hundred and thirty-five million acres of peat, while the British Isles have about six million acres of which three million are in Ireland, a country of about one-half the size of Iowa. Consequently much of our information regarding the utilization of peat will come from Europe where it is relatively more important than it is here.

Considerable effort has been expended on the reclamation of peat bogs and rendering them fit for agricultural purposes and from time immemorial peat has been used as a fuel in many sections. Within recent years peat has also been subjected to much industrial research and from it are produced litter, building blocks and tiles, paper, and peat fiber which is used in the manufacture of carpets, rugs, horse blankets, and similar articles.

For some time also peat, in a dried form, has been used to some extent as an ingredient of cattle feeds, and for the proper understanding of the role which it plays when so utilized a knowledge of the method of formation and chemical composition of peat is necessary.

Peat is formed in insufficiently drained areas and results from the decay of plants partially or entirely under water. The Sphagnum and Hypnum mosses are perhaps the typical plants from the remains of which peat is formed but other groups such as the grasses, rushes, and sedges, are also of importance. These plants, growing in waterlogged localities, partially decompose under anaerobic conditions and in the following year another crop is superimposed on their remains to subsequently decay under similar conditions. This process, repeated year after year, gives rise to the peat.

The nutrients in feeding stuffs which are of value to animals are the carbohydrates, fats, proteins, and ash, and the possible occurrence of these in peat should be of interest in this discussion. The plants from which peat is formed contain these nutrients but during the peat formation they undergo many changes.

The carbohydrates are disintegrated and the main result of this is the formation of carbon dioxide and water. The portion of the carbohydrates which resists this action to the greatest extent is the fiber. The fats likewise are broken down while the proteins undergo putrefaction with the formation of ammonia, amino acids and other compounds of much simpler constitution than the proteins themselves.

The ash of the decomposing plants is probably less radically changed than is any of the other constituents. The annual growth of the semi-aquatic plants adds greatly to the amount of organic matter present—the carbon being obtained from the carbon dioxide of the air—but it does not add to the stores of ash or mineral matter in the peat. This is due to the fact that the plants of one season have to draw on the remains of previous growths for the ash constituents which they require and in this way the mineral elements in the peat deposits decrease in concentration rather than increase from year to year unless outside factors enter in.

Two extraneous agencies, which tend to increase the ash content of peat, do have to be taken into account. These are wind and water and they carry into some peat bogs large amounts of sand (silica) and clay (alumina) but although these add to the ash content of the peat they are of no value to the plants growing thereon.

Regarding its use in cattle feeds it may be said that dried peat has been used to a considerable extent in Europe and to a less extent in America in the making of mixed feeds. It is generally used as an absorbent for molasses though at times it may be used as an adulterant of other feeds.

Its use as an absorbent for molasses is perhaps justifiable as it keeps the molasses in a form easily handled and many men are willing to pay for this convenience, but the assumption that the peat, in itself, has an appreciable feeding value, is wrong.

To begin with, the peat used in the preparation of those feeds may contain anything up to 25% of moisture and the buying of water in mixed feeds is always an expensive proposition for the farmer. Then the claim is frequently made that the peat will neutralize any free acids present in the molasses, but the peat is in itself acid in reaction and so cannot neutralize any acid that might be present in the molasses. In addition neither beet nor cane molasses are acid in reaction as a general rule.

Where the ash content of peat has not been affected by wind or water borne materials it will be low and of little consequence so far as the animal economy is concerned. On the other hand, peats that contain these added materials may have exceptionally high ash contents. Peats containing 11% and more of silica are known and if such were fed to animals they would be harmful rather than beneficial as such a large quantity of sand would produce intestinal irritation and might even result in the death of the animals.

The fats or oils in peat are practically negligible quantities and are very probably not available to animals. At times the dry matter of peat may contain about 1% of fatty materials, a small proportion of which might be digestible.

The materials which go to make up peat contain proteins but these are to a great extent broken down in the formation of peat and give rise to simpler nitrogenous compounds. In the Bulletin of the Imperial Institute (1905) it was reported that peat free from moisture generally contained 0.0 to 2.6% of nitrogen and it has been shown that 6.6% of this might be utilized by animals. If this nitrogen that might be utilized were protein nitrogen we might expect at the best to find .8% of digestible protein in peat.

Of the carbohydrates practically none of the nitrogen-free-extract is available though a little of the pentosans might be, but they are of doubtful value even when digestible.

The fiber has still to be accounted for. The dry matter of peat contains varying quantities of this, up to 25%,

(Continued on page 26)

Organizing for Feed Defense

SANDERS SOSLAND, MISSOURI

IV. FREIGT CARS AND FEED

"WHAT will alfalfa be worth next winter?" the writer inquired of one of the largest alfalfa hay dealers in the world. The answer to this question, of course, is in part a matter of guesswork, even for the greatest handler of the legume, as the course of prices of any commodity which is not controlled cannot be foretold with perfect accuracy. However, all extensive dealers in alfalfa hay follow market conditions closely, and the views of the one I questioned are naturally the best obtainable.

"It's to a large degree a matter of freight cars and the transportation situation in the country between the present time and next winter," was the reply I received. "A possible drouth, corn crop failure, and other natural factors also will influence the trend of prices of alfalfa hay, but the freight equipment situation is more important than ever as a deciding factor in the market for alfalfa and for other feedstuffs."

The dealer who told me this has been handling alfalfa hay since the arrival of the first car of that variety in Kansas City in 1898. He has drawn upon practically every available source of production, likewise has distributed hay to every state in America. With him, the possibility of a serious car shortage and congestion of traffic facilities of the country is receiving serious consideration, and incidentally much study.

Other important handlers of feedstuffs, including cottonseed feed trade interests, mill feed producers and dealers, grain men, and other members of the industry, were questioned as to the outlook for prices during the coming winter, and, invariably, possible car shortage and traffic congestion were given as noteworthy influences. Experiences of the last few years, particularly the past twelve months, have led the entire feedstuff industry to prepare for a shortage of freight car equipment and against traffic congestion. Transportation difficulties delayed the movement of feeds for many months the last few years. In some cases delays of as much as four months were experienced in the last year. Manufacturers, dealers, and producers were as hard hit as dairy and other live stock feeders.

The feeders of live stock, particularly dairymen who use a great amount of alfalfa, doubtless remember well the course of prices of alfalfa hay in the crop year 1917-18. Prices reached the highest level in history, $35 per ton in Kansas City, and there were many predictions made by close students of the trade that $50 would be the level for the legume before the close of the crop year. These dealers were making the $50 prediction with the idea in mind that the car situation which at that time was the most serious in the history of the United States, would continue indefinitely. However, the "tight" car situation soon began to ease, and suddenly there was a virtual flood of alfalfa hay as well as other varieties on the market. Shippers were not frantically rushing to sell, for they, too, were waiting for the $50 level. The flood of alfalfa was the hay that has been delayed in transit on sidings and elsewhere probably two to three months. Railroads had finally caught up on their orders for cars, and found themselves in a position to supply the demands of hay shippers. The result was an almost immediate slump of $10 in prices for all varieties of hay. Before the decline, it was car shortage and traffic congestion that sent prices up $15 a ton. Other feed dealers suffered sudden changes, but not so erratic as alfalfa and other hay. Texas and the New England States, as well as southwestern states, suffered so badly from car shortage that they appealed to Washington and to Congress and paid exorbitant prices last winter to obtain feed to save their stock.

While feed dealers were encountering difficulty because of a scarcity of cars, there was at one time more than 1,000 cars of alfalfa hay in transit from the Northwest consigned to the Kansas City market. And, more than 500 cars were awaiting shipment. Cottonseed feed manufacturers and other trade interests reported hundreds of cars in transit or ready to be loaded.

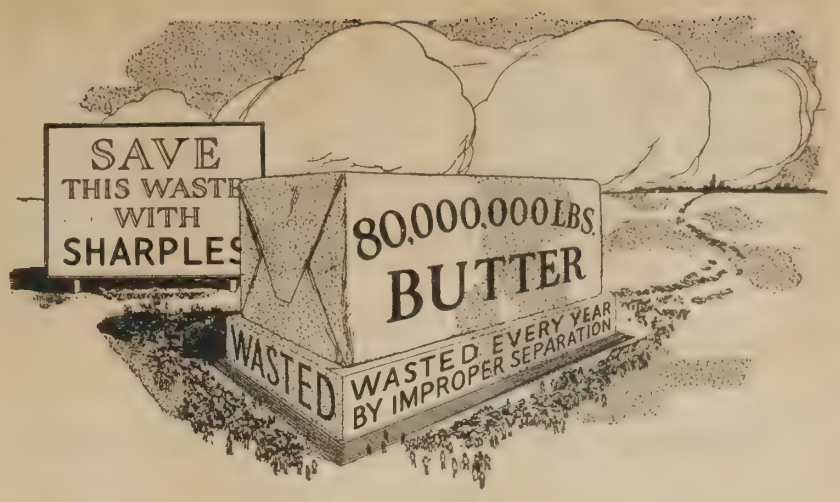
Will car shortage and traffic congestion be witnessed again during the coming fall and winter, and will conditions be as serious? This is the vital question which war feed club members are asking of their leaders, and the leaders are attempting to answer. Difficulty of an uncertain degree seems ahead. Co-operative feed clubs can best solve the problem by making purchases of the winter feed supply during the late summer months or at least before congestion of traffic facilities and car scarcity become serious, especially if markets seem fairly attractive or inviting.

Close students of traffic conditions are inclined to the belief that a shortage of cars will be witnessed. The winter wheat belt is harvesting one of the greatest crops of winter wheat in the history of the country—more than 600,000,000 bushels or practically twice the yield a year ago. The yield of oats, too, will be one of the greatest on record; likewise, the area planted to corn is the second largest in history. Railroads, even at the present time, are being taxed in supplying cars for the movement of wheat to market, and country advices indicate that farmers are not inclined to hold their bread grain but will ship to market as soon as cars are available. Oats will follow wheat, then another great movement of corn will begin. Furthermore, there is an indication of a crop of 107,000,000 tons of hay for the United States, one of the largest crops in history, which will increase further the need for cars. Expanding war plans with the accompanying burden on railroad resources also must be considered.

Railroads are reported building 100,000 freight cars to move the larger crops. While the government has ordered additional freight cars and other equipment, most of this material is moving to the East and to the war fronts of Europe, where thousands of trains are needed to expedite the movement of troops, munitions, and other military supplies. And railroads are sending their experienced trainmen to the war fronts to operate the trains.

Industries essential to the winning of the conflict in Europe are operating on a vast scale, and, of course, there is an increased need of freight cars to move war materials to the seaboard. Never before have munition industries operated on such a vast scale, and the same applies to cotton mills and other great manufacturing enterprises which are contributing toward the winning of this world war. All seek more and more railroad cars.

It can be seen that railroads will be called upon for a huge number of cars. Before the opening of the world war, car shortage was a common subject, and one can hardly expect elimination of this difficulty even



A Butter Monument to the Wrong Way of Doing Things

Government authorities find that this amount of butter (80,000,000 pounds) is *wasted* annually—even though the majority of dairies use separators that are *supposed* to be clean skimmers, and are advertised as such.

Think how deplorable this waste is—especially as some great men have stated that the war-tide may be turned either way by *fats alone.* (It's not true, though, as we will win, fat or no fat.)

This great waste could be eliminated by complete national use of

SHARPLES
SUCTION-FEED
CREAM SEPARATOR

Due to patented suction-feed, Sharples is the only separator that absolutely guarantees clean skimming *at any speed.* One day you may turn fast—another day slow—but you get *all* the cream; no waste; no variation in thickness.

Contrast this with the cream waste of fixed-feed separators when turned *under* speed—which happens most of the time.

When you use a Sharples you know that you are not contributing anything toward that 80,000,000 pounds butter waste.

Write today to nearest office for catalog, addressing Dept. 10.

The Sharples Separator Co., West Chester, Pa.

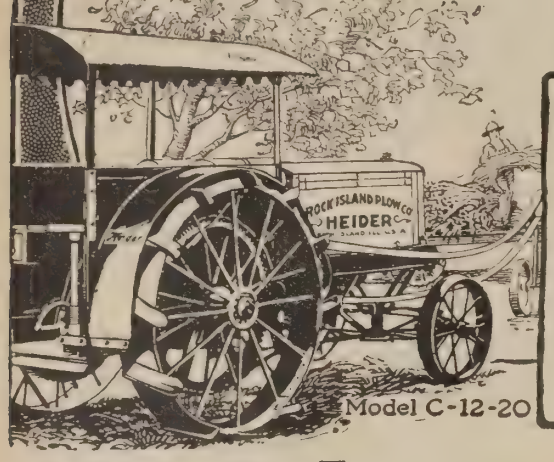
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Plowed 250 acres.
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—and not one cent for repairs.

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The Real All-Purpose Tractor

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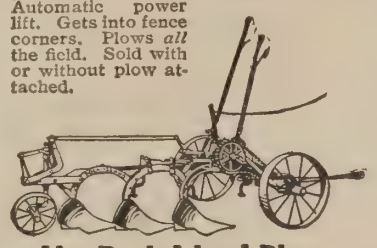
There are good reasons why Heider Tractors are making such unusual economy records. One of the reasons is in the Heider Special Friction Transmission—said by leading engineers to be the biggest success in the tractor industry. It means less gears, fewer parts, less trouble, less chance for breakage. Lower upkeep cost. Smooth power—flexible—impossible to jerk the load—less strain on the machinery—longer life for the engine.

Seven Speeds forward or reverse with one lever and without disconnecting the power.



Model "D" 9-16 H. P.

with Rock Island No. 9 Plow attached. The time and work saver in plowing. Your hands operate the tractor while your foot raises or lowers the plow. Automatic power lift. Gets into fence corners. Plows *all* the field. Sold with or without plow attached.



Use Rock Island Plows

and get the best results behind your tractor. The famous Rock Island "CTX" bottoms turn the furrow slices clear over—prevent air spaces from stopping moisture. *Front furrow wheel lift.* Extra high clearance. Built of extra strength material and heavily braced 2, 3 or 4 "CTX" bottoms. Send for our catalog showing Rock Island Tractor Plows.

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include Plows, Discs, Planters, Seeders, Cultivators, Listers, Hay Rakes, Hay Loaders, Cream Separators, Manure Spreaders, Gasoline Engines, Stalk Cutters, etc.

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Center-shear cut means better ensilage, smoother running, less power, no clogging of blower. One lever starts, stops and reverses. Big capacity. Perfectly balanced. *Malleable, unbreakable* cutter-wheel and blower makes *fast cutting* practical. Three sizes to meet every farmer's need.



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Own your own cutter this year—don't depend upon somebody else to cut your ensilage. Every cutter will work overtime this year. Play safe—order yours now. Write today for catalog.

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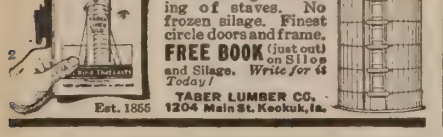
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No shrinking or swelling of staves. No frozen silage. Finest circle doors and frame.

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with the government conducting the railroad traffic of the nation.

Congestion of transportation facilities promises not to be so severe as a year ago, but railroad officials do not predict a free movement of freight. With the shipping situation relieved from the serious plight of a year ago, due to an increased efficiency in the building of more steamers, traffic will suffer less delay at the seaboard, thus allowing a freer movement of freight cars.

In view of the foregoing, is it not well for feed buyers who must draw on outside sources for supplies to figure it worth while to insure against the impossibility of obtaining deliveries? In other words, is it not better on some such needed feedstuffs to buy even if the lowest market is not available in order that there shall be no paucity of serious proportions on one's farm or in one's community? Each war feed club and each community and individual must settle this question.

Also, it is well to remember that there were times in the last year when sharp premiums were paid to obtain cars of needed feed, and that at other periods severe declines were accepted by sellers when the car supply increased and permitted liberal and perhaps excessive shipments. It is legitimate to take advantage of such situations, but to attempt this means taking chances, and one must bear in mind that insurance against interruption of arranged rations and feeding plans is worth something.

"Experience," it has been said, "is the best teacher." Recall feeding experiences of the past that arose from car shortage and freight congestion, think of the times last winter when New England dairymen offered anything asked for even hay, to say nothing of more concentrated feeds because they suffered from tie-ups on railroads, and study your own position. Do not rush into a high price period for feed to insure against trouble, but do not wait too long lest you over-stay the market and suffer losses and delay. The new crop year feed outlook is still not clear, for it has not yet progressed sufficiently, so wait before buying. But consider the problem of freight cars in making your feed plans.

Goat's Milk for Infant Feeding

This is the title of Bulletin No. 249 published by the New York Agricultural Experiment Station and prepared by Dr. W. H. Jordan and Professor G. A. Smith. The following is the summary of the bulletin:

1. During the years 1910-1912, inclusive, a herd of milch goats was kept at the Station. The number of animals of which complete records were kept varied from 10 to 26.

2. In the year 1912, 31 adult and 9 partially grown animals were fed. The quantity of food consumed was as follows:

Dry, coarse feed	3,740 lbs.
Beets	1,550 lbs.
Cut grass	24,000 lbs.
Pasture	132 days
Grain	14,688 lbs.

3. The total cost of this feed, at the prices then ruling, was $441.95. The average cost per month per goat varied from $0.481 to $0.992. The average cost of feed per goat per year was $11.05, making the daily cost $0.03.

4. The yearly production of milk, including some animals in the first

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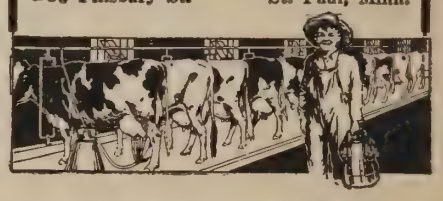
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185 Pillsbury St. St. Paul, Minn.



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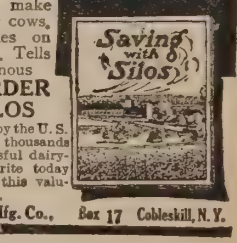
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It shows the way to make more money on your cows. Written by authorities on dairy feeding. Tells why the famous

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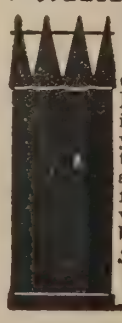
are used by the U. S. Govt. and thousands of successful dairymen. Write today and get this valuable book.





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period of lactation, varied from 301.7 lbs. to 1,845.2 lbs. The average yearly yield for 10 animals of which records were kept during 3 years, including 28 lactation periods, was 800.4 lbs.

5. The feed cost of the milk per goat for all the goats during the year 1912 was 4 cents per quart and for the three years during which the record was kept 3.4 cents. The lowest cost was with the Saanen goat, No. 11, for the year 1911, which was estimated to be 1.27 cents per quart. The other items of cost, such as care and overhead charges, it is not possible to give with any accuracy. The average feed cost for a quart of milk from the Station herd of 25 Jerseys during the three years has been found to be .92 cent per quart.

6. The range of composition of the mixed milk of the whole flock as determined during May and June of the year 1912 was as follows: Solids, 11.4 per cent to 11.9 per cent; solids not fat, 7.72 per cent to 8.61 per cent; fat, 3.5 per cent to 3.8 per cent.

The composition of milk from individual goats was found to vary in total solids from 9.22 per cent to 18.55 per cent; in protein, from 2.24 per cent to 4.96 per cent; in casein, from 1.56 per cent to 4.6 per cent; in fat, from 1.08 per cent to 8.4 per cent; and in ash, from 0.43 per cent to 0.8 per cent.

7. A chemical study of the goat's milk indicated no essential difference between the constitution of its casein and that of cow's milk. Marked and probably important differences were observed in the salts of the ash as compared with the ash of both cow's milk and human milk.

8. Extensive study of the use of goat's milk in infant feeding by Doctors Sherman and Lohnes of Buffalo showed that the curds of goat's milk when returned from the stomach were smaller and more flocculent than those of cow's milk. From the determination of the combined hydrochloric acid in the returned food, the authors conclude that the cow's milk had a greater stimulating effect on the stomach than goat's milk. The absorption of the food and gain in weight in comparing the two milks were indefinite for several reasons. The babies tolerated equally well similar amounts of goat's milk and cow's milk when used with the same diluents. The younger the child, the more the evidence pointed toward a greater gain on goat's milk.

9. Goat's milk was supplied to 18 cases of children that were not thriving on any other food that had been tried. In 17 cases a satisfactory state of nutrition was established through the use of goat's milk, the beneficial results in some instances being very marked. With certain of these children their situation was regarded as serious, and their restoration to a satisfactory nutritional condition was good evidence that goat's milk is often a very desirable resort for infant feeding.

Again the Hired Man

HOARD'S DAIRYMAN:—I have read with much interest the letters about the hired man. I am a hired man myself, not because I have to be but because I am just as well off without a farm of my own. I think there has never been such a good time for the hired man to save money and be independent as there is now.

I pity the young hired man who works from 4 a. m. until dark, Sunday and every day, spending all his hard earned money without preparing himself for the future. A farm hand who can run a binder, handle six horses, and milk cows is only a common farm laborer, but if he learns how to manage an up-to-date farm by taking a short course in agriculture at the university, then works at least one or two years on some good farm, I assure him that if he feeds bedbugs and eats oleomargarine it is his own fault. Besides all that, I think a person who eats oleomargarine will soon have not much left to feed bedbugs.

If one farmer treats you badly, don't curse the whole colony or leave the state; his next neighbor may treat you like a prince or as his best friend. A farmer who calls a hired man a tramp will very likely treat him like a tramp; indeed, he makes a mistake in mistreating his man as he not only gets a bad reputation in the community but he may be the means of making a tramp out a good man.

I once worked for a farmer breaking in two young horses on a plow. The team got scared at a wood-sawing outfit and ran away with me down the hill. I stayed with them until they were running about 30 miles an hour, then threw myself backwards to get out of the plow wheels. The horses had a 40-acre field to take their exercise in and I had to spend my hard earned money in a sanitarium for over three weeks. All the thanks I got was that the farmer told me that if I had stayed with the horses, I might have been able to hold them down. It was this same man who would not allow me to wash the sore shoulders on the horses or keep their collars clean. It was "Just hurry up and get to work." I ought to have refused to take the horses out or have notified the humane society when he would not allow me to attend to their sore shoulders.

Madison, Wisconsin. C. T.

Aphids Attack Vetch and Oats

HOARD'S DAIRYMAN:—This has been an unusual season in the Williamette Valley, Oregon. The spring was cooler than common, and when the green aphis began to show up on fruit trees, and then attacked the oat fields and the vetch, people said a few days of hot sunshine would check or kill the aphids. The hot days came along in June. But the aphids covered the leaves and stems of the vetch clinging to the plants until they dropped dead; their whitish bodies literally covering the ground in places. The vetch plants had become as yellow or brown as clover straw and about as worthless for feed.

Aphids being a new pest in the valley, few farmers realized in time what damage they could do. Those who cut their vetch early, although it was immature, gained. The vetch ground then was in good shape to plow, with moisture enough in the soil to give potatoes or fodder corn a good start.

The showers that usually come in May were lacking, also the good rain along in June. Consequently pastures are as brown here now (a few days from the Fourth of July) as they sometimes get in August in Wisconsin or Minnesota.

Last winter and spring, farmers sold off cows, but the end is not in sight yet, and if things continue it will take more than a small size Liberty Bond to buy a cow when hay and grain get down to a reasonable price. Grain hay is selling for twenty-four dollars a ton in Portland Valley, timothy brings twenty-seven, and Eastern Oregon timothy sells at thirty-three dollars a ton. The prospect for kale is not encouraging as many of the plants succumb to transplanting these warm days. Potatoes are forming tubers and growing, and corn is more than the proverbial knee high by the Fourth.

Haying began earlier here than usual, and is a lighter crop. Many oat fields intended for grain, damaged by aphids, will be cut for oat hay.

Oregon. CLEON J. EMERY.

They Fit All Tractors

Clark "CUTAWAY" DISK HARROWS

THE Light Tractor Double Action type embraces all features of the heavy engine harrows, adapting them for successful use with *all* Light Tractors.

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DICKS Blizzard Ensilage Cutter

The Blizzard Ensilage Cutter will fill *your* silo, no matter how high it is. It will cut evenly—run steady as a clock, day after day, season after season. *It does the work.*

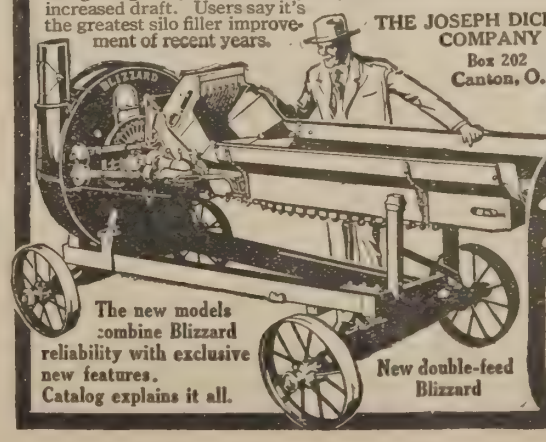
CAUTION! There is only one Blizzard Cutter. Blizzard is *not* a general name for silo fillers. "If it isn't made by DICK, it isn't a Blizzard."

You have your own ideas about a silo filler—and the Blizzard will meet them. You can take your time with the filling and do the work with a very small engine. Or, you can crowd the corn into the silo in a few hours if frost threatens.

Capacity for capacity, *minimum power* is required with a Blizzard. Get one of the new Blizzard double-feed cutters on the job and capacity will depend only on the number of teams and men you can get. The endless belt feeds the corn in a steady stream—comes close to actually feeding itself—saving work, and gives greatly increased capacity without increased draft. Users say it's the greatest silo filler improvement of recent years.

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The new models combine Blizzard reliability with exclusive new features. Catalog explains it all.

New double-feed Blizzard

BLIZZARD Ensilage Cutters

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Packed with practical information about silo filling machinery, fully describes the

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SALE ANNOUNCEMENTS

Sept. 4—Holsteins. Sauk Valley Dairy Farm, Holsteins. O. S. Cass, Sauk Center, Minn.
Sept. 11—Holsteins. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 18—Registered Holsteins. Complete dispersal sale, Charles Prange, New Douglas, Madison County, Ill.
Sept. 25—Holsteins. Absolute Dispersion of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.
Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.
Oct. 10, 1918—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

Coming Events

Illinois Centennial State Fair, Springfield, Illinois, August 9 to 26. Secretary, B. M. Davison.
Missouri State Fair, Sedalia, Missouri, August 10 to 17. Secretary, E. G. Bylander.
Iowa State Fair and Exposition, Des Moines, Iowa, August 21 to 30. Secretary, A. R. Corey.
California State Fair, Sacramento, California, August 31 to Sept. 8. Secretary, Chas. W. Paine.
Kankakee Interstate Fair, Kankakee, Illinois, August 26 to 31. Secretary, Len Small.
Ohio State Fair, Columbus, Ohio, August 26 to 31. Secretary, E. V. Walborn.

Do and Don't Economy

Two ways of saving food there be: Do and don't economy. Don't is just the dreary sort—tightening belts and going short—keeping ration rules in mind. Don't is much the harder kind, and absolutely necessary. Do provides a better show. Do means making food crops grow. Do is good, productive toil—digging every foot of soil. Do economy is fun—growing twenty spuds from one. Don't economy and do, hand in hand, will see us through. Don't is do's defensive brother. Each of them must help the other.—U. S. FOOD ADMINISTRATION.

Arrangement to Keep Flies from Milk Strainer

We found in operation on the Crane Bros. Guernsey Farm in Indiana a simple device for keeping flies away from the milk strainer. This arrangement consists of a piece of cheese cloth made into a bag about one-half the size of a 50-



Illustration No. 1, showing device for covering milk strainer; milker recording weight of milk and scale for weighing milk. Note tin top covered milk pail.

lb. flour sack. This is put over a heavy fence wire, bent into a square. This wire is fastened to a wall a little higher from the floor than the top of the milk can. From this wire that holds the cloth an iron rod is fastened which reaches nearly to the floor and is fastened to another piece of iron which is fastened to the wall near the floor. This piece of iron near the floor forms a lever. It is about 8 inches long, with two holes in it; one near the end, for fastening the iron rod which extends the wire holding the bag; the other hole is for fastening it to the wall. Bear in mind there are two levers in this arrangement, one near the floor and the other at the top. The wire which holds the bag is bent to form a lever.

The accompanying illustration will help to understand its construction and how it operates. Illustration No. 1 shows the milk can and the strainer covered with the bag made of cheese cloth. Illustartion No. 2 shows the bag lifted for straining the milk. Note that the milker's left foot is on



Illustration No. 2, showing how cover is raising for straining the milk. No time is required to operate this device as the cover is raised by stepping on a lever.

the lever next to the floor. As one end of the lever is pushed down the other rises up and the rod, which can be seen, extending from the lever at the floor to the wire, on which the bag is placed, is pushed up and this raises the bag from the top of the strainer. As soon as the milker takes his foot from the lever the bag drops back and again covers the strainer.

The flies can crawl over this cover but they cannot get into the strainer or come in contact with the milk. The flies on the Crane Bros. farm, so far as milk is concerned, must "starvarize."

New York Milk Prices

HOARD'S DAIRYMAN:—After another series of conferences with dealers which threatened several times to end in a general milk strike the Dairymen's League finally succeeded in getting most of the dealers to accept the prices set by the League for both August and September milk.

The League prices are $2.70 for August and $2.90 for September per hundred pounds for 3% milk at 150 miles from New York, subject, of course, to the usual freight and butterfat differentials. The prices are decided advances over the corresponding periods last year as the 1917 August price was $2.45 and the 1917 September price was also $2.45, in what was known as the second district. Thus the 1918 August price is 25c a hundred more than that of last year and there is a difference of 45c a hundred between the two September prices.

Directly after the July prices were established by the Federal Milk Commission the League served 30 days'



PURE-BRED GUERNSEY CALF

This calf was given by Crane Bros. to their Local Red Cross. Tickets were sold at 50 cents each. The total number sold was 1030, and the calf brought the Red Cross $515.

notice on the Commission that it would no longer be bound by the prices fixed by the Commission. This left the League free to set its own prices for August and September with the results mentioned above. The contracts with the dealers were drawn for three months, July, August, and September, and provided that if the August and September prices were for any reason not set by the Federal Milk Commission that they should have the approval of this Commission or of the Federal Food Administration. The Conferences on the August and September prices between the dealers and the League were attended by Judge Lamb representing the U. S. Food Administration and the prices set by the League were approved by Judge Lamb and later by the Federal Milk Commission. Thus the Food Administration stands back of the League on prices set.

Prices to the consumer will be set by the Federal Milk Commission and have not yet been announced.

The prices for the next two months represent another accomplishment of the Dairymen's League. The League officers were determined that the time had come when producers should have at least cost of production. Their determined stand for living prices was finally justified by the acceptance of the August and September contracts by most of the dealers. The fact that prices were set for two months instead of one will please dairymen also for it is unpleasant, to say the least, to face trouble with the dealers every thirty days.

The milk condensing companies made the most profitable this time, as they have at every contract time since early spring. They claim that the market for condensed and evaporated milk is still in very bad condition and also that a lower price to producers in the West makes it impossible to pay a higher price here. At this writing not all of the manufacturers and condensers have agreed to the August and September prices. Some claim they will close some plants no matter what the price is as they have no market. The League believes, however, that agreement will be reached and that practically all the plants can be kept open. E. R. EASTMAN,
The Dairymen's League, Inc.

Schoharie County (N. Y.) Calf Club

At a recent meeting of the Schoharie County, New York, Boys' and Girls' Calf Club, 62 entries and contracts were made. The allotment took place June 29 when there were fully one hundred farm families gathered at the State School. President B. H. Bruce of the County Breeders' Association gave a talk concerning the animals and the method of financing the project. The First National Bank of Cobleskill finances the Club this year. The boys and girls have made a simple form note which they sign with their parents, promising to pay the face value plus interest at the rate of six per cent per annum. Two dollars were added to the face value of each note as insurance in case of loss, this amount to be paid toward purchase price if any calves are lost. The number and values of the calves in the drawing showed a marked increase over those of last year. Last year 17 animals were distributed at an average cost of $77.68. This year 62 animals were allotted at an average cost of $99.62. About a year from now the calves will be brought together and sold at public auction. The boys and girls owning calves may bid them in if they care to do so. In the meantime every member of the Club keeps an accurate record of the expenses of the animal. The one having the best records will receive a reward at the time of sale. Also the member which has the animal showing the best improvement for the year receives a prize.

New York. H. D. BAUDER.

Chicago Milk $2.75 in August

Dairy farmers in the Chicago district will receive $2.75 per 100 lbs. for milk in August. A fat test of 3.5 per cent is required. This price was settled upon at a meeting held July 16 and presided over by W. E. Lamb, attorney for the United States Food Administration.

A decision on August milk prices was delayed through a change in the charge to be made for labor. Increased cost of labor on farms brought about an allowance of $.30 per hour for this item in caluculating from the formula now used in determining the cost value of milk. The formula adopted by the Chicago Milk Commission allows a cost for producing 100 lbs. of milk of 20 pounds of home grown grains, based on the value of corn; 24 pounds of manufactured feeds; 110 pounds of hay; and 3 hours of labor.

Intelligent co-operation, alert to meet every emergency, and victory is ours.

Hot Weather Health Hints

"Be fit" is now our country's call to every man.

The farmer, upon whom the nation depends for the food to keep our fighting men "fit", must also keep in the best physical condition. His, too, is a man's job!

Unfortunately, farmers, as a class, have neglected to look first to their physical well-being. Life in the open is in their favor, but too often farmers who are robust and healthy, and free from physical defects usually have become so in spite of, and not because of, any systematic effort to keep fit.

Practically 28 per cent of all young men from rural district's examined for the draft were found below standard. This means that nearly one-third of the youths from country homes, between 21 and 31 years of age, were physically or mentally unfit for military service.

We should begin now to correct some of these mistakes.

Summer Increases Health Risks

Many conditions on the farm make health risks greater in summer than at other seasons. Farmers will help to keep themselves on the safe side during the warm months by following carefully certain rules of hygiene and sanitation.

The farmer needs a varied diet of wholesome food, limited in the main to three meals a day. He should drink liberally of water between meals. If possible he should take 15 to 20 minutes rest after dinner and supper. Regularity in bowel functions is absolutely necessary for health.

Small cuts, bruises, and scratches should be given attention to prevent infection or blood poisoning. In case of a skin puncture occurring, for example by stepping on a nail, the wound should be opened, cleansed with boiled water, and tincture of iodine applied immediately. If it becomes inflamed a physician should be called at once. Medical advice should be sought in all cases of punctured wounds. Cuts or scratches should be treated with iodine or a wet dressing of a boric acid solution made by dissolving in hot water all the boric crystals or powder that the water will absorb. Care should be taken to keep dirt out of wounds. On the first indication of marked illness the farmer should seek proper medical advice.

Heat May Be Fatal; Take Care!

During very hot weather the farm worker needs periods of rest and should drink reasonable quantities of cold water—not ice water. Upon the slightest sign of dizziness or unusual fatigue he should stop work for a little while and, if possible, bathe his head, hands, and arms in cold water. Such precautions will tend to avoid sunstroke and injury to health from what may be regarded as heat exhaustion.

The diet in hot weather should be largely milk, vegetables, fruit, and cereals. It should contain very little meat. Constipation is at all times serious and likely to impair one's health, especially during the hot summer months. The general tendency is to eat too fast and too much.

Remember that the teeth are a valuable part of the organs of digestion, and that a reasonable quantity of food is sufficient to keep up the strength and support activities, and at the same time to relieve the system of undue burden.

Keep the Home Airy and Clean

The farm house should be well lighted and ventilated in every part. Especially in the sleeping rooms should there be plenty of window space and fresh air admitted day and night. There is nothing in the old belief that night air is dangerous. In reality it is safer to breathe than day air, because with lessened traffic night air contains less dust.

Prevention is Better Than Cure

Let in the sunlight.
Sleep with the windows open.
Guard the water supply from impurities.
Dispose of sewage by building a septic tank.
Protect food from decomposition and dangerous bacteria.
Keep the school house clean and its outbuildings sanitary.
Remove garbage and manure promptly from the home surroundings.
Abolish every breeding place for flies to prevent insect-borne ills.

Screen all windows and doors against flies and other insects.

Shrubbery and trees about the home should be well trimmed to admit plenty of sunlight.

Cleanliness in the home is always important. Old carpets should be removed and rugs, if used, should be frequently cleaned and exposed to the sunlight. A bare floor, with a few well-cared-for rugs, is much better than a carpeted floor.

Every farmer should take great pains to keep his water supply pure. This means careful attention to the location of outhouses and disposal of sewage and manure. Investigations have shown that from 20 to 40 per cent of farm and rural wells are unsafe. It is of the utmost importance, therefore, that drainage from the barn or outhouse does not reach the water in the well.

Driven and drilled wells are much safer than dug wells and so, no matter what may be the difference in cost, are preferable. Of course every well should have a tight cover and no stagnant pools should be allowed to remain about it.

Sewage Brings Disease Dangers

Poorly constructed privies present a constant danger of disease. The masonry and shelter-house should be made fly-tight and be so constructed as to keep out rats, mice, squirrels, and domestic animals. At frequent intervals reasonable quantities of unslacked or water slacked lime should be thrown into the vault to disinfect and deodorize the contents.

A sewage disposal plant consisting of a septic tank and disposal unit, the latter of a kind best adapted to the lay of the land, character of soil and natural outlet, is considered the safest means of removing human wastes.

The farmer may also have running water in his home in connection with modern plumbing. These conveniences lighten farm work, promote health, and make the warm weather more endurable.

Flies Shun a Clean Barnyard

The family health also depends upon the sanitary condition of the barns and yards. Manure piles become breeding places for flies and other insects, besides producing annoying odors. Wherever practicable manure should be spread upon the fields direct from the barns and stables.

Do not allow garbage to accumulate about the house; it should be placed in a barrel (fitted with a tight cover to exclude flies) and fed to the hogs before it begins to decompose. Its surroundings should be kept clean so as not to attract flies. Garbage should never be thrown carelessly on the ground.

Food Protection Saves Illness

Danger to health from poorly protected food is especially present in summer. Without ice many foods spoil quickly and become unsafe to use. Heat rapidly increases bacteria in milk, hastens decomposition, and spoils it as a food product. Every farmer should arrange if possible for an ice supply, especially if there are children in the home. If possible all perishable foods should be kept in an ice-box. If ice cannot be obtained the foodstuffs should be stored in a cool, well ventilated part of the basement. Every home should have a good basement preferably under the entire house, and it should be kept dry. A pit in the earth also serves well to keep foods cool.

The location of the average farmer is such that if he will give proper attention to a few things he may far excel his city cousins in robustness and health, and the avoidance of various ailments and diseases, but even the sunlight and open space of the country cannot counteract the effect of poor ventilation, poor sewage disposal, flies, and impure water supply.

Be careful in caring for farm animals. There are many diseases common to animals and man.

Community Health Should Be Aim

Every farmer should try to stimulate the interest of the community in the betterment of health conditions in his township. He should see that stagnant pools are drained; that rubbish on premises or highways is removed; and that creameries and cheese factories in the district are kept in a sanitary condition, free from decomposing milk or by-products.

The farmer owes it to his children to see that the schoolhouse is well lighted and ventilated, the heating facilities ample, the water supply safe, the play grounds dry and clean, and the outbuildings sanitary and fly-tight. No dry sweeping should be tolerated in the schools any more than in the home. The school house should be thoroughly cleansed outside of school hours, daily or weekly, as the conditions may demand.

Finally, in every case of communicable disease, known or suspected, if a physician is not employed be sure to report it to your local health officer. —Dr. C. A. Harper, State Health Officer, in Wisconsin Bankers' Farm Bulletin.



IMPORTED GUERNSEY CALVES WHICH WERE RECENTLY DISTRIBUTED AMONG THE MEMBERS OF THE LEBANON, INDIANA, BOYS' CALF CLUB



MEMBERS AND THEIR FAMILIES OF THE INDIANA GUERNSEY BREEDERS' ASSOCIATION HOLDING THEIR ANNUAL MEETING ON CRANE BROS. FARM

Pork Quality and Foreign Demand

To acquaint hog growers of the United States with new conditions brought about by foreign demand, the Food Administration outlines the present situation and possible developments. Last fall, owing to the large amount of soft corn, there was a general heavy feeding of hogs, with a consequent large increase in their weight when they arrived at market. Foreign orders were filled with fatter and heavier hogs than the European populations had been accustomed to, and foreign buying agencies now request a return to the customary weights.

From the present outlook, swine producers may anticipate preference for lighter weights of hogs. This country is not likely to have to repeat any request for heavy feeding.

The condition outlined has been fully discussed by the Agricultural Advisory Committee which met in Washington in a recent conference with officials of the Food Administration and the Department of Agriculture.

Oklahoma Dairy Meeting

July 28 to August 3 is Farmers' Congress Week at the A. and M. College, Stillwater, Oklahoma. Three days, July 29, 30, and 31, will be given to the meeting of the Oklahoma Dairy Association.

EDITORIAL COMMENT

At a meeting of dairy farmers, to consider the price to be asked for milk, one of the farmers made a very pertinent statement. He said: "How do you farmers who are eating oleomargarine and producing milk square yourself with your conscience? Many of you have made the statement that dairy products are too cheap and when asked why you eat oleomargarine instead of butter, declare it is too expensive. If butter is too expensive for us, who produce it, to consume, how can we expect the wage earner to eat it? Aren't we setting a pretty poor example for the city consumers when we farmers eat oleomargarine instead of butter?"

Reports were current early this spring that well bred dairy heifer calves were being sold in some localities in Wisconsin for veal. Through county councils of defense, those interested in dairying, and county agents, steps were taken to save the good heifer calves. In one county a dealer in cattle when informed regarding the calf situation purchased every one worth saving. In another county a breeder went into the business of buying good calves and he bought over 600 head and sent them to Iowa. Some county agents started a movement to "raise-the-best-heifer-calves". These agencies were successful, so far as we have learned, in saving all good calves.

Those who have good calves or good cows to sell should advertise them or inform their county agent or some member of the county council of defense, for there is a splendid demand for grade dairy calves and cows and at better prices than they will bring for veal or beef.

PRACTICAL SUGGESTION TO THE NATIONAL DAIRY COUNCIL

The National Dairy Council is supposed to be engaged in an earnest campaign to advertise the importance to the consumer of a larger use of milk and milk products. Let us suggest a most practical way to spend a little money largely and widely to this end:

Have electrotype plates made newspaper column width of Bulletin No. 271 of the Wisconsin Agricultural Experiment Station entitled "Milk Necessary for the Nation's Health". In that connection with the work of Dr. McCollum, while he was a member of the Wisconsin force, no literature on dairy subjects has ever appeared that will have such a convincing grip on the mind of the city and town consumer as the facts shown in this bulletin, Send these plates to any newspaper that will print them. Thus would be brought home to the householders of the country the argument and the facts concerning nutrition that they are largely ignorant of but for the sake of their children they should know. The outlay need not be great, but the effect of the graphic illustrations and the text of the bulletin would be immense. A dollar spent in this way would go farther than a hundred dollars spent in the desultory way now in vogue for the lack of something better and more practical.

AITKEN APPOINTS ADVERTISING COMMITTEE

At a dairy conference held in Chicago some weeks ago, a resolution was passed empowering the chairman, Mr. D. D. Aitken, to appoint a committee of seven to help lay plans and provide means to advertise the food value of milk and its products. Mr. Aitken informs us that he has appointed the following men on this committee: M. D. Munn, chairman, Milo D. Campbell, John LeFeber, George W. Haskell, Charles Reed, E. S. Brigham, and M. J. Norton.

Milo D. Campbell is a dairy farmer in Michigan and president of the National Milk Producers' Association; M. D. Munn is a breeder of Jersey cattle in Minnesota and president of the American Jersey Cattle Club; John LeFeber is manager of the Gridley Dairy Co., Milwaukee, Wis., and president of the International Milk Dealers' Association; George W. Haskell is president of the Beatrice Creamery Co., Chicago; Charles Reed is a manufacturer of cheese in Wisconsin; M. J. Norton of Chicago represents the condensery interests and will serve till some one else is appointed to take his place; and E. S. Brigham is a dairy farmer in Vermont and Commissioner of Agriculture for that state.

Mr. Aitken has selected men who are capable and who represent the various phases of the dairy industry. We look forward to seeing them lay comprehensive plans that will increase the consumption of dairy products.

ADVERTISING DAIRY PRODUCTS

A truth of increasing importance is the need of advertising dairy products. Proof that their real nutritional value is far greater than is generally recognized is not lacking. Not only is milk and its products cheap at present prices, but, in McCollum's work, milk has been shown to have startling values—it is proved a necessity to complete nutrition of the young, at least, and perhaps of adults.

The trouble is, too few people have this information. There is much to be gained in awakening a larger appreciation of dairy products among dairy farmers themselves. But the greatest need is to inform the general consuming public. It was encouraging, therefore, to read a placard in a Chicago street car recently which advertised milk to the right people. Its source was sufficiently authoritative to carry weight and it seemed to us to be a splendid kind of publicity. The benefit which comes from such unorganized assistance to dairying we may hope will be the forerunner of a campaign of organized advertising with the entire dairy industry solidly behind it. The reading matter of the placard is here given:

CHICAGO DEPARTMENT OF HEALTH
HEALTH-O-GRAM

Milk at 10c is the best and cheapest of foods.
At 10c a quart every one should use it.
Take your bottle and a dime to the nearest milk depot.

Mayor and Commissioner of Health.

BUTTER AND OTHER FATS

In Bulletin 201 of the Connecticut Agricultural Experiment Station, Professor E. M. Bailey makes this statement concerning the value of milk fat:

"Although so nearly alike in energy-producing capacity, the fats show differences in other nutritional aspects. We refer especially to the growth-promoting properties possessed by some fats and lacking in others. It has been shown that butter possesses this peculiar efficiency to a marked degree and that the efficiency resides in the butterfat itself. This shows us an additional and important reason for the effectiveness of milk as a food for children."

Professor Bailey then goes on to say that some other fats possess this ingredient while lard and olive oil lack in this peculiar growth property found in butter as do those margarines which are made commonly from vegetable fats.

All fats are valuable fats but butter possesses substances known as "vitamines" or "accessory diet factors," which are not found in all vegetable or animal fats. They are found in some animal fats to a small degree, but not in sufficient quantities to nourish properly the human body.

He further states: "Fatty foods not possessing the virtue just mentioned should not, however, be discriminated against on this account when used in the ordinary liberal diet, but it would appear to be inadvisable to eliminate butter entirely from the menu, particularly that of children."

OUR SENIOR EDITOR COMPLIMENTED

The Dairy Record in an editorial has paid a splendid tribute to the Senior Editor of Hoard's Dairyman, and we take the liberty of publishing it. Our friends of many years and those of more recent years will, we believe, be interested in the movement to honor him who has devoted his life to the cause of dairy husbandry. The Record states:

"A movement is on foot to the end that the dairy industry in some appropriate manner express its appreciation of the life and work of W. D. Hoard, the grand old man of American dairying. Mr. Hoard is of Wisconsin and this honor would not be taken away from that great dairy state, but he belongs to the whole country and to each farm on which a cow is kept, and Wisconsin must not be permitted to honor him alone. It has been suggested that a statue of Mr. Hoard be erected on the campus of the University of Wisconsin within sight of the Agricultural Building, and that it be done now while Mr. Hoard is with us in the body as he always will be with us in the spirit.

"The suggestion is exceedingly appropriate and should meet a hearty response from everybody in any way connected with the dairy industry. Each one of us, no matter what our work or what our position or our business, owes all of it which is of any consequence to Mr. Hoard and his work. We do not know if American dairying would be as far advanced as it is today had we not had Mr. Hoard, but we do know that American dairying as we find it today is very largely due to his life and work.

"Just now when the world is aflame and Mr. Hoard has entered that period of life when the setting sun makes the shadows ever longer, is a fit time that a monument be erected to the man who more than any other man on this continent has contributed to the development of a peaceful industry, based on the natural law of mother love and of love for all humble and lowly things. There should be and will be a quick response to this movement."

HOW FARMING WILL DEVELOP CHARACTER IN A PEOPLE

"We are not to look for our permanent civilization to rest on any species of robber-economy. No flurry of coal-mining, or gold-fever, or rubber-collecting in the tropics, or excitement of prospecting for new finds, or even locating new lands, no ravishment of the earth or monopolistic control of its bounties will build a stable society. So is much of our economic and social fabric transitory. It is not by accident that a very distinct form of society is developing in the great farming region of the Mississippi Valley and in other comparable places; the exploiting and promoting occupancy of those lands is passing and a stable progressive development appears. We have been obsessed of the passion to cover everything at once, to skin the earth, to pass on, even when there was no necessity for so doing. It is a vast pity that this should ever have been the policy of the government in giving away great tracts of land by lottery, as if our fingers would burn if we held the lands inviolate until needed by the natural process of settlement. The people should be kept on their lands long enough to learn how to use them. But very well; we have run with the wind, we have staked the lands; now we shall be real farmers and real conquerors. Not all lands are equally good for farming, and some lands will never be good for farming, but whether in Iowa or New England or old Asia, farming may develop character in the people."—From the Holy Earth.

True enough. The qualities of thought and purpose, the unrest, the desire to move on that Dr. Bailey depreciates so much has been brought about by the constant shifting processes of our farming. There is one good thing about dairy farming and all kinds of live stock farming; it holds such communities in a much more stable condition. They are much more lasting and as a consequence more progressive in the way of farm improvement than are grain growing sections. All this means character in the people, the kind of character that builds up a state.

OUR CORN CROP AND ITS LESSON

Early this spring farmers of the northern states were concerned regarding the prospects for good seed corn. The county agent was busy trying to find corn that would grow and urging every farmer to test his seed. The immature corn crop last year and the necessity of a larger crop this year produced a situation which made it necessary to put forth extra effort to know the character of seed corn before it was planted. The intelligent procedure to overcome the shortage of good seed corn has given an exceptionally good stand of corn and at present we have a promise of a yield of over three billion bushels. If favorable weather conditions prevail we shall have one of the largest and best crops of corn ever raised.

There is a lesson in this which should not be lost. From an immature corn crop it has been possible through careful curing of the seed and by testing to secure a good stand and a promise of a good crop. In other words, through applying the right principles of selecting, curing, and testing seed corn we have a better stand than has been secured, in past years, under haphazard methods of seed corn selection from a well matured corn crop.

Our corn crop shows the tremendous possibilities of increasing the yield of all crops by proper selection of seeds. If as much attention had been given to all cereals as were given to corn there is no question but that they would have produced a larger yield. A great corn crop out of poor seed shows the value of practices which have been but recently introduced into the conduct of agriculture.

Preventing Loss of Fat

I would be pleased to know what to do with a new separator of standard make that is losing butterfat in the skimmilk. I know of one or two that are losing from .05% to .07%. They have speed indicators and appear in No. 1 condition otherwise. Milk is run through warm from the cows.

Idaho. R. W. S.

There are a number of factors which should be considered in trying to discover the difficulty with a cream separator which is not efficient. It may be that something is wrong with the machine itself, that is, that it did not come out from the factory well balanced and in condition for thorough separation. If it came to the farm in good shape, however, there are a number of things which may be looked after so that the loss of fat may be reduced:

1. Be sure that the milk is separated soon after milking so that it is still near the temperature at which it is drawn from the cow, preferably still above 90 degrees Fahrenheit.

2. See to it that the separator is run at the speed which is recommended and especially that the rate is made regular. Very frequently variation in speed has a considerable influence on a machine's efficiency.

3. Be certain that the separator is securely fastened to its foundation and that it is set up so that it is level.

4. See that the machine is fed at the right capacity. Over-feeding will frequently cause a considerable loss of fat.

5. The operating parts of the separtor should be thoroughly cleaned at least once a week with kerosene and then thoroughly oiled with a high quality lubricant.

6. At the end of the separation the machine should be flushed with skimmilk. A uniform quantity should be used at the various separations as the amount of skimmilk used may considerably influence the test of cream though this would not affect the amount of fat which may be lost in the skimmilk.

If following these suggestions does not remedy the difficulty with the separator, we recommend that the matter be taken up with the local agent of the machine.

Drying Cows Up

We have five registered Holstein heifers I am drying up, but am afraid I can't get them dry in time to feed them up as they will freshen from September 1st to October 21st. What should I do to dry them?

Owen, Wis. W. Bros.

It is a good cow which milks so persistently that it is necessary to take special measures in persuading her to go dry before freshening again. We sincerely wish that a very greatly increased number of dairy farmers might have this difficulty with their cows. The great trouble of the largest per cent of dairy farmers is to secure cows of this character and then to feed them liberally enough that they can continue to produce milk for long periods.

It should not be especially difficult to dry these heifers off. If the pasture is good it may be necessary to keep them off for a few days and feed them a restricted ration. If they are fed nothing but timothy or mixed hay for a few days, it will be an easy matter to dry them off rather quickly. At first milk only once a day and then, after three or four days, begin milking but once in two days and then again after a short time make the period between milkings even longer than this. With especially heavy milkers it may be necessary to vary this procedure slightly but in the great percentage of cases it should be easily possible to dry heifers off within ten days or two weeks after starting if the feeder is drastic in cutting down their rations.

With cows that are not producing more than ten pounds of milk per day there is very little danger of udder difficulty if milking is stopped without any preliminary change in feeding or variation in the periods between milking. The udders may be considerably distended for a few days but the milk will be absorbed and no difficulty experienced. At the University of Missouri, Professor Eckles has followed this practice for a number of years and reports only good results.

Shipping Cream vs. Marketing Butter

Owing to some difficulties I have about getting returns for my cream and getting my cans back, I have been thinking of churning my cream and shipping my butter. I want to find out all I can about whether it would pay and be a satisfactory way to market my butterfat. Would it pay to put it up in tubs and ship to commission men in Chicago, or would it be better to wrap it, give it a brand and try to sell it in larger towns? Taking it all in all, would it pay to bother with? I am getting an average of 42 or 43 cents at the present time.

Hanover, Ill. E. B. F.

The answer to the question of the practicability of making dairy butter as opposed to shipping cream cannot be a positive one, for there are many factors involved which only intimate knowledge of local conditions would permit one to speak with any authority.

In a general way the manufacture of butter on the farm is not widely followed. It has been found that under usual conditions the returns to the farmer are better when he sends his milk or cream to a creamery. Unless there is surplus labor on the farm that cannot otherwise be utilized, the cost of making a pound of butter will be greater there than in the creamery, and the sale price of this butter is not in excess of creamery butter. In fact, unless one makes an excellent article and secures a private trade, dairy butter will bring a lower price than the creamery product. It is to be remembered in making dairy butter one not only has the expense of additional equipment, but it requires time and aptitude for the work of handling the cream, making the butter, getting customers, and delivering the product. In every community, however, there are always a few men who make dairy butter and who find it profitable to do so.

If one finds it practicable to take up the extra work, doubtless he would be able to secure a good market in some one of his neighboring towns. We question very much, however, whether he would find it desirable to ship to a commission firm, unless he is manufacturing a particularly large quantity and can establish a special trade through them. Dairy butter as such will be discriminated against in the general commission markets.

Milking Test Cows by Machine

Do you know of any experiment where the milking machine was used against hand milking?

Do you think a test cow milked three times daily will do as good by machine as by hand?

Hillrose, Colo. B. W.

The successful operation of a milking machine depends very largely upon the individual taking care of it, just as is true of farm separators, gasoline engines, and other machines. We know of communities in which several makes of machines are used where they are all giving satisfaction, and are also acquainted with similar communities in which a number of men own milking machines and have been very much disappointed with them.

In the great majority of cases the fault lies largely with the operator of the machine. Any of the standard makes of milking machines, if well cared for and if used on herds of at least fifteen to twenty cows, will be found very satisfactory.

In making comparison between hand milking and machine milking, it is necessary to know the kind of hand milkers as well as to know the care which is given the machine. The general opinion of men who have had considerable experience along this line is that the milking machine is considerably better than the average hand milker, but that it is not quite so good as hand milking by careful men. A few men within our acquaintance are milking their test cows with machines and are securing very good results. In the greatest number of cases, however, test cows are milked by hand even though a machine may be used with the general herd.

Cost of Market Milk Plant

Dairymen around this city wish to co-operate in placing a plant to dispose of about 1,000 to 1,200 gallons of whole milk daily. Our present plans are pasteurizing and shipping to Chicago. We would also like to take care of cream for those that wish to sell cream. What I would like to know is what it will cost to finance a plant of this kind, also if a cheese factory would be a better way to dispose of whole milk?

Wakarusa, Ind. C. M. E.

Plant and equipment for handling 8 to 10 thousand pounds of milk daily will probably be, at present prices, anywhere between $12,000 and $18,000. Under present conditions it is safe to assume that it will cost between 3c and 4c per pound of butterfat to operate.

For city milk, pasteurized and shipped to Chicago, it will require at least three, and more likely 4, men to handle this in the right way, all depending upon whether the farmers' cans have to be washed before returning. If milk is to be bottled at the plant, it will, of course, take two extra men.

For cheesemaking purposes, if strictly Cheddar cheese or similar types are made, three men would probably be able to operate the factory.

As far as costs are concerned, it is generally considered this year that it will take from $2 to $3 for each hundred pounds of cheese to pay for labor, salt, color, bandages, etc.

As regards preference as to selling milk or manufacturing cheese, there is no question but that the market milk will pay most money in practically every instance, providing a suitable outlet can be had. There is, however, no need of going into the market milk business unless a market furnishing a steady outlet is procured before the undertaking is started. During the war especially, it is well to be so equipped that any co-operative plant is able to make either butter, cheese, handle milk or sweet cream, as the demand may require. It will cost only a slight amount more to equip a factory for all purposes and it will insure that it is always possible for the creamery so equipped to secure the highest market prices for their products.

Mogens R. Tolstrup.

Vermont Dept. of Agriculture.

Corn Bran—Husking Silage Corn

Can I afford to feed corn bran at $20 per ton? If so, in what proportion to shorts, corn and cob meal, and cottonseed meal?

Can I afford to pull off my corn and feed to hogs, from a crop that I am going to put in my silo for dairy cows?

Bell Buckle, Tenn. J. L. S.

Corn bran at $20 should be an economical purchase considering other prices. It has, however, a feeding value quite dissimilar from that of wheat bran. It contains only about one-half as much protein but is considerably higher in carbohydrates.

With the other feeds listed a mixture of 200 lbs. corn bran, 200 lbs. shorts, 300 lbs. corn and cob meal, and 150 lbs. cottonseed meal would be very satisfactory. In purchasing corn bran its quality should be ascertained, making sure that it is above 65 per cent in its total digestible nutrients.

The question raised concerning husking corn which is to be used for silage is one about which a great many men have concerned themselves. We have had considerable experience with the feeding of silage and have come to the firm belief that no field of corn is too valuable to be put into a silo ears and all.

We advise, therefore, that instead of husking corn before putting it into the silo that silage be made of it as it comes from the field. We are confident that the results secured in milk production will very well pay for all of the grain which is thus included in the silage mixture.

Production Comparisons

I am milking 60 grade cows, some Jerseys, some Holstein and Jersey, and some Shorthorns. Ten of these cows were strippers and will freshen this fall, the rest coming fresh alternately from the last of February to the 10th of June. For the past 30 days I have averaged 15 to 18 lbs. of milk per day. Is this a fair average for a grade herd?

Bristol, Tenn. R. H. S.

If the 15 to 18 lbs. per day is the average for the entire herd, including dry cows, it would indicate a yearly production of milk of from 5,500 lbs. to 6,500 lbs. This production would be above the average for the country but it is not high enough to warrant complete satisfaction with the results. It is also somewhat doubtful whether our computations apply and the presumption is that their annual production is somewhat less than indicated.

We have before us the record of a herd of seven grade Holstein and scrub cows that average 5,248 lbs. of milk containing 195 lbs. fat. In cow testing associations, the general average will run considerably in excess of this and from a report from one association, we find the lowest herd has an average annual production of 4,034 lbs. milk containing 181 lbs. fat, whereas the highest herd average is 9,785 lbs. milk containing 383 lbs. fat. There are only two herds in this association that produced less than 200 lbs. of fat and the general average for the entire 24 herds is slightly over 275 lbs. fat.

Butter From One Pound Fat

Will you please tell us how many pounds of butter we should get from 37 lbs. of cream testing 35 per cent of fat?

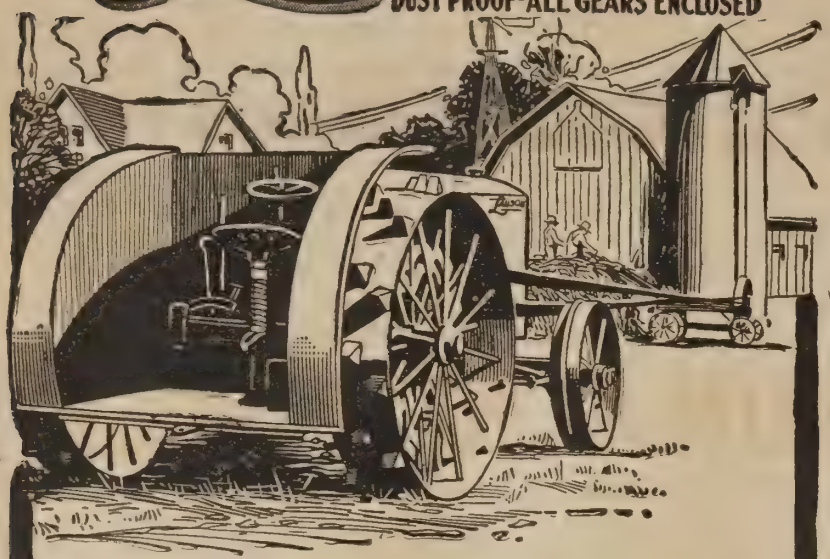
Niles, Mich. M. Bros.

Thirty-seven pounds of cream testing 35 per cent butterfat contains 12.95 pounds of butterfat.

Theoretically a pound of butter can be made from each eight-tenths of a pound of butterfat. On such a basis it would be possible to make 16.2 pounds of butter from the 12.95 pounds fat. However, because of losses in churning and also because the overrun cannot be exactly controlled, somewhat less than 16.2 pounds of butter would likely be secured. If fifteen pounds of butter can be printed from this amount of fat very efficient work is done.

The LAUSON 15-25

DUST PROOF-ALL GEARS ENCLOSED



For Plowing and Belt Work

Most tractors are measured by their ability to *plow*. Field work is only *half* the work. Lauson farmer owners now look upon the Lawson 15-25 as a *power unit* for doing all the heavy work on the farm.

—for plowing, discing and seeding.
—for keeping up the country roads. pulling grader and running crusher.
—for running the silo cutter, hay baler or grain separator.

Lauson tractors are bought on performance and reputation. Send for complete information and specifications. Very often the *saving* pays for the Lauson in one season.

Builders of Lauson Frost King Engines

For 23 years Lauson Frost King Engines have been the standard of farm engine excellence—built in 2½ to 50 H. P. sizes.

THE JOHN LAUSON MFG. CO., 527 Monroe St., New Holstein, Wis.

WE FED YOUR COWS

TRADE UNICORN MARK

¶ Almost every high American record for fourteen years with any breed was made with our Ajax Flakes as an important base of the grain ration.

¶ Unicorn Dairy Ration is the only feed that contains Ajax Flakes.

¶ You can hardly find a pure blood whose maternal ancestors were not fed on Ajax Flakes or Unicorn Dairy Ration.

¶ Unicorn is recognized as a safe, efficient and economical dairy feed.

¶ Unicorn during the past year made more high records than any other brand of feed.

¶ Unicorn really costs less per pound of milk or fat produced than other feeds.

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Ear Tags, Bull Staff and Rings. Description and prices sent on application. 300,000 of these ear tags have been sold without adverse criticism. 500 of these BullStaffs are used by the best breeders in the business.



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Get ¼ to ⅓ More Silage

into your silo — quicker, easier. The HOOSIER SILO EXTENSION ROOF insures a full silo even after silage settles; no refilling needed. Strong. Economical, Permanent; attaches to any silo. Fire and rust proof. Easy to put on, and open or close. Guaranteed. Pays for itself in a season. Send for catalog.

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205 New York St. Goshen, Ind.



Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Wash.	Stillaguamish	S. C. Shoultes	June	500	143	79	B. C. Schloman
Col.	Johnstown	R. M. Curtis	May	360	62	95	W. A. Purvis
Tenn.	Wilson Co.	J. O. Key	June	352	20	60	R. W. Paty
Col.	Arkansas Valley	G. W. Barr	"	436	11	55	H. Heath
Wash.	Duvall	A. J. Leonard	"	580	162	74	H. L. Allen Co.
"	Wahkiakum Co.	G. Sonner	"	433	222	85	Dawson & Burch
Kan.	Arkansas Valley	C. G. Wehrman	"	400	37	73	F. Harvey
Va.	Orange	R. S. Gillispie	May	364	38	66	E. L. Goss
"	Orange	R. S. Gillispie	June	373	34	65	T. A. Atkinson
Ill.	1st Lake Co.	Wm. Remely	"	438	17	51	Geo. Miller & Son
Utah	Cashe Valley	L. H. Maxwell	"	418	95	66	O. D. Merrill
Wash.	Walla Walla	J. S. Bixby	"	455	53	61	Wn. State Pen.
O.	Penfield	L. P. Aldrich	May	258	69	81	Smith & Defields

Association Notes

Stillaguamish, Washington: — In June 143 of our cows produced more than 40 pounds fat each. Forty-eight of them produced more than 50 pounds each. Eight poor cows were sent to the block. An increased care is being exerted in discovering the other low producers in the association. Several members are using soiling crops this season and are finding them very profitable. In June the condensery paid $2.15 per hundred pounds for milk testing 3.7 to 4 per cent. The creamery paid 48c for fat and the cheese factory an equal price. Milk retails for 11c and butter for 45c. Bran costs $34 per ton; shorts, $36; alfalfa hay, $28; and oats, $70.

Lake County No. 2, Illinois:—In June only four cows were sold for being unprofitable. Seven pure-breds were purchased, all Holsteins. Since February 40 head have been brought into this association. Two-thirds of the herds are being fed on pasture alone. The June price for milk testing 3.5 per cent is $1.80 per hundred pounds. International Dairy Ration costs $52 per ton; Planters Dairy Ration, $48; oil meal, $65; and American Milling Company Feed, $50.

Eastern Bradford, Pennsylvania:—The May price for 3 per cent milk here was $2.40 per hundred pounds. The creamery paid 47½c for fat. Cottonseed meal retails for $3.10 per hundred pounds; gluten, $2.85; buckwheat feed, $2.40; wheat middlings, $2.70; wheat bran, $2.25; and Union Grains, $2.80.

Jo Daviess County, Illinois:—The June price for milk here was $1.90 per hundred pounds. The creamery paid 45c for fat and retailed butter for 50c. Very few cows in the association are receiving any grain. The only feed being supplied is pasture which costs $2 per month per cow.

Burnett County No. 1, Wisconsin:—Two bull associations have been organized in this territory. A barrel of fly repellant has been purchased at 50c per gallon. Six or eight culled cows were sold during the month. Orders have been secured for three carloads of bran, one of cottonseed meal, and possibly one or two of clover and alfalfa. The creamery pays 45c per pound for fat and retails butter for 42c. Bran costs $1.90 per hundred pounds at the mill; shorts $2; oil meal, $3.10; oats, 68c per bushel; and hay is not to be purchased.

Ft. Atkinson, Wisconsin:—Several of our members are feeding grain along with pasture. Very little silage is left from last season for summer feeding. Most of the bulls being used in the association are not only pure-bred but are from high producing dams. Milk testing 3.5 per cent sold in June for $1.80 per hundred pounds. Creamery pays 47c for fat. Milk retails for 10c and butter for 48c. We put the following values on feeds here: silage, $6 per ton; mixed grain, $50; hay, $20 to $25; and pasture, $2 per month per cow.

Duvall, Washington:—The condensery paid for the month of June $2.15 per hundred pounds for milk testing 3.7 to 4%. The creamery paid 47c to 49c for fat. Milk retails for 10c. Shorts costs $36 per ton; bran, $34; Fishers Dairy Feed, $48; alfalfa, $26; and pasture, $3 to $4 per cow per month.

Arkansas Valley, Colorado:—Our main trouble in this association is that the farmers are more interested in the crops than in their dairy herds. For this reason very few changes are being made just now in improving the herds. The condensery paid $2.20 per hundred pounds for June milk which tested 3.5 per cent. Milk retails for 12c per quart. Feed was valued as follows: corn chop, $3.15 per hundred pounds; bran, $1.75; cottonseed meal, $3; shorts, $1.85; beet pulp, $2; silage, $8 per ton; and new alfalfa, $10 per ton.

Wilson County, Tennessee:—The May price for butterfat was 45c per pound. Our members are paying $2.25 per hundred pounds for velvet bean meal and $2.85 for cotton seed meal.

Johnstown, Colorado:—Our members are taking advantage of the high price of beef and weeding out many poor cows. In this way we have increased the average production considerably. One splendid herd bull was purchased by two of our members the past month. Milk sells here mainly by the gallon, a price of 25c being secured. The condensery paid 55c for fat in May. The retail price of milk was 12½c and butter 50c. Alfalfa hay is selling at $16 per ton; silage, $7; dried beet pulp, $22.50; bran, $36; corn, $64; gluten, $65; oil meal, $80; and oats, $69.

Arkansas Valley, Kansas:—Two bulls with extra good breeding have recently been purchased for the association. The June price for milk testing 3.5 per cent was $2.75 per hundred pounds and 25c per gallon. The condensery paid $2.20 per hundred pounds for milk with the same test while the creamery paid 42c per pound fat. Milk retails for 10c to 12½c and butter for 45c. Local prices for feeds are: alfalfa hay, $10; silage, $4; bran, $35; corn chop, $65; oil meal, $68; shorts, $45; cottonseed meal, $68; ground oats, $55; and pasture, $1.50 per cow per month.

First Lake County, Illinois:—Some pure-bred stock has been brought into the association during the past month. Members receive the price of $1.80 per hundred pounds for milk testing 3.5 per cent. The creamery paid 46c for fat last month. Cost of pasturing cows is $1.50 per month. Grain Gold costs $56 per ton; cottonseed meal, $64; ground oats, $49; and silage, $6.

Cashe Valley, Utah:—Five cows were sold in June for beef. The highest testing herd in the association is owned by John T. Darley and consists of 19 grade Jerseys which averaged a production of 1,032 pounds milk con-

taining 48 pounds fat. Pasture is the main feed in this section at this time. Its value is greatly increased when a change can be made about every ten days. A charge of $3 per cow per month is made for it. The work of the association is going on very successfully.

Walla Walla, Washington:—The following table gives a comparison from our association for the past three years, for the month of June:

	1916	1917	1918
Number of cows tested	447	465	455
Average milk per cow	524	609	635

The increase in milk production in two years is 111 pounds of milk per cow. During the past month 515 cows were tested for tuberculosis in the valley and only two reactors were found. That is, the herds averaged a test of 99.6 per cent freedom from tuberculosis. In both cases where the re-actors were found, the cows were apparently in the best of health and were among the highest producers in the herd. June 12th a meeting for the organization of a Jersey Bull Association was held . The county agent is writing to Jersey breeders for prices of bulls which will be suitable for this association.

Food Administration Review

The following is from a letter written July 11 by Food Administrator Hoover to President Wilson:

It is now possible to summarize the shipments of foodstuffs from the United States to the Allied countries during the fiscal year just closed—practically the last harvest year. These amounts include all shipments to Allied countries for their and our armies, the civilian population, the Belgian Relief, and Red Cross. The figures indicate the measure of effort of the American people in support of Allied food supplies.

The total value of these food shipments which were in the main purchased through, or with the collaboration of, the Food Administration, amount to, roundly, $1,400,000,000 during the fiscal year.

The shipments of meats and fats (includes meat products, dairy products, vegetable oils, etc.,) to Allied destinations were as follows:

Fiscal year 1916-17	2,166,500,000 lbs.
Fiscal year 1917-18	3,011,100,000 lbs.
Increase	844,600,000 lbs.

Our slaughterable animals at the beginning of the last fiscal year were not appreciably larger than the year before, particularly in hogs; they were probably less. The increase in shipments is due to conservation and the extra weight of animals added by our farmers. The full effect of these efforts began to bear their best results in the last half of the fiscal year when the exports to the Allies were 2,133,100,000 lbs., as against 1,266,-500,000 lbs. in the same period of the year before. This compares with an average of 801,000,000 lbs. of total exports for the same half years in the three-year pre-war period.

In cereals and cereal products reduced to terms of cereal bushels, our shipments to Allied destinations have been:

Fiscal year 1916-17	259,900,000 bushels
Fiscal year 1917-18	340,800,000 bushels
Increase	80,900,000 bushels

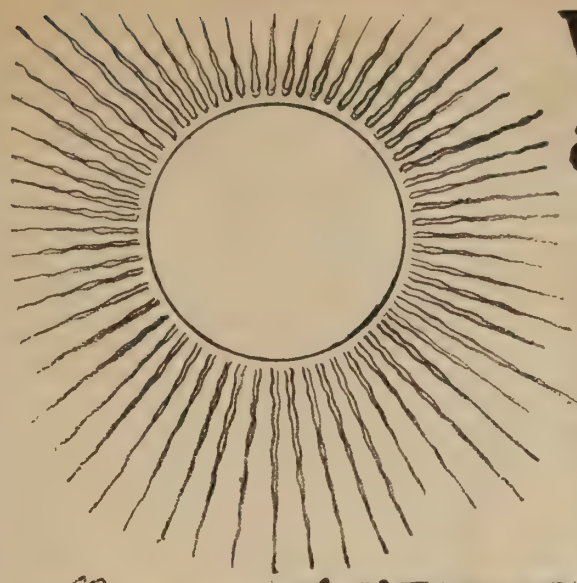
Of these cereals our shipments of the prime breadstuffs in the fiscal year 1917-18 to Allied destinations were, wheat 131,000,000 bushels, and of rye 13,900,000 bushels, a total of 144,900,000 bushels.

The exports to Allied destinations during the fiscal year 1916-17 were, wheat 135,100,000 bushels and rye 2,300,000 bushels, a total of 137,-400,000 bushels. In addition, some 10,000,000 bushels of 1917 wheat are now in port for Allied destinations or en route thereto. The total shipments to Allied countries from our last harvest of wheat will be, therefore, about 141,000,000 bushels, or, a total of 154,900,000 bushels of prime breadstuffs. In addition to this we have shipped some 10,000,000 bushels to neutrals dependent upon us and we have received some imports from other quarters. A large part of the other cereals exported have also gone into war bread.

It is interesting to note that since the urgent request of the Allied Food Controllers early in the year for a further shipment of 75,000,000 bushels from our 1917 wheat than originally planned, we shall have shipped to Europe or have enroute, nearly 85,000,000 bushels. At the time of this request our surplus was already more than exhausted. This accomplishment of our people in this matter stands out even more clearly if we bear in mind that we had available in the fiscal year 1916-17 from net carry-over and as surplus over our normal consumption about 200,000,-000 bushels of wheat which we were able to export that year without trenching on our home loaf. This last year, however, owing to the large failure of the 1917 wheat crop, we had available from net carry-over and production and imports, only just about our normal consumption. Therefore our wheat shipments to Allied destinations represent approximately savings from our own wheat bread.

These figures, however, do not fully

(Continued on page 19)



When days are hot and Pastures short

—and your cows spend most of the day under the trees, unless you supplement their scant pasturage with a feed that will offset these hot weather conditions, a SHRINKAGE IN YOUR MILK CHECKS is bound to follow.

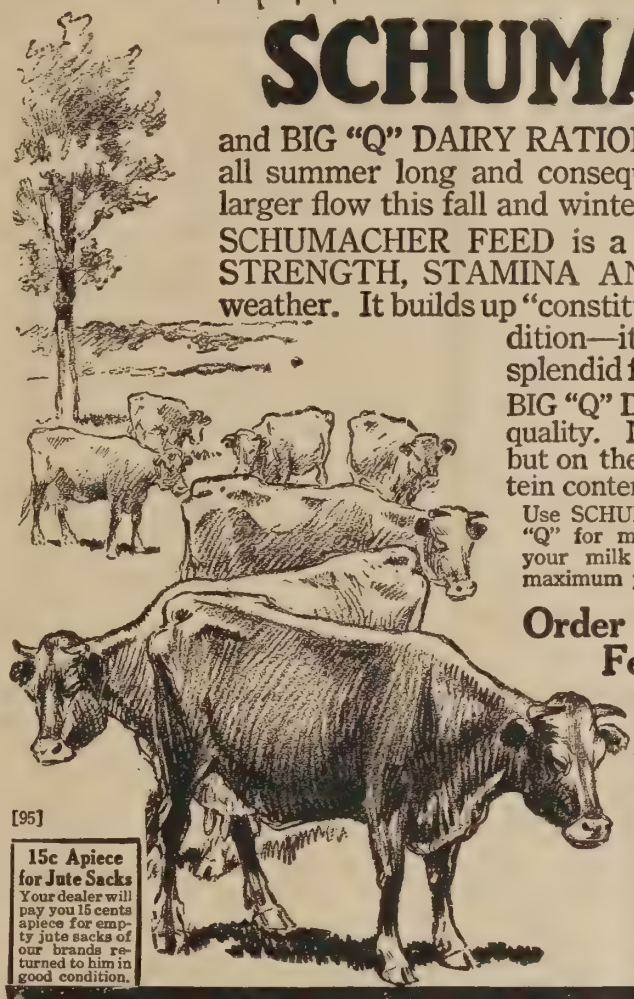
Cows that are well nourished in the summer will keep up their milk flow during the hot months and will also respond with a greater milk yield in fall and winter than cows that are forced to depend for their summer feed on short, dried up pasturage.

SCHUMACHER FEED

and BIG "Q" DAIRY RATION will keep your cows up to NORMAL FLOW all summer long and consequently put them in condition to give you a larger flow this fall and winter than ever before.

SCHUMACHER FEED is a grain ration which supplies the ENERGY, STRENGTH, STAMINA AND ENDURANCE so much needed in hot weather. It builds up "constitutional" powers—keeps cows in the finest condition—it's the dairymen's "old reliable," being also a splendid feed for dry cows, young stock, horses and hogs.

BIG "Q" DAIRY RATION is a protein ration of the highest quality. Not made on the old "high per cent" protein fallacy, but on the more modern idea of "highest quality" of protein content.



[95]

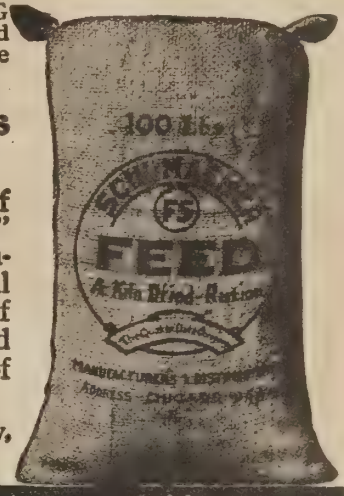
15c Apiece for Jute Sacks
Your dealer will pay you 15 cents apiece for empty jute sacks of our brands returned to him in good condition.

Use SCHUMACHER for condition—BIG "Q" for milk—feed them liberally and your milk checks will stay up at the maximum point.

Order Fall and Winter's Feed—NOW!

Put in your supply of Schumacher and Big "Q" now for the same reason you order your coal—to protect yourself against a possible feed shortage as a result of shipping difficulties.

If your dealer can't supply, write us.



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FIRE

Get a FIREX
Simple, Strong, Quick Acting.
A child can operate it.
Don't let a few dollars stand between you and safety.

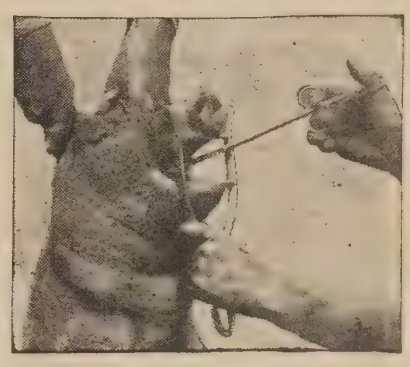
Be Protected
It's the first few minutes that count.
FIREX will make you the master of fire.
DON'T DELAY



$6.00 COMPLETE

Write today for Special Distribution Offer.

Firex Manufacturing Co.
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Sure Death to Hog Worms.

At last there is a hog worm remedy that is absolutely positive.

Bonnett's "Big B" Worm Capsules

are now used by Agricultural Schools, Farm Advisers, Veterinaries and leading hog raisers. Absolutely sure and quick in its action. Each hog gets just the proper dose to expel the worms and put it in fine condition to make the most weight out of every pound of feed. Breeder's Gazette recently had an article on its great popularity. Nothing else like it. One capsule does the work. Satisfaction guaranteed. "Big B" Worm Capsules $5 per 100. Pig Gun and Speculum $7.50. All charges prepaid. Order today.

J. L. BONNETT MFG. CHEMIST.
Dept. 23, Bloomington, Ill.

CUT OFF MORE CORN THIS YEAR



Thirty per cent of the feeding value of your corn crop is in the stalks. This fact is based on exhaustive tests made by the best agricultural authorities. Yet thousands of acres of corn stalks are practically wasted every year by field feeding—a loss that amounts to an enormous sum.

Cut more corn this year. You will increase your net profits whether you cut the green corn for the silo, whether you shred and store the fodder, or whether you feed the whole stalk in the feed lot. You can cut more corn, at the right time, if you use the

JOHN DEERE CORN BINDER

The Binder with the Power Carrier and Quick Turn Tongue Truck

You can cut corn more timely, you can cut it five to seven times as fast as by hand: you can help solve the present shortage of farm labor by cutting your corn with a John Deere Corn Binder. In addition to its labor saving features, its better, more lasting construction and its many operating advantages will have a particular appeal to you.

These Features Save You and Your Horses

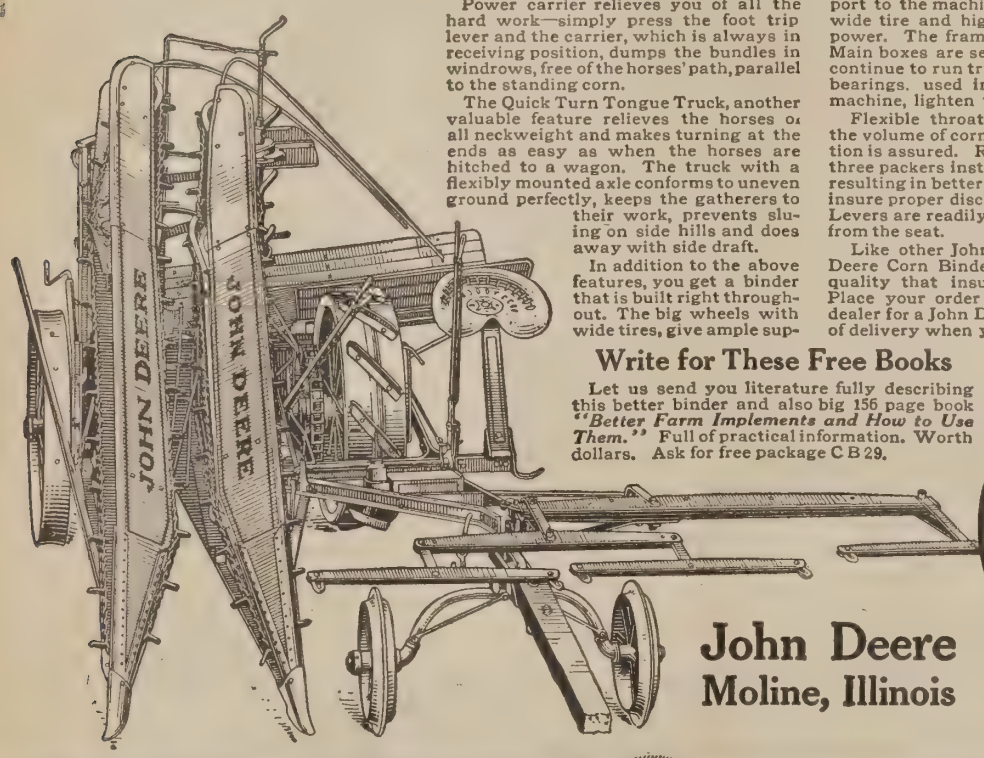
Power carrier relieves you of all the hard work—simply press the foot trip lever and the carrier, which is always in receiving position, dumps the bundles in windrows, free of the horses' path, parallel to the standing corn.

The Quick Turn Tongue Truck, another valuable feature relieves the horses of all neckweight and makes turning at the ends as easy as when the horses are hitched to a wagon. The truck with a flexibly mounted axle conforms to uneven ground perfectly, keeps the gatherers to their work, prevents sluing on side hills and does away with side draft.

In addition to the above features, you get a binder that is built right throughout. The big wheels with wide tires, give ample support to the machine. The big drive wheel with wide tire and high lugs, has plenty of driving power. The frame is strong and rigidly built. Main boxes are self-aligning—the working parts continue to run true. Seventeen roller and ball-bearings, used in all important parts of the machine, lighten the draft.

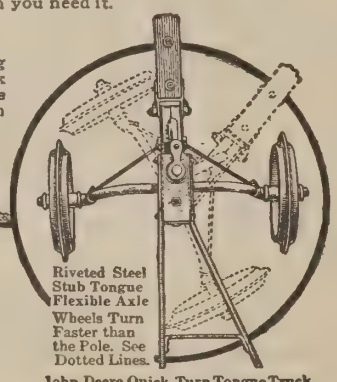
Flexible throat springs adjust themselves to the volume of corn—continuous and even elevation is assured. Regular binder attachment has three packers instead of two, as commonly used, resulting in better bundles. Four discharge arms insure proper discharge of bundles onto carrier. Levers are readily accessible and easily operated from the seat.

Like other John Deere Implements, the John Deere Corn Binder is built on the standard of quality that insures service and satisfaction. Place your order early with your John Deere dealer for a John Deere Corn Binder. Be assured of delivery when you need it.



Write for These Free Books

Let us send you literature fully describing this better binder and also big 156 page book *"Better Farm Implements and How to Use Them."* Full of practical information. Worth dollars. Ask for free package C B 29.



John Deere Quick-Turn Tongue Truck

John Deere
Moline, Illinois

Real Gravely Plug has been chewed for its real tobacco satisfaction ever since 1831. It's made the good old Gravely way.



Peyton Brand

Real Gravely Chewing Plug

10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia

Infectious Abortion

The Connecticut Station bulletin 93, recently published, contains valuable information on infectious abortion in cattle. It reports sufficient experimental work to give its remarks considerable weight. The disease was studied in three herds of 60 to 100 animals, two herds for about three years, and one for one year. L. F. Rettger, Yale University, and G. C. White, Storrs, are the authors of the bulletin.

The agglutination and complement fixation tests proved efficient indicators of an animal's infection or freedom from the abortion disease and were highly valuable, therefore, in putting into use measures for cleaning abortion from the herds.

Heifers and young cows were found to be more susceptible to the disease than older animals. At birth, calves react to the test if their dams are infected; or, if the dams are healthy, no reaction is evidenced. Calves from six months to nine to ten months of age did not react and were thought to be free from infection. At nine to ten months heifers are particularly liable to become infected. This period of high susceptibility lasts up to about 3 years of age.

When an adult animal once has the disease the Connecticut figures show that the infection is very likely to be permanent.

Bulls may be permanently diseased, but the percentage among bulls is probably lower than among females. As with heifers, permanent infection of bulls comes after they are nine or ten months old.

In the herds studied, heifers which were dropped by cows infected by the organism of abortion were no more apt to have the disease at maturity than were those whose dams had always been free from the disease.

The two most likely means of infection with the organism causing abortion appeared to be through service by a sire carrying the B. abortus and through eating food contaminated by the organism.

The following are among the recommendations made by the authors to prevent the spread of the disease:

All of the maturing and adult animals of the herd should be subjected to at least the agglutination test, and a complete record of the laboratory diagnosis kept.

In so far as it is practicable, reacting animals should be kept away from the non-reactors, and, as soon as it is feasible to do so without involving too great financial loss, the former should be disposed of.

Whenever possible, a non-reacting bull should be employed exclusively for the service of non-reacting heifers and cows. And even with this precaution it is very important that the sheath of the male be disinfected before and after service, in order to protect the sound animals against infection from cows which may be infected and by chance have escaped detection. This latter precaution is especially desirable when a large proportion of the general herd has responded positively to the test, but should not be neglected even when but few carriers are apprehended or suspected. When it is economically impossible to employ more than one bull, the effective disinfection of the sheath of the male is absolutely essential. The same agent and method of disinfection may be employed as suggested for cows.

As the organism of infectious abortion is eliminated in large numbers in the vaginal secretions of infected cows, especially after calving, these secretions must be rendered harmless by burning, deep burial, or by some equally effective disinfectant. An aborted fetus and the afterbirth should receive the same treatment.

The soiled parts of the aborting animal should be thoroughly disinfected at least daily until there are no more secretions. A mild antiseptic vaginal wash is of considerable importance, also. A warm solution of permanganate of potassium (1 to 1,000) or a 1% lysol or cresol solution may be used for this purpose. A funnel and douching tube are necessary, or an injection pump, if carefully used, is good. Douching should be continued as long as discharges are apparent and as often as once in two days at first. Twice weekly is sufficient later in ordinary cases. No attempt should be made to disinfect the uterus, except by a trained veterinarian.

Cows which have aborted should not be bred for at least eight weeks after they have aborted. When no discharge is apparent longer delays are not advisable on account of the financial loss incurred by having the cows dry.

It is important that all rules of cleanliness and sanitation be observed; this applies particularly to the frequent removal of bedding, forage, and manure from the stable, and

to the safeguarding of food and water against undue and unnecessary contamination by the animal's discharges.

If milk is fed long to the young stock it is urged that only the milk from negative cows, or pasteurized milk, be fed after the sixth month. The same precaution should be taken with all other feed.

Extreme precaution should at all times be exercised in the purchase of new animals. Unless newly acquired heifers or cows are known to have come from abortion-free herds, they should be suspected as being carriers until they are shown to be free from taint. Breeders will be forced to realize that the safest procedure in the successful re-stocking and building up of the dairy herd will depend on careful and intelligent breeding, and on the selection and rearing of their own calves as future breeders and producers. Whenever purchases are absolutely necessary it will be far safer to buy calves under seven months old, and to protect them against future infection, than to purchase heifers or fully mature cows which may or may not be carriers at the time of purchase.

Great care should be exercised, also, in the loaning of the herd bull for service of cows from without the herd. This practice involves a risk which the owner of a valuable herd cannot afford to assume. When for most urgent reasons it is permitted, careful disinfection of the male before and after service should never be neglected.

Large Herds Most Profitable

Who makes more profit, the man with a few cows or the one with a large herd? On a "per cow" basis, can as much money be made with ten or a dozen cows as with three or four times as many? John A. Hopkins, Jr., of the Delaware Experiment Station says not. He bases his statement on a study of eighty-seven dairies in Delaware and Pennsylvania. The data collected and published in Bulletin No. 118 of the Delaware Station clearly indicate that under conditions prevalent where the statistics were gathered, the big "cow man" not only realizes larger total net returns than the owner of a small herd but also a larger profit per cow.

The 87 dairies were divided into 9 classes, according to the number of cows, from those with less than 10 to herds of 75 to 100. Then a careful study was made of the conditions effecting the returns from the cows in each class. Among the factors considered were interest, depreciation, value of cows, pasturage, cost of grains and forage, labor, cost of management, and credit for manure and calf. The data showed the wisdom of having good cows, comfortably though not expensively housed, and fed wisely. The following is the summary Mr. Hopkins makes of his findings:

The superior productiveness of larger dairies was found to be caused, in part at least, by the better type of cows which they kept. The cows were usually, though not necessarily, of higher grade, but were more productive individually; and their superior production was seen to go with greater intelligence in selection, feeding, and care. This was incident to the specialization of the larger dairies.

The investment per cow in dairies producing the same grade of milk decreased as the size of the dairy increased.

There was no considerable variation in amount of feed used in the different classes, but the larger dairies were able to buy feeds more cheaply by buying in large quantities.

The cost, per cow, for hauling milk decreased as size of dairy increased up to forty cows, then increased slightly as the addition of another horse became necessary; then decreased again as size of dairy increased.

Cost of bull service, per cow, decreased as size of dairy increased up to forty cows, then increased slightly as a second bull was added, then increased again as a third bull was added in dairies of over eighty cows.

The amount of labor required per cow decreased as size of dairy increased until the dairy reached the size of twenty cows, then remained practically constant for dairies producing like grades of milk.

Cost of supervision increased slightly with the size of dairy. However, this added expense was more than offset by greater intelligence of management.

Measured by profit, the efficiency of the dairies increased with their size with the exception of Class II, which was the least profitable class.

The cost per quart for the production of market milk decreased as the size of dairy increased.

The larger dairies produced a higher grade of product than the smaller ones and disposed of it at a higher and better price.



Wetproof Steel Lined Shot Shells

A WET day is indeed a good day for ducks to the hunter who has the *right* shotshells in his pockets. Remington UMC Smokeless "Arrow" and "Nitro Club" Wetproof Shotshells do not require fair weather to keep in good condition and work *right* through the gun. They may be exposed to wet for hours but will not soak through—the water can not get in, can not swell them, soften the turned-over end or bulge the top wad. Mauling them around in the wettest coat pocket can not scuff them. Remington UMC makes them *right*.

This is something every farmer who loves duck hunting will learn with profit—it will make those idle wet days in the Fall welcome ones.

Remington UMC for Shooting Right

The result is virtually a new type of shell, embodying the most important improvement in shotshell manufacture in over a decade.

These are the first *completely* wetproof shotshells—an exclusive feature of the Remington UMC "Arrow" and "Nitro Club" brands for shooting *right*.

You just buy the same old favorite Remington UMC "Arrow" or "Nitro Club" Steel Lined Speed Shells, at the regular price, and you get the new Wetproof feature thrown in besides. A shell that is sure fire, gives top speed, best pattern and most penetration, and has in addition the wonderful quality of staying dry as dust inside and hard and smooth as glass outside even when subjected to the wettest weather conditions.

It took three years to perfect this waterproofing process. Special paper had to be produced for the shell bodies, a special formula discovered for compounding the *right* combinations of waxes and oils, new machinery developed for applying the waterproofing so as to work it *into* the shell as a part of it, positively sealing it against hours of wet, and new methods devised for giving the shell the same *right* finish as before.

In *black powder*, buy the old reliable "New Club," now Wetproof sealed at turnover and top wad.

Sold by Hardware and Sporting Goods Dealers in Your Nearest Town

Keep your gun in best condition with REM OIL, the combination Powder Solvent, Lubricant and Rust Preventive

THE REMINGTON ARMS UNION METALLIC CARTRIDGE COMPANY, Inc.

Largest Manufacturers of Firearms and Ammunition in the World

WOOLWORTH BUILDING NEW YORK CITY

"INGECO TYPE" "Throttling Governor Kerosene Engines



You can find no more dependable, economical power plant for all kinds of belt work than this famous TYPE "W" Kerosene Engine. Starts easily, and runs at even speed under varying loads. Has oscillating magneto and suction feed carburetor. Any size to suit your requirements. Complete stocks carried at principal shipping points insure prompt delivery.

WORTHINGTON
Pump and Machinery Corporation
181 Holthoff Place,
CUDAHY, WISCONSIN
(Suburb of Milwaukee)

1 to 15 H.P.
Other Sizes
Up to 160 H.P.

Write for Bulletin

20 to 25% Bigger Winter Milk Yields

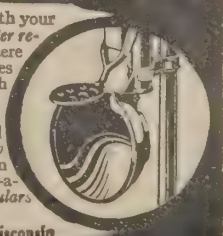


WITH pure, rich milk analyzing 87% water—and with your winter herd *getting only ¼ to ⅓ of their natural water requirement from icy outdoor tanks*, you can see where cold weather cow-thirst is one of the biggest causes of your year-after-year winter milk shortages. With

Simplex Improved Water Bowls

your cows drink "to their hearts' content" day and night. Result—*20 to 25% more milk from every cow all through the housed-in season.* And no more frozen tanks—no tank-heater makeshifts—no more twice-a-day "herding out" periods. *Write for Full Particulars on the Only Drop-Down Water Bowl on the Market.*

F. RASSMANN MANUFACTURING CO., Beaver Dam, Wisconsin



The Only "Drop Clean" Water Bowl Made

Who Fills Your Silo

THERE'S just one way of being sure of a full silo of clean cut ensilage. That is to fill with your own equipment. A farm gas or kerosene engine developing as little as 3 or 4 horse power will operate a small

PAPEC
Ensilage Cutter

If a saving of from $100 to $200 a year appeals to you, you owe it to yourself to investigate the *PAPEC* Ensilage Cutter. Our 1918 catalogue illustrates in three colors and fully describes each of the four sizes of *PAPEC* Cutters. There's a size for your very needs. We have a catalogue for you—write for it today.

PAPEC
MACHINE CO.,
116 Main St.,
Shortsville, N. Y.

There's a PAPEC dealer in your locality.



VELVET BEAN MEAL

Ground from velvet beans and the pods in which the beans grow by Nature Already Perfectly Balanced, carrying

Protein—16.50% **Carbohydrates—50.00%**
Fat—4.00% **Fibre—15.00%**

The past year has proven the value of feed substitutes and although velvet bean meal is submitted without hesitancy on its own merits, it is, of course, a substitute for grain feeds. We maintain its analysis may be easily proven through feeding.

Mills on L. & N., C. of Georgia and W. of Ala. R. R.'s at Montgomery, Ala. Address for prices

Alabama Black Belt Company, 817-818 First National Bank Building, Montgomery, Ala.

Ready For Service

For Sale—Two Splendid Registered Holstein Bulls Ready For Service

one ½ white, out of 100-lb. cow, only $300; other 4-5 white, out of splendid young cow, only $200. Both sired by COWDENSIDE SARCASTIC LAD whose dam is daughter of Grand Champion Bull of the St. Louis World's Fair and whose sire is brother of World's Record Cow. Ten of his sisters as 2-year-olds with first calf showed improvement of nearly 4,000 lbs. milk and over 200 lbs. butter in a year by actual test more than their dams at same age with same feed and care. He is closely related to 5 of the only 9 'century sires' in the world, and to 15 different cows that hold or have held world's records for production. One of these calves would make you a sire worth while. First checks take them. Satisfaction guaranteed. **COWDENSIDE FARMS, R. N. Thompson, Cowden, Ill.**

When Writing to Advertisers, Mention Hoard's Dairyman

Bulletins of the Week

Trees—What, Where, When, and How to Plant, by C. H. Shattuck and I. W. Cook. Bulletin 105, Idaho Experiment Station, Moscow, Ida.

Idaho Spray Calendar, by C. C. Vincent and M. A. Willis. Circular 6, Idaho Experiment Station, Moscow, Ida.

Factors in Incubation, by G. H. Lamson, Jr., and Wm. F. Kirkpatrick. Bulletin 95, Storrs Experiment Station, Storrs, Conn.

Swine Husbandry by R. L. Shields. Extension Bulletin 40, Clemson Agricultural College, Clemson College, S. C.

The Afalfa Weevil, by H. R. Hagan. Circular 31, Utah Experiment Station, Logan, Utah.

Soy Beans in Systems of Farming in the Cotton Belt, by A. G. Smith. Farmers' Bulletin 931, U. S. Dept. of Agr., Washington, D. C.

Barn and Field Experiments in 1917, by C. D. Woods. Bulletin 269, Maine Experiment Station, Orono, Me.

Cereal Smuts and the Disinfection of Seed Grain, by H. B. Humphrey and A. A. Potter. Farmers' Bulletin 939, U. S. Dept. of Agr., Washington, D. C.

Wisconsin Agricultural Statistics for 1917, by W. F. Callander. Bulletin 14, Wisconsin Dept. of Agriculture, Madison, Wis.

Farm Home Conveniences, by Madge J. Reese. Farmers' Bulletin 927, U. S. Dept. of Agr., Washington, D. C.

Use of Wheat Flour Substitutes in Baking, by Hannah L. Wessling. Farmers' Bulletin 955, U. S. Dept. of Agr., Washington, D. C.

Information for Fruit Growers. About Insecticides, Spraying Apparatus, and Important Insect Pests, by A. L. Quaintance and E. H. Siegler. Farmers' Bulletin 908, U. S. Dept. of Agr., Washington, D. C.

Peanut Culture, by E. T. Batten. Bulletin 218, Virginia Experiment Station, Blacksburg, Va.

Effects of High Protein and High Energy Rations in Feeding Dairy Cows, by W. B. Ellett and C. W. Holdaway. Technical Bulletin 12, Virginia Experiment Station, Blacksburg, Va.

A Ten-Year Study of the effect of Fertilizers on the Soluble Plant Food in the Soil and on the Crop Yield, by W. B. Ellett and H. H. Hill. Technical Bulletin 13, Virginia Experiment Station, Blacksburg, Va.

Effect of Soil Moisture on Growth and Maturity in Maize, by T. B. Hutcheson and T. K. Wolfe. Technical Bulletin 14, Virginia Experimental Station, Blacksburg, Va.

Milk Goats, by Edw. L. Shaw. Farmers' Bulletin 920, U. S. Dept. of Agr., Washington, D. C.

Wheat and Rye, by C. A. Zavitz. Bulletin 261, Ontario Agricultural College, Toronto, Ont.

Hints on What to Eat During the War, by E. V. McCollum. Circular 100, Extension Service of the University of Wisconsin, Madison, Wis.

Effect of Hybridization on Maturity and Yield in Corn, by T. B. Hutcheson and T. K. Wolfe. Technical Bulletin 18, Virginia Experiment Station, Blacksburg, Va.

Vol. 94 Jersey Herd Book

The American Jersey Cattle Club now has the 94th volume of its Herd Register ready for distribution. This volume gives the registrations of 4,000 bulls, from number 154,501 to number 158,500 inclusive; and 10,000 cows, from number 389,001 to number 399,000, inclusive. An index to breeders and animals is given.

"God speed the plow and the women who drive it."—English Poster.

DAIRY MARKETS

MILWAUKEE, July 19—Butter—Creamery, tubs, 43½@44c; prints, 44½c; extra firsts, 42@42½c; firsts, 39@40c; dairy, fancy, 40c.

Eggs—Current receipts, 38@39½c; dirties, 32@33c; seconds, 29@30c; checks, 28@29c.

Cheese—Twins, 23½c; Daisies, 24½@25c; Longhorns, 25½c; Young Americas, 24½@25c; Brick, new, 25½c; Limburger, new, 1 lb., 25½c; 2 lbs., 24½c; Swiss loaf, 42@44c; block, 30@32c.

CHICAGO, July 19—Butter—Creamery, extras, 43½@44c; standards, 43½@44c; dairy firsts, 40½@43c; seconds, 38½@40c.

Eggs—Ordinary, 35@37c; firsts, 38@39c.

Cheese—Twins, 23@23½c; Young Americas, 24½@25c.

NEW YORK, July 18—Cheese—Firm; state milk, common to specials, 21@25¼; skims, common to specials, 6@19½c.

Butter—Steady; receipts, 20,753 lbs.; creamery, extras, 45@45½c; state dairy, tubs, 36@45c; imitation creamery, firsts, 36½@37c.

Eggs—Quiet; receipts, 24,202 cases; nearby white fancy, 53@54c; nearby mixed, fancy, 38@46c; fresh firsts, 42@46c.

DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

The Fifteenth Sale

of The Purebred Live Stock Sales Co. of Brattleboro, Vt.

Tuesday and Wednesday, August 6th and 7th

and will consist of

125 Head of Registered Holsteins

of both sexes and all ages.

The Purebred Live Stock Sales Co., of Brattleboro, Vermont, Inc.

FOR SALE

One Hundred High Grade Heavy Springing

Holstein Cows

And Heifers, Quality Good

Also 18 Registered Heifers

Bred to son of Tidy Abbekerk Prince

J. A. KNORR, Blanchardville, Wis.



Whatever the amount of milk or butterfat

you wish to produce, is it not better policy to use large-yield cows than to feed and shelter the necessarily greater number of small-yield cows?

Use Holsteins and you save labor, feed, stableroom, equipment and risk. They are always healthy and ready for work.

Choose cows according to their capacity for converting cearse feed into milk. That is the function of a dairy cow and that is where the big Holstein excels.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

GRANDDAUGHTER OF NOBLE OF OAKLANDS



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

FOR SALE

My Entire Herd of

30 Registered Guernseys

including herd bull Lohier's Raider of Waddington. Several cows of good A. R. Records.

Joe Speidel, Jr., Jobetty Farm, Elm Grove, W. Va.

Food Administration Review

(Continued from page 15)

convey the volume of the effort and sacrifice made during the past year by the whole American people. Despite the magnificent effort of our agricultural population in planting a much increased acreage in 1917, not only was there a very large failure in wheat, but, also, the corn failed to mature properly and corn is our dominant crop. We calculate that the total nutritional production of the country for the fiscal year just closed was between 7 per cent and 9 per cent below the average of the three previous years, our nutritional surplus for export in those years being about the same amount as the shrinkage last year. Therefore, the consumption and waste in food have been greatly reduced in every direction during the year.

I am sure that all the millions of our people, agricultural as well as urban, who have contributed to these results should feel a very definite satisfation that in a year of universal food shortages in the northern hemisphere all of those people joined together against Germany have come through into sight of the coming harvest not only with health and strength fully maintained, but with only temporary periods of hardship. The European Allies have been compelled to sacrifice more than our own people but we have not failed to load every steamer since the delays of the storm months last winter. Our contributions to this end could not have been accomplished without effort and sacrifice and it is a matter for further satisfaction that it has been accomplished voluntarily and individually. It is difficult to distinguish between various sections of our people—the homes, public eating places, food trades, urban or agricultural populations—in assessing credit for these results but no one will deny the dominant part of the American women.

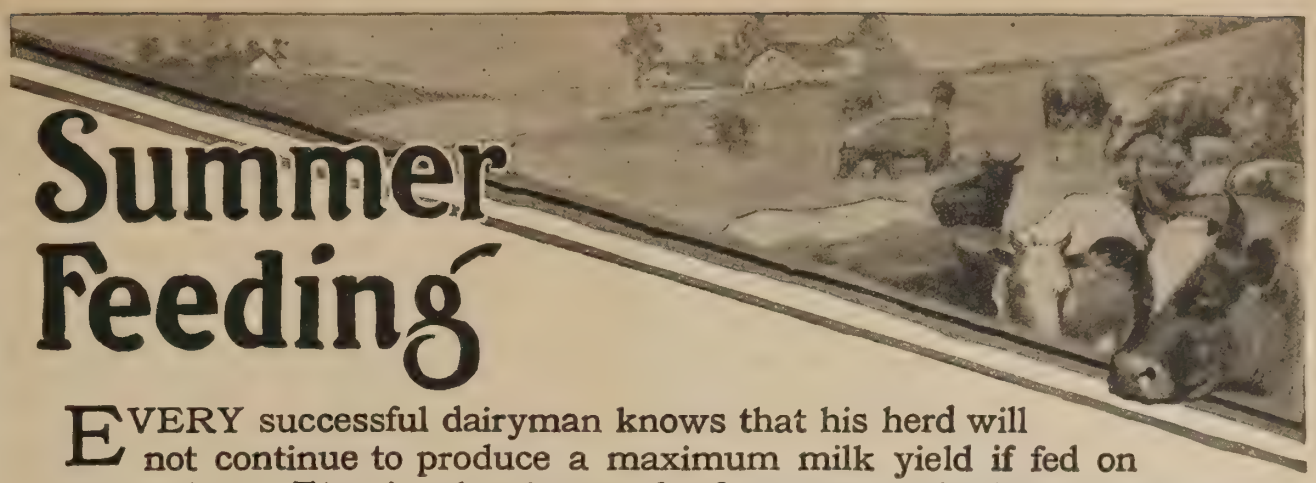
New York Butter Market

NEW YORK CITY, JULY 17:—With the exception of one day, the past week has been a very active one in the New York market. Speculative buying has been at its height because of the high quality of the butter that has been received. Local consumption of butter has been higher than usual at this time of the year, which is probably due to two causes, viz., prevailing cool weather and war conditions, both of which have tended to keep many in town who otherwise would be enjoying vacations in the country.

On the whole the active market has been due to local buying as very little butter has been sold for deliveries to outside towns, the government has purchased practically none and none has been sent to the allies. Yesterday the local contract for butter to be delivered to the Navy during August was given which acted to further strengthen the market. There is a feeling that butter will fluctuate in price considerably during the year because of a shortage of refrigerated cars which will tend to cause the receipts of butter to vary largely from day to day thus greatly affecting the factor of available supply.

The prevailing price of extras (92 score butter) for the week has been 45c. Yesterday, however, there was an advance of ¼c on all grades of butter, extras closing firm at 45¼c. Other quotations were as follows: Higher scoring than extras (93 score butter or above), 45¾@46¼c; firsts, (88 to 91 score butter), 43½@44¾c; and seconds (83 to 87 score butter), 40½@43c.

New York. W. B. LIVERANCE.



Summer Feeding

EVERY successful dairyman knows that his herd will not continue to produce a maximum milk yield if fed on grass alone. That is why thousands of prosperous feeders all over the country who know how to feed for results, are using Krause Dairy Feed, twelve months in the year—are depending upon it for a large part of their summer as well as their winter rationing.

Krause Dairy Feed

Krause Dairy Feed is an exceptional all-year-round feed because it is composed of nine of the best milk producing feed stuffs on the market, carefully and scientifically proportioned to secure a balanced ration containing a protein content of 24% to 25%. It contains Distillers Grains, Gluten Feed, Cotton Seed Meal, Wheat Bran, Malt Sprouts, Wheat Middlings, Brewers Grains, Hominy Feed, Linseed Meal and a small percentage of salt.

Fed alone or mixed with home grown grains when a lower protein content is desired, Krause Dairy Feed can always be depended upon for a high grade milk making ration which never varies in quality. Each ingredient in it is valuable in itself and its value increased by the variety of other materials with which it is combined. Krause Dairy Feed is more than a balanced ration; it is a standardized ration that can be adapted to meet the feeding requirements of any section of the country in which it is used.

No shrewd business farmer is spending the time to mix his own feed when he can ecure a ready mixed ration like Krause Dairy Feed that is chemically correct, and as been proved by thousands of expert dairymen to be economical, profitable and dependable.

A fair trial of Krause Dairy Feed will convince you that your herd will thrive on it, increase its milk yield and pay big returns on the investment. Order Krause Dairy Feed from your dealer today. If he cannot supply you immediately, give us his name and we will see that you get it without delay.



Chas. A. Krause Milling Co.

MILWAUKEE, WISCONSIN

Manufacturers of the Badger Line of Farm Feeds

The Badger Line of Farm Feeds

Dairy Feeds
Stock Feed
Alfalfa Horse Feeds
Hog Feed
Calf Meal
Poultry Feeds

TRADE BADGER MARK

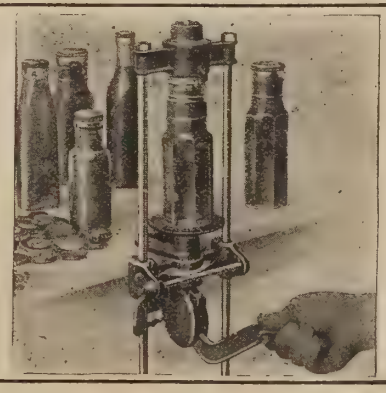
Plumb Stays at Ohio

The following statement is made by Dean Alfred Vivian of Ohio University:

Professor C. S. Plumb of the Ohio State University College of Agriculture has consented to withdraw his resignation recently announced and to continue his services as head of the Department of Animal Husbandry at the university. The decision of Professor Plumb to remain at the head of this department is received with considerable satisfaction by his friends and those interested in the development of animal husbandry in the state.

Professor Plumb had expected to retire from teaching and to give his entire time to writing on animal husbandry subjects and to the revision of some of his works. Arrangements have been made which will make it possible for him to do this work without entirely abandoning his teaching.

Defend the "bread line" with eternal vigilance—our men are risking their lives to hold it.



A Better Way of Sealing Preserves, etc.

In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

The better and easier way is to use a MIDGET CROWNER and seal your bottles (up to 14 ins. in height and 4 ins. in diameter) with air tight Crowns (3 sizes).

In storing condiments of all kinds for future use you will find this the safest method of sealing.

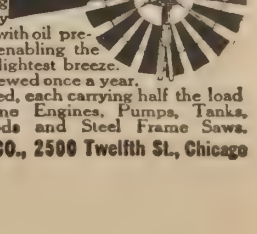
Write for full particulars.

THE CROWN CORK AND SEAL COMPANY,
Baltimore, U. S. A.

CORN HARVESTER Self Gathering for cutting Corn, Cane and Kaffir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Sold in every state. Price only $25 with fodder binder. The only self gathering corn harvester on the market, that is giving universal satisfaction.—Dexter L. Woodward, Sandy Creek, N. Y., writes: "3 years ago I purchased your Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Huggins, Speermore, Okla.: "Works 5 times better than I expected. Saved $40 in labor this fall." Roy Apple, Farmersville, Ohio: "I have used a corn shocker, corn binder and 2 rowed machines, but your machine beats them all and takes less twine of any machine I have ever used." John F. Haag, Mayfield, Oklahoma: "Your harvester gave good satisfaction while using filling our Silo." K. F. Ruegnitz, Otis, Colo.: "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.
PROCESS MFG. CO., Salina, Kansas.

THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load



We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.
Write AERMOTOR CO., 2500 Twelfth St., Chicago

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

THE FAIRVIEW PIG CLUB

[Continued from last week]

THE great day dawned at last. Apparently it was like any other bright day in early September but to the two Barret boys and at least eight others from the Fairview school it was something more than that. It was the big day of the season for them because today their pigs were to be judged at the county fair. The amount of gain for the season or the cost of that gain did not enter into the day's contest at all, it was simply a question of which pig was the best.

The day before the two boys had taken their pigs to the fair grounds and this morning they were both up with the sun, in a hurry to be through with their regular work so that they could get their charges ready for the competition.

"Come on, George, get a move on," shouted Dick. "You feed the calves while I rustle these cows out to the wood lot. Then as soon as we get breakfast we can beat it."

George merely grunted a reply. He wasn't wasting any time talking but he was hustling and to such a good purpose that when Dick came back from the pasture, he found his brother already seated at the breakfast table.

"You boys got them chores all done already?" inquired their father.

"Yes, sir," they both answered at once.

"Huh. I only hope you didn't starve the calves or run the cows half to death getting them up to pasture. "Well," he continued, "I suppose you're in a stew to get down to the fair grounds. Get your stuff together as soon as you can and I'll take you down when I go with the milk."

It is to be feared that neither boy took enough time for breakfast after that, but what fellow would under the circumstances; none of us, I'm sure. The meal over, they rushed up stairs, back down, and out to the barn and in almost no time at all were ready to start.

"Well, you fellows certainly can hurry," commented their father. "Everything ready?"

"Yes, sir."

"Let's make sure before we get under way. I've let you two look out for everything yourselves because this is your show, but I do want you to make a good showing whether you win or not. I see you've got a can of dressing, brushes, and all that. How about feed for those pigs. Got plenty down there?"

"We took plenty of meal and some corn," answered Dick.

"I see. Got any skimmilk?"



MANY PIG CLUB MEMBERS ARE FEEDING SEVERAL PIGS THIS SUMMER

"No, sir."

"Well, I think it would be a pretty good plan to take some. Hogs like milk and you want yours to take a good feed this morning. Remember they're in a strange place and it's a good plan to furnish them with a good meal. Then a little milk just before they go into the ring won't do any harm. I'll tell you what to do. Get that old milk can in the shed and fill it half or two-thirds full. We'll take it along with us."

The boys did as they were told and soon the little truck was on its way. Once at the grounds it did not take them long to get busy. Feeding was the first order of business and using some of the skimmilk they made a slop with middlings and a little oil meal. Later they fed soaked corn.

"Now then, George, let's get busy with that water we drew last night and give these fellows a real bath," said Dick.

And those pigs did get a bath too. The boys scrubbed them thoroughly and rubbed them dry with old cloths brought along for that very purpose. Then Dick pulled out the pail of dressing and using a good brush, started in with that.

"Dick, what the deuce did you make this of," asked George as he, too, prepared to use some of it. "Looks like you used glue and fish oil."

"Huh, I used olive oil, machine oil, gasoline, coal oil, and turpentine. We gotta watch out and not let any guys light matches around here, else we'll be having roast pig," answered his brother.

"That would be a great note, wouldn't it. Well, here goes. My pig's got to have a shining too."

A half hour later Dick threw his brush into the corner of the next pen which was unoccupied. "There, that's done for a minute," said he, "I'm going to go see what the other guys are doing. Coming along?"

"No, I guess not. I'm not through with this fellow yet," returned George.

"All right," and Dick started off.

An hour and a half later he returned, to find his brother still working around the pen.

"Well, gee whiz, aren't you through yet?" demanded the younger boy.

He came up and leaned over the side of the pen scrutinizing George's pig carefully.

"Say," he continued, "there's only one out there got you beat and what do you think, that's Beans'. He's sure got some pig. You've got me skinned here all right," he admitted ruefully. "Don't know quite how you did it either. My report shows up better'n yours and my pig's just as heavy. Maybe a little heavier. Guess yours must be naturally a better show hog."

"How's Beans hog for size?" asked the older boy. "Is he bigger'n mine?"

"Yep. Quite a little bigger and say, he's as smooth as they make 'em. Beans must have thrown the feed into it all right. He said his report wasn't very good."

"Well, I won't feel sore if Beans is the only one that beats me," said George. "He's worked like the deuce and besides he's only a kid anyhow. One thing's sure, my hog shows a profit so far even if it isn't quite so good a one as yours."

"Nope. Yours is only a cent a pound more. Well, I guess I'll do a little brushing," and the boy went over to give his pig another polishing.

Both boys worked in silence except when some of the crowd drifting by to view the stock stopped to question them. For a half hour they kept busy, then Dick, restless as usual, started down the long line of buildings, but this time George went with him.

"Guess I'll take a look at the other fellows' stuff myself," said he. "I ain't been around yet."

They went from one pen to another, stopped to talk with the fellows here and there and finally with three or four of the others they went over to a quick lunch counter for an early dinner. Their pigs were to be judged early in the afternoon and not a one among them but wanted to be ready on time.

The hour set for judging the club pigs was one o'clock and at exactly two minutes after, the last one was in the judging ring. Those ten pigs had been washed and brushed until they actually shone and their owners were undoubtedly the proudest stockmen on the grounds. They had a right to be proud too, for the pigs showed plainly the results of care and good feeding.

Mr. Hatton, a hog breeder from an adjoining county was the judge, and after about twenty or thirty minutes deliberation he placed the ribbons. The blue went to Roger Dean, second place to George Barret, and third to Stub Lewis.

"Boys," said Mr. Hatton, "I want to congratulate you. You have succeeded in raising ten mighty fine pigs. You must have fed them right and taken good care of them because the pigs show it. They weren't easy to judge except this lad's," laying his hand on Roger's shoulder. "He really had a show pig. That pig, of course, has been fed right but he's built right too. Look at its back, the depth of its body, the shape of its hams and, in spite of its size, there isn't a bit of coarseness anywhere. That surely is a blue ribbon pig, one that would look well in almost any showing."

"Just a minute before you leave, boys," said Mr. Clarke. "This judging today counts 20 per cent in your contest work. The gains your pigs have made and the costs of those gains count the other 80 per cent. You have exactly three more weeks to go, so get busy. Remember that just because you weren't a winner here today is no reason why you cannot be in the end. Now, then, back to the pens with your pigs."

Three weeks later those final reports were turned in and after Mr. Clarke had corrected them, he posted a summary of the results upon the bulletin board.

Here is the summary as it appeared and it is noticeable that every pig paid some profit:



ONE OF THE MANY JUNIOR DAIRYMEN INTERESTED IN PIG CLUBS

Name	Total gain Lbs.	Gain per day Lbs.	Cost of gain Per lb.
Richard Barret	171	1.5	$.056
George Barret	153.9	1.35	.075
Mike Lewis	148.2	1.3	.071
Arthur Lewis	126.54	1.11	.069
Roy Harris	156.18	1.37	.087
James Cameron	159.6	1.4	.09
Laurence Sternes	136.8	1.2	.084
Will Sternes	143.64	1.26	.086
Roger Dean	193.8	1.7	.116
Ronald McFarland	114	1	.062

First—Richard Barret
Second—Milke Lewis
Third—George Barret

Junior Letters

Hoard's Dairyman Juniors:—I received my fob, creed, and button, and was glad to get them.

I have a nice Jersey heifer. She is about one year old. I bought her when she was about 5 days old. I got her cheap I think. I got her for $1.25. My brother has a pig. It's a Berkshire boar.

I am going to get me some chickens I think.

Father took a registered Jersey cow to the fair which won second prize. I took a registered Jersey bull calf which won first prize.

I am eleven years old and am in the fifth grade at school. Our school will be out in about a week or two. We have about twelve cows, half Jerseys and half Holsteins. We run a dairy. I help father deliver the milk every morning. We deliver it in a truck. When school is out my brother and I are going to deliver it.

I wish some of the juniors would write me. My address is Gastoria, N. C.

Robert Grier.

Hoard's Dairyman Juniors:—It is a long time since I have written to the juniors so I will write now.

We have most of our crops planted already. My brother came from Montana and he did most of the plowing and drilling while we did the other work.

Dad gave my two brothers and me about two acres of land which had to be cleared yet, and now we have got it planted with peas which we expect to sell and divide the money among us three.

Dad sold a veal calf today about a week old for twelve dollars.

We have four nice heifer calves which Dad expects to keep.

We get about five cans of milk from about twenty cows.

Well, I can't think of any more news so I will close. If any of the juniors wish to write to me my address is Everson, Wash.

Bert Brune.

Hoard's Dairyman Juniors:—It has been a long time since I wrote you last but I have been busy at the farm work. I am now 13 years old and I weigh 136 lbs. School stopped on the 17th and I will be in the eighth grade next year. I am milking nine cows at a milking now and we are milking 27 in all.

We just ran out of silage last Sunday and our cows are going down in their milk quite fast. You asked me about how many tons to the acre of silage corn we produced out here. The average yield around here last year was

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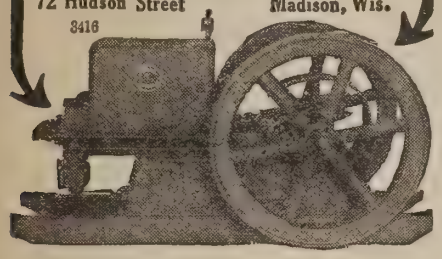
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20 tons to the acre. We are having some very cold weather around here and some of the farmers say that most of their corn seed is rotting in the ground.

The sugar company has hired Japs to thin weeds and top the beets. We have contracted our beets to them while we do some improving. We haven't started to improve yet so I haven't much to do. Well, I guess this is all for this time.

Utah. Harry M. Stone.

Hoard's Dairyman Juniors:—It is a long time since I have written you. I guess you have not forgotten me. This is my sixth letter.

We have nearly all of my crops planted. It has been raining for a long time. The wind blew so hard that the large barns on the hill were nearly blown down. We have about 40 chickens and one duck. I wish to have one more duck. Our duck lays an egg every morning. We sold one cow; four are milking now. One will be fresh soon. We have our Holstein bull calf yet. He is 1½ years old. His name is Chatham Fobes Ladoga. We bought him from Chatham. He was six months old and cost $50.

I did some trapping last winter and got 8 weasels. I got the bounty of five. I wish the juniors who have sheep would write to me their prices. My address is Box 28, Gwinn, Mich. Weikko Lukkauinen.

Hoard's Dairyman Juniors:—This is my first letter to the juniors although I have been a member since it started. I thank you for the fob, button, and creed. I have the latter framed and wear the other two. I read the juniors' page every week and enjoy it very much.

We live on a 40-acre farm and raise Jersey cattle. We have nine cows and they all are milking now. Our best testing cow is half Guernsey and half Jersey. She tests 6.3% and our other cows test 5 and 4 per cent except one.

We had a registered Jersey bull, but we sold him because we couldn't use him any longer. His name was Domino Golden Ladd.

I have one cow of my own. She has a nice hiefer calf and her name is Kora and the calf's name is Mayflower.

We have not gotten our corn for silage planted yet as it has been raining for over a week. We have had some electric storms here this spring.

We send our cream to the largest creamery in the world.

We have a large orchard of plums, apples, and cherries. We also have 400 strawberry plants. All the clover around here froze out last winter so I am afraid we will run pretty short of hay this year as papa also had a good sized patch of clover. But we seeded some oats that we are going to cut green for hay. It makes excellent hay when taken good care of. We had some last year and the cows like it fine.

I am sixteen years old and am 5 feet, 6½ inches tall and weight 132 lbs. My mother and brother died when I was 4 years old, so papa and I live alone.

Well, as my letter is getting lengthy I will conclude.

Wishing good luck and success to the junior department.

Wisconsin. C. O. Forseth.

Hoard's Dairyman Juniors:—I am sorry I haven't written. I have been helping my father get ready for spring crops.

You asked me what I was going to do this summer. I am going to raise things in the garden to sell. I will keep an account of how much I make.

We are going to water our beets, tomatoes, cabbage and other things. We will have seventy acres of spring crops. Papa says we won't have much wheat this year.

We have two hounds, one gray hound and one wolf hound.

The mare we worked to school has got a little colt. Papa said that if we made a good crop this fall he would give us a two-year-old horse.

I have a brother in a camp in California. We have two pictures of him; one is a picture of him and the boys that live in the same camp. The other one is the whole regiment.

The other night we let some hens out. After a while we went to look at them to see if they were all right. When we got to the hen house we saw three rabbits in the garden. Papa got the shot gun and shot one twice. Then the hound that had the broken leg run out there and chased it around a few times. The wolf hound was about a quarter of a mile behind, but he caught up with him and run ahead of the other and caught it.

I would like to hear from some of the juniors. My address is Mills, R. F. D. A, Box 20, New Mexico. Ralph Lemon.

Hoard's Dairyman Juniors:—As I am a young junior I will try and write and tell you where I live. I received the fob and button and like them very much. I live on a farm in Mercer County, Pennsylvania. My father owns a farm of 115 cares. We have 16 head of registered Jersey cattle. We think they are pretty good. Papa says they are Eminent and Noble of Oakland blood.

We send our cream to a creamery. I am 10 years old. I help papa with the barn work, feeding the calves and the pigs and water the horses. My brother, who is 8 years old, and I bought a calf for $2.50. It is worth $15 now.

We think Hoard's Dairyman is the best paper printed. I read the juniors' page every week. We sold a cow and a pig. We sold the cow for $120 and the pig for $50.

As my letter is getting rather long I will close for this time. Wishing all the juniors good luck.

Pennsylvania. Harold W. Cox.

Hoard's Dairyman Juniors:—I received my fob, button, and creed and thank you very much for them. As this is my first letter I don't know what to write. I am ten years old and in the sixth grade. I live on a farm. I have a filly that can single foot and pace. My brother and I have some Ancona chickens. My father has six cows, three calves, and three horses. I take the cows to the pasture every morning and go after them every evening.

Illinois. Arthur Farthing.

Hoard's Dairyman Juniors:—I have not written for a long time so I thought I would write. This is my third letter to the juniors.

We have eighteen head of cattle, all Jerseys, and ten milk cows. We are only milking eight now; two of them are dry. I milk four of them nights and mornings.

I am eleven years old and am in the fifth grade at school. I have one brother older than I am. I have six sisters.

I live on an eighty-acre farm a mile and a half from town. We go to town to school.

Wishing good luck to all.

South Dakota. Kent Baird.

Hoard's Dairyman Juniors:—It has been a long time since I wrote to you.

I live on a farm of 110 acres. We have 27 cows and are miking 12. We have one pure-bred Holstein bull and 6 head of horses; 2 of them are colts. We have 2 silos and fed all the silage two weeks ago.

We have 40 head of hogs to feed skimmilk to. I have one pig. I lost a fine sow a week ago. I have one heifer papa gave me for helping to tend to the cows. I sold a calf about a month ago that brought me $52.50.

Wishing the juniors good luck.

Tennessee. Fongie Baker.

Hoard's Dairyman Juniors:—My father takes Hoard's Dairyman. I sure like to read the juniors' letters.

Well, I will tell you of our farm and stock. We have six thoroughbred Shorthorns; six of them heifers and one registered sire. Then we have forty-two other cows. We milk one Jersey cow but will be milking about fifteen pretty soon. I have one heifer and one pony whose name is Prince, one dog, and one registered Hampshire pig. We have a colt and his name is John.

We have dipping vats down here. I think they are fine. The cows are not worried with ticks.

I have one brother and two sisters. My brother is deaf and is at school for the deaf at Cave Spring, Ga.

How many of the juniors like to live on a farm? I do.

We have between three and four hundred hogs every year.

How many of the juniors have my birthday? —September 27. I am twelve years of age and I am ready for the eighth grade.

I would be glad if some of the juniors would write to me. My address is Thomasville, R. F. D. No. 6, Georgia.

Talmage, Elrod.

Hoard's Dairyman Juniors:—I guess you will think I have forgotten you but I have not. I read all the letters and keep posted but I have been so busy, as my oldest brother is in France and that leaves me, 12 years old, to take his place in the field. I've plowed all our corn land and harrowed some and papa is planting corn. We milk 10 cows. Just shipped 10 fat yearlings to Sioux City. I have joined the pig club and I hope to be successful. I have one duck setting. I have rabbits also. I sold 4 pairs and donated 2 pairs to a Red Cross Auction Sale.

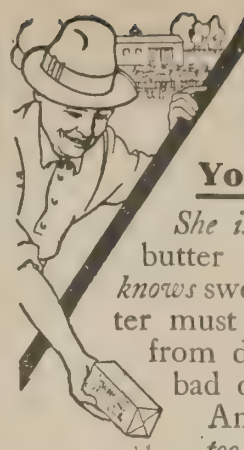
South Dakota. Charley Walraven.

Hoard's Dairyman Juniors:—It has been a good while since I wrote but I will try to write a few lines. My heifer was fresh in January. I sold her calf when he was six weeks old for $18.90. We did not have a scale when she was fresh and so I am not going to weigh her milk till she freshens again. We are keeping the records of three of our cows. I milk one of them and weigh her milk. We are milking 12 cows. I milk four of them. When we bought our scale we bought a tester, too. We are going to test our cows and the ones that don't pay we will sell. We have not turned our cows on grass yet for we have a good deal of silage. Our cows are mostly Shorthorns and Jerseys. We have one full blood Jersey and one Holstein. We have 43 pigs with 6 sows. Some of them are Duroc-Jerseys and some Poland-Chinas. We have three heifer calves. We ship our cream to Blue Valley Creamery Co.

Missouri. Virgil Rusk.

Hoard's Dairyman Juniors:—I have not written for some time, but have been going to school. We have two pigs and I feed them. We boil potatoes and mash them, put two quarts of hominy feed in with the potatoes. My heifer is doing fine. I feed her one quart of mixed feed night and morning. I must close now wishing all the juniors good luck.

Massachusetts. Frank Joslin.



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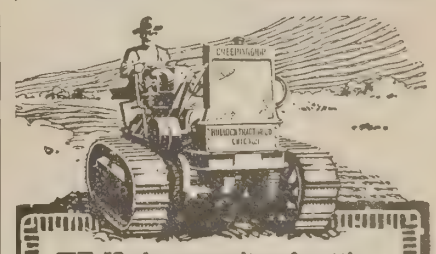
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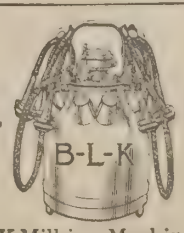
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Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

For Sale—8 registered Holstein cows, 4-year-olds bred to and sired by 32-lb. bull. Due in fall. FRANK THOMAS, Delavan, Wis. 21-spl

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls for sale two to five months. Bred right. Priced right. MARLOW & McCARGAR, Mankato, Minn. 14-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bulls five to eight months. Write for breeding. Priced right. Well bred. A. B. SCHWARTZ, Lyons, Iowa. 24-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—20 head of registered Holstein cows and heifers. BIRKHOLZ STOCK FARM, New Buffalo, Mich. 25-4

Registered Holsteins due to freshen soon. HALEHURST FARMS, Route 3, Nashville, Tenn. 25-4

Holsteins for Sale—Registered and high grade cows and heifers, bulls of serviceable age. NEAL HOUSLET, Oxford, Wis. 25-4

Registered Holstein bulls for sale. Write WM. ELLIS, Noxon, Mont. 26-4

For Sale—Herd bull, King DeKol Hillside 153767, calved June 11, 1914. Sire, Prince DeKol Astrea 3rd 88935. Dam, Hillside Dorothy 81366. Price $300.00. L. F. KAUFMAN, Beloit, Wis. 26-2

For Sale—Two young registered Holstein bulls from A. R. O. dams. WALTER AHLERS, Grafton, Wis. 26-2

Six high grade Holsteins, senior yearling heifers sired by registered bull. Price $60 each. HERTEL & DRAEGER, Fort Atkinson, Wis.

For Sale—8 young registered Holstein cows, Segis Ormsby 30-lb. breeding. Large and fine individuals. FRANK THOMAS, Delavan, Wis. 26-spl

For Sale—Fifty high grade Holstein heifers, well marked, ages from one to two years old. Will tuberculin test. BLOTT BROS., Mukwonago, Wis. 1-3

For Sale—Two choice Holstein bull calves sired by fine Ormsby bull, nicely formed and marked. All papers furnished. $25 each. We need the milk. LITTLE'S DAIRY FARM, Kewanee, Ill.

For Sale—At a bargain, a carload or less of grade Holstein cows. Have more than I can care for, due to the shortage of help. Some of these cows are bred to a high class registered bull, whose sire has for his dam an ex-world's champion cow. Come and see them, and make your own selections. They will be priced right. D. R. JAMISON, R. 2, Burlington, Iowa.

Don't feed high priced feed to scrubs and poor producers. It's poor business and unpatriotic. My practically pure heifer calves will set you right. Holsteins and Guernseys $25 crated. F. L. TAYLOR, Iola, Wis. 1-2

Guernsey Place, Fairfield, Iowa, offering two line bred Glenwood bull calves $75, $125. Heifer calves. 1-2

Two choice Guernsey heifers. Bred to son of World's Champion Long Distance cow. RICHARD F. KLEMM, Baraboo, Wis. 1-3

For Sale—Guernsey bull seven months old, grandson of Langwater Demonstrator and out of dam rich in blood of Golden Anne's Fernwood of Homestead and Lily Ella's Squire. Priced cheap for quick sale. THOS. HARVILLE, R. 2, Eau Claire, Wis.

Registered Guernseys—Bull 2½ years old, dam's record 507 lbs. butterfat, $200. Bull 5 years old, dam's record 774 lbs. butterfat, $400. J. A. FRASER, Lovingston, Va.

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernsey cows and heifers for sale. Will sell several head. Buyer may make selections from herd of thirty pure-breds. May Rose breeding. Prices reasonable. W. W. CLARK, Vesper, Wisconsin.

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

STOCK FOR SALE

Richard F. Klemm, Baraboo, Wis., offers two young Guernsey bulls. You'll like 'em. 1-3

Guernsey bulls for sale, ranging in age from one to fifteen months old sired mostly by Stranford's Glenwood of Pinehurst 6th whose get are proving wonderful producers and whose dam was the first cow of the breed to make five A. R. records. High class bulls at bargain prices. L. P. MARTINY, Chippewa Falls, Wis. 7-tf

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Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Choice bulls, service age; Golden Noble II and Chene breeding. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 17-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

Guernsey calves, both sexes, 31-32nds pure, five weeks old, $25.00 each, crated for shipment anywhere. Send orders or write EDGEWOOD FARMS, Whitewater, Wis. 21-8

High grade Holstein and Guernsey springers, one carload of each, $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers three splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Guernsey bulls ready for service. One by grandson of May Rilma 1073 lbs. fat out of A. R. cow. Two by Glenwood Champion, 22 A. R. daughters, one over 800 lbs. fat. One of these is grandson of Beauty Eagle, 846 lbs. fat. Other out of A. R. cow. All splendid individuals. LaBELLE KNOLL FARM, Oconomowoc, Wis. 23-tf

Guernseys—Advanced Register cows, heifers, heifer calves, and bull calves from A. R. cows. Send for sale list. L. E. GORDON, JR., Nelsonville, Wis. 24-4

Grassland Farm offers for sale Jersey bull of Register of Merit breeding, ready for service. Also four yearling heifers, granddaughters of Keepsakes Golden Lad. L. W. ASH, Roberts, Wis. 1-2

Jerseys—Choice bulls, priced right. CLOVER VALLEY FARM, Medford, Wis. 1-3

For Sale—Some Jerseys of both sex, dropped in spring of 1917. Also calves of both sex dropped in January 1918. All by Price Hood 140535. Subject to register. Some of these heifers out of cows by Financial Noble 96424. For reference write W. C. BANTA, Fairfield, Ill. 1-4

For Sale—Very reasonable, registered Ayrshires, cows and heifers, due to freshen in September and October, and are heavy producers. JULIUS MOYER, Elkhorn, Wis. 26-2

STOCK WANTED

Wanted—To buy for cash, registered Holsteins, young cows and bred heifers in lots of ten or more or will buy entire herds if priced right. LOCK BOX 97, Sterling, Illinois. 1-2

Wanted—Grade Guernsey or Holstein springer cows or heifers. Can use any number at a moderate price. Write me. State prices. EDW. M. NEWCOMER, Grinnell, Iowa. 1-3

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

David W. Williams, Lake Forest, Ill., can buy you grades or pure-breds, any breed. 2-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

SWINE

Registered, big type Chester White boar pigs. Also bred, fall gilts. B. H. FUITEN, New Richmond, Wis. 24-6

Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—A number of Chester White fall gilts, also April pigs just weened of both sexes. Our Chester Whites are of the very best breed in America from prize winning stock. For full particulars address BRACKENFELL FARM, Lombard, Ill.

For Sale—Real bargain 23 cows giving good flow milk, 5 big type registered Poland China sows bred October farrow, 48 choice 70-lb. pigs sired by 5 herd boars. Price $3,700. CHAS. W. O'NEILL, Bridgeport, Wis. 1-2

MACHINERY

For Sale—Calf-Way Milker in good running order, almost new. Cost $726. 6 single units, 2 extra pails and large vacuum pump. We are selling our herd and have no use for milker. RYDERDALE FARMS CO., Black Creek, N. Y. 1-3

3-unit Calf-Way Milker, never used. Have discontinued implement business and will sell for $295. BOX 8, Route 4, Waukesha, Wis.

Moline Universal Tractor with two 14-inch plows. Almost new, only used to plow 30 acres and 35 hours on belt. Guaranteed in perfect condition. $900.00. W. H. WHITACRE, R. F. D., Limaville, Ohio. 22-tf

For Sale—Hinman Milker outfit, complete for thirty cows, subject to inspection, price $100. In perfect condition. MONROE & MONROE, Alexandria, Va. 25-tf

For Sale—1,000-lb. DeLaval milk clarifier and Perfection double end bottle filler only used short time and in A-1 condition. Will be sold cheap. R. T. STEVENS, Shelby, Ohio. 26-2

Hinman Milker for sale cheap, 3-unit outfit complete. R. B. RANDALL, Hustisford, Wis.

For Sale—One double-unit B-L-K Milking Machine. Been used only six months. First class condition. Piping included. Price $275. F. O. B. Warren, Ohio. K. H. EWALT, 2040 W. 44th St., Cleveland, Ohio. 26-2

For Sale—30-60 Fairbanks-Morse tractor with six John Deere bottom plows. Has been run fifty days and is in perfect working order. Priced for quick sale. For price and particulars write NEAL HOUSLET, Oxford, Wis. 26-4

For Sale—New 10-20 Case Tractor. Farm too wet. Price $500. cash, Liberty Bonds or young cattle. C. JOBSE, Mt. Clemens, Mich.

32x52 New Racine Thresher, equipped with Ruth Self Feeder, complete with weigher and Farmers Friend Stacker, nearly new; also 15-25 Titan 4 cylinder tractor, run 2 seasons; 4-gang Avery plow, 2 sets of bottoms. Sold reasonable for cash. Address ED. ROHLOFF, Woodstock, Ill.

For Sale—B-L-K Milking Machine, 4-unit, compressor, piping, 20 stanchion cocks. Units used 6 weeks. $300. Guaranteed. Sold our herd. LONG BEACH FARM, Augusta, Mich. 1-2

A Bargain—One "Pullford Attachment" only plowed six acres, will pull as much as three or four horses. Guaranteed to be in perfect condition, going to buy larger tractor reason for selling. First check for $140 takes it. F. C. FREEMAN, Los Banos, Calif.

SEEDS

Alfalfa, $8; sweet clover, $12. Farms for sale and rent on crop payments. J. MULHALL, Soo City, Iowa.

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

FOR RENT

Will lease on shares to experienced dairyman or breeder, good Indiana dairy farm. Market and opportunity unlimited. Lessee must own interest in stock and equipment. BOX 139, care Hoard's Dairyman. 1-2

200-acre Illinois dairy farm for rent. Modern barns, two houses, silos, hog house, feeding floors, water pressure system, electric lights, etc. Fertile soil, good stand of alfalfa. Renter must be able to properly work and stock the farm. Ideal for pure-breds. Possession after crop is harvested. Address BOX 128, care Hoard's Dairyman. 26-2

For Rent—Fully equipped five-acre chicken farm, on edge of town on C. M. & St. P. R. R. Capacity 1,250 laying hens. Brooder house for three thousand chicks. Present stock five hundred S. C. W. Leghorn hens and pullets. Fifty Barred Rock hens and pullets. 4-room dwelling in connection. Manager leaving August first for war service. Easy terms. Apply to C. B. RAYMOND, Wawbeek Poultry Farm, Kilbourn, Wisconsin.

Farm to Rent—On shares. Includes 37 cows, 15 brood sows, over 90 ewes, besides young stock of all kinds. Possession at once to right party. ALVIN M. ANDERSON, Eau Claire, Wis. 1-2

HAY

Wanted—Five carloads of alfalfa hay, choice second cutting. Quote price laid down at Sun Prairie, Wis. C. C. GROVE, Columbus, Wis. 1-2

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

WANTED TO RENT

Wanted—Good medium sized farm for cash rent by married Hollander. Address BOX 135, care Hoard's Dairyman.

Wanted—To rent farm in Ohio or Michigan. 75 to 100 acres tillable land. RALPH MULHOLLAND, Waterville, Ohio.

Wanted—Up-to-date, fully equipped, large dairy farm to work on shares. Holsteins and in Illinois, Wisconsin, Iowa preferred. Three workers. E. D., P. O. Box 75, South Chicago, Ill.

FARMS FOR SALE

Secure War Prices for farm products: buy a farm; 40-acre farm $750; 80, $2,400; 120, $2,500; 160, $3,700; choice cutover land $15 to $20 per acre; write for particulars to THE E. L. C. CO., M-A, Dept. 31, Merrill, Wis. 24-tf

Fine improved dairy farm of 140 acres, located only one and one-half miles from Des Moines. Fine for retail milk route. Thirty-four high grade Holstein cows can be sold with farm. For price and terms write JELSMA & HOLLEBRANDS, 414 Citizens' National Bank Bldg., Des Moines, Ia. 24-4

For Sale—The Lindauer Stock Farm, situated ten miles south of Green Bay, a short distance from the C. & N. W. Railway, the interurban car line, a good graded school and a large store. This farm contains 313 acres, practically all under cultivation, has two good houses, large stock barns, modern in every particular, and an abundance of good water. Can be bought, with or without personal property, with a reasonable amount paid down, and the balance at 5 per cent. The personal property consists of, 45 head of registered Holstein cattle, (40 females and 5 males), eight good horses, a new farm tractor, gasoline engines, milking machines, harnesses, wagons, sleighs, and all necessary farm machinery and tools. We are prepared to offer you one of the best farms in Wisconsin. Apply to LUTHER LINDAUER, Kaukauna, Wisconsin, or C. V. Loper, West DePere, Wisconsin. 25-3

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Do you want a home in a rich valley near Spokane, on three transcontinental railroads? Where soil is perfect, rainfall ample, summers cool, winters moderate? The kind of stump land that pays to clear? Timothy and clover green eight months in year, natural stock country. Land cheap, 10 yearly payments at 6 per cent. HUMBIRD LUMBER COMPANY, Box 2, Sandpoint, Idaho. 4-tf

Farms in the Mississippi Prairie Belt, improved and unimproved, only $30 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Farm for Sale—110 acres. For further particulars write to E. H. WALKER, Camden, N. Y. 25-tf

Improved 80 acres, half in cultivation, balance pasture, black soil, no stones, near town, $4,500. Also consider trade. TOM WILLIAMS, Granton, Wis. 26-4

Stock and grain farm consisting of 1,200 acres located in the Yellowstone Valley, Montana. Will be sold within thirty days at reasonable price. For information, address NORTHWESTERN TRUST COMPANY, St. Paul, Minn. 26-2

For Sale—Ideal Dairy farm. To close estate of E. A. Webb, deceased, 220 acres situated 2½ miles from Farmington, 25 miles south of St. Paul and Minneapolis are offered. Good barn, hog house, tile silo, granary, small house, fine creek. 70 acres pasture, balance in crop or meadow. Reasonable terms. Write EXECUTORS, 803 Commerce Bldg., St. Paul, Minn. 19-spl

120 acres, equipped, $3,300. Buildings insured for $4,500. Aged owner offers rare farm bargain, 40 acres fertile tillage, 20-cow pasture, valuable wood, timber; 50 apple trees. All sacrificed only $3,300, part cash, and if taken now 18 head stock, 8 prime cows, 6 heifers, 3 calves, registered bull, hogs, horse, wagons, machinery, tools included. For picture showing the extra fine buildings, splendid 12-room house, big barn, silo, etc., see page 4 Strout's Catalogue of this and other farm bargains, many with stock, tools, crops, included, mailed free. E. A. STROUT FARM AGENCY, Dept. 3001, Union Bank Building, Pittsburgh, Pa.

The map shows why Aitken county is the best stock and dairy county in the state. It's located just right, so near the markets and it has never been boomed. You won't have to pay high prices for this reason and when you buy direct from our company no one is making any profit off of you. Can't I send you a map and illustrated folders? You will be glad. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

Dairy Farm—Two miles from elevator and railroad station; creamery and store five minutes walk; 160 acres, 110 under cultivation, the rest hardwood and pasture. Nine-room brick house, machine and horse barns, improved stock barns, silo and granary; sale includes all stock, pure-bred and grade Jerseys, crops, all machinery, mostly new. Apply to owner and occupier, PAUL BERGER, Oconto Falls, Wis.

Good farms for sale or rent near city. Also city lots and residences. Write us. H. D. STEWART, Monroe, N. C.

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

Farm—147 acres two miles northwest of Waukesha; five minutes' walk to electric car, fifty minutes' ride to Milwaukee; new $3,000 barn, also house and silo. Price $27,000, no trade, reasonable terms. MRS. CHAS. JACOBUS, Route 8, Waukesha, Wis. 1-spl

For Sale—100-acre farm located near gravel road, three miles from county seat, Taylor County, Wisconsin; 40 acres under cultivation, good buildings, plenty of firewood. Price if taken before October 1st, $6,000. Reasonable cash payment, long time on balance. B. B. CLARKE, Madison, Wis.

FARMS FOR SALE

Virginia's best dairy, stock and grain farms, northern piedmont section, near best markets. Write for catalogue. CAVINESS & EWING, Leesburg, Va. 28-6

Dairy farm of 320 acres, 250 tillable, 35 woodland; near express station southeastern New York; fourteen-room house; large barns; silo, piped water; annual income over $8,000; owner having other business offers great farm bargain, $15,000. MARTIN THEW, Arthursburg, N. Y.

Administrator's Sale—160-acre farm on the bank of Tippecanoe river. Fine opportunity for dairying. Bargain for quick sale. CLAUDE R. NEWMAN, Culver, Ind. 1-2

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. KUCZYNSKI, Milwaukee, Wis. 24-13

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

LIGHTNING RODS

Diddie-Blitzen Rods—Quick sales; guaranteed lightning protection. $250 if they fail. Agents wanted. L. F. DIDDIE CO., Marshfield, Wis. 9-tf

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

PATENTS

Your idea wanted—Patent your invention. I'll help you market it. Send for 4 free books, list of patent buyers, hundreds of ideas wanted, etc. Advice free. Highest references. Patents advertised free. RICHARD B. OWEN, Patent Lawyer, 86 Owen Bldg., Washington, D. C. 24-4

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Experienced herdsman to take entire charge of growing herd of Guernseys. Milking about fifteen head. Apply by wire at our expense. FLETCHER PAPER COMPANY, Alpena, Michigan. 25-tf

Wanted—Three good dry hand milkers. Single, not in draft. No outside work, steady job. Pure-bred Holsteins. Wages $40 per month, board and room. BOX No. 78, care Hoard's Dairyman. 17-tf

Wanted—Can use good married man. Holstein cows; milking machine. In city limits. Write at once giving experience. THE GARDEN CITY SUGAR & LAND CO., Garden City, Kans. 24-4

Wanted—Men for general farm work. Men not in class one and two in draft preferred. Steady work. THE GARDEN CITY SUGAR & LAND CO., Garden City, Kans. 24-4

Married man wanted for general work on dairy farm. Must be thoroughly reliable, competent, good milker, like Guernseys, be a good caretaker, also have the interest of his employer at heart. House, fuel, vegetables, milk, eggs and good wages. Give full particulars and references in first letter. MARIONDALE FARM, Genoa Jct., Wis. 26-tf

Wanted—Married man for driving team, general farm work. State particulars first letter. Apply LA BELLE KNOLL FARM, Oconomowoc, Wis. 26-2

Wanted at Once—Man not in draft age to help milk and deliver, milking machine used. Must be a hustler and capable of handling milk route. Wages $75, board, room. W. A. WOLFE, Box 471, Deer Lodge, Mont. 1-2

Wanted—Two experienced milking machine operators to operate two double Empire units and do their own stripping and barn work. About ten hours work per day, no farm work, wages seventy-five dollars per month, board and room, with a bonus of five dollars per month for a year's service. No railroad fare advanced. W. H. BORCHERS, West Sacramento, Calif. 1-2

Wanted—A working manager, and wife as housekeeper, on dairy farm near Detroit. Man must be good stock man and general farmer and wife a capable housekeeper. No small children. Cash salary and all household expenses, or will lease to suitable man; farm fully stocked and equipped. 300 acres. H. S. KISKADDEN, 1355 David Whitney Bldg., Detroit, Mich.

Man and Wife—For dairy work. Man to do some farming. Wife to assist with milking, wash milk utensils. Hinman Milker, 30 Holsteins, separate with gasoline engine. Wages $80 per month, house, wood, milk, cream, potatoes. Best conditions and excellent opportunity to right couple. JAMES M. EATON, Belle Fourche, S. D.

Wanted—By August 1, single man for small Guernsey herd in northern Ohio. Must be neat, temperate, reliable, a good milker, buttermaker, and calf raiser. Good home and good wages. Address BOX 137, care Hoard's Dairyman.

HELP WANTED

Wanted at Once—Single or married man, with only one child, to help on farm. A steady man, good milker. Please state wages wanted in first letter. WILLS BROS., Crystal Falls, Mich.

Farm Help Wanted—Teamsters and farm hands. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Wanted—For fine country estate where the best of accommodations and wages are provided for, one orchard man, one gardener, two teamsters, two milkers and two laborers. Only reliable, experienced men need apply. Send your application to "THE ELMS," 710 Chamber of Commerce, Buffalo, N. Y. 1-3

Milkers Wanted—For the great Anna Dean herd of Guernseys. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applicants applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Working Foreman and one farm hand on dairy farm, good living quarters and food, also good wages. Give reference, age and wages in first letter. S. E. FLORSHEIM, Minocqua, Wis.

Shepherd wanted on Brandywine Meadow Farm, West Chester, Pa. Apply to JOHN McBRIDE, Manager, Route D, West Chester, Pa. 1-2

On large dairy farm, state of Maryland, wanted man and wife, no small children, to take care of boarding house. State wages wanted and qualifications in first letter. Address BOX 136, care Hoard's Dairyman.

Wanted—September 1, herdsman with experience, to care for large registered Guernsey herd, cows in A. R. test. Good habits and not in draft. $60 and board, chance for advancement. Give age and reference first letter. HOMER F. RUNDELL, Livingston, Wis. 1-5

Wanted—Married man to work on Holstein farm. Good house, milk and garden furnished. Give experience and wages desired. J. E. RUNDELL, Roberts, Wis. 1-2

Wanted—Young man for retail milk route and general dairy farm work. WOODLAND DAIRY FARM, Tomahawk, Wis.

Wanted—Married and single men to work on farm. Good opportunity to right persons. Fourteen cows to milk. No boozer nor socialist need apply. Reference required. For further information write ALLEN T. BOUTIN, Bloomer, Wis.

Wanted—Man to milk and do dairy work in small dairy. No booze fighter. $50 and board. A. B. SPOONER, JR., San Luis Obispo, Calif.

Wanted—An experienced herdsman for a modern 50-cow dairy plant. Must understand milking by machinery, also the care of ice and bottling machinery. Must understand feeding and breeding of cattle. A-1 living quarters and an unusual opportunity for the right man. Give age, salary expected and references in first letter. M. S. PLAUT, Danville, Ill.

Wanted at Once—A first class all around man to take charge of certified farm, fifty pure-bred Holsteins. ARDEN FARMS, 404 Hackney Building, St. Paul, Minn. 1-2

Wanted—Married man to take entire charge of small herd Holsteins. Must be experienced milker and calf raiser. Permanent position. Give references. C. W. HENRY, Greeley, Colo. 1-2

POSITIONS WANTED

Farm Manager—American-Bohemian, married, wants position September or January 15th. Experienced in raising and handling stock and dairy cows, managing help for best results on any size farm. Guarantee success. In Central States. F. HENRY, care W. M. Young, R. 3, Eagle Grove, Iowa. 25-4

Wanted—Position as herdsman or farm superintendent by a college graduate, 31 years of age, married, no children. Life long experience on large farms with pure-bred and grade Holsteins. A. R. O. work a specialty. Only a large and liberal proposition with best of living conditions will be considered. Wife cannot care for help. BOX 122, care Hoard's Dairyman. 25-tf

Position Wanted—Single man, steady, above draft. Stock or dairy farm. First class dry hand milker. BOX 134, care Hoard's Dairyman.

Open for proposition in management of cattle and farm, or herdsman, no certified herd considered. Leaving present place August 1, 1918. SUPT. ARCADY FARMS, Lake Forest, Ill.

Wanted—Position by dairyman and farmer. Experienced, references, married, 1 child. Wife good housekeeper. KUSEL, 36 Newell St., Pittsfield, Mass.

Wanted—Position in bottling room of a certified or sanitary dairy; 6 years' experience; good references; state wages. BOX 133, care Hoard's Dairyman.

Position wanted as dairyman or manager. Fully experienced in balanced rations, testing, calf raising, A-1 buttermaker, milking machine, tractor and gas engine operator. Good hog raiser and thoroughly experienced in farm crops. A hustler and wife a neat housekeeper. Temperate and no cigarette fiend. References furnished and good reasons for change. Address BOX 132, care Hoard's Dairyman. 1-2

Farm and dairy manager, thoroughly qualified in every respect. Practical and scientific. Now available. Address BARRON, 904 Wilson Ave., Chicago, Ill. 1-2

Hungarian man, small family, wishes position as farm manager, practical farmer, understand dairying, best references. RASKY, 210 E. 70th St., New York City.

Situation Wanted—As manager of some real modern up-to-date estate, either large private estate or up-to-date commercial dairy farm. Thoroughly understand the production of really high grade milk and cream and the retailing of same; understand lawns, shrubs, garden, poultry, etc. Age 36. Married, no children, protestant and of good habits. If you should be interested in such a man write and a personal interview can be arranged. Address BOX 131, care Hoard's Dairyman.

Situation Wanted—Washington, Oregon, California by up-to-date dairy farmer, experienced pure-bred stock, A. R. O. work, sales and show ring, farm and garden crops, silos, etc. Married, 2 children, references. Address BOX 241, Santa Ana, Calif.

Farm Manager—American, age 42, is open for engagement. Only first class place considered. Life experience. Past 18 years as manager. Thoroughly experienced in all branches of farm and dairy. Exceptional recommendations. BOX 138, care Hoard's Dairyman.

Wanted—Position as farm manager by October 1. Married, 26 years old, life experience dairy farming, no booze or cigarettes. J. M. CANNON, Waukegan, Ill.

Experienced working farm foreman, 33 years, married, no children, open for position Nov. 1st. Best references. State wages. ALFRED DEAL, Kilbourn, Wis.

Position wanted as assistant buttermaker in creamery. Experience with boilers, pasteurizer, testing. Single, over draft age. E. D., P. O. Box 75, South Chicago, Ill.

Undesirable Flavors in Dairy Butter

Bulletin 71 published by the British Columbia Department of Agriculture on the subject of farm buttermaking names undesirable flavors as one of the most common defects in dairy butter. According to the publication any or many of the following causes may be responsible for such flavors:

"(1) Milking in unclean stables.

"(2) Cow's udder and teats in an unclean condition at milking time.

"(3) Foods that impart volatile flavors, such as turnips, onions, cabbage, spoiled and fermented feeds, etc.

"(4) Separating the milk in an unsuitable place where there is a lack of pure air and ventilation.

"(5) Improperly cleaned separators and milking utensils.

"(6) Keeping the cream or butterfat at too warm temperature and in poorly constructed, ill-ventilated storage.

"(7) Cream too old or too ripe before churning and too much buttermilk retained in the butter.

"(8) Impure water, cows drinking from stagnant ponds or the seepage from barn yards.

"(9) Result of the growth of injurious bacteria, yeasts, and molds."

A study of these nine causes reveals the fact that practically all of them are under the control of the farmer or dairyman and hence he is largely responsible for the ill-flavored product. There is no excuse for having the stable continually dirty or the teats and udders badly soiled, nor is there any satisfactory reason for using a dirty separator or dirty milking utensils. Hot water is not particularly expensive and a liberal use of it will do for the milking utensils what a little extra effort and sunshine will do for the stable. Cleanliness does not mean an outlay of expensive equipment and is the thing above all others that a dairy farmer cannot afford to be without.

Very often flavors noticeable in cream or butter and ascribed to such feeds as turnips or silage may have been absorbed by the milk after it was drawn if those feeds had been fed just previous to or at milking time. Such feeds should be given after milking rather than before. Of course, such feeds as onions or spoiled feed have no place in the ration of a milk cow.

The question of the proper place for the separator is easily settled if there is a milk house available. Such a milk house need be merely a simple clean room with a solid floor and screened doors and windows. Equipped with a tank which can be kept filled with cold water it affords an excellent place for keeping cream or butter at a proper temperature as well as for the separator.

Usually the most satisfactory method of ripening cream is to keep it as sweet as possible until about 24 hours previous to churning and then slowly bring the temperature up to 65 or 70 degrees Fahrenheit. When it has ripened sufficiently to produce an acid smell, a slight acid taste, and shows signs of thickening, it should be at once thoroughly and quickly cooled to churning temperature. It is best to time the ripening so that the cream may be cooled for churning 8 to 10 hours before it is to be churned. This is necessary to avoid a soft, weak-textured butter. Properly ripened cream should have a sharp, pleasant, acid taste and smell, and when poured should be free from lumps and have a smooth, glossy appearance.

Clean utensils and proper care in handling the cream, including holding at the proper temperature, will do much to prevent disagreeable flavors due to the growth of bacteria and molds.

Order Your Fertilizer Now

The United States Department of Agriculture is urging farmers to make known their fertilizer needs for the fall planting at the earliest possible date. It points out that this will enable dealers to combine their orders into full capacity carload lots.

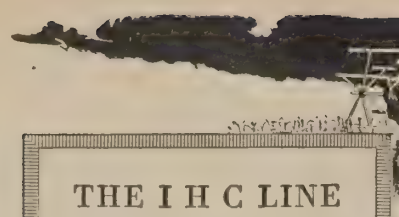
This step is made necessary by the difficulties in handling freight at this time. The railway systems of the country are taxed to the utmost to move the tremendous volume of supplies for our troops. Many farmers who ordered their spring fertilizers late did not receive them until after planting time. Some failed to get them at all. Prompt action will tend to avoid disappointment this fall and enable every farmer to start his crop right.

The intelligent use of fertilizers is one way by which the farmer can increase crop production and at the same time make the labor expended produce more than formerly. There was never a time when the use of fertilizers was so profitable as now with crop prices high and labor scarce.

The railroads of this country are now being operated by the United States government. Co-operate with your government by ordering your fertilizer early. It will relieve the car shortage. C. A. S.

Butter for the Navy

Butter for the navy is being inspected by dairy manufacturing specialists of the Department of Agriculture to insure a uniformly high quality for men in the service. In this work, greatly enlarged since the war, there are 60 specialists inspecting the output of 90 creameries in various parts of the country. Only the best grade of cream is accepted for making this butter. More than six and a half million pounds of butter will be inspected during the season, and most of it will be packed in lacquered tin containers in order to preserve its quality for as long a time as possible.—Weekly News Letter.



IHC Machines Best Substitutes For Scarce Hired Help

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Binders Headers Reapers
Rice Binders Push Binders
Harvester-Threshers

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Mowers Rakes Tedders
Combined Side-Delivery Rakes and Tedders
Side-Delivery Rakes
Hay Loaders
Sweep Rakes
Hay Stackers
Combination Rakes and Stackers
Hay Presses

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Planters Drills
Cultivators
Motor Cultivators
Binders Pickers
Ensilage Cutters
Huskers and Shredders
Shellers Stalk Rakes

TILLAGE

Disk Harrows
Peg-Tooth Harrows
Spring-Tooth Harrows
Cultivators (One-horse)

GENERAL LINE

Kerosene Engines
Gasoline Engines
Kerosene Tractors
Motor Trucks
Farm Wagons
Farm Trucks
Manure Spreaders
Cream Separators
Grain Drills
Fertilizer and Lime Sowers
Feed Grinders
Stone Burr Mills
Threshers
Stalk Cutters
Knife Grinders
Binder Twine

THE American farmer produces more per man than any other farmer in the world. Using labor-saving machines, he produces record crops with less hired help than is required under any other system. Therefore, in the present crisis, with help so scarce, every farmer should use the most efficient farm machines he can get, the only kind that can be depended upon to make the necessary increase in production.

The International Harvester Company of America markets the full line of high-grade machines listed in this advertisement for disking and harrowing seed beds; planting and cultivating crops of all kinds; cutting, making and storing hay; cutting, binding and threshing small grains; harvesting, husking and shelling corn; shredding corn fodder, filling silos, fertilizing fields; skimming cream; and grinding feed. It sells efficient farm power machines, engines and tractors operating on the cheapest fuels a farmer can buy. It provides wagons and motor trucks for all kinds of farm hauling.

Many of these machines have been used by American farmers for close to seventy-five years. They have helped to establish the standing of the American farmer. They are better today, more efficient and more economical than ever before. In many cases, one or another of these machines will solve the hired help and farm power problems on individual farms.

International machines are sold through ninety branch houses and over thirty thousand local dealers. Any customer can place an order, or command the services of this organization, by a telephone call to the dealer, or a visit to the nearest town.

It is important this year that all orders for machines be placed as early as possible, preferably months in advance. See the local dealer, or write us about the machines you are going to need this year, and do it now.

International Harvester Company of America
(Incorporated)
CHICAGO U S A

CHAMPION DEERING McCORMICK MILWAUKEE OSBORNE



Dairy Alfalfa

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Write Today
Money Back if not satisfied on my New 90 Day Engine Offer

The New York Co-operative Law

At the recent session of the Legislature of New York there was passed the Wicks Lord Co-operative bill, which has become a law by the approval of Governor Whitman. Its purpose is to allow the formation of associations of farmers for the purpose of acting as agents for their members, such associations to have no capital and not to be conducted for profit.

The law follows the suggestion of the U. S. Department of Agriculture for the formation of such co-operative organizations and is based on the act under which the California fruit growers have formed their very successful association, being so modified as to make it applicable to New York conditions. A membership corporation such as this new law provides for could not be formed under the existing co-operative law of the state, as the latter provides for the issuance of stock and the distribution of earnings. The law has the approval of the Council of Farms and Markets, and it is hoped that through its general adoption by farmers the expense of marketing farm products will be reduced, to the benefit of both producer and consumer.

Five or more persons may incorporate "as a membership corporation for mutual help, not having capital stock or conducted for profit, for the purpose of acting as the agent for its members or any of them, performing for them services connected with the production, manufacture, preservation, drying, canning, storing, handling, utilization, marketing or sale of agricultural, dairy, or horticultural products produced by them, and for the agriclutural, dairy, or horticultural purposes of such members, or for performing for them services connected with the purchase or hiring for or use by them of supplies, including live stock, machinery, and equipment, and the hiring of labor, or any one or more of the kinds of service specified in this section."

Members must be engaged in agriculture, dairying, or horticulture, and should they cease to be so engaged their membership is forfeited. Each member is entitled to one vote and no vote by proxy is permitted but members may vote by mail on specific questions that are properly submitted to them. The by-laws may require that members sell all or any part of their specifically enumerated products exclusively through the association, but provision must be made for release from membership upon proper and sufficient notice. For breach of this by-law adequate and reasonable penalties shall be imposed.

The officers of the association are to be selected by the board of directors. The president and vice-president must be chosen from the directors, but the secretary and the treasurer may be non-members. A working fund may be provided by fees, dues, assessments, or charges for services, to be fixed and collected in such manner as may be prescribed in the by-laws.

The general scope of the law is indicated by the following headings of its various sections: Definition, Purpose for which Associations may be Formed, Certificate of Incorporation, Amendment of Certificate, Application of Corporate Law, First Meeting and Adoption of By-laws, Admission of Members and Forfeiture of Membership, Certificate of Membership, Voting by Members, Responsibility of Members, Association Acting as Agent for Non-membre, Contracts and Agreements, Members may be Required to Sell or Buy through the Association, Directors, Removal of Directors or Officers, Officers, Working Fund, Power to Borrow Money, Auditing Committee, Voluntary Dissolution, and Corporate Name.

A New York country paper comments on this law as follows:

"The bill fills a long felt need for farmers' organizations and particularly does it protect the interests of the Dairymen's League, which wishes to organize an association to act for its members. The council of farms and markets together with the Dairymen's League and like organizations asked the governor to sign the bill, which was originally worked out by Mr. Lord from the federal and California acts in conference with R. D. Cooper, president, and Mr. Miller, the attorney for the Dairymen's League, together with Senator Wicks of Oneida county.

"The acute situation of farmers of the state of New York has been due mainly to problems of marketing rather than production. The farmers have been willing to produce as far as their resources and ability have permitted. The remedy applicable is a method of collective marketing and sales on the part of the farmer. The individual has been practically helpless. It must be done by association and organization. This is now possible under the Wicks-Lord act."

How a Creamery is Building Up Herds

HOARD'S DAIRYMAN:—Usually a creamery is not built unless there are a certain number of cattle in the vicinity to supply a required amount of milk. In the South, where there are comparatively few milk cows, if the rule were followed there would be no creameries. But the general practice is not followed and some creameries have been built in faith, and this faith has been rewarded when coupled with initiative and hard work.

When the boll weevil invaded the cotton fields of the South, farmers had to turn their hand to something else. The dairy herd was stressed. Here and there the idea stuck. At first the milk routes were established. These introduced the farmer to the possibilities. When the milk routes proved successful by growing in output, the opportunity for the creamery appeared, or at least approached. Taking time by the forelock, progressive people have established some creameries, believing that while there might not be enough milk available at once to get such a plant to steady maximum operation, that the time was coming, and that the creamery could help it come.

The dairy experts of Washington and the extension forces of the agricultural colleges of the South have encouraged every movement in favor of establishing creameries where there is a possible chance of success. And when, under their advice, a creamery is established, and needs help, these forces are on the job and make it go. Perhaps nothing is of greater importance in establishing the future success of these creameries than the introduction of pure-bred animals with good productions to their credit. In fact, these animal husbandmen of the colleges are looked to very largely to buy these animals for the farmer.

A notable instance of how a southern creamery is made to go is afforded by the Selma, Alabama, creamery. A few days ago, J. P. Quinerly, animal husbandman of the Alabama Extension Service, and William Hardie, for the creamery, returned from Ohio with six car loads of registered Jersey cattle that had been bought for farmers within a radius of 20 miles of Selma, Alabama. This is a third trip on a similar mission. The first trip only grade cattle were bought; on the second trip, only registered cattle. Now the farmers will have nothing but registered stock.

These dairy cattle were sold at cost to farmers who were patrons of the creamery. Any one owning a cow and selling cream to the creamery could buy as many more cattle as he already had on hand, giving 36 notes to a local bank, a note coming due every two weeks at 6 per cent. The payment of these notes is taken from the creamery checks.

The cost of the recent six carloads of cattle varied from $125 to $225, averaging about $150. In the six cars there were 13 bulls, about 30 heifer calves, and 89 mature cows. All of these came from the Winona Cow Testing Association.

Selma's example may well serve other southern creamery enterprises, or suggest how a creamery may be established and successfully supported in many southern communities.

Georgia. C. A. WHITTLE.

A lie has wings and can fly far but has no feet and cannot stand.—A Chinese Proverb.

The principal dairy states will waste, this winter, 3½ Billion Pounds of Milk

Simply by failing to get it; failing, too, when it would be easy to produce that increase for a world market that demands every possible ounce of food.

Surely this is not the time to overlook any opportunity for increased dairy production and profit. It is no time for waste or neglect. The bending of every effort toward bigger dairy results, for both patriotic and personal reasons, is the duty of every dairy farmer. Here is one way in which the dairy farmers of the principal dairy states could add this winter 3,600,000,000 more pounds of milk. At $3 per cwt. this would mean $108,000,000 more profit.

These are not wild figures. They represent bed-rock facts, and they mean that if all the cows in the principal dairy states were properly watered with James Drinking Cups they would add 3½ billion *more* pounds of milk to this winter's yield—milk that would be worth to the nation as a whole, and to you in part as a producer, at only $3 per hundred, more than a hundred million dollars.

A tidy sum for the dairymen of this country to think about, isn't it? A sum well worth saving in *any* year, but especially so in this period of advancing food prices, increased milk demand and costly feed.

Then there's your own question of labor, and the protection of your herd from disease, to be thought about in this great crisis. James Drinking Cups give each cow clean, safe water that no other cow has had her nose in. They do away with the hard, cold job of herding the cows out to the tank, herding them in again—chopping open the frozen tank.

There are two shortages for you to think about: The world-wide food shortage, and your own pocketbook shortage caused by your cows not getting all the water they want, *when they want it*, at the right temperature, day or night.

They will give more. All they need is the opportunity. James Drinking Cups spell that opportunity. The milk increase of the average cow will *pay for her cup* in 90 days. At the end of that time the account covering the complete installation will be *squared* as a result of increased profit, leaving you the cups for many years of money-making service, either in your present barn or when re-installed in a new one.

Do *your* part toward getting the extra millions which American dairy interests can produce by making milk out of water. Get *your* share of those dollars. It's easy to buy, easy to install and easy to operate James Drinking Cups. We've solved this great watering problem, and solved it *right*—just as we have so many other questions relating to sanitary barn equipment. Write today for booklet, "How to Make More Milk."

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ES23 Cane Street, Fort Atkinson, Wis. **Elmira, N. Y.**

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GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

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Dept. A2. 398-408 Columbus Ave., New York City
Reference Colonial Bank.

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One application usually enough; sometimes two required. Intended only for the established cases of Bone Spavin, Ringbone and Sidebone, causing chronic lameness.

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For the recent cases of Bone Spavin, Ringbone and Sidebone and for Bog Spavin, Splint, Curb, Soft Enlargements, etc. *Your money back if these remedies fail.* Write for Fleming's Vest-Pocket Veterinary Adviser. 192 pages, 67 illustrations.

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Water in the Stable a Necessity



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195 Marion St., Oshkosh, Wis.

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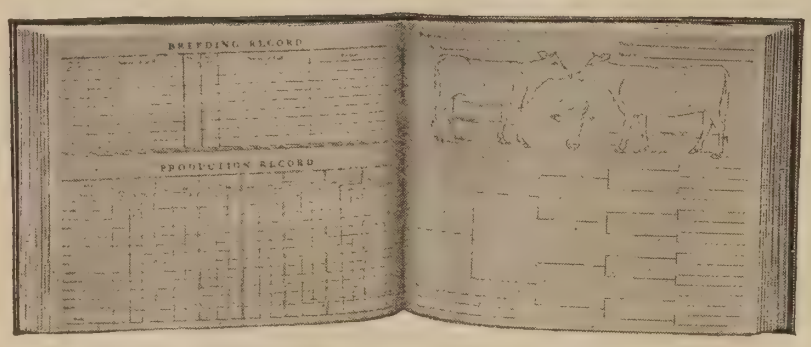
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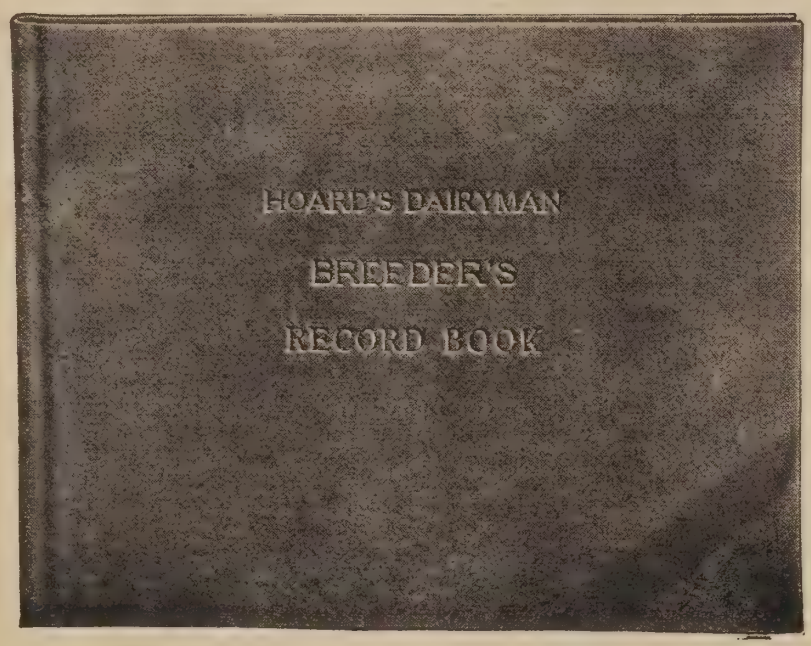
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Special Prices on Orders in Dozen Lots

Stack Covers, Tents, etc. Write for catalog samples and prices.

12 oz. satin finished burlap, $2.25 each. 10 oz. Khaki Duck, $3.25 each. Lined blankets for winter use.

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Its superiority proven by agricultural college tests and by actual field tests all over the country. Does not winterkill like other varieties. Heaviest yields. Highest in feeding value. Be sure to plant genuine Grimm. Certificate of genuiness furnished with each lot of my seed. Book "How I discovered the Grimm Alfalfa" and seed sample free.

A. B. LYMAN, Grimm Alfalfa Introducer
Alfalfadale Farm, Excelsior, Minn.

A Dairy Day Dream

(Continued from first page.)

here were some of the fruits of the years of effort. And I stood there looking at the neat, trim-built, delicately colored heifers, as they responded in the best way they could to the caresses of their young master, and wondered if there could be any higher degree of satisfaction in working out a big ideal than we were now enjoying.

Some men have day dreams of another kind. Their visions carry them out into the realms of public life at times. Again it is wealth, great political preferment, power over men, ability to lead in business, financial, or warlike operations. I suppose all these dreams have that about them which satisfies to some extent; and yet, of all the men I ever knew who devoted themselves to such occupations, few but have confessed when coming down to the end that they would have been happier if they had lived nearer to the hearts of men and the creatures of the great open, beautiful country. Money and power and earthly success in and of themselves have little in them to satisfy the best longings of these natures of ours.

But if there is any greater happiness than in taking a little creature, such as one of these heifers was when its wobbly legs first lifted it up by the side of its mother, and watching it grow, and doing all things possible to help it develop the best there is in it, I do not know what it is. Blessed is the man to whom such a day dream comes! He is helping to make the world better and happier!

New York. E. L. VINCENT.

Food Administrators Endorse Motor Transport

The movement to utilize motor trucks on Rural Express Lines has received the endorsement of a number of state food administrators. The Highways Transport Committee of the Council of National Defense has received a very general and prompt response to its suggestion that motor trucks be utilized to facilitate the movement of perishable food products to shipping and consuming centers. This will relieve farmers of some of the task of hauling so that they may devote more time to actual crop production in the field during the period of labor shortage.

Arrangements are being perfected in a number of important fruit growing sections to supplement the usual shipments of fruit by rail by using fleets of motor trucks during the rush period of fruit harvest. Surveys conducted by the Highways Transport Committee show that trucks can be made available for this work and all that is required is that steps be taken to mobolize them promptly when needed. It has also been found that a large number of trucks owned by farmers are now used only a few days a week, and in many instances arrangements can be made to have these trucks used to haul perishables in an emergency.

The establishment of permanent lines of Rural Motor Express is being brought about by making local surveys of communities in which there is need of regular daily service for farmers to and from the market and shipping centers. In several states the federal food administrators are assisting in this work by discovering localities where such highway transport is needed.—U. S. Food Administration.

With a population of 40,000,000, France is mothering more than 2,000,000 refugees.

Is Peat a Stock Feed?

(Continued from page 6)

and some of it at times is digestible. The digestion of fiber, however, is a net loss rather than a gain to the animal as more energy is required to digest and assimilate fiber than the fiber itself contains. The excessive amount of fiber present in comparison with the other constituents neutralizes any nutritive value these might have, as the digestion of the fiber uses up more energy than could be provided by the small amount of nutrients that might be present. The fact that some digestible constituents may be present is no real indication that it has a nutritive value because the efforts expended by the animal in obtaining these nutrients cause the use of more energy than the nutrients provide.

Some manufacturers of feed containing peat quote Pfeiffer as stating that an appreciable quantity of peat was digested. Pfeiffer did make this statement in 1904 but in the following year he reversed his decision. Voelcker stated that the peat used in molasses feeds is useful, mainly on account of its powers of taking up the molasses and holding it in convenient form rather than because of any intrinsic feeding value it possesses and that the nitrogenous substances not being true protein can be of little feeding value, and similarly the oil present is of little value.

The authors quoted so far do not show peat to have any feeding value and others go even farther. Salecker and Statzer and Gay all state that the feeding of peat lowers the digestibility of the substances fed with it. This is very probably due to its fiber content.

On the whole it may be said that peat in itself has no feeding value and may even depress the digestibility of the substances with which it is fed. It is, however, a very convenient substance to mix with molasses as it puts it in a form convenient to handle. Its use for this purpose is legitimate, provided the resultant mixture is sold for what it is without claims being made regarding the nutritive value of the contained peat.

Bigger Fertilizer Bags Help Uncle Sam's Soldiers

Twenty-one million yards of burlap valued at $4,000,000 could be saved annually if all fertilizers were shipped in 200-pound bags. Burlap is now growing scarce because of its increased use in trench warfare and food shipments and because of reduced importations. Pointing out that the burlap situation is steadily getting worse, the United States Department of Agriculture suggests that fertilizers be shipped in 200-lb. bags.

Not only are burlap bags scarce, but the jute from which they are made is imported from India, and the shortage of ships has materially interferred with the supply. The necessity of furnishing the army with bags for trench use will further deplete the available supply. A severe shortage of burlap would seriously handicap the movement of fertilizers to the farm, since the need for food containers would receive first consideration. It is, therefore, considered necessary that the use of burlap for carrying fertilizers should be cut to the greatest possible extent. Knowing these facts, every patriotic farmer will gladly co-operate by handling the larger bags.

Another way in which farmers can help save burlap is by marketing any second hand bags they may have on hand. Dealers are offering from 6 to 15 cents each for these second hand bags, depending upon size and condition. Why not sell any spare burlap bags now while the need is so great?

C. A. S.

Canned Milk vs. Can Milk

(Continued from page 5)

the shelves of the corner grocery—and her bothersome milk problem is efficiently solved. "Once used, always used," cries Mrs. Housewife with a sigh of relief. Many million women have found this to be true and the family cow is purchased by the dozen or box—and the milk bottle disappears from a shocking number of back stoops all over America. It's surprising but true.

The sale of fresh can milk in New York City to the poor has largely fallen off of late years, partly owing to the good offices of the Bordens and kindred souls who have had their own reasons for educating both a rich, poor, and in-between public to buy the tin cow. In every hamlet, town, and metropolis in the states today, the demand for this kind of milk is actually jumping. In direct proportion to the increased demand for the tinned article, the demand for fresh milk in its old form has fallen off and will continue to do so if nature takes her course, ably assisted by "canned" propaganda. I believe that the dairymen of New York State especially have a great rival to fear from evaporated and condensed milks. These have patiently but none the less insidiously worked their way into general use until they are threatening the whole foundation of city shipper milk. The housewife finds this milk easy to buy—easy to use. She pays from twelve to fifteen cents for a pint can of evaporated milk and then dilutes it until it is doubled in quantity. If she desires whipped cream on short notice, she has only to milk the tin cow just as it comes from the can and, after beating, she has cream for the price of regular milk. She can see only cheapness and good in buying her milk from an uncontaminated source and while milk wars wage around her, she serenely is immune from all annoyance. The children of the vast army of canned milk users are sometimes provided with the fresh article, but they are more likely to "dislike milk" as their mothers put it. This, then, we have to consider. Do we wish to see the fresh milk market gradually undermined by its canned rivals? If canned milk is the true preference of America, should we not adjust ourselves to the coming order of things and be ready?

One might make a bad pun over the present situation and call the milk mess we find ourselves in the "milk of human blindness!" But at any rate, it would seem safer and saner to stop, look, and listen before buying up the great shipping stations which proved so profitable once for those on the inside, but which may contain a nigger in the woodpile today. We have spilled enough milk for the present, whether unintentionally or not, and the time for crying about it is gone. The tin cow in American homes will bear investigation. A solution of our troubles may appear at the inquest of can and bottled milk.

HELEN S. K. WILLCOX.

New York.

Advice to Cattle Breeders

The following advice was given by Professor H. H. Wing of Cornell University, New York, to a group of Maine farmers at a meeting last summer. He speaks from a long and successful experience in dairying and from wide observation of practical live stock management:

"I think the history of improved live stock in the United States has shown a rather unfortunate thing. Apparently there have been too many instances where the breeder of pure-bred cattle considered himself rather above the rest of his community. The man who first brings pure-bred cattle into a community naturally is an enterprising man, a man who is capable, who has the skill and the disposition to breed these cattle. He is undoubtedly a leading man and in too many instances that man has apparently wanted to maintain this position, and he has thought that the way to do it was to prevent his neighbors from doing the same thing. He liked that solitary position. 'I am the one man who has Holsteins in this township.' Now if we are going to disseminate pure-bred cattle, if we are going to make Holstein cattle or Jersey cattle or Guernsey cattle an element in the improvement of the live stock of our country, it means that not only you but every one of your townsmen should be engaged in the business, and you are doing the best missionary work, not when you sell a bull for $1,000 to go over into New Hampshire or down into Massachusetts, but when you sell ten bulls for $100 apiece right around in your own neighborhood, to grow up there a class of animals that will make not you alone but your neighbor and your state noteworthy for doing that sort of thing. And it seems to me that with the advanced registration and with your local organizations, it is possible for any community to make itself felt as a center, I care not for what breed.

"Then, too, there is another thing that works against the dissemination of pure-bred cattle. We can see the history of it all through the country. Come back to this enterprising man who goes off to a show or somewhere else and gets some pure-bred animals and starts his families. He has fair animals and he has good ones. They are coming along first rate and he is doing all right. They are a credit to him, a credit to his enterprise, a credit all the way around. His neighbor sees what this man has done, and so he goes off and nine times out of ten what does he do? He says, 'That man has Holsteins; I want something different. I will get Guernseys or Jerseys or Ayrshires'. A man in our section had that idea, and he bought some Dutch Belted cattle. He took the other man's statement of what they were worth at its face value and it had to be discounted very largely. He wanted something different. The second man may have a true and just liking for some different breed. He may honestly have thought that the first man did not really choose the breed that was best adapted to his locality, but you can afford to put your prejudices in your pocket, and the best thing for you to do, even though you recognize that it probably is not really the most desirable breed, is to start with the same kind of animals, and put two together where there was but one, and you will have four times as much influence as the first man had.

"It seems to me that these are the things that we pure-bred breeders have to take into consideration from now on: We have to have more pure-bred animals; we have to have better pure-bred animals, as shown by advanced registration; and we have to disseminate them more thoroughly in our own communities. And our own community means first our township, then our county, then the state, and then the nation."

JERSEYS

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

Jersey Crest Farms

are offering

Bulls and Bull Calves

which are a credit to the breed. Bred for type and production. Let us send you pedigrees and description. Jersey Crest Farms, Oconto Falls, Wis.

Jersey Bulls

FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys

Every bull over 8 mos. old is sold, but we have some fancy calves

from Register of Merit dams sired by Ibsen's Chief who won the A. J. C. C. gold medal for Grand Champion at the Wisconsin State Fair, '17.
CHAS. A. PETERSON, Rosendale, Wis.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm*. Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
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Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
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We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
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You should head your herd with the very best butter bred bull, it is possible to get.

This week we are offering you a full brother to Raleigh's Foxlett 11734 lbs. milk, 535.87 lbs. butter at 1 yr. 11 mos. of age. He was dropped May 23d, 1918, is a very fine individual and carries that pronounced dairy type that produces at the pail. He carries the blood of Raleigh, Oxford Lad, Financial King, Jimp, Fancy Harry, Flying Fox.

We also offer his half brother sired by Oxford You'll Do a best bred son, dropped June 13, 1917 and ready for light service. This fellow is good enough to win in hot company.

These bulls have the same dam, a large smooth cow, large square udder and teat on each corner. She has given up to 52 lbs milk a day on herd feed: she is the kind of mother for herd bull, she is 25th Financial King breeding.

Your choice $250 00 delivered anywhere in the U. S. For further particulars address or come to

MEAD SIDE FARMS,
MEADVILLE, PENNA.

We have other bull calves sired by good sons of Oxford You'll Do and Gamboga Knight.

Dairymen Attention

We have several bull calves and Two Bulls ready for service. Rich in the blood of the Grand Champion Producing Cow, Sophie 19th of Hood Farm, seven years' tests 91,869 lbs. milk, 6,600.8 lbs. butter; Hood Farm Pogis 9th, Champion Sire, sire of 79 and 24 producing sons; Hood Farm Torono, sire of 73; 6 over 1,000 lbs., 16 over 800 lbs., sire of 21 producing sons. The use of a Hood Farm bull carrying this prepotent high producing blood, means increased production in your herd. Write for prices, etc., to
HOOD FARM, - LOWELL, MASS.

Lime Ridge Farm

Offers Bull Calf dropped June 7th, 1917.
A Grandson of

Hood Farm Figgis Torono 90517

who has 10 daughters in the Register of Merit with records up to 600 lbs. of butter as 2-year-olds. Dam is now on test and has made 146 lbs. of butterfat in 3½ months.

All grandparents in the R. of M. Five crosses to Sophie's Tormentor.

Ask for delivered price. Tuberculin tested.
Lime Ridge Farm, Poughquag, N.Y.

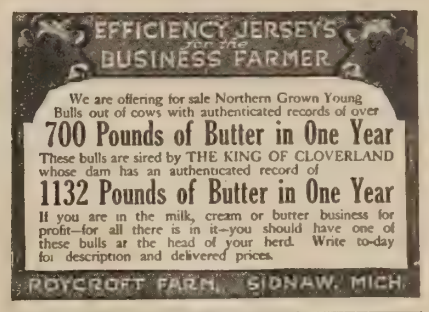
Lookout Farm Jerseys

A Rare Opportunity Is Offered

to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.

SIRE. Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.

DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.
Henry S. Redfield, 1925 Seventh Ave., New York City.



The Fairview Farm Company

Sophie's Tormentor Jerseys

"Production" Our Watchword

FOR SALE—Bull Calf No. 244, dropped March 21st, 1918; solid color, black tongue and switch; an extremely good individual.

SIRE—Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85% butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.

DAM:—Tweedledum's Emma of H. S. F. 291389, on Register of Merit test and in 2 months has made 164.84 lbs. 85% butter from 3,151.1 lbs. milk. An exceptionally good dairy cow in every respect.
R. L. PIKE, President, - Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.

14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow.

Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

OWL-INTEREST

Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.

His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.

His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on retest has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address
MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughter. Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of the Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows with records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSIN.**

KOSHKONONG PLACE
GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS
GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

BIRCHWOOD GUERNSEYS

We are offering some well bred and nicely marked young bulls nearly ready for service out of A. R. dams and sired by good bulls. Also a few heifer calves. Eighty head in herd. Herd on the State Accredited list. Send for sale list.
M. L. WELLES. - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.
W. G. Jamison & Sons, Appleton, Wis.

Elderwood Farm

Offers for sale the Guernsey Bull, Princelings Son of Elderwood, born Jan. 4, 1915, sired by Langwater Princeling A. R. out of an Imp. cow, Violet of St. Croix, who gave 10,000 lbs. milk and 465 lbs. fat as a two-year-old. Write for price and description.
ROY BURTON, EAGLE, WISCONSIN.

Young Guernsey Bulls
Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. F. G. Benham & Son, Canandaigua, N. Y.

SARNIA

Imported and Home Bred Guernseys.
300 Head Imported

in 1917 are all sold. Several good cows for sale. Also young bulls from high class A. R. cows. Place your order early for bred heifers from 1918 importations. Send for sale lists.
Charles L. Hill & Son, Rosendale, Wis.

Jean Du Luth Farm

A. R. May Rose Starlight Guernseys
A. R. Wild Rose Beauty Red Polls

Guernseys line bred to the blood of May King of Linda Vista. Red Polls strong in the blood of Wild Rose of Kilbourn or her sister, Floss II, which were "in and in" bred Beauty W-2 cows.

JEAN DU LUTH FARMS,
Nickerson, Minnesota and Duluth, Minnesota.

FOR SALE
Sixty Imported
Guernsey Heifers

About forty head now in calf, a few three-year-olds milking with their first calves and the balance yearlings ready to breed.

I spent several months on Guernsey last Autumn and early Winter during which time these heifers were selected. I personally inspect every animal imported and in this way am assured of only high class individuals.

Send for catalog and price list. Every animal for sale.
Frank S. Peer, Osceola Farms, Cranford, N. J.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

A few well bred young

Guernsey Cows and Heifers

Also a couple of bull calves from cows with splendid records.
W. R. DUNLOP, FAYETTEVILLE, N. Y.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.

Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Harbor Hill Offers

Linden Lad of Harbor Hill 7th. Dropped June 15th, 1917. A good individual, nicely marked.

SIRE:—A son of Linden Girl A. R. 3607 with three A. R. records averaging 14,149.8 lbs. milk, 708.85 lbs. butterfat.

DAM:—A daughter of Brilliant of the Gree. Her herd work at 2 and 3 years exceeded A. R. requirements by a good margin. Price $150.00. Write for photograph and pedigree.
C. H. Hechler, Supt., Box 50, Roslyn, N. Y.



What They Did at the Only Test Where All Dairy Breeds were Represented

In the Pan-American Model Dairy Breed Test the Guernseys won the prize for net profit in butter fat production, the prize for net profit in butter production, the highest average score on butter, the best rating for color and flavor of butter, the lowest cost per pound of butter produced, and the greatest return for $1.00 invested in food. The best cow and three of the best five cows in the entire fifty in test were five Guernseys. Write for full information,

American Guernsey Cattle Club
Box H Peterboro, N. H. (4)

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

"OAKS FARM GUERNSEYS"

C. W. BARRON, Prop.

FOR SALE

Young bulls from two to ten months old, from dams which have or are now making credible Advanced Registry records. Write us before buying your next bull.

W. S. KERR, Mgr., Cohasset, Mass.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.
Louis McL. Merryman, Cockeysville, Md.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.
"McLERAN OF MINN. WRENSHALL"

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.
L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

DAVIS FARMS

The Licking Creamery Company, Proprietors.
Newark, Ohio

GUERNSEYS

THREE YOUNG BULLS READY FOR LIGHT SERVICE, FOR SALE. ONE FROM AN A. R. COW WITH A RECORD OF 354 LBS. OF FAT AS A YOUNG COW. TWO ARE SIRED BY A SON OF GALAXY'S SEQUEL. ALL HAVE CLEAR NOSES AND GOOD TOP LINES. PRICES $150 TO $175. PHOTOGRAPH ON REQUEST. Address

THE LICKING CREAMERY CO., In Care of C. Harrington Davis.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BELLWOOD FARM

One exceptionally fine bull calf, a grandson of Masher Sequel and Jethro Bass. Pink nose, nicely marked and straight and alright. Price $150 for quick sale. Another bull calf two months old, sired by a great son of Jethro Bass and a great granddaughter of May Rose King. Price $125. Dark nose. Here are two calves that their breeding cannot be excelled. Will guarantee them alright in every respect.
1003 Empire Bldg., - Pittsburgh, Pa.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

$75.00

takes the choice young bull calf R23, dropped Nov. 11, 1918.

Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.

Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.

The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from
Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

The Per Cent of Fat in Sour and Sweet Cream

HOARD'S DAIRYMAN:—Does cream test more when it is sour than when it is sweet? This question has been asked many times, especially during the past two years, and it no doubt has caused much trouble. Many have been lead to believe that by holding their cream until it was real sour they would be given a higher test. This would be possible under one condition and that is, if a can of cream was allowed to stand for a long time at a rather high temperature, there would be enough moisture evaporate to increase the per cent of fat slightly, but this would be very slight and in that length of time the cream would no longer be fit for food. Still this would bring no higher price for the product as the extra per cent of fat would only make up for the amount of moisture which has evaporated.

To illustrate: If there were 80 lbs. of sweet cream, testing 30% fat, in this amount there would be just 24 lbs. of butterfat. Supopsing this were allowed to stand until five pounds of moisture has evaporated, this would then leave 75 lbs. of cream testing 32% fat. It would also yield 24 lbs. of butterfat and it is needless to say that the butter made from this 75 lbs. of so-called cream woud not be fit for human consumption.

Those who tell the cream producer that cream will test more if it is sour, could do no bigger injury to the dairy industry, as surely he must realize the effect this would have on the quality of the butter produced, and the price.

On the twenty-second day of May, 1918, the question was again asked in this way, "How do you know cream will not test more when it is sour?" On this same date the writer tested eight different samples sweet, of one pint each, using retested glassware and one of the best cream scales the market has to offer, making these tests in duplicate, and found that they ran as low as 16.5% up to 38%. They were then kept in air-tight bottles and sealed with paraffin to prevent the escape of any moisture. They were held at approximately 80°F. for ten days. They were then tested again, using the same test bottles to avoid any possible error and again tested in duplicate. The first results were not at hand while the latter were being read. In comparing the two results they were found to be exactly the same.

It may be true that in some cases a higher test has been reported when the cream was sour, especially in thin cream. If a can of cream has been allowed to stand for any length of time and becomes sour, the milk solids settle and become very sour and firm, this making it almost impossible to get the can of cream thoroughly mixed. Therefore the sample which is taken will not represent the contents of the can it is taken from, as you realize there would be practically no fat in the milk solids which are left unmixed. Therefore many have been lead to believe that cream would readily test more when sour. If a higher test is given it is neither fair nor accurate.

E. O. HANSON.
Minnesota College of Agriculture.

Curing Makes Wisconsin Cheese New York Cheese

HOARD'S DAIRYMAN:—Apropos of your editorial on "Increasing Cheese Consumption" (page 988 July 5) would say that I have seen New York cheese advertised prominently in store windows in Madison, which was quite a surprise to me (I came from New England recently) in these times of transportation troubles and of increasing supplies of Wisconsin cheese suffering for want of adequate consumption. Upon looking into the economics of the question I was given to understand that much of the cheese sold as New York cheese is really the Wisconsin product but that it has been properly aged and may or may not have had a "ride" to Chicago and back. It seems that "Wisconsin cheese" has been allowed to mean to the consumer a more or less India-rubber-like product. I, for instance, have had it served to me and didn't like it, though I am very fond of good cheese. If Wisconsin cheese can be held a year and then be sold as "New York Cheese" at a price some five cents a pound more than "Wisconsin Cheese" it would seem to me that Wisconsin cheesemakers and dealers should see to it that a sufficient quantity of cheese be held long enough to make it good to eat and then drive everything but Wisconsin cheese (except possibly the well known imported brands) out of the Wisconsin market. Green cheese won't do this.

SAMUEL WEIS MENDUM.
Wisconsin College of Agriculture.

SWINE

Cedar Crest Farm Berkshires
Cholera Immune
The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

BROWN SWISS

Walhalla Farms
Pure-Bred Brown Swiss Cattle
Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

AYRSHIRES

FAYRE FARM AYRSHIRES
ST. ALBANS, VERMONT.
Advanced Register and Show Ring Records. Tuberculin Tested by U. S. Dept. of Agriculture. Calves only for sale.
Geo. H. Dunsmore, R. D. 1, Swanton, Vt.

Van Etta's Ayrshires
10 HEIFERS FOR SALE
I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. **Jas. Van Etta, Lima Center, Wis.**

Edelweiss Farms—Ayrshires
Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Doesn't Her Son Look Better To You Than $100?



Little Bessie of Argyle No. 36356, A. R. record as a heifer, 10,000 lbs. milk, 400 lbs. fat; at 10 years old—as shown above—22 days in April, 1,500 lbs. milk, 56.9 lbs. fat; May, 1918, 2,253 lbs. milk, 85.6 lbs. fat.

Calf is sired by grandson of Bargenoch Gay Cavalier, No. 11981, and Cleopatra of Waukesha, No. 19848; whose full and half sisters have made high records with high tests.

We have more cows of this type but no more calves at present. First check takes him. Guaranteed satisfactory. Never had a tubercular animal. **Echo Farm, Menomonie, Wis.**

Willowmoor Ayrshires!
6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

World's Champion AYRSHIRES
If you want the blood of the champion cows of the breed write us. We offer a few cows, heifers or young bulls.
PENSHURST FARM, NARBERTH, PA.

Crestmont Farm AYRSHIRES
Few Choice Bull Calves
BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.

Ridgewood Farms
WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr

AYRSHIRES TEN HEIFERS
Twelve to sixteen months. Record breeding—good type and color.
HENDERSON AYRSHIRE FARM, Hudson, Ohio.

REGISTERED AYRSHIRES FOR SALE
Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Orchard Hill Farms AYRSHIRES
Young stock of select imported breeding for sale.
W. S. MacDONALD, Manager
Chappaqua, - - - - New York

IROQUOIS FARM
AYRSHIRES
High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Wisconsin Ayrshire Breeders' Association
Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.
Jas. Van Etta, Lima Center, Wis. — Adam Seitz, Waukesha, Wis.
Fred Tschudy & Sons, Monroe, Wis. — Stephen Bull, Racine, Wis.
Bollig Bros., Black Earth, Wis. — John DeMaster, Cedar Grove, Wis.
A. J. McNab, Secretary, Black River Falls, Wis.

HOLSTEINS

Illiona Holsteins
3 Service Bulls
44-lb. Breeding
Excellent Individuality
Reasonable Prices
Phone Elmhurst 63, R. 1 or write
A. W. FISCHER, Bensonville, Ill.

Buffalo Creek Farm
Offers a 3 months old son of a 24-lb. 2-year-old, sired by a ⅔d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.
ARLINGTON HEIGHTS, ILLINOIS.

MILLIONS
Of dairy cows have been slaughtered in the old world. When this war is over dairy cows and products will command unheard of prices. Now is the time to get in. Send for our free price list of 100 head of choice females or if interested in a bull ask for bull list.
WOODLAWN FARM, Sterling, Illinois.

LISLE FARMS COMPANY HOLSTEINS
For Sale Bull Calf. Born March 26, 1918, almost White, a good individual. Is sired by a 24-lb. bull and his dam is a granddaughter of Hengerveld De Kol and out of a 27-lb. daughter of Lilith's Pauline De Kol's Count. Priced right. Write for chart pedigree.
H. BARKER, Herd Manager, Lisle, Illinois.

Bull Calf, Born Jan. 6, 1917
Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.
Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.
This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.
EMBLAGAARD DAIRY, Marquette, Michigan.

The Traverse Herd
Great Values In Bulls
from A. R. O. Cows with records up to 30 lbs. Let us know your wants. We will send extended pedigrees and prices.
TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

The Pontiac Herd
"Where the Champions come from"
Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*
Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.

5 Holstein Bulls
Ready for Business At ½ Real Value
They are from world record sire and A. R. O. dams. We are selling farm.
LONG BEACH FARM, AUGUSTA, MICH.

Registered Holsteins
Must sell my selected foundation herd. 4 Heifers—age 20 to 27 mos. Sire has 28.44-lb. dam and sire with 57 A. R. O. daughters. Price $950. 4 Heifers—age 2 to 13 mos. 30-lb. Sire. Price $600. One fine yearling bull. 25-lb. Dam. Price $150. Let me tell you why you should buy these now. Breeding and photo on request, they are worth it.
C. A. CLARK, TRENARY, MICHIGAN.

Bloomingdale Herd
...HOLSTEINS...
For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.
A. A. Courtelyou, Somerville, New Jersey.

SOUTHERN HOLSTEINS
YOUNG BULLS FOR SALE
I am offering a bull calf born April 15th. His sire a grandson of King Colantha Clothilde 28 A. R. O. daughters (2 above 30 lbs., 18 above 20 lbs). His dam a 24.78-lb. daughter of Tettje Janzen Soldene Master. Well marked and a good individual. Also several other young bulls from A. R. O. stock for sale. $150.00 each. Write
Herman Feldmann, Licking Pike Farm, Newport, Kentucky.

PEDIGREES PRINTING — Dairy Cattle Pedigrees Compiled by Experts.
Catalogs, stationery, etc. printed. Holstein herd registers. Write today.
Live Stock Printing Co., La Grange, Ill.

Milford Meadows Stock Farm

Now Offers For Sale

M. M. Rag Apple Oak Denver

A most promising young sire, born June 4, '17. Nearly half white and an exceptionally good individual.

His sire is Dutchland Creamelle Denver Prince, a 36.25-lb. grandson of Colantha Johanna Lad.

His dam, Milford Josephine Oak DeKol, made 22.82 lbs. butter as a junior 2-year-old in June. Her sire is a son of Canary Paul Fobes Homestead and from a 29.55-lb. daughter of Homestead Junior DeKol. Her dam, 31.77 lbs. butter, 616.2 lbs. milk, is a granddaughter of Dutchland Sir Pontiac Rag Apple.

The three nearest dams of this young sire average over 30 lbs., one a junior 2-year-old. His dam is one of our good prospects and is to be retested this winter.

Milford Meadows Stock Farm, - Lake Mills, Wisconsin.



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.

JOHN PULS, - HARTFORD, WISCONSIN.

RICHLY BRED HOLSTEIN BULLS

from 5 to 16 months of age and sired by King Korndyke Veeman, the bull with 40-lb. breeding, whose two nearest dams average over 37 lbs. butter in seven days. These bulls are out of cows with large A. R. O. milk and butter records. Write us for full particulars.

Wisconsin Star Stock Farms, Ed. M. Schultz, Hartford, Wis.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

QUACKENBUSH for QUALITY HOLSTEINS

Must Reduce My Herd

Because of lack of barn room. I am now offering for sale some excellent yearling and 2-year-old heifers and a few young bulls. Sired by King Segis Pontiac Polkadot 8th, a grandson of King Segis Pontiac and Johanna McKinley Segis. Some of the heifers bred to Rag Apple Pontiac, a 30-lb. brother to Rag Apple Korndyke 8th. A few of the young bulls sired by him. Write for full information.

W. W. QUACKENBUSH, WEST SALEM, WIS.



Western Wisconsin Holstein-Friesian Breeders' Association

Write the breeders listed below for Holsteins or T. H. Campion, Secretary, Onalaska, Wisconsin.

Name and Address	Herd	P. B.	Gds.	For Sale
Chas. Van der Schaaf, Sparta	20	20		2
Mrs. L. C. Morse, Sparta	25	25		5
Fred Nuttleman & Son, West Salem	40	30	10	6
Geo. D. Sprain & Sons, West Salem	20		20	2
A. M. Anderson, West Salem	28	8	20	1
J. D. McDonald, North Bend	50	50		10
W. W. Quackenbush, North Bend	25	25		8
A. C. Hagestad, Ettrick	30	30		6
H. A. Tullock, Genoa	25	25		6
T. E. Anderson, Tomah	30	20	10	6
A. L. Sweet, Warrens	18	18		2

Save Money On Your Herd Sire

I am now offering several fine bull calves 3 to 6 months old; all of them from dams with good A. R. O. records and sired by a grandson of Sir Pietertje Ormsby Mercedes, whose 3 nearest dams average 31 lbs. in 7 days. You can raise them as cheaply as I can and my price on these youngsters makes it a paying proposition for you to buy your herd sire now and raise him yourself. Write **W. P. Kissinger, Waupaca, Wis.**

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 10 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

JOHN HETTS, FORT ATKINSON, WIS.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON, Lake Geneva, - - Wisconsin.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis. Jas. McKone, Prop. Wm. Lucia, Manager.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

DR. J. A. ROBERTS STOCK FARMS, OCONOMOWOC, WISCONSIN.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.

King Pontiac Champion

Is now five daughters nearer the century mark, having 80 A. R. O. daughters in all to his credit. Of this number three are State Champions in the 7-day division, one in the 30-day, one in the yearly and another has the distinction of holding the highest 30-day butter record of any cow living in the state. In view of the fact that King Pontiac Champion is now in his prime and in the finest physical condition, that he is at the head of a herd where his daughters will be given the best opportunity for future development and that the production of King's daughters in both short and long distance tests excel those of any other sire of the breed, where can you select a sire whose progeny has a more promising future?

Our prices are reasonable. Write for sale list before selecting a herd sire.

PABST STOCK FARM, Oconomowoc, Wis.

LOOK!

Waupaca County Holsteins

Best in the State at "The Willows"

S. D. SHAMBEAU, - WAUPACA, WIS.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.

JOHN MURPHY, R. 27, Eagle, Wisconsin

CEDAR LAWN FARMS

A bull of rare individuality and size—¾ white. Six months son of Cedar Lawn Champion, No. 107976. Dam 14.07-lb. senior two-year-old, granddaughter of Sir Johanna DeKol. Price right. **C. A. Schroeder & Sons, West Bend, Wis.**

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

Hazelhurst Stock Farms

Offer a Yearling Son of King Segis Pontiac Canary who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.

H. H. Wickwire & Son, Hubbardsville, N. Y.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

A GRANDSON OF THE

Famous $50,000 Bull

Here is a show bull about two-thirds white, born June 1, 1918. His sire is one of the best bred sons of the World's Greatest Sire.

KING SEGIS PONTIAC ALCARTRA

His dam is a 20-lb. daughter of the Milk & Butter King, a brother of King Segis. His 10 nearest dams average 27 lbs. butter. Price $115.

G. G. BURLINGAME, - Cazenovia, N. Y.

HOLSTEINS

Carload Registered Springers.
Carload Registered Fall Cows.
Carload Registered Heifers Unbred.
Two Carloads Grade Springers.
Write your wants. Come and see us. Prices right. **J. A. LEACH, Cortland, New York.**

LAKESIDE HERD

For forty years this herd has taken the lead in breeding for the highest individuality, largest average production, 4% butterfat, greatest uniformity and prepotency, with the result that over four-fifths of all the cows which have made A. R. O. records of 30 lbs. or more, trace their pedigrees to the Lakeside Herd.

Breed this kind and get same results.

E. A. POWELL, SYRACUSE, NEW YORK.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Your Last Chance!

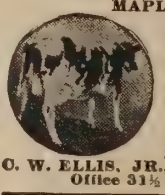
To Get a Son of The World's Greatest Sire

KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.

Geoffrey Burlingame, Cazenovia, N. Y.

MAPLE LAWN FARM



has for immediate sale 60 extra large Holstein springers, 100 cows to freshen this fall all in calf to registered sire, 50 fresh cows all young and heavy producers, come and see them milked. Also all ages in registered stock, 25 registered bulls and bull calves. Registered bull calf and two high grade heifers $60 for the trio. Satisfaction guaranteed.

C. W. ELLIS, JR., CORTLAND, NEW YORK Office 31½ Main St., Burgess Block.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, - - Perry, Ohio.**

Beaumont Farm Has a Young Bull Sired by King Colantha Rag Apple

positively one of the best sons of RAG APPLE KORNDYKE 8TH. Dam a 32½-lb. granddaughter of the KING OF THE PONTIACS.

YOU CANNOT GET ANYTHING BETTER THAN THIS. Another young bull, out of one of the finest daughters of JUDGE SEGIS, which recently sold for $10,000. Remember that KING COLANTHA RAG APPLE is a brother to the $53,200 bull.

BEAUMONT FARM, MT. SAVAGE, ALLEGHANY COUNTY, MARYLAND.

Do You Want Her Blood?



Bess Burko Ormsby. Butter 7 days 42.31.

THE BEST BRED 40-LB. COW IN THE WORLD.

$400 Buys This Yearling Bull Rich in the Blood of the Famous "Bess Burkes"

THIS IS YOUR OPPORTUNITY, Mr. Small Breeder, to get the same blood that your big neighbors pay thousands for.

THE BULL IS A SPLENDID individual, well grown and ready for heavy service.

STUDY HIS PEDIGREE for a moment—it is worthy of considerable thought.

HIS SIRE IS Sir Pietertje Ormsby Mercedes 41st, the only full brother to Bess Burke Ormsby, the best bred 40-lb. cow—

AND ALSO TO Bess Pietertje Ormsby Mercedes, the former world's champion milk producer with 33.15 lbs. butter and 759 lbs. milk as a junior three-year-old.

AT FIVE YEARS, this same cow made 1,235 lbs. butter from 29,000 lbs. milk in a year, one of the highest combined milk and butter records ever made.

THESE FULL SISTERS and Sir P O M 41st are sired by Sir Pietertje Ormsby Mercedes, the greatest yearly record sire of the breed.

THEIR DAM is Spring Brook Bess Burke, 34 lbs. in 7 days and 1,094 lbs. in a year and the only cow in the world having three daughters above 33 lbs.

THE TWO NEAREST dams of Sir P O M 41st and his two full sisters average above 36 lbs. in 7 days.

PRETTY HARD to improve on this, isn't it? Now, take a little more time and study the breeding of the dam—

SHE IS Canary Polkadot Wisconsin Lottie, a 19-lb. junior four-year-old daughter of Sir Johanna Canary DeKol who has 4 daughters from 30 to 38 lbs.

HER DAM is a daughter of Wisconsin Bess Chief, the sire of Spring Brook Bess Burke, 34 lbs. in 7 days and 1,094 lbs. in a year.

THIS MAKES CANARY a three-fourths sister to Spring Brook Bess Burke 2d, (the world's largest dairy cow) 38.22 lbs. in 7 days and twice above 1,000 lbs.

THE BESS BURKE breeding appears on both sides of the pedigree so strongly that there can be no doubt about the breeding value of the young sire.

HE CARRIES 62½% the same blood as the leading Bess Burkes—Bess Burke Ormsby, 42 lbs.; Spring Brook Bess Burke 2d, 38; and Bess Pietertje Ormsby Mercedes, 33 lbs.

REMEMBER $400 BUYS HIM—guaranteed sound.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

Enlisted for Immediate Service

A Fine Young Holstein Bull

GOVERNMENT INSPECTED—PHYSICALLY FIT.
AGE 18 MONTHS—BRED FOR PRODUCTION.
BEST BLOOD LINES OF BREED.
SERVICE RECORD OF HERD UNBLEMISHED.

A. A. Busse SUNNY HILL STOCK FARM **Slayton, Minn.**

Unless You Want a Good One Don't Write

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

ne that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

ill exactly fill the requirements. We have a few excellent youngsters by this oyally bred sire. Write today for full information.

OHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April veraged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included eifers milking since last September, October nd November. These dams represent the est blood lines of the Creamelle, Johanna, eets, and Ormsby families.

ired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the wo greatest foundation cows of the breed, pring Brook Burke and Aaggie Cornucopia auline. He is also closely related to the two hampion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

When writing advertisers please mention Hoard's Dairyman.

Bull Calf Advertised in Last Issue Sold

Having purchased a son of Colantha Johanna Lad for my Junior herd bull I can now release and *offer for sale a two-year-old* that we have been using the past year. Fine individual, well-grown, more white than black. Sire, *Sir Korndyke Ormsby DeKol No. 89006.* Sired by a son of *Hengerveld DeKol* and grandson of *Pontiac Korndyke.* Dam 18.74-lb. 3-year-old, *King Walker breeding.* Price for immediate sale $250.00. A number of choice bull calves under six months at reasonable prices.

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3 BULLS HOLSTEINS **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Home of Sir Ormsby Skylark

SIRE OF DUCHESS ORMSBY SKYLARK Champion Record Cow of the World.

Have For Sale

Sons of Sir Ormsby Skylark from high testing dams for $200.00 and up. Will also sell my four-year-old junior herd sire 35-lb. son of Johanna McKinley Segis and Pearl Ormsby

Burke. **MAXWELL FARM, L. W. CASE, JR. MANAGER, WATERLOO, IOWA.**

HOME FARM HOLSTEIN FRIESIANS

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by ***Aaggie Pontiac Crahamholm Lad*** —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A World Record BULL

From a sister to Duchess Skylark Ormsby sired by a brother to Pietertje Maid Ormsby. His dam has 25 lbs. in 7 days and 725 lbs. in 1 year made at 3 years and 5 days.

Dropped Nov. 1917. Well grown, ⅓ white. Buy him now and profit by the increase in his value that is sure to result when his dam increases her record at the next freshening.

V. S. CULVER, STILLWATER, MINN.

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address

W. J. BOYNTON, Mgr., Rochester, Minn.

A Few Holstein Bull Calves

From a sire whose dam was a former state champion yearly cow—

For Sale

R. B. GOODHUE, - DENNISON, MINN.

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

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FOR SALE—A number of young Holstein-Friesian Bulls from a clean herd, tuberculin tested, no re-actors in last four years. All from A. R. O. sires and dams. Full information and description with prices, on request.

ADDRESS SECRETARY - TREASURER, U. S. Soldiers' Home, Washington, D. C.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

FROM GRANDDAUGHTERS OF COLANTHA JOHANNA LAD

BULL CALVES sired by King Segis Pontiac Boon 97981, full brother in blood to the famous King Segis Pontiac Count, who has 23 junior two-year-old daughters with an average of 21.41 lbs. of butter and 425 lbs. milk in 7 days. NO OTHER SIRE HAS A RECORD LIKE THIS. Our prices will interest you.

Cerro Gordo Farms, Mason City, Iowa.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

BULL CALF—Roseclif King Segis Johanna, born June 26th, '17, well built, nicely marked. Sire: King Segis DeKol Fayne 8th, whose dam has 25.63 lbs. butter in 7 days. His grandsire is the sire of Segis Fayne Johanna the World's record butter cow for 7 days. Dam: Johanna Alicine made 14 lbs. in 7 days as a 2-yr.-old. Record made in warm weather. C. I. Reamer, North Liberty, Ind.

Bull Calves For Sale

AT REASONABLE PRICES

Sired by Sir Johanna Piebe White, whose first 3 daughters to freshen, average 22 lbs. butter 7 days at the average age of 2 years, 3 months. His dam and full sister have yearly records averaging 1030 lbs. butter for 1 year. Dams of calves have good yearly and 7-day records. Herd on federal accredited list.

RAY MEEKER, - - MUNCIE, IND.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the **World's Record** senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

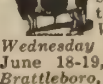
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BOTH SEXES FOR SALE

HOLLYWOOD FARM

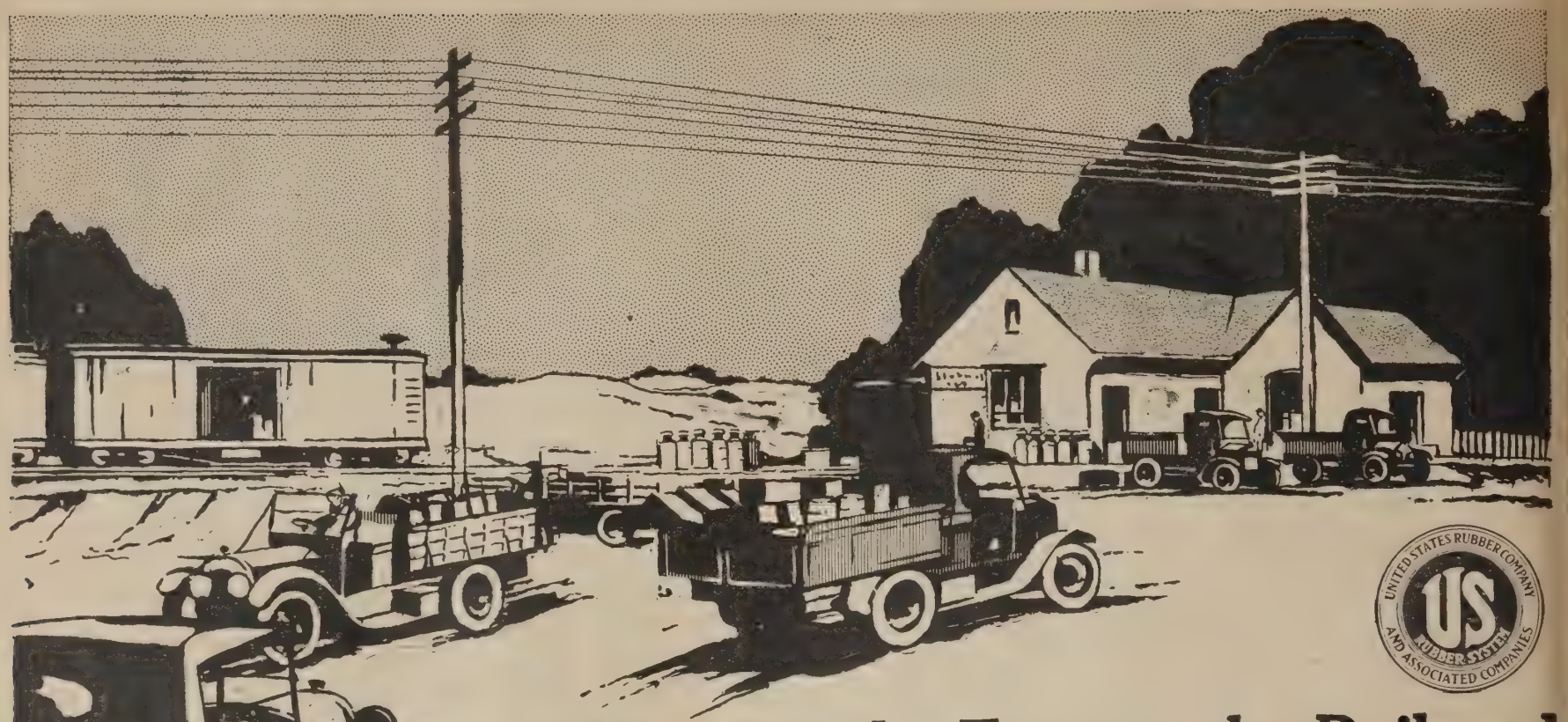
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HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at *Brattleboro, Vermont*, the *First Tuesday and Wednesday of every other month*, viz: June 18-19, August 6-7, 1918. *Come to Brattleboro, the Holstein-Friesian Capital of America.*

Address The Purebred Live Stock Sales Company.



UNITED STATES RUBBER COMPANY
US
RUBBER-SYTH
AND ASSOCIATED COMPANIES

Bringing the Farm to the Railroad

Since the coming of the motor car, the remote farm is no longer remote. Distance has been conquered. Miles have been shortened. Minutes have taken the place of hours spent in transportation.

In this transformation, the most important advantage to the farmer is in being brought next door to the railroad.

Milk and other perishable products can be marketed quickly. Needed supplies are more available. The farmer is in direct touch with the world.

Using his car largely for business, the modern farmer treats his car as a business proposition. Equipment is purchased with extreme care and judgment. Values are studied. Mileage records are kept carefully.

That is why the sales of United States Tires are increasing so fast in prosperous farming communities. They have demonstrated not only long-mileage qualities but greater reliability. They make your car more useful. They give a bigger return on your investment.

United States Tires are Good Tires

Wherever you live or whatever car you drive, there is a United States Tire built especially to fit your conditions. You have a variety of treads and types from which to choose but the quality and values are always United States standards.

Any United States Sales and Service Depot will cheerfully aid you.

For passenger cars—'Usco', 'Chain', 'Royal Cord', 'Nobby' and 'Plain'. Also Tires for Motor Trucks, Motorcycles, Bicycles and Airplanes.

United States Tubes and Tire Accessories Have All the Sterling Worth and Wear that Make United States Tires Supreme.

'Usco' 'Chain'



HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI | FORT ATKINSON, WIS., AUGUST 2, 1918 | Number 2

Future of The Dairy Industry

E. W. SIMONS, Wisconsin

DAIRY farming is not one of those industries that is wholly and essentially man made. It is not an industry built on some mere whim of human nature, or on some passing fancy such as that on which the bicycle business was built. Man existed and man was happy before ever bicycle was invented, before ever house was built, before gold was transformed into jewelry.

But can you imagine a time when man could be happy or when man could even exist without food? The dairy industry is founded on that God-given element in human nature that is so much in daily evidence from the day of birth until the time of death—hunger, the need of food. Food is vital. To satisfy hunger, man will sell his home, his automobiles, his household goods. If it can be obtained in no other way, man will fight for food, because self preservation is the first law of nature.

Now the cow is not only a producer of food but the food this four-legged factory turns out is one of the most important to humankind. There is one point—a somewhat recent discovery—with which you may be familiar but which has received too little publicity as yet and which I would like to mention.

The other day I stopped a local physician on the street and said to him, "Doc, what do you know about butter?"

"I know a lot more than I did a few weeks ago," he replied. "I had children in three different families under my care who were not doing well. Nothing specific was the matter with them, but they were not growing, not developing the way they should. In the first case I prescribed certain medicine and, knowing that the child had not been drinking milk, also told the parents to give her plenty of milk and butter. There was such a decided change in the child within a week that I made up my mind it was not the medicine that was responsible. On investigation I found that the child previously had been eating butter substitutes, and I decided that the butter and milk caused the improvement. I then told the parents of the other children to spend their money for butter instead of medicine and doctor's fees, for in those other cases I found they had been using butter substitutes also. You ought to have seen those kids two weeks later."

At the Wisconsin Dairymen's Association last winter, I heard Miss Amery of the University of Wisconsin say in her address that in the war hospitals of Europe it was found that wounded soldiers who did not have milk and butter recovered but very slowly from their wounds. These same men given a liberal supply of milk and butter healed their wounds quickly.



BROWN SWISS OWNED BY JOHN INGOLD DAIRY FARM, WISCONSIN

Not only does the dairy cow produce food, not only does she produce a cheap food—indeed, perhaps the cheapest, not only are dairy products important as food for human beings, but, in the light of recent discoveries, we must look upon milk as the indispensable human food. The dairy industry then is not a business built upon some passing fancy or transient fashion; it is built upon the firm foundation of human need that will surely last so long as human nature endures.

The Distant Future

So much for the foundation on which this industry is built. Now let us theorize a bit as to the more distant future of the business. The density of population of the United States is about 16 people per square mile. In Europe it is 120. Dean E. Davenport has calculated that by the end of the present century there will be about twelve hundred million people in this country. That would mean a density of population of about 200 people per square mile as against the present density in Europe of 120. Think how the population of the United States has steadily increased within our own memory and it is easy to understand the probable accuracy of Dean Davenport's prophecy.

Couple with that prophecy another. The late James J. Hill when discussing the food supply of the future (and who was more competent in his time than he), prophesied that by the middle of the present century there would be a wheat shortage of 400,000,000 bushels.

If Davenport and Hill are correct there is to be a tremendous increase in the population and an enormous grain shortage. What has that to do with the dairy industry? The cow, that marvelous food making machine, eats things which of themselves are not fit for human consumption—grass, hay, corn stover, alfalfa, those offals of the milling processes, bran, oil meal, corn germ meal, and brewers grain, and other waste which human beings cannot eat, and converts them into indispensable human food.

It is true that these inedible products are also made fit for human food through the agency of the hog and steer and sheep, but the dairy cow is the most efficient of them all.

The cow not only produces more food per day but also produces it from less—she transforms a higher percentage of the feed which she consumes into human food which we can eat.

Then, too, in the production of beef or mutton or pork, grain is required—good, sound grain that can be ground into flour. The cow will produce milk entirely from feeds which of themselves are not suitable for human food. The cow not only frees large quantities of grain for our use, but in the conversion of large quantities of roughage into human food, the dairy cow is performing another service. The growing of grain or any other product of the soil suited for human food rapidly depletes fertility; the dairy cow replaces this lost fertility.

As the population increases, becomes more dense, and a shortage of foodstuffs for human-kind becomes acute, the importance of the dairy cow and her product, generation by generation, will steadily increase.

The Near-by Years

Turn now to the more immediate future.

This world war is working vast changes that will tremendously affect American dairymen. Our Department of Agriculture says: "The Continental dairy countries imported much of their feed before the war. The war brought about a reduction of such shipments. There wasn't enough ocean tonnage to be spared for hay and concentrates because guns and powder and human food were the urgent military needs. At the same time armies and civilian population had to have more meat, so dairy cattle were killed to supply this demand and because there wasn't feed enough to keep them alive." Because of this slaughter of dairy animals abroad and because of the decrease in European milk production per cow, the demand of this country for butter and cheese and condensed milk has grown by leaps and bounds and continues to grow. Our exports are limited apparently only by the available space in ships. Since the beginning of the war our dairy imports have decreased, while our exports of butter have jumped 700 per cent, of cheese more

(Continued on page 10)

Hoard's Dairyman

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ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

System in Butter Shipping

The Gleaner Clearing House Association publishes a letter from a creamery operator who has worked out an admirable system in shipping butter. The letter is here quoted:

"We shipped you today 100 tubs creamery butter, net weight 6409½ pounds. Each tub is weighed with liner just before packing. The butter is weighed back before salt is put on top and one-half pound is allowed on each tub for shrinkage. I have a record of each churning, each churning is numbered. The number is on the cover, also the net weight. By sampling one tub of each number you will have the quality of each corresponding number."

"If for any reason you wish to refer to some certain tub or tubs of butter, please give me the number on the cover. They correspond with my records. You will find enclosed weight of each tub."

Stringy Milk

Stringy milk is caused by bacteria which enter the milk after it has been drawn from the cow. It is not caused by the feed or any abnormal condition of the cow. Milk affected in this way is not unhealthful, but it is certainly not appetizing. The bacteria which caused the trouble live in water ordinarily, and probably enter the milk from the outside of the cows' bodies, or from utensils. Where trouble is had from this condition, the utensils, especially the strainer cloth, should be boiled. If this treatment does not eliminate the trouble, the fresh milk should be heated on the stove to a temperature of 150 degrees, then let stand 20 minutes and cooled as quickly as possible, according to C. H. Eckles of the Missouri College of Agriculture.



W. LIVINGSTON LARNED

He Loves Them All

Bess is fond of kickin',
Belle eats onion grass.
May, she needs a lickin';
Mean, bad-tempered lass!
Josie takes to strayin'.
Maud steps in th' pail;
Jess—too fond of playin',
Rose knocks down a rail.

Queen, she's always "mooin'",
Marge, her coat is rough.
Kate keeps trouble brewin'
Lucey's ways are gruff.
Each and all have failin's,
Grunts and grouches, too;
Temper fits an' ailins—
Just like humans do!

"Yes, sir," said the earnest auctioneer, "this animal is all pedigree. His sire was West Minister III and had three daughters in the Grand Exalted Register of Merit; his dam, grandam, and great grandam are all in the R. of M. I can tell you more if you want to know it."

"Nope," spoke up a fellow in the crowd, "the darn critter has more pedigree right now than my own grandfather. We couldn't keep him on the farm without disrespect to our own ancestors."

"General Crowder's 'Work or Fight' scheme may pan out nicely," said Ezekial Arrowroot of Hillcrest Dairy, "but up to date it has sent three college professors, an optician, an elevator boy, and six actors to my farm, and teaching 'em how to work is harder than doing it myself."

Philosophy of the Oldest Dairyman

"'Swat the Fly' ought to have been invented for the sake of hosses and cows."

"Is there greater reproach in the world than the look a sheep gives you just as it crawls up out of a disinfectant dipping vat?"

"Milkin' machines are a logical part of modern invention, but just the same it takes a lot of the romance out of the dairy business."

"They teach young folks dairying nowadays just as they teach arithmetic or grammar. And I want to tell you, there's as much profit an' honor in comin' out a graduated cheesemaker as an expert accountant or a historian."

"When a farmer goes joy-riding in his pleasure car, he's apt to have one arm around a bag of potatoes."

Things That Never Happen

A windmill that won't squeak.
A calf that isn't hungry.
A bull that isn't looking for trouble.
A farm hand who wouldn't rather loaf.
A rooster that won't eat sunflower seed.
A lightning-rod agent that couldn't talk.
A mud road that is better than concrete.
A prize winner who thinks his cow didn't deserve it.

As the Youngsters See It

Little Helen was spending her first summer on a farm. It was a dairy farm and a very large and prosperous one. That night, when she said her prayers at her mother's knee, she murmured in a very low and tremulous voice:

"Please, Lord, forgive me for drinking so much milk. I didn't know I was taking it away from the calves."



You Can't Afford This

No farmer is rich enough to feed 40-cent butter to his hogs or his calves in partially skimmed milk.

It's a waste of money.

It's a waste of food.

It's a waste that your pocketbook, your neighbors, your country, all condemn.

But it's a waste that is going on today on every cow-owner's place where an inferior or half-worn-out cream separator is being used, or where the farmer is skimming by the wasteful "gravity" method.

And its a wholly unnecessary waste, too.

Because a De Laval Cream Separator will soon save enough cream to pay for itself, and put a stop to all the waste of cream and time and labor for many years to come.

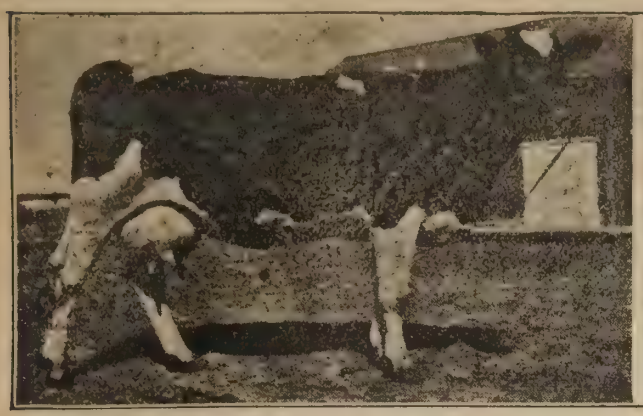
There is no other cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, freedom from repairs, and durability. It's the world's greatest cream saver.

Order your De Laval now when you need it most and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Company

165 Broadway, New York **29 E. Madison St., Chicago**

FIFTEEN YEARS OF RECORD KEEPING



Princess Belle Columbus 2nd; one day, 96.9 lbs. milk; 7 days, 629 lbs. milk containing 23.58 lbs. fat; 30 days, 2,715.9 lbs. milk containing 96.03 lbs. fat; one year, 15,211.7 lbs. milk; 4 years, average, 11,799.2 lbs. milk.



The farm home on Prairiedale Farm, Illinois, where a herd of Holsteins has been developed which for the past 4 years has a yearly average of more than 10,000 lbs. milk per cow.



Princess Belle De Sota 2nd; one day, 94.7 lbs. milk; 7 days, 627.9 lbs. milk, 20.53 lbs. fat; one year, 13,829.9 lbs. milk; 4 years, average 12,447.2 lbs. milk.

SINCE 1903 the milk from every cow on Prairiedale Farm, Illinois, has been weighed throughout every lactation period. A herd of Holsteins was founded in that year by Paul T. Galt and F. W. Spencer, who are now on their sixteenth year of a successful partnership.

Prairiedale Farm has two special lessons for dairy farmers. One concerns the results secured by starting into dairying with the determination to win and being continuously active in improving a herd of cattle through testing. A few facts which long years of testing have shown on this farm are here recorded. The other lesson can be gained only by more personal relationship to this sixteen-year partnership of Holstein breeders than the pen gives. It is for those men who cause so many foundation, or older, herds to be dispersed because of disagreement among the owners.

Twelve years ago the average annual production of the milking herd was 5,926.1 lbs. milk; 10 years ago, 6,484.1 lbs.; 8 years ago, 7,037.1 lbs.; and 5 years ago, 8,172.3 lbs. For the last four years cows of this herd have the remarkable yearly average of 10,000 lbs. milk each. The milking herd has averaged to number nineteen head during this period. Of the twenty-one head in milk last year, only nine or ten were of full age. The twenty-one head averaged 10,716.6 lbs. Lady Johanna Fairmont Maid, one of the older cows in the herd, has an average milk production for the past six years of 11,865.6 lbs.; Princess Johanna Columbus, 9,107.7 lbs. for an equal period; and Johanna DeKol Fairmont Maid, 9,416.1 lbs. for the past five years. The yearly milk production of the last four years of five other cows averages 11,660.8 lbs.

This production was made with twice-a-day milking excepting for the period of seven and fourteen-day official tests and for one thirty-day test. In the past three years forty-seven Advanced Registry records have been made. Five cows have milked from 92 to 96.9 lbs. milk in a day, one making 95 lbs. on three-times-a-day milking. Seven have average records of over 600 lbs. milk in a week.

Mr. Spencer well describes the course which has been followed from the beginning in 1903:

"We started in the dairy business with five pure-bred Holsteins. The rest were just 'any old thing' we could pick up at sales. Of course, we tried to get good ones, but you can't do it; you get stung and the cows do not give enough milk. Our herd is now all descended from five head, one of the original cows dying soon after we bought her, but then we bought another foundation cow about five or six years ago. Paid over $400 for her at thirteen months of age, bred to one of the best bred bulls in the East. This $400 cow is the only one of the Prairiedale Farm herd that was not born on this farm. We have 74 head here now, all pure-breds, all born here but the one; all the milk cows are A. R. O. and all the young stock are from A. R. O. dams except one heifer.

"We have milked these cows regularly for nearly four years now with a mechanical milker and can see no ill effect from the use of a machine. It has not brains. Believe most of these men who claim that the machine is a failure should turn it around; perhaps it is the man who is a failure.

"If every young farmer could be persuaded to invest in two or more pure-breds when he starts farming, wouldn't the dairy industry be interesting and lively in ten or fifteen years? They cannot go wrong."



Princess Harcourt De Sota; 7 days, 483.3 lbs. milk, 18.66 lbs. fat; one year, 9,928.4 lbs. milk; 2 years, average, 9,258.6 lbs. milk.



Zerma Harcourt Columbus; 7 days, 416.3 lbs. milk, 18.627 lbs. fat; one year, 10,266.3 lbs. milk.



Johanna DeKol Fairmont Maid; 7 days, 572.8 lbs. milk. 22.52 lbs. fat; one year, 10,327.3 lbs. milk; 5 years, average, 9,416.1 lbs. milk.

Organizing for Feed Defense

SANDERS SOSLAND, MISSOURI

V. ALFALFA SUPPLY AND PRICES

WAR feed clubs and other buyers planning to purchase alfalfa hay jointly or individually have little or no reason for waiting. These prospective buyers are, of course, more interested in alfalfa than ever, for, with feed in general high, the economy in the legume is more widely appreciated than heretofore. While the legume is not cheap at the present level, conditions incident to the production of this crop are such that dairymen and others who are studying the market with the intention of laying in a supply should reach an early decision. This decision, it seems quite plain, should be to make purchases during the present summer and not defer buying much longer, if at all.

The fact is that this year, as indicated by the character of the season and the cuttings obtained thus far, promises to be one of short production of alfalfa. Corn and oats are far more promising, and may have some effect on the market for alfalfa, but the general opinion of the hay trade is that alfalfa is around its low level on the new crop under war conditions.

Some purchasing leaders of war feed community clubs express more or less uncertainty as to the advisability of contracting for their winter supply of alfalfa hay at the present level of prices. Still, the range of prices quoted on alfalfa hay offers a temptation to the feed organizations, for, when compared with the level prevailing during the winter months the past year, the market is low. Besides, alfalfa hay at the present level ranks as one of the cheapest feeds available for dairy cattle. Prices are practically the same as at this time a year ago, the best quality hay selling at a range of $21 to $22 a ton, in carlots, on the Kansas City market. In the month of December, 1917, and in the early part of 1918, alfalfa hay met with an eager demand as high as $35 a ton in Kansas City. Incidentally, Kansas City is the greatest distributor of alfalfa hay in the entire United States, and serves as the barometer of alfalfa values throughout the country.

Inquiry among close students of the alfalfa trade situation indicates that purchases of that commodity during the summer months will prove profitable to the community organizations. Briefly, the general opinion prevails among alfalfa dealers and even consumers who follow market developments closely, that prices have reached their lowest level and may fluctuate in a course similar to that of a year ago. Of course, there is a possibility that the views of the alfalfa trade may prove to be in direct contrast with the actual developments in the market, but a study of the trade situation today leads to the conclusion that declines in prices for alfalfa are improbable.

Leaders of feed purchases in a community organization or individual buyers will do well to go back to the preceding year and acquaint themselves with the important market influences which brought changes in prices. Alfalfa was selling a year ago at practically $21 a ton, basis Kansas City. In the summer and fall months of 1917, a serious drouth prevailed over the Southwest, particularly in Texas and other surrounding southern states. The United States Government had already begun acquiring thousands of horses and mules, the number of animals in the army numbering approximately 250,000 head. The Southeast and East were buying larger quantities of alfalfa because of increased feeding operations and the adverse weather conditions. Good yields of the hay were witnessed from the first two to three cuttings and from the fourth harvest in some districts, though dry weather retarded rapid growth. The quality of the hay was high. Feeding and breeding of live stock was expanding to meet enlarged war demands, necessitating increased consumption of hay, particularly alfalfa. The outlook for production of all hay at that time was for a yield of about 95,000,000 tons. The supply of mill feeds was extremely light and the outlook for cars was dark. With these conditions, the market the past year soared to record

(Continued on page 56)

Stopping Leak by Creosoting Lumber

KURT C. BARTH, ILLINOIS

EVERY farmer has had more or less experience with the rotting of posts and structural wood of all kinds, and the attendant trouble and expense of replacements. In the effort to avoid repetition of such conditions, many have resorted to the employment of substitutes, some of which have not proven suitable and their use often incurring a much greater expense than was warranted. In general, the substitution of other materials for lumber on the farm has not proven entirely beneficial, and it is quite evident that wood is not only the most available building material, but also the most economical if properly used.

Creosoting Will Save Millions of Dollars

There is no doubt that decay of wood in farm structures causes the loss of millions of dollars annually, and that this loss must be paid for by the farmers' profits from their labor and investment. Inversely prevention of this waste will add the equivalent sum of dollars to the farmers' gains. Happily, structural wood may easily be protected from decay. Not by a new theory, but by a practice which has stood the acid test of time. The application of coal tar creosote oil has made wood more or less "rot-proof" for over three generations.

Particularly under present conditions, when the cost of building is higher than at any time during the history of building operations in this country, must permanency be given very careful consideration—especially as replacements a few years hence will very probably be equally if not more costly than now. Protection against decay will lengthen the life of rural structures and proportionately decrease their annual cost—equalizing, to a certain extent, the increased cost of today with that of several years ago. It is ultimate economy to build to last.

How can wood be made resistant to decay? Simply by creosoting, and every consumer can apply the preservative effectively with little effort. If the expenditure of five cents for preservative treatment will increase the life of a cedar fence post, which costs 25c to 30c, five years, it certainly pays. The same is true in principle of all lumber when used in any situation favorable to the development of decay; i. e., where air, moisture, and warmth are present, and where the natural life is less than the mechanical life.

Creosoting has proven the most practical method of increasing the life of wood. Coal tar creosote oil has been used for this purpose for about eighty years, and the best evidence of its efficiency as a preservative is the increasing demand which in 1913 reached a total consumption in this country of about 100,000,000 gallons. There is nothing mysterious about wood preservatives, and although proprietary and patented products, for some of which special features are claimed, have been unscrupulously promoted and sold to the public at relatively high prices, there now exist definite standards to which a preservative must conform.

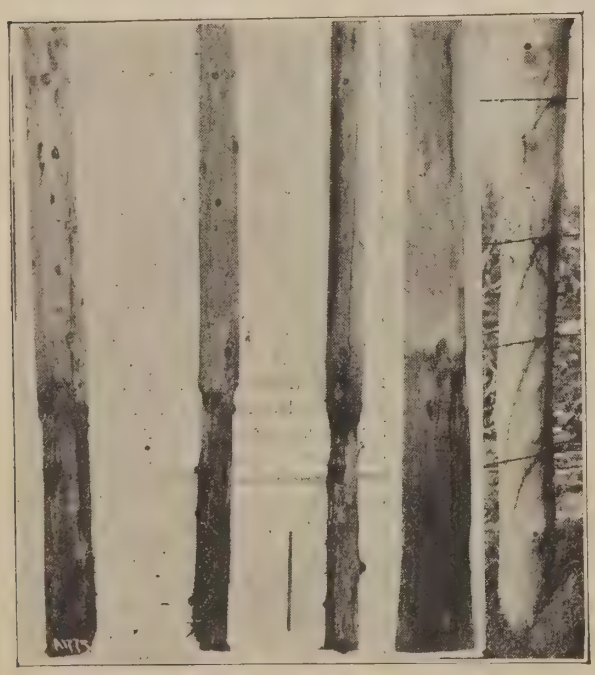


PLANT FOR CREOSOTING FENCE POSTS, CONSISTING OF SECOND HAND STEEL OIL DRUM FOR HOT TANK AND WOODEN BARREL FOR COLD TANK. CRUDE BUT EFFECTIVE



CREOSOTING HEMLOCK LUMBER FOR DOUBLE WALL SILO ON A WISCONSIN FARM

The work of the Forest Products Laboratory, which is a division of the U. S. Department of Agriculture, in testing practically all known products sold as wood preservatives, and in publishing numerous bulletins containing valuable recommendations on the subject of wood preservation, is of inestimable value to the general public.



NOT CREOSOTING VS. CREOSOTING

The three posts at the left are untreated cedar posts after 9½ years' service and show how decay has injured this best known and most popular post wood. The fourth post from the left is of soft maple which has also been in the ground 9½ years. The butt of this post was soaked for 4 hours in the hot creosote oil and for 6 hours in the cold creosote oil. Note that the treated soft maple, a relatively poor wood, has resisted decay better than the more expensive untreated cedar. The post at the extreme right is an ash post after 9½ years' service, the butt of which was creosoted. The post stands firm and gives promise of future years of usefulness. (Photograph reproduced by courtesy of Iowa College of Agriculture.)

What is Required of Creosote

Wood preservation has ceased to be a means of exploiting the gullible, and is now a standard practice available to every consumer of wood. Every farmer should obtain a copy of Bulletin 744 entitled, "The Preservative Treatment of Farm Timbers," issued by the U. S. Department of Agriculture, Washington, D. C. It may be had for the asking, but should it have been taken off the free list, will probably not cost more than five cents. In this bulletin will be found what constitutes a proper wood preservative, to quote from page 7: "Coal tar creosote * * * * is in general use for preserving fence posts and other farm timbers," also "there are five chief requirements for a preservative for general use. It should be reasonably cheap, should penetrate wood readily, should not be corrosive to metal, should not evaporate or wash out of the wood easily, and should be poisonous to fungi." In other words, it must be simply pure, refined coal tar creosote oil. It is well for purchasers when they wish to buy creosote oil to insist upon a guarantee that the product offered them meets with the requirements here quoted, and also that they assure themselves that it bears the name of some manufacturer whose reputation is nationally established. To employ an inferior or inefficient product will not only cause disappointment, but the time and labor spent in its application will be an absolute loss, and in some instances may even advance rather than retard decay.

Methods of Creosoting

The standard processes of creosoting wood are (1) the Pressure Processes, (2) The Open Tank System, and (3) the Brush Method. The first are commonly employed for the treatment of railroad cross-ties, paving blocks, and timber which, when in service, is exposed to heavy wear or mechanical abrasion. They are seldom, if ever, required for the treatment of farm timber, and in fact are not available for that purpose at present. The Open Tank System consists of a "hot" and "cold" treatment of the wood in refined coal tar creosote oil, by alternate immersion and soaking for various periods, first, in a bath of creosote maintained at a temperature of between 150 degrees and 200 degrees Fahrenheit; and second, in a bath of creosote oil maintained at atmospheric temperature, but not in excess of 100 degrees nor less than 60 to 75 degrees Fahrenheit. In some cases the cold treatment is given without removing the wood from the hot tank to the cold tank by merely permitting both the preservative and the wood to cool to atmospheric temperature. The latter method is most common in the treatment of fence posts. The Brush Method is simply the painting of two coats of refined coal tar creosote oil, heated to about 150 degrees Fahrenheit, on to the lumber in the same manner as one would apply ordinary paint. If it is not possible or convenient to heat the creosote it may be applied in its natural state, providing the atmospheric temperature is not lower than 50 to 60 degrees Fahrenheit.

The Brush Method is by far the most practical for general purposes, not only on the farm but in every case where wood is to be given preservative treatment by the average consumer. Primarily, it consists of applying the preservative to all points of contact before the lumber is placed or joined, as it is at these points that decay first develops. The preservative should be used liberally. It is false economy to stint the treatment in order to save a few gills of creosote. Even if the preservative cost a dollar per gallon it would still be cheap in comparison with the results obtained from its use. Sills should be treated over all, so also any lumber which is used wholly or partly in contact with the soil, concrete, masonry, brick, or other exposed wood. In addition to preserving the wood, the application of creosote oil will make the lumber practically termin proof, which is a very desirable quality when the wood is to be employed for hog houses, poultry houses, for stalls, and for floors of barns, granaries, and corn cribs. Creosote may be applied with advantage to the interior of hog houses and chicken coops already erected and in use, but if that is done they should be vacated until the preservative has thoroughly dried. Properly creosoted poultry houses are free of mites.

Creosoted Silos

Creosoted stave silos are on the market, and if properly treated are very desirable, but farmers should convince themselves that a proper preservative has been used by the manufacturer, that he has properly creosoted the lumber, and that prices asked for the creosoting are not too high. If the treatment is inferior or a "make-shift," that is, if the staves have merely been dipped in something black to make them look as if they had been creosoted, it is little better than nothing, and it would be much better if the farmer purchased the plain lumber and brush treated it himself. To creosote silo staves or lumber by the Brush Method two coats of creosote oil should be applied, in the same manner as previously described, to the edges, tops, and bottoms, and likewise two coats to the interior and exterior surfaces after erection. No fear need be entertained that the creosote oil will contaminate the ensilage, as extensive experiments at the University of Wisconsin have proven that it does not affect the contents detrimentally, but the creosote should be given plenty of time to dry before the silo is filled.

A double wall type of silo built up of 1"x4" hemlock flooring is quite popular in Wisconsin and Michigan, and is undoubtedly a most serviceable silo when properly protected from decay.

(Continued on page 48)

Permanent Grain Storage Buildings

DEANE G. CARTER, IOWA

PERMANENT, weather proof, fire proof, and rat proof, are among the outstanding features of these combined corn cribs and granaries, designed for the general or dairy farm.

Other advantages which might be mentioned in favor of the permanent types over wood, are, that they are easy to erect, give better ventilation, have a better appearance, and the cost is but very little more than for the less permanent structures.

One only need observe the corn cribs and granaries which are twisted out of shape, broken down, and "sway backed," to understand this statement from an Eastern Iowa man: "There's more to building a crib or granary, than just erecting a shelter to hold the grain. To be perfectly frank, I have never had a granary that didn't break down sooner or later."

Permanence is one of the principal features of masonry construction. The elements do not destroy masonry buildings so rapidly, and they can be relied upon to serve for a good many more years than wooden ones. They are also a better fire risk, for there is not the danger of loss by fire, either to the building or its valuable contents.

It is stated that every rat destroys in the neighborhood of two dollars' worth of grain each year. Some form of rat guard and masonry floors will keep the grain safe from rodents. To keep the rats out of the crib, an effective method is to set a strip of galvanized iron in the fourth or fifth mortar joint above the ground. This iron extends outward and downward, about 6 inches, so the rats cannot get over it. Inside, the crib is lined with a fine wire mesh, galvanized wire, to the height of the guard.

There is some complaint made that concrete floors cause spoiled grain in the bottom of the crib. However, if the concrete is properly made, and the floor drained, this objection will be overcome. Another type of floor is made of a layer of 4 by 8 by 12 inch hollow tile, laid flatwise, and covered with about 2 inches of concrete.

Concrete and hollow tile are the principal materials used in permanent crib construction. For the footings, foundations, and driveway floors, concrete is the logical material to be used. Bin construction is of wood in all the types shown. In the majority of cases tile walls are used, although there are some cribs built entirely of concrete.

The roof covering should be of a permanent and fire resisting character. Metal, prepared roll roofing, or masonry are most often used.

The illustrations show the three principle types of permanent combined storage buildings in common use. They are the round crib and granary, the square crib with frame construction above, and the square crib and granary with a masonry arch roof.

The Round Crib

The round crib was the first one developed. In plan it is simply circular in form, with 9 to 10 foot crib, and a ventilating shaft through the center some 6 to 8 feet across, making the diameter 24—28 feet. There is no limit of height to which the round crib can be built. However, 20 to 30 feet in height is most common.

The outward pressure of the grain in this type of crib is held by steel reinforcing rods in the mortar joints between each course of tile. Over the ventilating shaft in the center there is usually a cone shaped "spreader" which distributes the corn or grain. The advantages claimed for this type of construction are that it is economical because the circular walls enclose a greater amount of space with the same length of wall. Because there are no corners to build up, the masonry work can be rapidly done with slight changes of mistakes. The circular construction also is easy to reinforce.



COMBINED GRAIN STORAGE BUILDING ON IOWA STATE COLLEGE FARM. WALLS ARE REINFORCED WITH PLASTER AT INTERVALS OF 10 FEET

This round crib cost $2,300, and has a capacity of 11,000 bushels of corn and small grain, or a storage cost of 20 cents for each bushel capacity.

Square Crib With Frame Construction

The second type of permanent grain storage, that is, the square crib with frame roof, has been in use for 4 or 5 years. The illustration shows one built on the Iowa State College Farm.

The advantages of the square crib over the round are that a driveway can easily be had without weakening the construction. It is claimed also that bins over the driveway can be arranged to a better advantage in the square crib. It is possible also to have all the elevating machinery inside and room if desired for sheller, grinder, and gasoline engine.

The biggest problem in connection with the square crib has been the difficulty of reinforcing the walls against pressure. This has been overcome by the use of columns or pilasters at intervals in the walls and connecting them with reinforcing in the mortar joints. In several cribs instead of concrete pilasters, steel beams have been used. In most cases, however, the concrete is less expensive and more easily obtained.

The cost of this crib which is 32 feet square and 16 feet to the eaves, is a little less than 20 cents for each bushel capacity.

Square Crib With Masonry Roof

The third and newest type of crib and granary is the square construction with masonry roof. Two years ago the Iowa Experiment Station designed and built a masonry arch roof with the idea of developing a type which could be used on permanent farm buildings. This roof was built with reinforced concrete ribs at intervals of about 12 feet and filled in with hollow tile construction.

Using the arch roof as a starter, and the shape of the greenhouse roof on the college grounds as a model, Mr. A. J. Wheat, an Iowa builder, has developed a masonry roof such as is illustrated by the photograph.

Mr. Wheat has built four of these combined grain storage buildings in the past year and the owners are well pleased with them. In all essential points the plan is similar to the ordinary square crib with driveway through the center and grain bins overhead.

However, the method of reinforcing the walls is different. Instead of columns in the wall these cribs have a horizontal reinforcing course every 5 to 6 feet in the height of the wall. This is made by filling ordinary tile with concrete and running half-inch square bars through them. Of course each mortar joint contains a small amount of reinforcing wire also. One of these cribs holding 9,000 bushels cost approximately 28 cents for each bushel of capacity. One 15,000 bushel crib cost 25 cents per bushel.

In general, permanent construction will cost from 10 to 20 per cent more than wood. Considering the longer life, fireproof qualities, better appearance, and rat proof construction, the cost over a period of years will compare favorably with the wooden building.

In each of the buildings mentioned, manual labor in handling the grain has been reduced to the lowest possible point. An elevator is used to unload all the grain. All bins have spouts in the bottom so that practically all the grain is taken out by gravity. In most cases the cribs have a shelling trench or a sloping floor, or both, so that one man can easily feed a large power sheller. If desired the shelled corn can then be re-elevated into the overhead bins until the owner is ready to feed it, or haul to market.



A ROUND CORN CRIB AND GRANARY, ON AN IOWA FARM, WITH A CAPACITY OF 11,000 BUS. OF GRAIN

The owner reports that the cost was $2,300, or a cost of 20 cents a bushel, which included board for the laborers, hauling, and the elevator installed.



HOLLOW TILE CORN CRIB AND GRANARY WHICH HOLDS 7,800 BUSHELS CORN AND 7,200 BUSHELS SMALL GRAIN. HAS HOLLOW TILE ROOF REINFORCED WITH CONCRETE RIBS

A Farmer Critic

HOARD'S DAIRYMAN:—The writer lives in one of the most prosperous counties of Southern Wisconsin. We have the reputation of being among the most progressive farmers in the country. And yet we show a surprising tendency to lag behind when it comes to adopting modern methods in our farming operations.

And right here lies the difference between the farmer and the industrial establishment, and is the main reason for the latter having forged so far ahead in the eyes of the world. Oh, yes it has, too, and we farmers can't dispute it, although we may in a very short time.

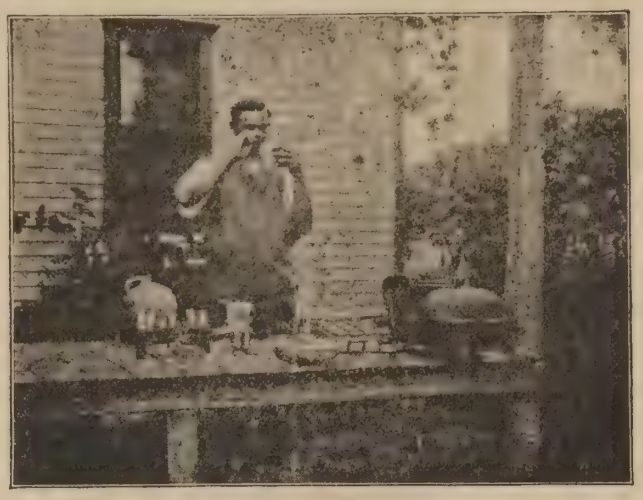
The farmers are kicking against the price of milk. All well and good. I hope they raise it. But the farmers don't deserve to receive it until they have made every effort to be compensated to a greater extent by adopting more efficient methods and looking at things in a more progressive light.

I know a farmer who has prepared and had published in a different paper an article on the milk price question. He bases his figures mainly on his experience on his own and neighbor's farms. But he overlooks the fact that a few suggestions from his county agent and association tester would reduce his cost of production to a great extent, if only they were carried out. He is only typical of many others.

When a new invention comes on the market, pertaining, let us say, to the manufacture of traction engines, there is an eager bid for it by the various manufacturers, who are always seeking to incorporate new ideas into the manufacture of their products. But does the farmer do likewise? By no means! In the majority of cases he hems and haws, and then opines he will wait until it is tried out. And nine cases out of ten, each waiting for the other, it is a long, long time before it does get tried out.

And yet, there is positively no reason why this should be the case. Farmers, why can't we get together and see if we can't do better along these lines? Let us do our part efficiently first, in these times of war, then call upon our brothers to recognize its worth in a more substantial manner than praise.

A WISCONSIN FARMER.



Detective Work That Pays

This man is after the cow that does not yield a profit.

In this day of high priced feed, you have to know for sure that every one of your cows is earning money for you. And if you want to know the exact worth to you, of each and every cow, get

The C. P. Babcock Tester
This Style Only **$9**

complete with six bottles. 8 bottles $10—10 bottles $12—12 bottles $14. Or we can furnish a small uncovered 4-bottle tester complete with glassware for $5.25.

The test is not hard to make. It is simple and easy to understand. Just follow the full instructions which accompany each tester and you will get an accurate test every time.

Ask for the Dairyman's Catalog.

The Creamery Package Mfg. Company,
68 W. Kinzie St., Chicago, Illinois.



Seven Times More Food Value

"Yes, I bought all the Liberty Bonds that I could carry. And I've found a way to pay for them out of *extra* earnings and at the same time help folks Hooverize: I make my skim into delicious cottage cheese and pack it in

KLEEN KUP

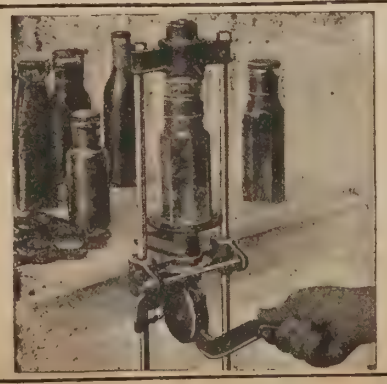
The Package of Quality for Foods of Quality

Government experts say that skimmed milk furnishes seven times as much actual human food when made into cottage cheese as it does if fed to live stock. My customers are very glad to get it on meatless days—and other days, too.

"I use Kleen Kup packages also for my private brand of butter and for farm-made buttermilk. They are neat, convenient, inexpensive. I'd hardly know how to run a dairy without Kleen Kup."

You, too, can increase your dairy profits by the use of Kleen Kup packages. Let us show you how. A postal will bring samples, selling helps and the Kleen Kup story. Write today.

THE MONO-SERVICE CO., NEWARK, N. J.



A Better Way of Sealing Preserves, etc.

In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

The better and easier way is to use a MIDGET CROWNER and seal your bottles (up to 14 ins. in height and 4 ins. in diameter) with air tight Crowns (8 sizes).

In storing condiments of all kinds for future use you will find this the safest method of sealing.

Write for full particulars.

THE CROWN CORK AND SEAL COMPANY,
Baltimore, U. S. A.

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Ida.	Pioneer	R. W. Sharp	June	455	19 over 50	74	R. Maxwell
Mich.	Van Buren Co.	C. Richards	"	234	5	54	L. L. Lawrence
Vt.	Lamoille Valley	H. H. Buchanan	"	580	46	59	G. H. Allbee
Wis.	Hebron	F. J. Molzahn	"	449	17	60	W. H. Reed
Minn.	Greenwood Prairie	F. L. Thornton	"	369	58	55	Ames Bros.
Vt.	Chittenden (So.)	A. H. Russell	June	560	9	73	R. L. Howe
"	Craftsbury	P. E. Bassett	"	358	16	56	J. W. Simpson
"	Derby	Rawson Calkins	"	310	2	40	S. E. Gray
"	Enosburg Falls	O. M. Kibby	"	447	13	51	Mrs. Kimball
"	First Addison	B. E. Russell	"	548	28	61	G. H. Wright
"	Lamoille Co.	M. L. Lashua	May	490	3	56	E. B. Collins
"	Lamoille Co.	M. L. Lashua	June	520	6	51	C. E. Lampher
"	Lamoille Valley	H. H. Buchanan	"	550	35	58	G. H. Albee
"	No. Randolph	W. H. Wheatley	"	320	7	48	Chedel & Hill
"	Orwell	L. C. Glover	"	498	44	61	G. M. Cook
"	Rutland Co.	Wm. M. Jackson	"	590	17	60	G. E. Griggs
"	St. Albans	L. A. Earle	"	380	12	66	H. S. Eldred
"	White River	W. E. Parsons	"	320	35	91	Quechee Falls
"	Chittenden (No.)	C. N. Howe	May	490	8	50	G. F. Story
"	Chittenden (No.)	C. N. Howe	June	500	6	61	J. Town
Ohio	Conneaut	C. W. Kiefer	"	459	33	65	W. M. Hamilton

Association Notes

Van Buren County, Michigan:—Pasture is very poor here due to dry weather. Consequently the flow of milk has dropped considerably. The association is starting a new year and does not as yet have a full membership. The herds in our association are mostly grade Jerseys and Guernseys, although there are some Holsteins and one registered Dutch Belted herd. The creamery pays 45c for fat. Hay has a local value of $15 per ton; silage, $10; dairy feeds, $3 to $3.25 per hundred pounds; oats, 90c per bushel; corn, $1.60; and pasture, $2 to $3 per cow per month.

Hebron, Wisconsin:—Seven slackers were sold from among the cows in this association during the month to increase the nation's meat supply and to cut out needless work. Pasture is getting short and most cows have taken a great drop in milk production. According to records so far we will have a good number of cows to enter the Register of Production list. One cow has over 250 lbs. of fat to her credit for the first three months since freshening. In June milk testing 3.5 per cent sold for $1.80 per hundred pounds. The May price for butterfat at the creamery was 47c. None of our members are feeding grain and only a few are feeding silage.

Greenwood Prairie, Minnesota:—Three low producing cows have lately been sold. One pure-bred sire has been purchased; also two pure-bred heifers. Six members are feeding grain as a supplement to pasture. The creamery pays 51c for fat. Bran costs $40 per ton; oats, $36; barley, $46; and pasture, $2 per cow per month. We have nine herds of Guernseys, three of Jerseys, eleven of Holsteins, one Shorthorn, one Red Poll, and one Brown Swiss.

Penfield, Ohio:—The May price for milk testing 3.2 to 3.6 per cent was $2.30 per hundred pounds; 4c additional was paid for each point above the required fat test.

National Meeting of Farmers

TO THE FARMERS OF AMERICA:—Victory must come from the soil. Food and men will win the war. The soil supplies both.

The men who till the soil are wholeheartedly behind the government to win the war. None have shown themselves more ready to do their utmost. The volunteers they have supplied, the money they have given, and the wonderful crops they have produced—crops greater in proportion to the number of farm workers than the world has ever seen before—prove that beyond dispute. None are more determined to leave nothing undone that will help to bring victory. With them the great question is how they can serve best. Without doubt their first duty is to supply the food without which victory is impossible.

With this fact in mind the Federal Board of Farm Organizations hereby calls upon the farmers of the United States to assemble in person, or by their representatives, in the city of Washington, August 27, 28, and 29, 1918, there to consider, decide upon, and take such action as will best promote the production of farm crops in 1919: Sufficient, first, to supply our own people, our allies, and the neutrals who depend upon us, and, second, to replenish our national reserves of grain, live stock, and dairy products, now depleted to a point where a single short crop will threaten us with famine.

America's acres can and must win the war.

Signed:—
W. T. CREASY, Chairman,
Secretary National Dairy Union;
CHARLES S. BARRETT,
Pres. National Farmers' Union;
J. H. KIMBLE,
Pres. Farmers' Nat'l Congress;
JOHN A. MCSPARRAN,
Master Penn. State Grange;
MILO D. CAMPBELL,
Pres. Nat'l Milk Producers' Fed.;
CHARLES MCCARTHY,
Nat'l Agr'l Organization Society;
R. D. COOPER,
President Dairymen's League;
J. W. PINCUS,
Secretary Federation of Jewish Farmers of America;
GIFFORD PINCHOT,
Pres. Penn. Rural Prog. Asso.;
A. B. THORNHILL,
Pres. Farmers' Union of Va.;
CHARLES A. LYMAN, Secretary,
Washington, D. C.

Center of Agricultural Production in Illinois

The center of agricultural production of the United States, according to the value of crop and animal products for 1917, is in west central Illinois as shown by a diagram just issued by the Department of Agriculture. The states of greatest production are: Iowa, $1,330,000,000; Illinois, $1,255,000,000; Texas, $1,045,000,000; Missouri, $947,000,000; Ohio, $851,000,000; Nebraska, $774,000,000; Indiana, $766,000,000; Kansas, $735,000,000; New York, $700,000,000; Minnesota, $646,000,000; Pennsylvania, $636,000,000; Georgia, $605,000,000; Wisconsin, $598,000,000; California, $575,000,000; Michigan, $534,000,000, and Kentucky, $529,000,000.—Weekly News Letter.

A Dairy Farmer's Problems

HOARD'S DAIRYMAN:—Some of the dairy farmers of our neighborhood contracted for their supply of gluten feed the fore part of June, delivery to be made at the car in July. The price agreed upon was about $50 per ton. Those who entered into this agreement are glad they did so, for the price has advanced already at this time, the middle of July, five dollars per ton, and the prospect is for still farther advances. For my own part, I never missed it a great deal by laying in a stock of grain feeds early. I have found that I could save considerably more than the interest on the money represented.

There is this about it, however, we should be pretty sure that we can store feed purchased so that the losses from rats and mice will be avoided. The havoc wrought by these pests when they once get into a stock of feed certainly is surprising. Down in the state of Virginia I once visited a farm where a fine store room of corn was absolutely ruined by rats. It makes one almost heartsick to think of the damage worked by these vermin, taking the country over. We little realize it. We know we lose some, but if we could know just the extent of our losses from this cause, I fancy we would feel that money invested in granaries that are vermin proof was well laid out.

Our price for July milk, as fixed by the Federal Commission, acting in connection with the Dairymen's League and the milk handling organizations, is 44c above that for the previous month and therefore represents a distinct advantage to the producers. For three per cent milk we get $2.25, with added points for barn scores and other up-to-date improvements. This is very satisfactory and helps to make up for the losses of other months when we were receiving much lower prices.

In one or two particulars, however, we feel that there might be a change for the better. In the first place, it is not very comfortable to come right up to the beginning of the month and not know what the price for milk is to be, and with no positive knowledge whether our markets will be continued at all or not. This state of uncertainty is a source of anxiety to our farmer folk. Not only that; we cannot very well go ahead and make our calculations for the future as we might otherwise do. Then, too, it makes our farmers uneasy to have so much sharpshooting among those who are in one way or another connected with the League and the distribution of milk in our big cities. Charges of all sorts against men who are in positions of trust make us wonder just what the truth is. Have we, as some say, a lot of unreliable, if not really crooked men at the head of things? Or is there more or less personal feeling about the matter? The average man wants to know about this.

One thing is sure. Nothing is gained by controversies over the ability or the integrity of those who have been elected to representative offices in our dairymen's organizations. The best way is to go on quietly, supporting our officials to the best of our ability during their term of office. Election time may be trusted to straighten out all tangles. In almost every instance it is found that those in trust are doing the very best they can under the circumstances—just as you or I would do were we in their positions. It is human nature to be suspicious of those in authority, and it is a pity that this is so. We are altogether too apt to find fault with men in power. That is why it hurts any organization to have these jangles. I have known of more than one milk concern to be ruined by jealousy among the members. On the other hand, some organizations made up of farmers organized on a co-operative basis are to my personal knowledge, and have been for years, working in perfect harmony. It takes forbearance on the part of all to bring about such ideal relations, however. Wherever this exists the result is a strengthening of confidence on the part of all, as well as a profitable transaction of business.

Almost every day we hear somebody say that there are not cows enough in this country. We are being urged on every hand to grow more calves and bring them to maturity. All sorts of evils are predicted if the shortage of cows is kept up. But I maintain that there are altogether too many cows in this country today. For a good many years I have been glad to see the meat men drive away cows from the farms of my neighbors. I have said to myself when I saw these animals going out, "There goes one more poor cow. It is a good thing for us all. Now if that man will only put a better cow in the place of the one that is gone, the world will be the better for it." Only yesterday I saw a bull going up the road at the tail end of a butcher's cart. I was sorry for the bull that was going to his slaughter, but my heart rejoiced for the man who had sold him.

The fact is, we do not need more cows. The more we have of the kind to be found on the average farm, the worse off we are. What we do need is more good cows. What a burden it would lift off the poor, bent shoulders of the farmers of this country if they could free themselves of the thousands of cows that simply board on their owners year after year. never making any adequate return! We work ourselves half to death to maintain these worthless cows. The time has surely come when we ought to get above this sort of thing. The man power of the farm is greatly reduced. We have none to lay out on poor cows. A nation-wide campaign on the part of the dairy farmers would be a most welcome thing, if it had for its purpose, first, last, and all the time, the elimination of every unprofitable cow and the substitution in her place of one that would put a living profit into the pocket of her owner. That movement is surely coming. It cannot come too soon for the welfare of the world.

New York. E. L. VINCENT.

Tractors Relieve British Food Shortage

Changes in agriculture due to war are especially striking in the United Kingdom, where tractors have made possible increased crops in the face of a labor shortage. Since the beginning of the food campaign in November, 1915, when it became evident that the war would be long, Great Britain has imported more than 8,000 American tractors, and has orders outstanding for about 5,500 more.

Due largely to the operation of these machines, the combined acreage of wheat, barley, oats, rye, corn, and potatoes in England and Wales is about 33 per cent greater this year than in 1916. According to the American Consul General in London in a statement received by the U. S. Food Administration, the use of tractors in plowing has completely revolutionized farming methods. It is pointed out, however, that the large increase in cultivated land has been possible partly through plowing up pastures, and the cattle industry has consequently declined. This condition emphasizes the dependence of Great Britain on the United States for beef. —U. S. Food Administration.

Simple, Isn't It?



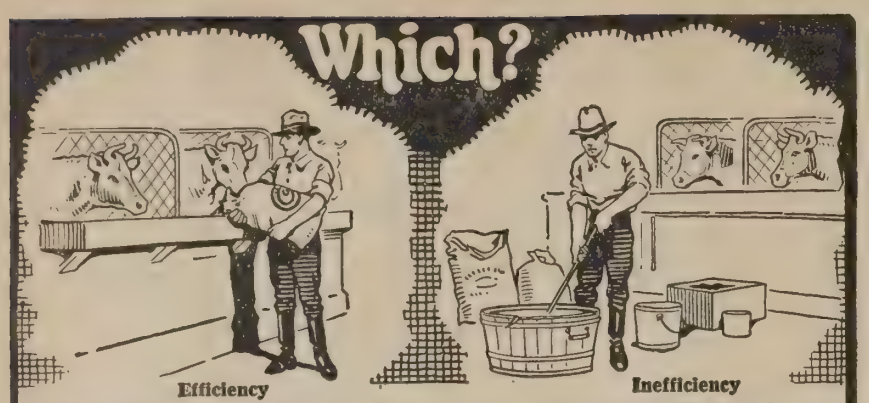
There is only one piece in the Sharples Tubular Bowl—no discs! Sharples Suction-feed Separator skims clean at any speed!

SHARPLES

West Chester, Pa., Chicago, San Francisco, Toronto

Sharples Milkers—used on half a million cows daily.

DO-61



Choose the Feed that's Right -and Ready to Use

There's no need to run risks by mixing your own dairy feed. You don't need to worry about shortage of some essential ingredient. You don't need to guess about the quality of each ingredient.

Here's the ideal balanced feed, ready for immediate use.

International Ready Ration

Saves Mixing Labor

The hours that you spend in mixing feed could be more profitably spent in other ways. International Ready Ration not only saves this time, but it saves money in its cost as compared with any other feed approaching its value. It's always uniform.

Better Than Mixed Feeds

International Ready Ration has a 20% protein content. This is the right percentage for the average milk cow—proved by innumerable tests. It has the right percentage of carbohydrates and fat. Naturally it produces the maximum milk flow—an increase is *guaranteed.*

The ordinary home mixed feed, though it may contain 20% protein, cannot equal Ready Ration in results. Accept the profits of this scientific feed—the result of years of experiment and experience. Write us if your dealer does not have International Ready Ration in stock.



INTERNATIONAL SUGAR FEED CO.
Minneapolis, Minn. Mills at Minneapolis and Memphis
Makers of International Special Dairy Feed—also guaranteed. Can be mixed with home grown grains or fed alone, as a 16% protein ration.

Remember the Name→

WE FED YOUR COWS

TRADE UNICORN MARK

¶ Almost every high American record for fourteen years with any breed was made with our Ajax Flakes as an important base of the grain ration.

¶ Unicorn Dairy Ration is the only feed that contains Ajax Flakes.

¶ You can hardly find a pure blood whose maternal ancestors were not fed on Ajax Flakes or Unicorn Dairy Ration.

¶ Unicorn is recognized as a safe, efficient and economical dairy feed.

¶ Unicorn during the past year made more high records than any other brand of feed.

¶ Unicorn really costs less per pound of milk or fat produced than other feeds.

Chapin & Co., Dept. Z, Chicago

Send in Your Order Today

For a Hoard's Dairyman Heavy, Serviceable Cloth Binder. Keep every issue, and USE the index. **Price, $1.00 Postpaid.**

Future of the Dairy Industry

(Continued from first page)

tinental dairy countries imported than 2600 per cent, and of condensed milk 1600 per cent.

Nor will this demand for our dairy products abruptly cease with the coming of peace. When war ends foreign nations can buy grain for seed purposes and after the first crop be able to care for themselves as regards grain. The foreign demand for American grain will slump a year or two after the war ends with a corresponding slump in prices. "Not so with dairying," says the Department of Agriculture, "It takes a long time to develop dairy herds and a still longer time to so increase the number of dairy herds as to supply the world's needs."

A few months ago I heard Carl Vrooman say this: "The dairy herds of the old world are depleted to an appalling degree. There is not a country in Europe where the people have enough dairy products, and this process of depletion is going on every day, and every week, and every month, and will continue to go on as long as this horrible war lasts. When this was is finished, we will find the world with a demand for dairy products twofold, four fold, ten fold greater than the supply. Europe will come to us with outstretched hands, every country in Europe, and say to us, "We must have milk; give us canned milk; give us dry milk; give us butter; give us cheese; give us dairy cattle; give us animals to build up our dairy herds again. And unless America has stimulated the production of dairy products, has increased our supply of dairy animals far beyond anything in the past, we will be utterly unable to supply this demand."

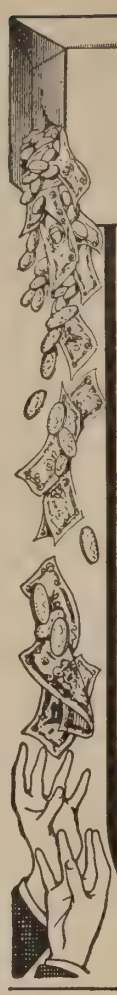
It is true there have been some, well informed, who did not agree with Mr. Vrooman. Mr. Helmer Rabild, of the Bureau of Animal Industry, is one of those who believe that, "as a general proposition the decrease in dairy stock throughout the world has been largely through the disposal of the less profitable animals and the best breeding stock has usually been retained. For this reason we do not anticipate that there is likely to be a heavy demand on the United States from the older countries for breeding stock." Here are the opposing views. The truth is probably somewhere between.

Obstacles to Prosperity

But, in spite of the solid foundation on which the dairy industry rests, in spite of the hopeful outlook for the more distant future years and the optimistic view we can take of the immediate future, the dairy industry is today face to face with a most discouraging situation.

There are two great obstacles at the present moment which stand in the way of the prosperity of the men who own cows. Forty-four per cent of the milk produced in the United States goes into the making of butter; 41 per cent is used on the farms for drink and sold as market milk; 85 per cent of the entire milk production being marketed either in the form of butter or as milk for household use. In the market milks what do we find? Consumers warring against milk producers, newspapers damning dairymen, the Federal Government and the states indicting producers for alleged violations of anti-trust laws, consumers curtailing purchases of milk with every half-cent advance in price, though other products may advance by leaps and bounds without protest and without proportionate decrease in purchases.

What about butter? Ask your grocer. If you find what I found you will find that today the average grocer is



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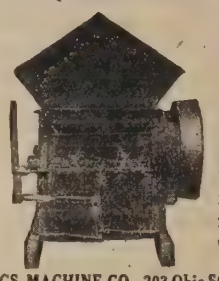
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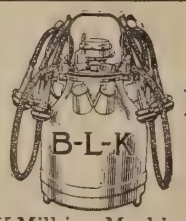
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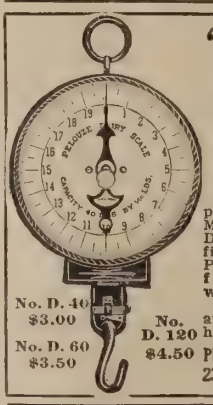
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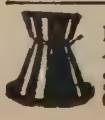
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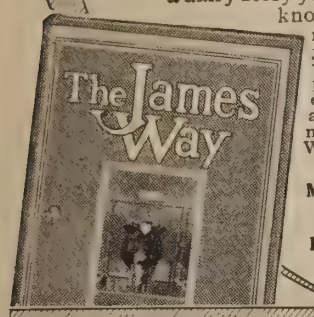
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IT shows how to select the right location, tells about drainage, light, ventilation and distance from other buildings. How to build best for the small herd so you can properly enlarge later. It shows

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which is used in many of the most profitable barns in the country. James equipment keeps the cows comfortable—makes them bigger producers, increases your profits. **The JAMES BOOK** has a dairy story you want to know. Will be mailed if you just tell us when you expect to build or remodel and for how many cows. Write today.



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LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but **absolutely prevents sucking.** Extremely easy to put in place. Endorsed by dairymen everywhere. At dealers.



Sent Prepaid: Calf size 35c; Cow size 45c
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When writing advertisers please mention Hoard's Dairyman.

selling 60 pounds of substitute for every 40 pounds of butter—that an average of the past twelve months will show sales of more butter substitutes than of butter. And why is this? Price? Yes, in part. But you business men know that a product having the merits of butter can be sold at satisfactory prices and in satisfactory volume in competition with inferior substitutes even though the price difference be very great. The makers of butter substitutes are getting the business pretty largely because they are better salesmen.

Remedy

I have often wondered if those men who have been doing such splendid work for our industry in the fighting of oleomargarine might not perhaps have rendered even a greater service had they transferred the trial of their case to another court instead of fighting their case in the halls of Congress; they might better perhaps have pled their case before the bar of public opinion. Public opinion is the court of last resort—from it there can be no appeal.

The makers of substitutes shrewdly have been pleading their case before this court, and the dairy industry has had no advocate to represent it there.

In closing, this is the thought I would leave with you:

That in spite of the fact that the dairy industry is built upon a most solid foundation, and in spite of the fact, if we ignore the present situation, that the future outlook justifies the greatest of optimism, we are face to face, today, with obstacles that must be overcome if the dairy farmers of America are to cash in on the opportunity for great profit and great progress which is before them.

The consumers of milk who have been stirred to anger and who now are in fighting mood against milk producers because of ignorance of the value of dairy products and ignorance of conditions in the dairy industry, must be sold on the merits of milk. And the butter industry must be helped to full recovery and in future protected against inroads such as are being made today by the better merchandising methods of the substitutes.

These two greatest obstacles are to be overcome not by legislation but only by real salesmanship; and, in a business such as this, real salesmanship must take the form very largely of publicity and advertising.

Gentlemen, the solution of the problem is up to us. The obstacles are great but they can be overcome. Certainly in the dairy industry of America there is enough real business ability, enough real executive ability, enough real salesmanship to teach America the truth about milk and butter—enough real ability to beat the substitutors at their own game. But a hundred thousand dollars a year will not do it, neither will brief two weeks' or two months' newspaper campaigns in cities here and there accomplish the purpose. Nor is it a one man job. It is a task that calls for money and brains and work and cooperation of every individual in an entire industry.

Next to winning the war, the solution of this difficult situation, the determination of how to apply salesmanship to the marketing of the nation's dairy products, is the immediate and the vital job that is up to you—that is up to me—that is up to every man in the United States who is in any way interested in the prosperity of American dairy farmers.—From an address before the Des Moines Dairy Conference.

Guarantee the soldiers' sugar ration by sticking to your own.

Use—
Barrett Everlastic Roofings

—all over the farm

The Barrett Everlastic System of Roofings makes it possible for you to have at a low price just the kind of roof you need on any steep-roofed building.

There is a style for every purpose, including artistic red or green slate-surfaced shingles, or the same roofing in rolls as well as the highest grade of "rubber" roofing.

The Everlastic System of Roofings means *real economy in roofing* for the home and farm. Read brief descriptions of four styles Below.

Everlastic "Rubber" Roofing

A recognized standard among so-called "rubber" roofings. Famous for its durability. Made of the best waterproofing materials, it defies wind and weather and insures dry, comfortable buildings under all weather conditions.

Everlastic Slate-Surfaced Roofing

A high-grade roll roofing, *surfaced with genuine crushed slate* in two natural shades, red or green. Never needs painting. Colors are permanent. Handsome enough for a home, economical enough for a barn or garage. Combines real protection against fire with unusual beauty.

Everlastic Multi-Shingles

Made of high-grade felt, thoroughly waterproofed and *surfaced with crushed slate* in natural colors, either red or green. Laid in strips of *four shingles in one* at far less cost in labor and time than for wooden shingles. Gives you a roof of unusual artistic beauty that resists fire and weather.

Everlastic Tylike Shingles

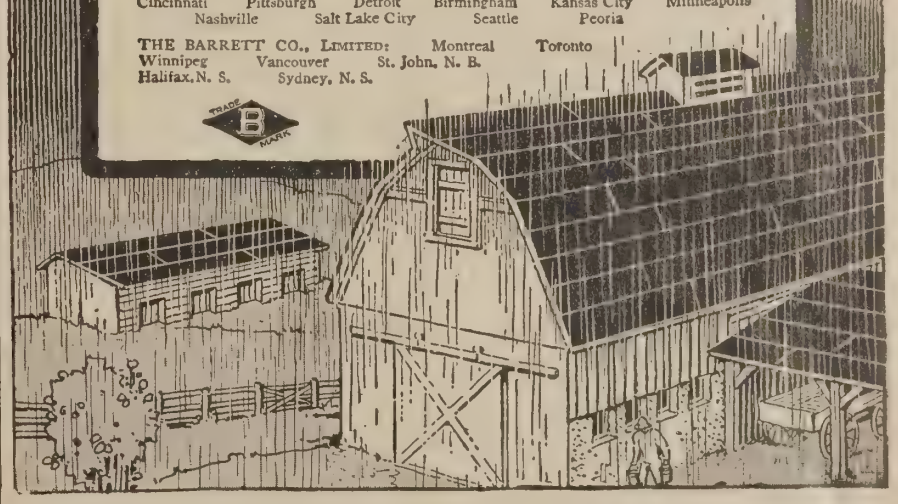
Made of the same durable slate-surfaced (red or green) material as Everlastic Multi-Shingles but cut into individual shingles, 8 x 12¾ inches. Laid like wooden shingles but cost less.

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SALE ANNOUNCEMENTS

Aug. 20—Guernseys and Clydesdales. Glen Farm Sale. Newport, R. I. Leander F. Herrick, Worcester, Mass., Mgr.

Aug. 27—Guernseys. Dispersions of the T. D. McChesney, Minette, N. Y., and Winthrop Condin, Mt. Kisco., N. Y., herds at New Castle Farm, Mt. Kisco, N. Y. Leander F. Herrick, Worcester, Mass., Manager.

August 30 to Sept. 8, Michigan State Fair, Detroit, Michigan. Secretary, G. W. Dickinson.

September 1 to 6, Nebraska State Fair, Lincoln, Nebraska. Secretary, E. R. Danielson.

September 2 to 6, Connecticut Fair, Hartford, Connecticut. Secretary, H. C. Parsons.

September 2 to 7, Indiana State Fair, Indianapolis, Indiana. Secretary, Chas. Kennedy.

September 2 to 7, Spokane Interstate Fair and Live Stock Show. Acting Secretary, W. L. Tennant.

Sept. 4—Holsteins. Sauk Valley Dairy Farm, Holsteins. O. S. Cass, Sauk Center, Minn.

Sept. 11—Holsteins. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 18—Registered Holsteins. Complete dispersal sale, Charles Prange, New Douglas, Madison County, Ill.

Sept. 25—Holsteins. Absolute Dispersion of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.

Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.

Oct. 10, 1918—Holsteins. Fred E. Zimmerman, Washington, Ill.

Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.

Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.

Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.

Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

Coming Events

Illinois Centennial State Fair, Springfield, Illinois, August 9 to 26. Secretary, B. M. Davis.

State Fair, Sedalia, Missouri, August 17. Secretary, E. G. Bylander.

State Fair and Exposition, Des Moines, Iowa, August 21 to 30. Secretary, A. R. Corey.

California State Fair, Sacramento, California, August 31 to Sept. 8. Secretary, Chas. W. Paine.

Kankakee Interstate Fair, Kankakee, Illinois, August 26 to 31. Secretary, Len Small.

Ohio State Fair, Columbus, Ohio, August 26 to 31. Secretary, E. V. Walborn.

There are many farmers who find it pays them well to make butter and sell it in the city or village. The state college of agriculture at Ithaca, New York, will send you a copy of "Farm Butter Making". Ask for R. C. F. 60.

New York Butter Market

New York City, July 24:—With the coming of extremely hot weather the demand for butter has materially lessened. For several days the market has been decidedly weak and indications point toward a marked decline in price soon. Yesterday witnessed a decline of one-fourth cent in prices of upper grades of butter, the first change in quotations that had taken place for over a week. Local consumption is undoubtedly affected by the exit of large numbers of city dwellers to the country, they wishing to avoid the discomforts of the present hot wave.

Hot weather is beginning to show its effect on the quality of butter that is being received. While more noticeable effects will undoubtedly be apparent next week, many marks of butter which ordinarily grade as "Extras" have had to pass as "Firsts" this week. Now is the season of the year when milk and cream must be held cool, and when cream separators must be thoroughly cleaned twice each day. No matter how efficient or capable the buttermaker may be he can no more make wholesome, high quality butter from poor milk or cream than can the housewife prepare a palatable roast from a partially decomposed cut of meat. Absolute co-operation on the part of the creamery patron is necessary in order that the creamery may manufacture butter that will bring top price.

Until yesterday quotations had not changed since the report of last week. The changes of yesterday were peculiar in that while the upper grades showed a decline in price, the under grades closed fairly strong. The latest quotations are as follows: Extras (92 score butter), 45c; higher scoring than extras (93 score butter or above), 45½@46c; firsts (88 to 91 score butter), 43½@44¾c; and seconds (83 to 87 score butter), 41½@43c.

New York. W. B. LIVERANCE.

Representatives of Wisconsin Dairy Industry to Hold Meeting

At the request of the dairy interests of the state, the Wisconsin State Council of Defense has authorized calling a meeting of representatives of the various dairy and agricultural associations of Wisconsin and such other associations as are interested in the development of the dairy industry, the purpose being to organize a Wisconsin State Dairy Council. The place selected for the meeting is Milwaukee, in the "Gold Room" of the Hotel Wisconsin. The time is Wednesday, August 7th, at 8 a. m. On the evening of August 6th, 8:30 p. m., there will be an informal public meeting at the Hotel Wisconsin of all persons then present, to discuss plans for expediting the business of the following day.

Many who are engaged in dairying have appreciated for some time the necessity of informing the consumer regarding the food value and importance of milk and its products. In some sections of our state there is a surplus of market milk and, at times, butter, cheese, and condensed milk have had dull markets. It seems possible to those who have considered carefully the dairy condition of our state that the consumption of dairy products could be increased and a larger and better market secured. In these critical times it is both fitting and wise to assist our dairy industry in every possible way. It is invaluable to the welfare of the nation. The duties of the proposed Wisconsin State Dairy Council would be to lay plans and provide money for carrying on a systematic educational and advertising campaign regarding the food value and necessity of milk and its products.

Kildee Returns to Iowa

Professor H. H. Kildee, for the past two years head of the Division of Dairy Husbandry of the University of Minnesota, has resigned from that position to become head of the Animal Husbandry Department of the Iowa State College. Previous to his work in Minnesota, Professor Kildee held the professorship of Dairy Husbandry at the Iowa State College.

Professor Kildee has given splendid service to dairying in the two great dairy states in which he has directed the dairy husbandry instructional and experimental work at the agricultural colleges. If his new duties preclude his giving considerable attention to dairy cattle, the dairy industry suffers a distinct loss in his taking up general animal husbandry work. This is a time when dairying needs its able supporters.

Waushara Guernsey Picnic

Guernsey breeders of Waushara County, Wisconsin, met recently in annual picnic at the Crowell farm. More than 1,500 persons were present. A judging contest for boys in which 21 entered was an early, interesting part of the day's program. Leon Gruber won first honors; Loren Eastling, second; and George Traxel, third.

Wm. McKerrow spoke of the value of having pure-bred sires and of keeping records. Other speakers were Mr. Ullsberger of the Hancock Experimental Farm, and J. W. Brann.

Moving a Silo

HOARD'S DAIRYMAN:—In a late issue, I notice an Illinois subscriber wants to move a silo. I will tell you my experience. We first tightened the hoops then raised the silo with a jack screw and loaded it on two eight-by-eights. These were fastened solidly by nailing two planks inside and outside. The outside planks were notched out some to fit the circle of the silo and inside plank. The corners were chopped to fit against the silo. It was then loaded for moving. We placed plank on the ground to move on and moved with rollers. Pulling was done with a tackle block. When ready to place on wall the silo was let down two inches at a time by using a bar for a lever. The staves were not moved out of line in moving.

Wisconsin. Max Wheeler.

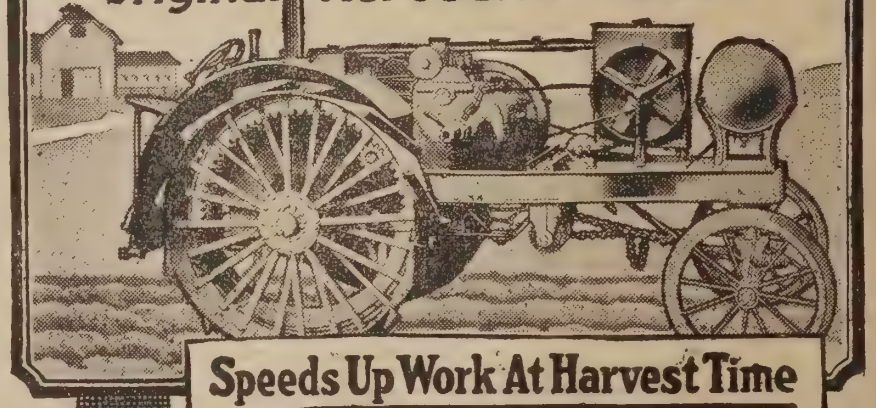
Index Ready

The index for volume 55 of Hoard's Dairyman is ready for distribution. Those desiring this index may secure it for the asking. Address a postal to Hoard's Dairyman, Ft. Atkinson, Wis., and state: "Send me index for volume 55." Sign your name and address plainly. There is no charge for the index.

The government has requested that all publications be saving of paper. This is the reason why we are not mailing the index to each one of our subscribers as has been the custom. We shall, however, send the index to every one desiring it.

The cost of the U. S. Food Administration for its first year's work was less than two cents for every person in the United States.

WATERLOO BOY
Original Kerosene Tractor



Speeds Up Work At Harvest Time

You need to do some fast work when your standing crops are ready to cut; and you can rely upon the Waterloo Boy one man, three-plow, cheap fuel tractor to make every minute count.

One man can harvest 25 acres per day with the Waterloo Boy and an 8-foot grain binder, or 10 acres per day with a corn binder—has a threshing record of 16 loads clover in 4½ hours.

Waterloo Boy at Work

John Schoepf & Sons, Seward, Nebraska, write: "We plowed 42 acres with 60 gallons kerosene in 5 days; we shelled 18 loads corn in 2½ hours; we threshed 16 loads clover and alfalfa in 4½ hours with a No. 6 huller, the largest in this section. We think the Waterloo Boy as powerful and as cheap to operate as any tractor."

Stands Severe Endurance Test

The Waterloo Boy motor has pulled a 25-H. P. load for 312 hours without stopping. A test run of eight months showed average kerosene consumption of less than 1½ gallons per hour.

As efficient in the field as at the belt—pulls three 14" bottoms in heavy soil, with ample reserve power. Light weight, large, wide wheels, with powerful quick-starting motor and easy control enable the Waterloo Boy to do good work "where heavier tractors would not dream of working," writes one owner.

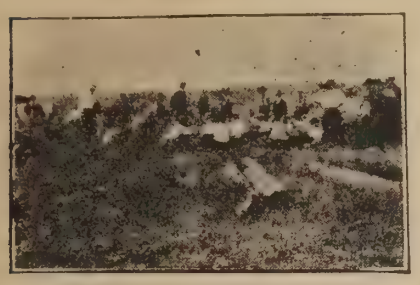
Remember, the Waterloo Boy is made and backed by a responsible manufacturer, and has over four years' proven success to its credit.

Illustrated Catalog sent free, shows why thousands of farmers are buying the Waterloo Boy. Write for it.

Waterloo Gasoline Engine Company
4100 W. Third Avenue Waterloo, Iowa

Dairy Show in Sanders Co., Montana

The dairy show which was held at Alger, Montana, June 22, was a big success. There were over 500 people in attendance during the day. More than $100 was given in prizes to owners of dairy cattle exhibited at the show. There were thirty-one head of dairy stock exhibited. Fifteen boys and girls entered the stock-judging contest. There were three prizes given in this contest; Arnold Kruger of Plains won first; Edwin Fairchild of Trout Creek, second; and Ernest Brown of White Pine, third. The show was held under the auspices of the Sanders County Farm Bureau co-

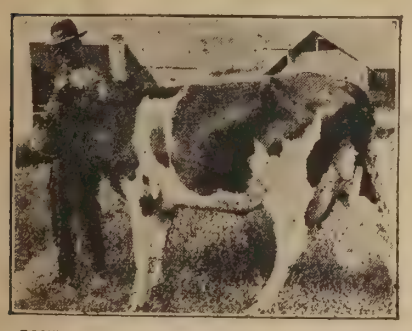


FARMERS OF SANDERS CO., MONTANA, AT THE DAIRY SHOW RECENTLY HELD WHEN THE FIRST BULL ASSOCIATION IN THE STATE WAS ORGANIZED.

operating with County Agent Hillman and W. E. Tomson, field agent in dairying.

Immediately after the picnic dinner, Mr. E. A. Duddy of the State College gave a fine patriotic talk. He was followed by Mr. F. W. Kehrli of Salt Lake City, who told about the value of a bull association. Cards were handed out after this talk and the dairymen were asked to indicate on them the number of cows in their herd and the choice of breed. Most of them favored the Holstein breed.

The dairy show was held mainly to stir up interest for the organization of a bull association and it greatly assisted in this. This organization of the Sanders County Pioneer Bull Association, which is the first organization of its kind in the state, was completed during the first three days of the following week. The association



ONE OF THE 31 HEAD OF DAIRY CATTLE EXHIBITED AT A DAIRY SHOW IN SANDERS CO., MONT.

A three-block Holstein Bull Association was formed. Prizes totaling $100 were given to exhibitors and three prizes were awarded in a boys' and girls' judging contest in which 18 competed.

is composed of three "blocks" and a pure-bred Holstein bull will be placed in each for use by the members of that block. At the end of two years the bulls will be moved on to the next block and then again at the end of the next two years, so that no new bulls need be bought for six years. Additional blocks may be added at any time and in that case no other bulls need be purchased for a long time. Another block will be added to the Sanders County Pioneer Bull Association next spring, and possibly two.

The main advantage of being a member of a bull association is that it enables a man with only a few cows to have the use of a pure-bred bull of good breeding for several years at only a small expense. So the man who has only a few cows has the use of as well bred a bull as the man who has a large herd.

Montana. F. M. HILLMAN.

Hints to Buttermakers

The following suggestions to butter shippers are made in the July 20 Weekly News Letter of the Gleaner Clearing House Association, under the heading "Some Hints":

Mottled Butter

Of late the butter of several of our shippers has been more or less wavy or mottled. As that condition usually results in the butter being placed among under-grades, we wish again to call your attention to it. A wavy or mottled condition is due to uneven distribution of salt in the butter. While there are several factors which are ordinarily listed as causes of mottles they are causes because they influence the distribution of salt. The one remedy for mottles is to work the butter sufficiently, as through proper working salt is evenly distributed throughout the butter. Butter which has a firm body can stand considerably more working than is ordinarily given it, without harm. Examine your butter with a trier 24 hours after it has been put in the cooler. If it is uneven in color, experiment with several churnings until you feel sure you have determined as accurately as possible the amount of working that should be given your butter.

The Butter Trier

Many creameries do not possess a butter trier, hence it is practically impossible for the buttermaker to examine his butter carefully after it has hardened in the cooler. A surface examination is not satisfactory. Only through boring the butter can its real condition be seen. The butter trier is a small investment—probably you can inveigle your supply house into giving you one—but it is a tool that may be instrumental in saving your plant considerable money in case it is used to advantage.

Marking Net Weights

Mark your net weights on the sides of your tubs. If they are marked on the covers they oftentimes become worn off or badly blurred by the tubs being placed on top of each other. Also there is greater accuracy in recording the weights as you make them, if the weights are on the sides of the tubs. That is especially true when they are piled up about four high.

Twine for an Acre of Grain

The state federal crop and statistical service of Missouri has been making an investigation in each county to establish the actual amount of binding twine used per acre, and the acre cost of twine, as well as the total cost and amount of twine used, and the finding is, per acre of wheat, 2.11 lbs., and for oats 2.19 lbs.

The average amount of twine per acre for a term of years is 1.88 lbs. for wheat, and 2.20 lbs. for oats.

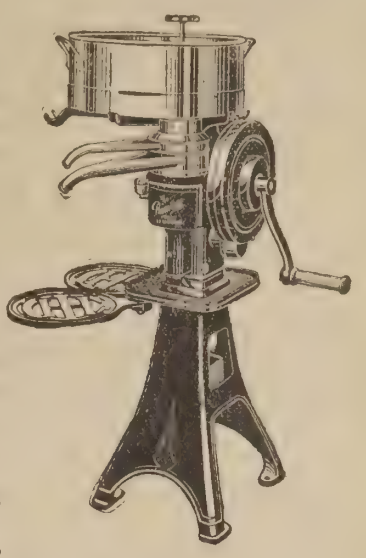
The 1919 cost of twine per acre at 24 cents per pound is 51 cents for wheat and 53 cents for oats. To tie the entire 1918 wheat crop of Missouri on this basis cost $1,458,041, and for the 1918 oats crop the twine bill is $784,400.

The Missouri state penitentiary has factory capacity to manufacture all of the twine for Missouri farmers and dealers for 1919, in spite of the war labor shortage.

Upon the door I saw a sign;
I cried, "A motto, and 'tis mine!"
A wiser thing I never saw—
No Median of Persian law
Should be more rigidly enforced
Than this, from verbiage divorced;
"Push—don't knock."—Ex.

Stop the Cream Loss!

IF YOU are still setting your milk and skimming by hand, you are losing anywhere from one-fourth to one-third of your cream. If you are using a separator, and it is not one of the best, you are still losing an amount of cream that would surprise you if you knew it. Every farm loss or leak that can be stopped this year should be stopped. Buy a **Lily** or **Primrose** cream separator and stop the cream loss.



Don't imagine that cream left in the skim milk will fatten pigs and calves faster. It has been proved scores of times that stock thrives as fast on warm separator skim milk, when a little meal or flax replaces the fat. Cream in the skim milk is dead-loss cream!

Lily and **Primrose** separators get that cream. We can prove to you that they get it all, except about one drop in each gallon.

Besides that, they are well-known as simple, easy-running, easily-cleaned machines, that last and do the same good work year after year. Buy a **Lily** or **Primrose**—it will pay back its cost in cream you may now be losing. See the local dealers who handle these separators, or, write us for catalogues.

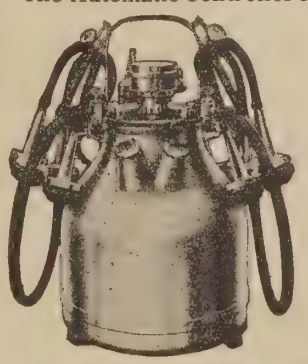
International Harvester Company of America
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Burrell (B-L-K) Milker

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Automatic Controller

The Automatic Controller makes the Burrell a distinctly superior machine. It insures natural and thorough milking by regulating automatically and providing just the right amount of suction at all times. No other milker is equipped with this important device, and no human control can give the intimate touch required to adjust a machine to the needs of each individual cow.



Write for our pamphlets describing the Automatic Controller and other exclusive features which make the Burrell the most efficient and most profitable machine on the market.

D. H. BURRELL & CO.
501 Albany St., Little Falls, N. Y.
Makers also of "Simplex" Cream Separators and other "Simplex" Specialties—The Best in the World

SWALES
PATENT
MOUTH GAG
FOR
Horses, Cattle, Sheep, Dogs and Hogs





weighs under 10 oz. and is the most perfect instrument for the examination and treatment of the Mouth and Teeth, Physicking and Balling. It is applied without assistance or twitching as easily as a bit, neither frightening the most nervous, nor hurting the most sensitive animal. It acts like a charm on biting stallions, and the quieting effect of its use on nervous animals, when being shod, blistered, fired, clipped or trimmed, is simply marvelous.

The American Society for the Prevention of Cruelty to Animals, Headquarters, Madison Ave. and 26th St.
New York, June 18, 1918.
Swales Specialty Co., Inc.
Gentlemen: I have used your patent mouth gag for horses and believe it is a very good instrument for oral examinations and also to take the place of a nose "twitch". From a humane standpoint it is a great improvement and a necessary aid to the veterinarian and layman as well. Very respectfully,
DR. G. W. LITTLE, Chief Surgeon.

W. E. LITT, M. R. C. V. S.
Inspector of the Board of Agriculture.
Chief Veterinary Officer for the County of Salop and Borough of Shrewsbury.
Dear Sirs: I enclose cheque for Mouth Gag. I tried it yesterday at Hardwicke Grange, where Prof. M'Queen sent me, and I was very pleased with its simplicity and efficacy.
Yours faithfully, W. E. LITT.

No. 1. Suitable for horses or cattle, $3.00. No. 2. Large dogs, sheep or hogs, $1.50. No. 3. Small dogs, $1.25.
SPECIAL OFFER: Complete set of 3 instruments, $5.00. Postage free.
SWALES SPECIALTY CO., Inc., Live Stock Providers, 30 East 42d Street, NEW YORK.

When Writing to Advertisers, Mention Hoard's Dairyman

EDITORIAL COMMENT

For practical use, as one man put it, "There are just two kinds of cows, cows that make more than they eat and cows that eat more than they make." Which kind do you keep?

SOMETHING TO REMEMBER

We ought always to remember that if we raise a big crop of any kind it is done with an increased exhaustion of soil fertility. If we expect that field to keep up and do well in the future we must give it additional fertilizer. A good many farmers seem to forget this and book up a good crop as so much good luck, the product of the season, so to speak, and not of the land. Heavy crops must be met with an increased outlay for fertilizer.

NEW ZEALAND DAIRY PROGRESS

We see it stated by what appears to be creditable authority that the milk cows of New Zealand, because of improved breeding, produced an average of 19 pounds more butterfat in 1917 than in 1911, netting the farmers an increased revenue of $6,261,654.

The average dairy farmer in this country has made large advances in his judgment and appreciation of the value of more decided and intense dairy blood in the sire. There is a marked increase in the number of farmers who buy and keep pure-bred sires. That shows progress and if the figures were gathered they would show a great increase since 1911 in the number of profitable grade cows, as well as in the amount of their product. All the farmers have to do is to hold steadily on this course so well begun.

GROW MORE BARLEY

As a rule, barley will produce more pounds per acre than oats. When produced it is worth nearly double as a milk or meat producer. It is also a safer, surer crop than oats. It rarely falls down so it can not be cut and bound by the reaper. It is greatly superior to any other grain as a nurse crop for clover or alfalfa. It will produce as much pork, acre for acre, as corn and can be grown at half the expense. A few farmers grow corn for ensilage and barley to fatten their hogs. In face of all these advantages it is strange that more farmers who have a good barley soil—a clay loam—do not pay more attention to the growing of this most valuable grain. To this point Farmers' Bulletin No. 965 of the Agricultural Department, Washington, D. C., says:

"As a matter of farm economy the barley acreage in the northern tier of states should be expanded at the expense of oats. That it is not more widely grown is due to two causes: Its value as a stock feed is not realized by the farmers east of Montana and the brewing industry has dominated the market to such an extent that buyers of feedstuff do not think of barley as a feed crop. Barley must be considered as a feed in order to appreciate its true farm value. Not alone pounds, but pounds of digestible nutrients should be considered."

OUR DUTY

Our government is of the people, by the people, and for the people, and those who do not take interest enough in learning of those who represent us in Congress and knowing also something regarding their beliefs and actions regarding public questions are not contributing their full share toward directing the destinies of our country.

One of our subscribers recently wrote us: "In a late issue you deplore the ignorance of farmers not knowing the names of their congressmen. I for one can not keep track of them and last year, when wanting to write to them, I inquired, but found no neighbor to tell me, so I called on three storekeepers and one town clerk and none of them could tell me. I had to ask the postmaster before I found out. Officers change so much it is hard to tell who is in power."

It is not ignorance alone that has kept men from interesting themselves in their own government; it is indifference and a willingness to let the few take care of the election of congressmen and others to carry on our government.

We must, however, change our attitude in these things. It is important to know those who represent us in Congress and what they stand for. No nation can live, move forward permanently, which has our form of government, unless a majority of its people take an active part in selecting its representatives, or at least inform themselves regarding the men in office that they may vote intelligently.

There are those who feel the government of this country is a thing separate and apart from the people, that it is some force outside the people, when in reality it is nothing more or less than of the people. This is a government of the people, and by the people, and for the people. Let us not forget that. This being so means that if we are to have a just government, an intelligent government, and a progressive government, we must all do something towards creating such a government because it is of us. We delegate our powers to representatives, to officers in various capacities, but we cannot delegate these powers intelligently and with an assurance that we are going to have intelligent service unless we are informed regarding the men who are candidates for these positions.

BANKS LEND MONEY

A farmer owning several hundred acres of good land and about $10,000 worth of personal property and free from debt wanted to borrow $500. He went to a friend of his in the city and made known to him his needs. The friend said to him: "Why don't you go to a bank and borrow it?" The farmer hesitated and said: "Do you suppose any bank would lend me that much?" "Sure," replied the friend, "any bank would be glad to lend you all the money you need."

The farmer went to the bank advised by the friend and found the president at the counter. "Could I borrow $500 from you?" the farmer inquired. "Yes," said the banker, "you can borrow $5,000, or more if you want it." "Well," said the farmer, "I do want a few thousands this fall." "Come in when you need it and we will be glad to lend it to you," was the inviting reply of the banker.

It is hard to understand how any farmer who has been so successful in his own business and has accumulated a comfortable fortune could be so ignorant regarding the function of banks. It is the duty of any bank to lend money to a reliable person with unquestionable assets. There are too many farmers who do not understand that banks are established to serve the people and that they are just as anxious to lend money as the grocer is to sell sugar. The farmer need not feel that the banker is extending him an accommodation by lending him money, for he is in business for profit and his profit is gained by charging interest on the money he lends. The grocer makes his profit by charging more for groceries than he pays for them.

Farmers should learn to make use of banks. When money is needed, go to them. If the amounts are small most banks will lend money on notes, provided, of course, those asking for loans have been prudent to always pay their debts promptly and have otherwise kept their credits good. For large loans the banks require security, but there is no objection to giving security, for it costs nothing. Because a banker holds a mortgage on a piece of property does not mean that he can take it away from its owner. A mortgage is given as an insurance that the borrower will pay the banker the money borrowed from him and the interest.

"A LAZY MAN'S TASK"

Editorially our esteemed contemporary, the Breeder's Gazette, remarks in a discussion of type and production in a late issue, "It is a lazy man's task to work exclusively to records in breeding". We read the statement just after receiving an account of a young dairy farmer's struggle from the time of the purchase of his first high priced bull to the successful completion of the record of his first "thousand-pound cow".

For days and months and years he has worked hard—frequently seventeen and eighteen hours a day. His earliest concern was the purchase of a sire whose pedigree gave assurance that he would sire high producing animals. After that his effort was directed to giving the offspring of this bull the care and management which would be most certain to guarantee their maximum production. Production was what he worked for; it paid the original and subsequent investment in stock; and for the costly feed put into every animal from birth to producing age.

Now he has a "thousand-pound cow". At 4 a. m., 10 a. m., 4 p. m., and 10 p. m. for 365 days he has milked this cow and others on test. "Three timers" and "twice-a-day" milkers also claimed his efforts. He has planted and harvested crops, cared for young stock, and managed a farm between the hours for milking. When his mind has not been concerned with thinking of managing his present herd to secure their maximum production, he has pondered over the problem of selecting a new sire which, bred to the daughters of his present bull, will still further increase the potentialities of the herd for the production of milk and butterfat. For a "lazy man" he has been decidedly active.

This is not a selected schedule. It is duplicated on many and many a dairy farm. With slight variation, it tells the story of every successful Register of Merit and Advanced Register record of production yet made. It represents the work done by hundreds of dairy farmers.

These men may be mistaken in giving too much attention to production and too little thought to the points of conformation. Production, however, is the stuff with which debts are paid and improvements in equipment made. These men may err in the path they tread but a man who follows in their footsteps for a year—yea, for twenty-four hours, must be persuaded that, for a certainty, theirs is not "a lazy man's task".

Comparison of the Three Tests for Tuberculosis

The dairymen in this locality are having quite a discussion about the relative merits of the two tests for tuberculosis. Will you be kind enough to give a report on the subject, telling particularly the comparative value of the two tests and to what extent each is recognized by the authorities?

Fort Smith, Ark. A. W. B.

The thermal or subcutaneous test is in most general favor and insofar as interstate shipments are concerned is, we believe, the only one that is officially accepted. In this test the tuberculin is injected beneath the skin and the reaction manifests itself by a gradual rise and then decrease in temperature, varying from one to three degrees or more.

The intradermal test has found favor with several veterinarians because of the greater ease of application but it is generally considered to require greater ability on the part of the operator in order to properly apply it and interpret the results. However, it is stated by those who have had experience that with greater attention to details a man may become fully as efficient in interpreting this test as in following the somewhat more definite instructions applicable to the subcutaneous test.

In the intradermal test tuberculin is injected into the deeper layers of the skin and not into the connective tissues beneath the skin as in the subcutaneous test. The reaction manifests itself by a swelling at the point of injection, varying in size from a hazel nut to an orange.

The ophthalmic test has found favor with a relatively few veterinarians and investigators but it has generally failed to give satisfactory results when used alone. A drop or two of tuberculin is placed upon the eyeball, the reaction manifesting itself by a watering of the eye, reddening of the mucous membrane, swelling of the lid and matterating of the eye. It will sometimes discover reacting animals not disclosed by the other tests but its accuracy as a single test is questioned and is generally used only in conjunction with one or both of the other tests mentioned.

The United States Bureau of Animal Industry has not given unqualified approval to the intradermal or ophthalmic tests, neither have they been accepted by the majority of veterinarians. Dr. DeVine of New York speaks for his majority when he says in his recent book on "Bovine Tuberculosis":

"Several rather extensive experiments have been conducted in this country recently to determine if possible the relative merits of the different tests used in detecting tuberculosis. The conclusions arrived at are, that while the subcutaneous test involves more labor and expense than either the ophthalmic or intradermal test, the percentage of accuracy is in its favor."

Many other authorities could be quoted in greater detail but this apparently represents their general conclusions. The intradermal test is of relative recent introduction and we are, therefore, quoting in somewhat further detail from investigators who have approved it. These men are located in the states of Missouri, Montana, and California, where this test has attained its greatest popularity and where it is in greatest use. Dr. D. F. Luckey of Missouri is an enthusiastic exponent of the intradermal test and in a recent publication discusses it in part as follows:

"We have used the intradermal test almost exclusively in our state work during the past six

years. We have made over 100,000 tests. As some of the herds tested by this method have gone through the test two or even three times, we have tested not quite 100,000 different cattle. All of the reacting animals have been condemned and sent to slaughter. In certain dairy districts, those which were passed for sound have undergone one, two, or even three re-tests. In short, the intradermal method has been put on severe trial. During these years, this test has been used principally on the permanent herds to remain in the state. At the same time, the temperature test has been applied in making inspections for interstate shipment. In the tests of some of our permanent herds, we have interchanged the tests, even combining the ophthalmic test with them. We have given all these tests a thorough trial under the same identical conditions. From the very beginning, the intradermal method has produced the most satisfactory results. Apparently, this method of testing cattle for tuberculosis has rapidly gained favor wherever it has been used."

In Montana Bulletin No. 105 entitled, "The Intradermal Test in Bovine Tuberculosis," Dr. Howard Welch says:

"The subcutaneous or thermal test, with its temperature curves, is the pioneer of the tuberculin test and has proved its worth, but the other tests—the ophthalmic or eye test and the intradermal or skin test—are gaining ground rapidly. It was after the reported successful operation of the intradermal test in Missouri that it was decided to try some experiments with it in Montana. The results have exceeded our expectations.

"Through requiring experience to correctly interpret results, the intradermal test equals the thermal in accuracy and in many particulars far excels it. It economizes time, labor, and materials. It renders the work easier for the veterinarian and makes less trouble for the dairyman. State inspectors can more than triple the number of cattle that can be tested by the thermal method. The intradermal test has also made possible the rapid testing of large range herds. When the various states officially adopt this method, a great advance will be made in the national fight against tuberculosis.

"We have also found instances where cattle react to the thermal test and not to the intradermal and vice versa. In testing large numbers of cattle no doubt many such individuals would be found. Both tests applied simultaneously to a herd should, in the great majority of cases, pick out all the tuberculous animals."

Very careful work has been done in California, and Dr. C. M. Haring states the following conservative conclusions in California Bulletin No. 243:

"Most of the state authorities agree that they cannot as yet officially accept either the intradermal or ophthalmic method. The consensus of opinion seems to be that these tests are fairly satisfactory when administered by careful and experienced operators, but that it is unsafe to accept such tests from veterinarians indiscriminately, until these methods have come into more general use and have been accepted by the United States Bureau of Animal Industry.

"Since the reaction to tuberculin when injected intradermally depends upon a swelling at the point of injection and not on a rise of temperature, it is to be preferred to the subcutaneous under all conditions that are liable to modify the tuberculin temperature curve, such as unusual surroundings, very hot weather, or fatigue from a long journey. It can be satisfactorily applied to young calves and wild range cattle and is especially useful in testing cattle during the hot season in the interior valleys of this state under conditions that render the subcutaneous method of testing unsatisfactory. It excels the subcutaneous method in economy of time, labor, and materials.

"From our observations in applying 4,926 intradermal tests, including retests, to 4,001 head of cattle, 1,614 of which reacted, the results being checked by 1,000 subcutaneous tests and 341 autopsies, we conclude that under average dairy conditions the intradermal equals the subcutaneous method in accuracy, provided a 5 per cent, or stronger, solution of alcoholic precipitated tuberculin is used and the test is performed by an experienced operator. We do not advocate the substitution of the intradermal for the subcutaneous method by a veterinarian until he has become skilled in its use by practice and observation. The practitioner can easily accomplish this in the routine of his work by applying the two tests simultaneously. Such a procedure cannot injure the accepted subcutaneous method in any way, although it may modify the local intradermal swelling to some extent.

"Since neither the intradermal, the subcutaneous, nor the ophthalmic method will detect every case of tuberculosis when applied independently, the maximum number of reactors can only be detected by applying the combined tests. This may be done by applying the intradermal and subcutaneous tests simultaneously or by administering the intradermal test alone and retesting all of the non-reactors after an interval of at least seven days. The ophthalmic test may also be advantageously combined with either or both of these tests. The ophthalmic test alone is unsuitable for use under the average California dairy conditions, except when only a few animals are to be tested and they can be kept confined under shelter. For official tuberculin testing where a high degree of efficiency is necessary a combination of the three tests would be desirable. The intradermal method is especially adapted to the testing of swine.

"The intradermal method has proven very satisfactory in the out-of-door tuberculin testing frequently necessary in this state, and for the non-official testing of large numbers of cattle is preferable to the subcutaneous method. It requires more experience to apply the test and interpret the intradermal reactions than is required in testing by the subcutaneous or ophthalmic methods."

Milk Decreases in Test

I sell my milk to an ice cream company. In April my test was 4.55, in May it dropped down to 4.45, and in June I had one test of 4.5 and two tests of 4.3. I haven't had any fresh cows. The cows have been on extra good pasture and I am feeding cottonseed meal and crushed corn.

Does the dairyman get a just test where they only make four tests a month? They take a small sample from each milking. Should the dairyman have a test on each milking instead?

Bristol, Tenn. R. H. S.

If the samples mentioned have been properly taken the test should be accurate and show the actual production of the herd. It is perhaps the only practicable method available as the making of daily tests of each milking represents a considerable expenditure of time and effort that is not fully warranted. In many cases milk buyers take samples one day each week and use the test on this one day's sample to represent the entire week's production. Taken week in and week out, this will give a fair average for the year. In cow testing work it is found that when a sample is taken once a month it will average up to be fairly accurate in representing the cow's test during the year. There are, of course, exceptions to this rule, but it has been found eminently satisfactory. We believe that, in the particular instance cited, so far as the producer is concerned, he is amply protected in case the milk samples are properly taken and the testing honestly and accurately done.

In a recent letter discussing the reduction in summer tests, Professor Eckles of the Missouri College of Agriculture says:

"The seasonal per cent of variation in fat is a much more important matter than is ordinarily understood, at least, in those parts of the country where the summers are warm. Some years ago I made a study of 242 lactation periods and these show clearly that the seasonal variation is a strong factor. For example, if a cow freshens in December, she will ordinarily test lower the next June, July, and August than she did when fresh. She gradually comes up again toward the end of the period. If she freshens in June, she gives the lower test in the beginning of her lactation period. The general tendency is for milk to test the highest in the beginning of the winter during December and January, and the lowest in June, July, and August. Now this is not necessarily the result of the feed, in fact, I do not think it has anything to do with it for the reason that certain experimental animals we have had on uniform rations throughout the year followed exactly the same curve. It is accompanied apparently with the heat. Of course, the results are not uniform with every animal, some show it more than others, but the difference is found with nearly all animals. We find that the men for whom we are doing official testing get lower tests during the summer than in the winter."

To satisfy ourselves concerning the deductions made by Professor Eckles, we took from Volume 31 of the Guernsey Herd Register the records for 20 cows, calving each month during the year. We did this in order to overcome insofar as is possible the factor of the extent of a lactation period. It gave us a total of 240 records. We confess we were somewhat surprised to note the general tendency for the greater number of lower tests to come in the summer months of June, July, and August. However, our data appeared to show that the test of the majority of the cows is more largely influenced by their lactation period and that this was not overcome by the influences of the seasonal variation, although the seasonal variation did have a certain effect. Despite the tendency of cows on Advanced Registry tests to freshen with a relatively high fat per cent, we found no less than 65% of the cows had their lowest test during the first two months after calving. However, we found the cows calving during the summer months showed a higher percentage than this, 95% of those calving the latter part of June having their lowest test in July and August.

In the particular instance cited by our inquirer, where the majority of his cows have freshened from February to June, we would expect the test to gradually decrease as the weather became warmer. However, we would scarcely expect to see this condition manifest itself until June, July, and August.

Florida Ration—Mangels—Rice Bran

Please advise if I could secure a balanced ration for milk production composed of home products used with corn ensilage. We have cottonseed meal, velvet bean meal, and peanut meal. If so, about what proportion to use, and how much? Can also get rice bran and shorts. Also, how would mangels or stock beets do, shredded and put in silo, or would they be better stored as potatoes?

Jacksonville, Fla. G. B.

If the corn silage is combined with a liberal supply of a legume hay it makes the basis for a very satisfactory dairy ration. Clover, alfalfa, soy bean, or cowpea hay are very well suited to the needs of the dairy cow. Velvet bean hay if cured at the proper time would also combine very well with the silage. Mangels in addition, to the heaviest milking cows, would make very good returns in milk production. Mangels have their highest value in rations where silage is not supplied, but, fed in addition to silage, they give very good results. In feeding for Advanced Registry tests mangels have an especially high value. In addition to feeding 25 or 30 pounds of silage per day for the average cow, 30 to 40 pounds of mangels will be eaten with relish. Mangels should be stored as potatoes and not put in silos.

The concentrates listed are rather too high in protein to make a satisfactory grain mixture unless a carbohydrate feed is supplied with them. Rice bran, when not adulterated too heavily with hulls, is a satisfactory feed for cows. It is made up of the outer layer of the rice kernels proper with rice germs and a small quantity of hulls. If fed in large quantities it injures the quality of the milk produced but if it is not heavily adulterated with hulls and is fed in limited quantities it will combine very profitably in a grain mixture. Rice hulls are valueless as a feed for cows, Moreover, they may even be highly injurious. It should be made certain, therefore, that hulls are not contained in large percentages in corn bran. When adulterated with hulls, the feed is called "commercial bran".

Cottonseed meal, velvet bean meal, and peanut meal all fill about the same place in the ration. We would, therefore, use the one of these which can be purchased at the lowest cost. If a high carbohydrate concentrate, such as corn or hominy, can be used with one of these feeds and with bran and shorts, in about the proportions of 200 lbs. of the high carbohydrate concentrate, 300 lbs. rice bran, 200 lbs. shorts, and 100 lbs. of one of the other three meals, a suitable mixture is had. This should be fed to heavy milking cows in addition to the roughage, supplying it at the rate of one pound for each 3 to 3½ pounds of high testing milk produced or at the rate of one pound for each 3½ to 4 pounds of low testing milk.

Seeding Millet for Silage

Could you inform me whether either soy beans or millet can be sown in the corn row to make up for a poor stand? Could it be sown as late as August 1st? As our silo will be the main source of our dairy feed this year, owing to the shortage of good clover or timothy, we must be sure of a full silo.

Watertown, Wis. B. T.

It is now too late to sow soy beans in corn and expect to secure a satisfactory crop. Also, the stock of soy bean seed was very short this spring and we doubt whether there is any now on the market. The soy beans may be sowed as late as July 1st but preference should be given to seeding the fore part of June or at corn planting time.

Millet will make good silage but we question the advisability of seeding it in the rows with the corn. We would prefer to make our seeding of some other field and then cut it for ensiling as it reaches the proper stage of growth. If seeded between now and the first of August, a fair crop could be expected if growing conditions are excellent. We would hesitate, however, to advise waiting until August first or later.

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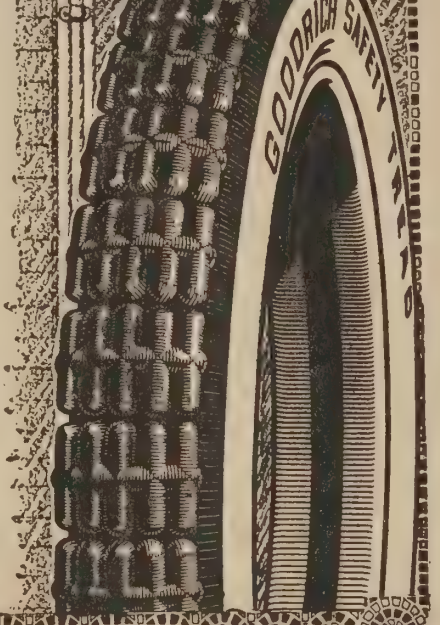
Goodrich prestige and reputation for square dealing, the Goodrich name and brand guarantee their service, and farm experience has taught the value of a trustworthy name and brand.

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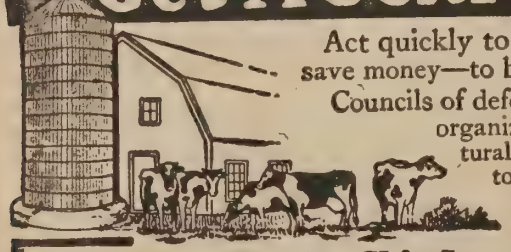
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Gehl Silos are made of the best ensilage-preserving wood in the world—clear, straight-grained Oregon Fir which is recognized as the best silo material, not only because it is very strong, lasting and durable, but because it keeps the air out and the moisture in, preserving the ensilage in perfect condition and retaining the appetizing flavor that makes the cows relish it.

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Maine Guernsey Breeders

The summer meeting of the Maine State Guernsey Association was held at Cold Brook Farm, Monmouth, Me., on June 25. The forenoon was spent inspecting Mr. Berry's fine herd of Guernseys of 21 head. The herd sire, College Heirloom 21171, is a good and well bred animal with lots of A. R. breeding back of him. His dam, grandam, and great grandam are all A. R. cows, with an average record of 424 lbs. fat. The cows are Maine bred and the records Maine made. He is the sire of the A. R. cow, Sylph's Primrose 60440, that made 7,604 lbs. milk containing 351 lbs. fat as a two-year-old.

After the picnic lunch, the good folks were called together and listened to words of cheer from the godfather of the association, Professor E. A. Bishop of the American Guernsey Cattle Club. He has charge of the A. R. work of the club and was able to tell of that line of the work. At present there are 1,200 cows under test by 250 breeders, but of the 150 breeders in Maine only three are doing A. R. work, with seven cows under test. Surely Maine breeders need to speed up and get busy or get left.

Ex-Governor Taines spoke a few words about raising lots of grain, cutting hay early, and not paying all of the cream check to the grain dealer. He also invited the association to meet with him at his farm in Waterville next year.

After giving a rising vote of thanks to the American Guernsey Cattle Club for sending Professor Bishop to us and to Mr. and Mrs. Berry for their entertainment, the meeting adjourned to the call of the president.

Maine. G. S. SMITH, Sec.

New Flour Milling Regulations

With the end of the milling year on July 1, the Food Administration reviews conditions which have prevailed in the flour milling industry and also announces new regulations to be put in effect.

Under the original regulations, the millers were allowed a maximum gross profit of 25 cents per barrel, based on their annual business. The business is recognized to be a seasonal one and cannot be judged on profits determined upon a few months' operations, or can annual profits always be accurately forecast at the beginning. Millers finding themselves at the end of the fiscal year with an amount in excess of 25 cents a barrel profit have been notified that they release themselves from the difficulty by selling a sufficient amount of flour at a nominal price to the Food Administration to liquidate any such surplus profit. Millers' accounts are audited by representatives of the Enforcement Division of the Food Administration.

Under the new plan of mill regulation now being organized, trade will be free but profits closely limited. Speculation will not be permitted but no limitations are placed upon the freedom of flour mills or traders to buy or sell in any market. The mills are, however, under restrictions to reflect the government price within the profit limitations upon flour. The whole plan has been approved by the Agricultural Advisory Committee, the board of 24 members which confers with the Food Administration on matters affecting producers.

New York Hay Crop Short

Unfavorable June weather reduced New York's prospective hay crop a million tons, according to federal reports. Early estimates placed the cutting at 5,750,000 tons. This is now reduced to 4,750,000 tons, one of the lightest crops of recent years.

Timothy is an especially poor crop, alfalfa and clover being in much better condition. Old meadows are thin and weedy. This makes the loss heavy in dairy districts where hay lands are reseeded less frequently than in other sections.

Oats, barley, and spring wheat have improved since June 1, as have rye and winter wheat, though these latter crops are reduced from winter-killing. Corn, planted on a greatly increased acreage, is retarded in growth by cool weather. The potato acreage is only about 85 per cent of that of 1917, but an exceptionally fine condition of the crop makes the estimate exceed the average production for years previous to the last by 3,000,000 bushels.

Switzerland Rations Milk

Although known the world over as a dairy country, Switzerland has under stress of present food conditions established milk rations. Beginning June 1, 1918, the daily allowance per person is one-half liter (about 4-5 pint) except that children under 15 years, adults over 60 years, and farmers' families may have double that amount per capita.

Minnesota "Twilight" Meetings

HOARD'S DAIRYMAN:—Steele County, Minnesota, Holstein breeders have conceived a new idea of keeping up their morale. Steele County is strictly a dairy county and in its twelve little townships there are over eighteen thousand cattle, most of them Holsteins. Hence the labor question is a serious one in this locality since experienced dairy help is very hard to obtain and hold. In order that the breeders may not become discouraged and that they may keep on the job, in spite of handicaps, the idea has been conceived of holding a series of twilight meetings on the various Holstein farms in the county.

On the evening of July 8 the first meeting was held on the Alex Chambers Holstein farm. At this meeting the herd was inspected by the people present and then a short program was held on the lawn in front of the house.

At this time, Mr. E. T. Winship, president of the Minnesota State Holstein Breeders' Association, presented the facts that now is the time that the Holstein men should "Dig In" and "Carry On", as the time is now at hand, in spite of the shortage of help, to build up the herds and keep things going as near normal as possible.

Mr. Horton of the Photographic Division of the Minnesota Experimental Station made a very interesting talk on the value of photography in the advertising and selling of live stock. Mr. C. A. Searles, secretary of the Minnesota Holstein Association, spoke of the wonderful progress Steele County is making. He had just completed a trip over the state and was highly pleased with the number of fine well bred sires that are standing at the head of the various Steele County herds.

On the night of July 17, the second of this series of meetings was held on the L. S. Taylor Holstein farm. Three hundred people were present. Here again the fine Holsteins were admired by both the town and county people, after which a program was given.

Mr. F. H. Joesting, County Director of the Public Safety Commission, told the farmers present that the men of the city are ready to do everything they can to help harvest the crops. The county agent, W. V. Gousseff, told of the wonderful response from the men of the city to help harvest the crops. Over three hundred business men in the city are ready to go out at short notice and one hundred automobiles are ready to take them out to help save the crops for democracy.

The business men were told how their support of the various projects in the development of Steele County agriculture is bearing fruit. They were told how Steele County with its twenty-three co-operative creameries in twelve townships has less square miles of territory per creamery than any other county in the United States; how Steele County is one of the outstanding counties in the Northwest for Holstein cattle; and how it stands first in the Northwest for its good roads; all of this being brought about by the financial and moral support of the men in the city.

The idea of these meetings is not only to show off the good stock on the farms but to keep up the morale of the people by tieing the people of the town and country together and demonstrating that both are necessary links in the successful chain of co-operation.

Before these meetings are over everyone is anxious to know where and when the next one will be held. The people realize that by this means of meeting together they not only see Steele County Holsteins but they seem to forget their troubles for the time being; both country man and town man are made to realize that their troubles are no different from those of hundreds of others and that there is only one thing to do and that is to make the best of it. The fellowship created by the business men in town and the business men on the farm cannot help but do good for the upbuilding of the county.

Minnesota. W. V. GOUSSEFF.

Brattleboro Sale Cancelled

The announced August 6 and 7 sale of the Pure-bred Live Stock Sales Co., of Brattleboro, Vermont, will not be held. The auction is cancelled at the request of the consignors who state that they cannot take part in a sale on those dates because of the cold and rainy weather which has delayed haying, the backward condition of the corn crop, and the seriousness of the farm labor situation.

A model dairy farm will be one of the main features of the Mississippi State Fair at Jackson, October 22 to 26. Demonstrators will show each day of the fair the best methods of handling dairy products.



PROOF of Avery Tractor success is shown by the way Avery Tractor sales grow in the same community. When one farmer gets an Avery Tractor, his neighbors watch its work closely. It is not long before another Avery arrives and then another, for his neighbors see that Avery Tractors stand up under the work.

Likewise, when an Avery gets into a family, other members of the same family soon become Avery owners. Brothers, cousins, fathers and sons, uncles and nephews are buying Averys. We have many records of where two, three and four brothers in the same family have bought Avery Tractors. The fact that neighbors, friends and relatives buy Avery Tractors after they have watched carefully the work of the first Avery Tractor in their community or family, is the very best proof that Avery Tractors are a success.

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Avery Tractors are built entirely in our own big factories and every part of an Avery Tractor is built especially for tractor work and only for the Avery Tractor. Avery Company are *builders*—not assemblers.

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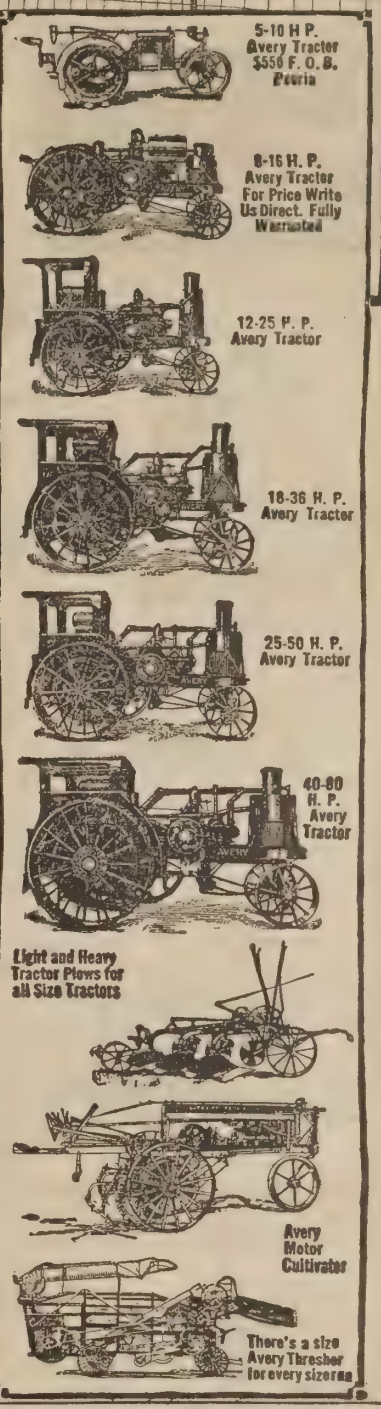
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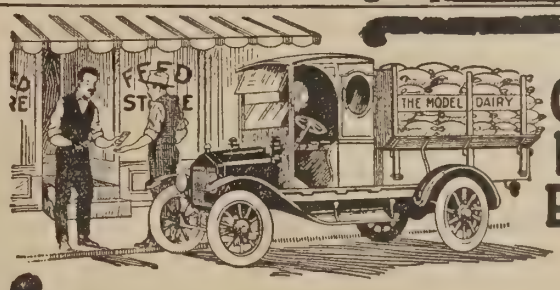
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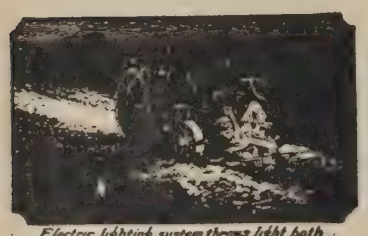
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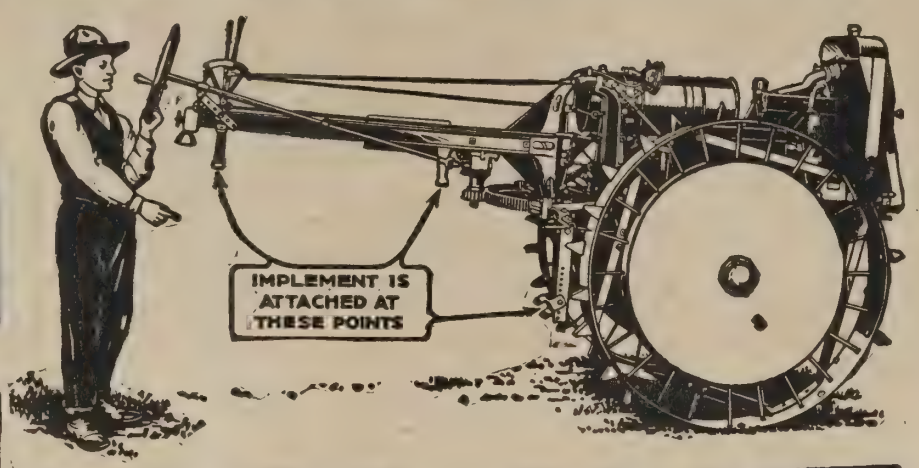
Write today for free record sheet that will give you the exact profit or loss on every cow in your barn.

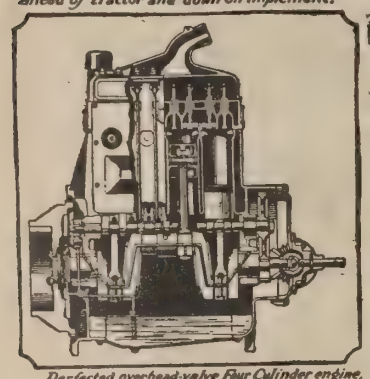
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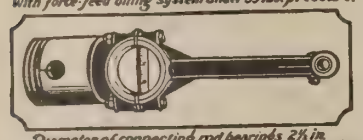


Electric lighting system throws light both ahead of tractor and down'd implement.





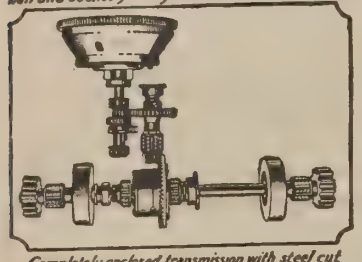
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Diameter of connecting rod bearings 2¾ in. compared to piston diameter of 3¾ in. insuring long life.



Valves placed in perfect adjustment by turning down ball and socket joint of rocker arm with screw-driver.



Completely enclosed transmission with steel cut gears, Hyatt bearings, differential lock, and brakes

MOLINE UNIVERSAL TRACTOR

It Solves The Farm Help Problem

EVERYONE who knows what a tractor should do, agrees that the Moline-Universal has three distinct advantages over all other tractors: lighter weight; greater economy and ease of operation; ability to do all farm work, including cultivating; and ONE-MAN control of both tractor and implement from the seat of the implement, where you have always sat, and where you must sit in order to do good work.

Aside from these distinct advantages which the two-wheel construction gives, the Moline-Universal Tractor, Model D, is still the best tractor on the market. In every detail it has been refined and perfected to the utmost limit of modern engineering knowledge.

Self Starter—Electric Lights

The Moline-Universal is the only tractor regularly equipped with a complete electrical starting, lighting, governing and ignition system. The starter saves many hours of productive work, besides eliminating back-breaking labor. Electric lights enable the tractor to be worked at night during rush seasons.

An electrical governor perfectly controls the engine speed. By simply turning a dial, within easy reach of the operator, engine manitains any speed from ½ to 3½ m. p. h., and automatically handles all changes in load.

Perfected Four-Cylinder Engine

The perfected four-cylinder engine is the latest development in overhead-valve construction. With a bore of only 3½ inches a 2½-inch crankshaft is used. The strength and thickness of the crankshaft eliminates all vibration. Oil is forced through hollow crankshaft to all the main and connecting rod bearings under a pressure of 35 pounds to the square inch. The bearings float on a film of oil, so their surfaces never touch.

Double valve springs give unusually quick action with soft seating. Rocket arms are swiveled on ball and socket joints that may be turned down with a screw driver, placing the valve mechanism in perfect adjustment at all times. This engine develops unusual power and is very economical in operation.

Steel Cut and Hardened Gears

The transmission is completely enclosed, with drop forged, hardened, and cut steel gears running in oil that reduce power loss to a minimum. All gears are mounted on heavy duty Hyatt roller bearings, with high grade ball bearings fitted with adjustable collars to take up end thrust. Fifteen Hyatt roller and five ball bearings are used in the Moline tractor. Seven splined shafts are used in locking gears to shafts. This is the strongest construction known, and has the additional advantage that it makes the transmission easy to take apart.

For pulling in soft ground, the two drive wheels can be made to revolve as one by means of a differential lock, doubling their pulling power.

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The final drive is completely enclosed in dust tight shields, the edges of which are sealed by heavy grease used to lubricate the gears. Every part of the Moline-Universal tractor is protected against friction and wear.

All working parts are accessible. All the weight is so well balanced on two wheels that the rear end of the tractor can be supported with one hand.

The Moline-Universal Model D will give you longer and better service at less expense than any other tractor. It is built for positive reliability.

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GUERNSEY BREEDER'S JOURNAL, Peterboro, New Hampshire.

Dairy Alfalfa

WE ARE SHIPPERS OF HAY THAT PRODUCES MILK

FERSON HAY COMPANY

Kansas City, Missouri

Stopping a Leak by Creosoting Lumber

(Continued from page 36)

Hemlock is less durable than the species commonly used for this purpose, and consequently a heavier impregnation with creosote oil is necessary. The lumber for this type of silo should be creosoted by the manufacturer by the Standard Open Tank Process, namely, immersion for from 30 minutes to one hour in alternate hot and cold baths of refined coal tar creosote oil. Should, however, lumber creosoted in this manner not be obtainable, then the farmer may of course erect his own treating tank, or a number of farmers can co-operate in the building of a treating tank which may be moved from one farm to another. It would probably be more convenient for the farmer, if he is to treat the lumber himself, to submerge it in the creosote, heat the oil to an average of 180°F., but not in excess of 200°F., and when this temperature has been reached withdraw the fire permitting the lumber and oil to cool to atmospheric temperature. If hemlock lumber can not be properly treated it is best to employ a more durable species.

Fence Posts

The most common evidence of decay on the farm is the rotting of fence posts, and their preservative treatment presents perhaps the greatest opportunity for saving. Many non-durable species of wood, such as cottonwood, poplar, willow, ash, sappine, etc., which are abundant in some localities but untreated are hardly worth the cost and trouble of setting, can be made to last from fifteen to twenty years by creosoting. The Iowa Agricultural College has made very extensive investigations and experiments which are reported in their bulletin 158, and which show that cottonwood posts, which untreated have a life of but from two to four years, after having been creosoted were in a perfect state of preservation after nine and one-half years service, indicating a probable life of twenty years. Cottonwood, and similar species of posts can be grown on the farm, peeled, and seasoned for about five cents each, then can be creosoted by the Open Tank System for from fifteen to twenty cents each, and will last about twice as long as a cedar post of four inches top diameter, untreated, which at present costs from twenty to thirty cents each depending upon the locality. Thus the economy of creosoting these non-durable woods is very great. Cedar, chestnut, and other more durable species should also be creosoted. Sometimes the Brush Method alone will suffice, but if possible the Open Tank treatment should be employed.

Creosoting fence posts by the Open Tank System is more simple, and does not require the elaborate equipment necessary for treatment of miscellaneous lumber by this process. Old steel oil drums or barrels, under which a fire place consisting of stones and a few pieces of pipe can be built to heat the preservative, will suffice for the hot tank, and ordinary tight wooden barrels will do for the cold tank. The posts, if of nondurable species, should be set in the hot tank and immersed to a point about one foot (at least six inches) above the future ground line, the creosote heated to 150 to 200 degrees Fahrenheit and maintained between those temperatures for about one or two hours when the posts are to be removed to the cold tank and immersed to a like depth for the same length of time. After this treatment of the butts has been completed it is advisable to also immerse the tops for from 15 to 20 minutes in the hot creosote. The purpose of the latter is to prolong the life of the tops to equal that of the butts. Cedar, chestnut, oak, and similar posts should be treated in the same manner excepting that the period of immersion in each bath should be prolonged to three or four hours, and the tops need not be dipped. It is, however, good practice to brush treat the tops of these latter kinds of posts after they have been set. Another method for creosoting the durable species is to immerse them in the hot tank, heat the oil to about 200 degrees Fahrenheit, and when that temperature has been reached quench the fire. Instead of being removed to the cold tank the posts remain in the creosote and are allowed to cool to atmospheric temperature. This arrangement requires but little labor as posts can be placed in the tank in the evening and when the proper temperature has been reached and fire withdrawn they can stand during the

night without further attention. The operation can be repeated in the morning during the time that the farmer, or his help attends to the chores, and again that night and so on until all the posts have been creosoted.

If fence posts are to be brush treated the creosote should be applied to the entire butt from at least six inches above the future ground lines. This surface should be thoroughly cleaned of all inner bark and other foreign substances so that the preservative will penetrate into the sound wood.

The preparation of fence posts for creosoting is equally as important as the treatment itself. Posts should be peeled immediately after having been cut and seasoned until air-dry. Creosote oil cannot penetrate if the cells of the wood are full of moisture. This also applies to any wood which is to be treated. If the lumber or timbers cannot be seasoned, or if seasoned posts cannot be obtained, the Brush Method may be used, but will, of course, not be as satisfactory as if the material were air-dry.

Creosote Oil as a Paint

Refined creosote oil has become popular as a paint, especially under present conditions when oil paints are costly. Its color is a pleasing nut-brown and when combined with white painted window sashes, door frames, and trim the result is very attractive. It is not possible to cover a creosoted surface with paints of lighter hues, unless the former is first shellaced, which would be too expensive for ordinary purposes. Unless one is prejudiced there is no good reason why a farm building cannot be stained brown just as well as painted red, green, blue, or white, and as the cost of creosote is about one-third of the cost of good paint, and as its preservative qualities are naturally much greater, it will certainly pay to like a nice brown color.

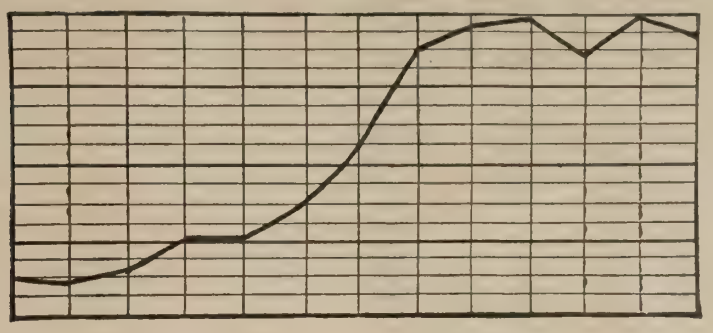
Economy of Creosoting is Proven

The diligent practice of wood preservation on the farm is one item of economy which will very soon prove its worth, and in the course of a few years the saving will represent a very neat little sum. The actual reduction in the annual cost of creosoted structures, depending upon their character and purpose, has varied from a minimum of 10% to more than 50%. The creosoted butts of telephone poles which pass in front of most farms throughout the country represent a saving of 15% to 25%; the creosoted ties used on the railroad which the farmer must cross on his way to town will last nearly twice as long as the same ties untreated (excepting where destroyed by wear), and the creosoted blocks covering the bridge floor over the nearby river are the cheapest kind of pavement because of their long life. In every industry where wood is used in situations favorable to the development of decay creosoting by one of the three methods described herein is practiced, because rotted lumber means loss in time and money, increased cost of doing business, and consequently less profit. It will pay the farmer just as much to make the lumber and posts he uses as near "rotproof" as possible, as it does the railroad, the mine, the telephone company, etc. Profit depends upon cost of production, and the more economically an enterprise is managed the greater the gain.

Garget

Clots in milk are quite common. The condition is generally known as garget. Sometimes the milk is affected only slightly, and sometimes it is seriously affected. The cause is not definitely known, but it is due to an abnormal condition of the cow's udder. Sometimes the trouble will occur two or three days and then disappear. Occasionally it will occur at intervals through the whole milking period of the cow.

C. H. Eckles of the Missouri College of Agriculture suggests that the cow be given a physic of 1½ lbs. of Epsom salts in the form of a drench. A tablespoonful of saltpeter given once a day for three or four days is sometimes beneficial. If the animal has been receiving much grain, the ration should be reduced for a day or two. The amount of grain may then be restored after the condition disappears. If the trouble persists month after month and the cow is not especially valuable, it would be advisable to dispose of her, because it is not always possible to eliminate the trouble.



Why live stock prices go up and down

WHEN there is more dressed meat on the market than there is consumer demand for it, meat and live stock prices go down.

But when the consumer demand for meat is greater than the supply, meat and live stock prices go up.

This is the law of supply and demand. It is the law that determines the prices the producer gets for his cattle.

* * * *

Between the producer of live stock on one hand and the consumer of dressed meat on the other hand is the service of the packer.

The packer turns the live stock into dressed meat and by-products and then distributes them to the retailer.

Out of every dollar the packer receives for this meat and by-products he pays 90 cents, approximately, for the cattle.

The remaining 10 cents on the dollar must pay for dressing, freight to market, operation of distributing houses, and in most cases delivery to the retailer.

Out of what is left must come the packer's profit. For Swift & Company during 1917 this amounted to a net profit of ¼ of a cent per pound of beef. On *all* products, it was only a little over half a cent per pound.

A reasonable profit margin is necessary to enable the packer to operate without endangering the efficiency of the business and its value to the producer as a marketing agency for live stock. Complete elimination of these profits would have practically no effect on the farm prices of live stock nor the retail prices of meat.

Swift & Company will gladly co-operate in the carrying out of any national policy that will tend to steady the prices of live stock and meat.

Swift & Company, U. S. A.

A nation-wide organization with more than 20,000 stockholders

Prevent Lightning Losses

If lightning should strike your buildings tomorrow the insurance you carry would not make up the loss. PREVENTION is what you need—and you get it by installing

Security Lightning Rods

the kind that give you GUARANTEED PROTECTION—backed by a 25 years record. Equipped with the patented Security Water Ground Connection that provides moist grounding under all conditions. Endorsed by National Board of Fire Underwriters. Why take chances with buildings and much-needed crops when a Security Svatem will prevent lightning disasters. A postal will bring you valuable information.

SECURITY LIGHTNING ROD CO.
509 Pine St. Burlington, Wis.

AGENTS WANTED

to sell small concrete mixers and sanitary indoor waterless toilets for farm and village homes. Good opportunity for retired farmers or business men. Also, traveling men can handle as side-line. Write Standard Steel Corporation, 497 Virginia Street, Milwaukee, Wisconsin.

ALFALFA

AMERICAN NORTHERN GROWN

For fifteen years our advice concerning the seeding and care of Alfalfa meadows, and our seed for sowing them, have been standard—the best that was to be had. The catalog tells how, and prices the seed, not Turkestan, "Dwarf Alfalfa," which we refuse to handle, but the best of American grown seed, including usually Montana, Idaho and the great "Dakota 30," which rivals the Grimm itself.

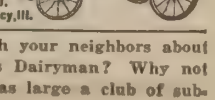
GRIMM ALFALFA Next to Hansen's Siberian, the greatest variety grown in America. We have the genuine; also limited amounts of the Siberian.

Sample and prices on request.

WINO SEED CO., BOX 221 MECHANICSBURG, O.
The House of Quality and Moderate Prices.



Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.



Electric Wheel Co.
31 Elm St., Quincy, Ill.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Save the *Thoughtless* Dollars

"I got the sweetest hat today, and, my dear, of course, I didn't really need it, but—"

* * * *

"What if it is only a few blocks? Here, taxi!"

* * * *

"I know I'd feel a lot better if I ate less, but I simply must have a big order of—"

* * * *

Over there in the Picardy mud, pock-marked with significant craters and "plum-caked" with unspeakable things that once were men, our soldiers can't hear all that some of us are saying. Good that they can't, isn't it? It wouldn't make it any easier to stand firm against those blood-crazed grey hordes who come on wave after wave because they believe their Kaiser is "God's anointed shepherd of the German people."

* * * *

It isn't that we Americans are a selfish people. We have simply been thoughtless.

Money is needed to win this war—let's give it. So far, we have been asked only to lend—to lend at a good round 4% interest. Turn your THOUGHTLESS dollars into War Savings Stamps.

NATIONAL WAR SAVINGS COMMITTEE,
WASHINGTON

W.S.S.
WAR SAVINGS STAMPS
ISSUED BY THE
UNITED STATES
GOVERNMENT

Contributed through Division of Advertising *United States Gov't Comm. on Public Information*

This space contributed for the Winning of the War by



Get Woodwork that Suits Your Plan

OUR books of home plans, with both exterior and interior views, show how well and tastefully you can finish any class or type of home with standard sizes and designs of

1866 CURTIS WOODWORK
"The Permanent Furniture for Your Home"

These books, "Better Built Homes," Vols. II and III, will help with your plans, too. Just let us know about how much you expect to put into a home and we will send you the right volume, free.

All CURTIS Woodwork, whether it be a big built-in sideboard or only a plain but useful window, bears our trade-mark CURTIS.

That mark is the connecting link between the pictures in the Curtis Catalog and the woodwork that goes into your home. It identifies Curtis design, material, workmanship. Look for it.

THE CURTIS COMPANIES, SERVICE BUREAU
1902-2002 S. Second Street Clinton, Iowa

The makers of CURTIS Woodwork guarantee complete satisfaction to its users. "We're not satisfied unless you are."

Sixty Wisconsin Herds are Accredited

Wisconsin has sixty accredited tuberculin tested herds according to the announcement of Commissioner of Agriculture C. P. Norgord and State Veterinarian O. H. Eliason of the Wisconsin Department of Agriculture, who have the work in charge. These herds have been tested under the supervision of the live stock sanitary division of the Wisconsin Department of Agriculture and the inspectors of the Federal Bureau of Animal Industry. They have all satisfied the requirements of this class of herds and have been issued state accredited certificates. It is becoming generally known and recognized that a single animal tuberculin tested from an untested herd is an unsafe animal. The only safe herds are those tested annually. The annual certified tests required of these accredited herds therefore make them the safest and cleanest herds within the state in respect to tuberculosis. The annual test on a number of additional herds is now due. These additional herds will be placed on the list as soon as they have completed the necessary tests.

Following is a list of accredited herds as issued by Commissioner C. P. Norgord and State Veterinarian O. H. Eliason:

F. M. Ames & Son, Green Co.
Jens Anderson, Clark Co.
S. A. Baird, Waukesha Co.
E. S. Bedell, Manitowoc Co.
C. P. Bunday, Eau Claire Co.
Stephen Bull, Racine Co.
Chas. Breitenbach, Outagamie Co.
Roy Burton, Waukesha Co.
Joe Cook, Racine Co.
J. F. Denham, Dunn Co.
H. H. Earle, Waukesha Co.
Anson Eldred, Oconto Co.
A. W. Fox, Waukesha Co.
Wm. E. Fisher, Milwaukee Co.
Torris Geraldson, Manitowoc Co.
Hamilton & Kaufman, Waukesha Co.
C. Hoppert, Sheboygan Co.
Hamilton & Stillman, Waukesha Co.
Chas. Hill, Fond du Lac Co.
W. D. Hoard, Jefferson Co.
A. R. Hoard, Jefferson Co.
H. Holt & Son, Waukesha Co.
E. C. Jacobs, Dunn Co.
W. C. Jamison, Outagamie Co.
E. E. Jones, LaCrosse Co.
Richard F. Klemm, Sauk Co.
Hiram Lovejoy, LaCrosse Co.
H. N. Longley, Waukesha Co.
Wm. Lawson, Fond du Lac Co.
Theo. Lehman, Jefferson Co.
Lone Tree Farm, Green Lake Co.
Geo. S. Love, Waukesha Co.
Henry Luttman, Jefferson Co.
M. Michels, Fon du Lac Co.
O. A. Marken, Manitowoc Co.
Thomas Madigan, Fond du Lac Co.
W. J. Mann, Waukesha Co.
Fred C. Marty, Green Co.
Geo. McKerrow, Waukesha Co.
Harold Morgan, Fond du Lac Co.
Flurance Noonan, Juneau Co.
A. A. Noyes, Jefferson Co.
Wm. Pfeffer, Waukesha Co.
Alvin Parish, Walworth Co.
Chas. W. Peterson, Lafayette Co.
H. E. Reddelien, Waukesha Co.
J. J. Reid & Son, Waukesha Co.
Carl Remington, Juneau Co.
Owen Rowlands, Waukesha Co.
Jos. Stapelton, Waukesha Co.
Roy Scribner, Fond du Lac Co.
Fred C. Smith, Waukesha Co.
Mrs. F. D. Stout, Barron Co.
L. B. Stevens, Waukesha Co.
H. C. Taylor, Dane Co.
Henry Volbrecht, Fond du Lac Co.
Theo. Werder, Ashland Co.
James N. Wishka, Kewaunee Co.
Otto Zickert, Fond du Lac Co.
Frank Swan, Milwaukee Co.
M. L. Welles, Fond du Lac Co.

The State Accredited Herd Project was established in 1916 by the State Department of Agriculture at the State Capitol for the purpose of assisting those herd owners who have been sufficiently progressive to have their herds tuberculin tested to reap the benefit in trade in cattle and dairy products which naturally result therefrom. The Department aims to do this by publishing a list of these herds, and in sending out a list of them to those interested in them, in this and other states at frequent and regular intervals. Arrangements have been made whereby animals from these herds can be shipped to any state in



You Need a Truck!

BURLINGTON INTERNAL GEAR SHAFT DRIVE BETTER TRUCK UNIT

will turn your old car into an A-1 truck that will suit your every requirement. *Haul Milk, Feed, Supplies, Farm Produce, Hogs, etc.*

1 and 1¼ Ton Standard type for Fords—easy to fit to any car.

You Need One

Big Points of Superexcellence.

You can't afford to buy before hearing how important they are.

Write for details

Ask Your Dealer

Burlington Motor Truck Co.
Dept. B.
Burlington, Wis.

Dont Send a Penny

These Len-Mort Work and Outdoor Shoes are such wonderful value that we will gladly send them to you prepaid, no money down. You will find them so well-made and so stylish and such a big money saving bargain that you will surely keep them. No need to pay higher prices when you can buy direct from us. Why pay $5 and $6 for shoes not near so good?

Great Shoe Offer

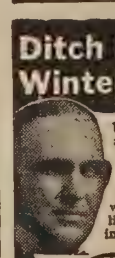


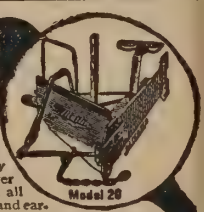
This shoe is built to meet the demand of an outdoor city workers' shoe as well as for the modern farmer. Built on stylish lace Blucher last. Special tanning process makes the leather proof against the acid in milk, manure, soil, gasoline, etc. They outwear 3 ordinary pairs of shoes. Very flexible, soft and easy on the feet. Made by a special process which leaves all the "life" in the leather and gives it wonderful wear-resisting quality. Double leather soles and heels. Dirt and water-proof tongue. Heavy chrome leather tops. Just slip them on and see if they are not the most comfortable, easiest, most wonderful shoes you ever wore. Pay only $3.85 on arrival. If after careful examination you don't find them all you expect, send them back and we will return your money.

SEND your name and address; and be sure to state size you want. Send no money. Price only $3.85 on arrival. We send these splendid shoes PREPAID. You are to be the judge of quality, style and value. Keep them only if satisfactory in every way. Be sure to give size and width. Send now.

Leonard-Morton & Co., Dept. 2014 Chicago

Ditch Before Winter Rains





Protect your soil and your next year crop profits against injury by excessive water standing on land all winter. Can work land earlier in spring. Add 2 to 3 weeks to growing season. **Do** farm terracing now. Get

THE *Martin*

Farm Ditcher, Terracer & Road Grader

All-steel, adjustable, reversible; no wheels, levers or cogs to get out of fix. Cuts new farm ditches or cleans old ones to 4 feet deep; builds farm terraces, dykes and levees; grades roads. Does the work of 100 men. Every farm needs one. Send your name for Free Book and Special Introductory Offer.

Owensboro Ditcher & Grader Company, Inc.
Box 512 Owensboro, Ky.

10 Days' Free Trial

Don't Wear a Truss



Brooks' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads.

MR. C. E. BROOKS

Brooks' Rupture Appliance

Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.

Brooks Appliance Co., 467 State St., Marshall, Mich.

the Union of the State Accredited certificate without other test than required for admittance to the Accredited Herd Class. The opportunity of qualifying for the Accredited Herd List is open to all herd owners in the state. The Department welcomes applications and hereby invites the interest and co-operation of herd owners, county agents, breeders' associations, and all other live stock interests in the extension of this project and its benefits.

The testing of herds for this list is done by approved local veterinarians under the supervision of a state or federal employee. Persons desiring to have their herds tested for this purpose should make application to the Wisconsin Department of Agriculture, State Capitol, Madison, Wisconsin.

The approval of all states to the shipment of cattle from the Accredited Herd Class required a thorough advertising of this project throughout the country by this department. Last fall, shortly after this arrangement had been completed, the Accredited Herds project was adopted by all the states in the Union and the United States Bureau of Animal Industry of the United States Department of Agriculture at a meeting of the United States Live Stock Sanitary Association in Chicago, on December 4, 1917. By this action the Accredited Herd System was made a national system. The state of Wisconsin heartily entered into the co-operative plan and from henceforth the Wisconsin Department of Agriculture will co-operate with the Bureau of Animal Industry in this project and the Wisconsin State Accredited Herds will be merged into the State and National Accredited system. The qualifications for this co-operative list will be very nearly the same as those which have been required by the state under the State Accredited Herds project, and all of the herds of the State Accredited List will be transferred to the new list as soon as they have fully qualified. The next issue of the list will therefore be made under the title, "National and State Accredited Herds", and all of the owners of these herds are requested to immediately take steps to prepare their herds for this change, so that they may be represented in the next issue of the list and in the first issue of the National and State Accredited List. This new project and its requirements will be presented in an article to appear in a later issue of Hoard's Dairyman.—Wisconsin Department of Agriculture.

All French Live Stock Declines

Efforts by the U. S. Food Administration to learn what classes of live stock in Europe have shown the greatest losses as a result of the war have resulted in the following figures for France.

They represent the difference between herds on December 31, 1913, and January, 1918, the last date for which trustworthy statistics can be had. There was a decrease in all cases, and the amounts are as follows:

Cattle (Including bulls, oxen, cows, and calves)	
December 31, 1913	14,787,710
December 31, 1917	12,189,000
Total decrease	2,598,710
Sheep (Including rams, ewes, and lambs)	
December 31, 1913	16,131,390
December 31, 1917	9,893,000
Total decrease	6,238,390
Hogs (Including boars, sows, and pigs)	
December 31, 1913	7,036,850
December 31, 1917	4,168,000
Total decrease	2,868,850

These figures may be regarded as minimum decreases, since during the past year, in view of shortage in feed, further reductions have undoubtedly occurred. The large loss of sheep is especially significant as regards both food and wool.

Shrink in Milk

We are milking 26 cows which are doing well. On July 7 a cow whose average was 30 lbs. per day gave 17 lbs. and the next day only 2 lbs. and has not given any milk since. Yesterday we had another cow which did not give any milk. She had been giving 40 lbs. a day. Today she gave 12 lbs. again. We never had anything like this before. The cows seem to be normal. We do not feed the cows in the barn. Our pastures are mostly blue grass and timothy and we have plenty of it. What do you suppose is the cause of this?

Morris, Minn. C. V. FARM.

There is nothing in this account of the matter to give a clew to the cause of the shrink in milk. Common causes would be fright, chasing by dogs, chill, or an attack of indigestion or sickness of any kind.

A rainy day job: Replace the broken window panes in the farm buildings.

DAIRY MARKETS

CHICAGO, July 26—Butter—Creamery extras, 43½c; standards, 44c; dairy, firsts, 41½@43c; seconds, 38½@41c.

Eggs—Ordinary, 35@37c; firsts, 38½@39c.

Cheese—Twins, 24@24½c; Young Americas, 25@26c.

MILWAUKEE, July 26—Butter—Creamery, tubs, 43½@44c; prints, 44½@45c; extra firsts, 42@42½c; firsts, 39@40c; dairy, fancy, 40c.

Eggs—Current receipts, 38@38½c; dirties, 32@33c; seconds, 29@30c; checks, 28@ 29c.

Cheese—Twins, 25c; Daisies, 24½@25c; Longhorns, 26½@27c; Young Americas, 23½c; Brick, new, 27@28c; Limburger, new, 1 lb., 27c; 2 lbs., 26c; Swiss, loaf, 42@44c; block, 32@34c.

NEW YORK, July 26—Cheese—Firm; state milk, common to specials, 21@25½c; skims, common to specials, 5@20¼c.

Butter—Quiet; receipts, 11,198 cases; creamery extras, 45c; state dairy, tubs, 36@45c; imitation creamery, firsts, 37@37½c.

Eggs—Weak; receipts, 18,826; nearby white, fancy, 50@52c; nearby mixed fancy, 38@46c; fresh firsts, 41@46c.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see.

L. V. AXTELL,
Old Homestead Farm, - - Perry, Ohio.

REGISTERED

Guernsey Bulls

For $75.00 Each

EXCEPTIONAL OFFER

Lady Helen's Mayfield Lad No. 50636
Born April 2nd, 1918.
Winona Girl's Mayfield Boy No. 50635
Born March 27th, 1918.
WRITE FOR PEDIGREES.
Mayfield Stock Farm, South Euclid, Ohio.

Registered Holsteins For Sale

9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*

5 Extra good Granddaughters of King of the Pontiacs, from 9 to 14 months old.....*$800 for all*

1 Daughter of Spring Farm King Pontiac 6th. Four months old....*$150*

3 Two-year-old Granddaughters of Spring Farm King Pontiac 6th .....*From $150 to $200*

1 Extra Fine 3-year-old son of King of the Pontiacs; 27-lb. Dam; 29-lb. Grandam *$800*

1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

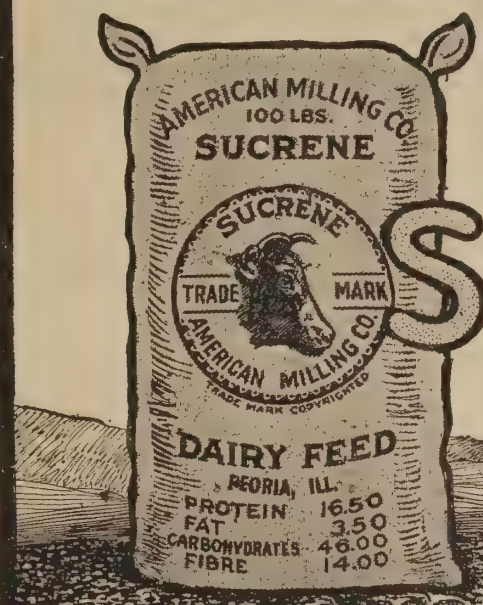
GEO. S. BIGELOW, BREEDSVILLE, MICHIGAN.

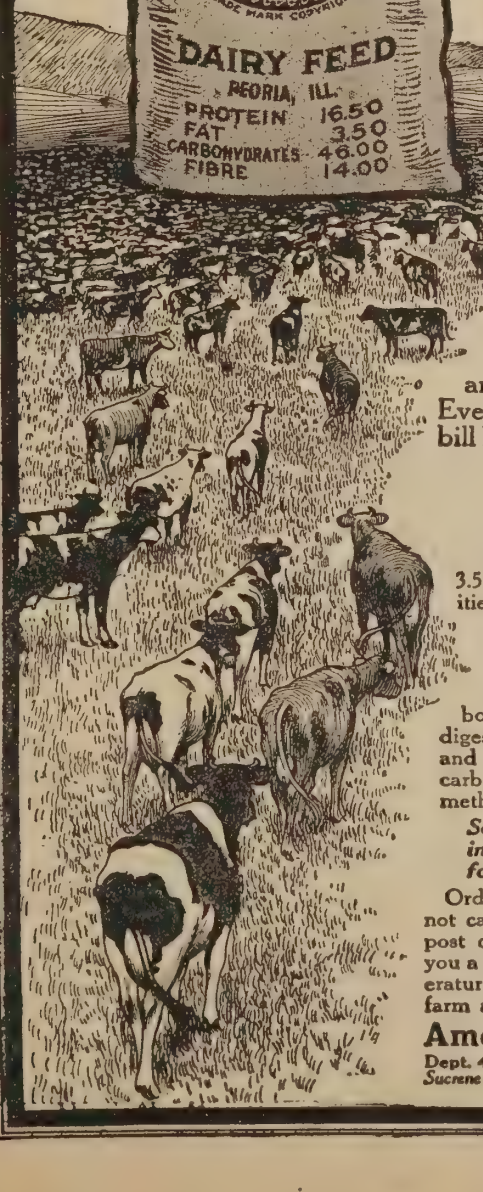
Over a Million American Cows

Are Giving More Milk Every Day Because Fed On

SUCRENE

DAIRY FEED





Enlist your herd in this profit-making army, and sell your grain to feed the armies overseas.

Every *Sucrene*-fed cow increases her milk yield 25% over the amount given on ordinary rations. Every herd, cow for cow, is consistently in better health, stronger calf and heavier milk all year, when fed on this balanced, concentrate-rich combination of proved feedstuffs. Every farmer can increase his milk-check and reduce his feed-bill by turning to *Sucrene* for the solution of his feeding problem.

Practically and Chemically Proved and Always Standard in Quality

Sucrene Dairy Feed never varies in its standard analysis of 16.5% protein, 3.5% fat, 46% carbohydrates and 14% fibre. Our wide-spread buying facilities and scientific feeding knowledge enable us to keep this feed balanced in feeding value and reasonable in price.

Sucrene Dairy Feed is made up of cottonseed meal, corn gluten feed, corn distillers' dried grains, palm kernel meal and ground and bolted grain screenings—all pure and of high feeding value in milk-making and body maintaining nutrients. Cane molasses increases its palatability and digestibility and promotes health, while clipped oat by-products give it bulk and easy feeding qualities. It also includes a small percentage of calcium carbonate and salt. *Sucrene* leads in palatability and digestibility. Our mixing methods keep it mealy and sweet in any weather.

Some of the heaviest milking herds in the United States have been fed for years on Sucrene Dairy Feed.

Order a ton from you dealer. If he does not carry *Sucrene*, the attached coupon or a post card giving your dealer's name insures you a prompt supply free, also Illustrated Literature, telling about care and feeding of farm animals.

American Milling Company

Dept. 4 Peoria, Illinois

Sucrene Feeds for All Farm Animals—18 Years the Standard

Please send me illustrated literature on feeds checked below: (4)

- ☐ Sucrene Dairy Feed
- ☐ Sucrene Calf Meal
- ☐ Sucrene Hog Meal
- ☐ Sucrene Poultry Mash
- ☐ Amco Fat Maker for steers
- ☐ Amco Dairy Feed (25% Protein)

My Dealer's Name.....

P. O......*State*.....

My Name.....

P. O......*State*.....

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Buck County Farm Boys' and Girls' Farm Day

O our sows and pigs gain eight pounds of fat per day,
Nine pounds on Saturday, ten pounds on holidays,
O our sows and pigs gain eight pounds of fat per day,
They hate Kaiser Bill. (Tune: The Old Gray Mare.)

The spirit of this song was the spirit of the Bucks County Farm Boys' and Girls' Farm Day, held at the Farm School, Saturday, June 22. There are sixteen clubs of twelve members each in the county, each member raising a pig and pledged to raise it to maturity. The boys and girls came from all parts of the country in wagons, autos, and in large trucks. In one case, the Milford Square Club, 25 members, came to the Farm Day in a large truck. Each member brought lunch with him.



C. M. JOB, COUNTY AGENT, AND THE CALF CLUB COMMITTEE FROM THE BARTHOLOMEW COUNTY (INDIANA) JERSEY CATTLE CLUB, WITH THE BOYS AND GIRLS AND THEIR FINE JERSEY CALVES

Each club selected five delegates to represent it in the judging contests. Local farmers acted as the judge leaders. Horses, cows, pigs, chickens, and corn were judged by the youthful members. Explicit directions were first given and then they had a chance to do the work. Two minutes' time were given for the reasons to be given orally.

The Farm Day gave the boys and girls a chance to express themselves. In as far as was possible, the members were asked to do all the work. They sang the songs and did the judging work. In the afternoon, the president of each club was asked to give a written report of his own club, the activities of the club, and the important gains of pigs belonging to individual members, the feeds used, etc. The Bedminster Club No. 1, Reed Fretz, president, reports as follows: "We have the regular number of members in our club and we hold our regular monthly meetings to sum up the gains. The ages of the members range from 10 to 18 years. Our club has two girls and ten boys. We have eight pure-bred O. I. C.'s, two grade O. I. C.'s, and two pure-bred Chester Whites. The average price paid for these pigs at the beginning was $8. Our pigs weighed 31 lbs. at the start. Just now the average as near as I could get it is 80 lbs. in 72 days. Some of the feeds we use are: Oil meal, wheat middlings, skimmilk, hominy, corn meal, and barley feed. We also have our pigs on pasture. A few club members feed the cut green feed. Our members are much interested in pig club work and we want to help Uncle Sam in this war by producing pork for our soldiers in the trenches. And, by the way, we have great hopes of winning the county prize, too. That is all I have to say and I hope that your pigs are doing as well as ours."

The county leader sent out to each member a little circular giving the following ration as a good one: Corn meal, 400 lbs.; middlings, 300 lbs.; and tankage, 100 lbs. This ration was to be fed in addition to pasture. When all the members were gathered together in Segal Hall in the afternoon, the question was asked as to how many were feeding the pigs on pasture or were feeding some form of green feed.

Fully five-sixths of the members were present to answer "aye." That was the most pleasing feature of the day, because one idea of pig club work is to get the boys and girls to feed pigs by the best possible method. Again the roll call was taken and this time the different breeds of pigs were called for. At the last roll call the gain per day was asked for. About 50 pigs weighed over 100 lbs. at the end of the first two months. About 25 weighed over 125 lbs. and two weighed 148 lbs. in the two months, making a gain of 98 lbs. and 106 lbs. in that time.

COUNTY AGRICULTURAL AGENT.
Pennsylvania.

Starting Dairymen in Bartholomew County, Indiana

On May 4th the boys and girls of Bartholomew County, Indiana, met at Columbus to receive the pure-bred Jersey calves that are to serve as foundation animals for dairy herds in that community. These calves were purchased by a committee from the Bartholomew County Jersey Cattle Club, who worked in co-operation with the local county agent, C. M. Job. These calves were of excellent quality and selected principally from their breeding and production records.



DRAWING NUMBERS THAT WILL BRING WITH THEM PURE-BRED JERSEY CALVES TO THE BOYS AND GIRLS WHO WILL MAKE DAIRYING A PROFITABLE, PLEASANT BUSINESS IN THE FUTURE AGRICULTURE OF BARTHOLOMEW COUNTY, INDIANA

The boys and girls, in accordance with Indiana's club organization, are to be absolute owners of the calves they have drawn. They will feed and care for them in competition for prizes which will be offered at the local county fair at which they are being offered a special class. The calf club work is planned on a three-year basis and the calves will be assembled as bred heifers a year from now, and as producing cows the following year.

Although this is a great corn county, with lots of good hogs and good beef cattle there seems to be a growing demand for more good dairy stock. The county has carried on considerable club work and now the young corn growers are taking a step that will make and perhaps shape their future line of agricultural production.

Indiana. WALTER B. KRUECK.

Junior Letters

Hoard's Dairyman Juniors:—I received my fob, button, and creed and many thanks for them. Our school is out now. It closed the 22nd of May. I am 12 years old, and next fall I will be in the 7th grade. I live on a 120-acre farm. We live 6 miles from town. We are milking 12 cows now. I milk 5 cows in the evening. We have 14 head of cattle including our full blooded Holstein bull. We built a silo 14x38 ft. this spring. We have a 3-year-old colt. We get from 57 to 70 eggs a day now. We keep Rhode Island Red chickens. We have 18 pigs that we are just weaning, also 3 sows. We have all our corn planted. I am going to plant some beans to-morrow in the fields. I can sell the beans in the fall and keep the money.

We have taken Hoard's Dairyman for 14 years and would not be without it. My brother and I have bought thrift stamps. I want to help Uncle Sam win the war. I think I will now close. My address is Huchinson, Minn., R. 4. Evaline Haberstich.

Hoard's Dairyman Juniors:—It has been raining here for two days straight. We have our oats, wheat, speltz, and a few potatoes in; our wheat is up over an inch, and our oats are too. I rolled and dragged everything.

I have begun to raise rabbits and I wish some juniors would tell me how to make a rabbit pen so that they will not get out. My address is R. F. D. No. 4, Stoughton, Wis.

I will have to close, wishing the juniors good luck. Delbert Crawford.

Hoard's Dairyman Juniors:—I will write you a few lines to let you know I am still a junior. We have thirty head of cattle. They are all Jerseys. I had a Jersey heifer two years old. I sold her for $100 and wasn't fresh the night I sold her but was fresh the next morning and had a heifer calf. I wished then I hadn't sold her. I am 11 years old and I am in the fifth class. I have eight white rabbits. We have 80 acres of land. We are going to put in about 35 acres of corn and have already sowed ten acres of oats. We have 5 horses and one little colt one week old. I sold one of my shoats for $13. We have 40 little pigs.

Kansas. Chester Mann.

Hoard's Dairyman Juniors:—This is my first letter to the juniors.

I received my watch fob, button, and creed and I like them very much; though I am a girl I have no use for the watch fob so I gave it to my brother, Edward.

I am ten years old and was in the seventh grade at school this year.

I live about one mile and a quarter from the school house and walk every morning. Our school was out on April the fourth and I am glad it is out, yet I will be glad when it starts again. We had a very nice teacher this year, but I want another one next year, because I like new teachers every year.

I have three brothers and two belong to the Hoard's Dairyman Juniors.

We are milking nine cows of which I milk three. My brother, Ralph, milks one. My mother milks three, and my father milks two.

We have our incubator set with 160 eggs. We have about 125 chickens and three turkeys. Our turkeys are laying eggs and we have 26. There are two turkey hens and one gobbler. The gobbler is cross and runs after everybody, but I am not afraid of it any more, but I used to be. We get about seventy eggs a day and each of the turkey hens lay every day. One of our turkey hens wanted to hatch and we thought it was too early yet so we put her in a coop and she is out again. All of our turkeys roost on a tree and are keeping good and healthy. I would like to hear from some of the other junior girls and wish them all success.

Grafton, Pa. Mary L. Grove.

Hoard's Dairyman Juniors:—I received your letter some time ago and I was glad to hear from you. We have 27 pigs. I am going to buy one of them. We have eight steers, twelve cows, twelve heifers, and nine little calves but we are only milking ten cows.

I have set one hen for myself and twelve for my mother. We have about 130 hens.

My horse is getting along fine. I feed her oats and corn mixed and timothy and clover hay.

I am going to school now. Our school lets out in five more weeks.

Our oats and wheat are beginning to grow.

My brother is testing corn.

As it is getting bed time for me I will close. Wishing all the juniors good luck.

South Dakota. Freddie Blackman.

Hoard's Dairyman Juniors:—I received my watch fob, button, and creed and thank you very much for them.

I live on a farm containing 123 acres of tillable land. We finished plowing our oats ground in March and are pretty well on with our plowing for corn.

We have had very nice weather through the month of March and up until the 8th of April but since that time it has been snowing.

We live along the state road and about 7 miles away from Huntingdon where we market.

We have three pure-bred Guernsey cattle; one is a bull, the other two are heifers.

We also have two other calves which are only grade Guernseys.

We have 6 horses, 9 cows, and some young cattle.

My brother, Walter, who is also a junior is tsting seed corn and it is coming up fine.

We have running water at our barn so it is easy to water our stock.

We have had quite a lot of little pigs this spring. They are Chester Whites. Father has sent away for a full blooded Chester White female pig, 8 weeks old.

Father built a new hog pen last summer. It is made of cement.

I was thirteen years old on the 28th of March, 1918. I was sick on my birthday and did not feel like writing then so I have not had time to write till now.

Well, as it is getting late, I will close for

his time. Wishing all the juniors good luck.
Pennsylvania. Ralph E. Grover.

Hoard's Dairyman Juniors:—I received your letter a long time ago. Today it is just two years since I sent the coupon in to become a junior.

You asked me where we sell our cream. We sell it to the creamery. Nearly all the creameries in Freeborn County have their patrons milk cows for the Red Cross. That is, they give from 1% upward of their cream check. Today I got through with our plowing. I plowed the most of our field this year. We were through seeding our small grain quite a while ago.

I am trapping gophers now. I have caught 2 gray gophers and 3 striped gophers. Papa gives my brother and me five cents for each gopher we catch.

I am buying W. S. S. and thrift stamps now. I wrote a poem about the thrift stamp.

I milk 3 cows morning and evening and feed 1 calf and some of our sows. All our sows have little pigs. We have 37 little pigs out of 6 sows; that, of course, is not so many.

I think it would be a good idea to write our addresses in our letters. Mine is: Hayward, R. R. 1, Minn.

We have only nine cows to milk now. We have 1 registered Holstein bull. We have 3 heifer calves that are getting milk.

I will have to close now as it is time for boys to go to bed.
Minnesota. Russell Hanson.

Hoard's Dairyman Juniors:—I have not written for a long time so I think I will write now to show you that I am still a good member of the Hoard's Dairyman Juniors.

We have thirteen cows, one pure-bred Guernsey bull, two heifers, one of which is mine, and will have a calf the last of August, and seven young calves.

One of our cows bloated on green feed and we had to stick her, and in doing it the cow kicked papa on the ankle and hurt him.

My brother and I have been sawing wood to earn money to buy thrift stamps to help win this war.

I have not been at school because I have been sick.

I wish all the juniors good luck.
California. Robert Larson.

Hoard's Dairyman Juniors:—I received your letter asking me if I had to do anything about the cows. Yes, I have. I milk four cows every morning and night. We feed our cows one-half bushel of silage, about two quarts of feed which is mixed corn gluten and different other kinds of feed. Our cows are now out to pasture.

I was fourteen the 17th of May and in the Freshman A class in the high school.

My brother and I have two pigs and we joined the pig club. The Oshkosh banks paid for the pigs and we pay them back at the first of December. The one who raises the most pork on the least money gets a prize of $7; second, $5; third, $3. We feed our pigs corn meal, Diamond hog meal, ground barley, and ground oats with skimmilk which we buy at 20c for ten gallons. Our pigs, when six weeks old, weighed 15 and 16 lbs.; now they are three weeks, four days old and weigh 30 lbs. The smallest is my brother's; and mine weighs 32 lbs. They are Poland-Chinas.
Wisconsin. Walter Wood.

Hoard's Dairyman Juniors:—I received your letter of May 6 and was glad to get it.

They are building a hemp factory at Pickett, about three miles from where we live. My father rented 20 acres of land to a man and he put the whole piece in hemp.

I set a hen with 12 eggs and one day I brought them in to candle them and my little brother broke some of them. Then I set a hen with fifteen eggs and she went off from the nest. My mother said I should give up the chicken business. One afternoon I was throwing down hay. I found a hen with 14 eggs. I let her set and the day before yesterday she went off from her nest. Then I put the eggs under a white hen and got 10 chicks from 14 eggs. Wishing all the juniors good luck.
Wisconsin. Melvin Miller.

Hoard's Dairyman Juniors:—I received your letter and was glad to get it. You ask me how I got such a fine start so I will tell you. First, I had a grade Holstein heifer, then my father sold her and said he would get me a registered heifer. Last fall he bought 9 cows, a registered heifer among them, from a man in New York. He said I could have her calf. She was fresh about Christmas, but her calf was a bull so I am going to sell him and buy a registered heifer with the money. My father sold my other two pigs and said he would get me a pure-bred hog. My grandfather bought a registered hog. She had three pigs. My father bought two of them and gave me the smallest one. Our cows are Holsteins. We do not have much trouble with scours.

Wishing the juniors good luck. My address is State College, Pa. Fredrich Markle.

Hoard's Dairyman Juniors:—I came out to my uncle's farm June 7th. My school closed June 4th and our picnic was June 5th.

I have my garden planted. It is about twice as large as it was last year and I have beets, radishes, onions, head lettuce, peppers, corn, peas, lima beans, and potatoes.

I took my calf to pasture this spring and will leave her there till fall.

I mow the lawn, help churn butter, and I milk one cow.

I am promoted from grade five to grade six and I am 11 years old. Our school sold Thrift Stamps and War Saving Stamps and our school of eight rooms sold $5,000 worth and our room of 42 pupils sold $1,100 worth, and I sold the most of any pupil in the room and that was about $300 worth and I own $40 worth of stamps and 2 Liberty Bonds.

Our dairy on the farm is doing fine and we ship from 8 to 9 cans of milk a day.

It is getting late now so I will close, wishing all of the juniors good luck.
Pennsylvania. Edward Mesta.

Hoard's Dairyman Juniors:—It has been a long time since I have written to you, so I will write quite a long letter. We are milking twelve cows now and they give a lot of milk. We have 3 horses and 1 colt. The crows, blackbirds, and pigeons are always after our corn. We killed 2 blackbirds and one pigeon the other day. We are making a shed to put our implements in. We are just putting on the roof now. We are going to have a school fair this year. I have got barley this year. I have to grow it, then bale it, and take a sheaf of grain to the fair, also I have to take some of the grain along.
Ontario. Gerald Main.

Hoard's Dairyman Juniors:—I have not written for a long time, so I will write now. Three of them are Jerseys and two are Durham. I have four $5 War Saving Stamps and $6 in the bank. I sold my calf for $15. Papa ships his milk on the train to the Pure Milk Co. I milk two cows every evening and sometimes in the morning.

We had a hog and a calf that died. I went to the apple show last year. Papa gave me an acre of corn. We have 23 acres of wheat. Well, that is all I can think of for this time, so I will close. My address is Franklin Furnace, Ohio. Stanley Kittys.

Hoard's Dairyman Juniors:—I received my fob, creed, and button and am very proud of them. You ask me if our goats were Angoras. They are about half Angoras. The wool of a goat is not like that of sheep, it is longer. We use our goats to eat sprouts. We cut down the little timber and let it sprout up then turn the goats on them. The hair goats are healthier than the Angoras, but the Angoras pay the best. It takes about four goats to the acre the first year and two the next year. We have about 20 acres killed. The goats like to work in rough ground. Well, I will close for this time.
Missouri. Earl Hillhouse.

Hoard's Dairyman Juniors:—I have not written to the Juniors for a long time but as I have time now I will write.

I have my calf now. It is a Guernsey bull calf. It is quite small though. It is not quite pure-bred but pretty close to it. Every night when I come home and Saturdays and Sundays I take it out and give it exercise.

Not much garden stuff is planted in this section but there are quite a number of farmers who have seeded their oats and wheat and barley. Last Saturday my father seeded about one acre of wheat. My brother and I picked the stones off of this piece of land in the forenoon and in the afternoon we went fishing. We did not fish very long and we went down to one of my friends and took their horses and horse-backed them after their cows. When we came back we rode home in their automobile.

Next summer with the money I get from my calf I expect to get a pig and a calf both. I am going to sell my calf next fall if I cannot keep it over the winter.

Wishing the juniors good luck I will close.
Minnesota. Arthur Carlson.

Hoard's Dairyman Juniors:—I have not written for a long time and you have probably forgotten me. My cow, Goldie, freshened March 7 with a fine heifer calf. My other cow, Spot, freshened April 20 with a black and white bull calf. Goldie's calf is a grade Jersey. I am going to raise it. I have been feeding it as it said on page 323 in the October 5, 1917, issue of Hoard's Dairyman. The calf is ninety-four days old. I sold my bull calf for $12 and am buying seeds with the money.

Papa and I have a half acre of Early Yellow Canada Flint corn planted and 5 quarts of Sutton's Excelsior peas, and 1,200 feet of rutabagas. We are going to plant a half acre of sweet corn, a half acre of beans, and an acre of mangels, carrots, and rutabagas. We are going to feed the cornstalks, mangels, and rutabagas to the cattle and the carrots we will feed to the horses. We have a new pair of horses. I was promoted into the Sophomore class of Greeley Institute this year. I wish some of the juniors would write to me. My address is Cumberland Center, Maine. My letter is getting long, so I will close, wishing good luck to all the juniors.
Maine. Ernest Farr.

Hoard's Dairyman Juniors:—It is a long time since I wrote last so I thought I would write again. My two rabbits are dead. We are through planting now. We have ten little pigs that were born the 1st of June. As soon as the little ones were born the sow became very sick. When they were a day old we built a little trough in the pen so the old sow could not get near it, and started to feed the litle ones fresh milk every four hours and that's all they got and they are just as healthy as can be. We have such a big pasture that the cows get all they can eat for the summer so we don't have to buy any feed for them.
Michigan. Ardell Zurcher.



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For Sale—Fifty registered Holstein cows and heifers. Forty registered bulls two to eighteen months old. Two hundred fifty head of choice grade cows and heifers. GIROD & ROBISON, Towanda, Kans. 25-tf

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For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

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I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

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For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bulls five to eight months. Write for breeding. Priced right. Well bred. A. B. SCHWARTZ, Lyons, Iowa. 24-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—20 head of registered Holstein cows and heifers. BIRKHOLZ STOCK FARM, New Buffalo, Mich. 25-4

Registered Holsteins due to freshen soon. HALEHURST FARMS, Route 3, Nashville, Tenn. 25-4

Holsteins for Sale—Registered and high grade cows and heifers, bulls of serviceable age. NEAL HOUSLET, Oxford, Wis. 25-4

Registered Holstein bulls for sale. Write WM. ELLIS, Noxon, Mont. 26-4

For Sale—Fifty high grade Holstein heifers, well marked, ages from one to two years old. Will tuberculin test. BLOTT BROS., Mukwonago, Wis. 1-3

Don't feed high priced feed to scrubs and poor producers. It's poor business and unpatriotic. My practically pure heifer calves will set you right. Holsteins and Guernseys $25 crated. F. L. TAYLOR, Iola, Wis. 1-2

Twenty-six high grade Holsteins for sale consisting of 15 fresh cows, 10 heifers and registered sire. LLOYD & TRACY, Brighton, Ia. 2-2

For Sale—Registered bull calves five weeks to four months old. $50 to $100. MAPLE LANE FARMS, Cassadaga, N. Y. 2-tf

9 registered Guernsey heifers, 9 months old, 4 were imported in dam, Governor of the Chene and May Rose breeding. $1,200 for the nine. PINE HILL FARM, R. 3, Howard City, Mich. 2-3

Guernsey Place, Fairfield, Iowa, offering two line bred Glenwood bull calves $75, $125. Heifer calves. 1-2

Two choice Guernsey heifers. Bred to son of World's Champion Long Distance cow. RICHARD F. KLEMM, Baraboo, Wis. 1-3

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

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Guernsey bulls for sale, ranging in age from one to fifteen months old sired mostly by Stranford's Glenwood of Pinehurst 6th whose get are proving wonderful producers and whose dam was the first cow of the breed to make five A. R. records. High class bulls at bargain prices. L. P. MARTINY, Chippewa Falls, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Choice bulls, service age; Golden Noble II and Chene breeding. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 17-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

Guernsey calves, both sexes, 31-32nds pure, five weeks old, $25.00 each, crated for shipment anywhere. Send orders or write EDGEWOOD FARMS, Whitewater, Wis. 21-8

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

STOCK FOR SALE

Hoard's Dairyman Farm offers three splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Guernsey bulls ready for service. One by grandson of May Rilma 1073 lbs. fat out of A. R. cow. Two by Glenwood Champion, 22 A. R. daughters, one over 800 lbs. fat. One of these is grandson of Beauty Eagle, 846 lbs. fat. Other out of A. R. cow. All splendid individuals. LaBELLE KNOLL FARM, Oconomowoc, Wis. 23-tf

Grassland Farm offers for sale Jersey bull of Register of Merit breeding, ready for service. Also four yearling heifers, granddaughters of Keepsakes Golden Lad. L. W. ASH, Roberts, Wis. 1-2

Jerseys—Choice bulls, priced right. CLOVER VALLEY FARM, Medford, Wis. 1-3

For Sale—Some Jerseys of both sex, dropped in spring of 1917. Also calves of both sex dropped in January 1918. All by Price Hood 140535. Subject to register. Some of these heifers out of cows by Financial Noble 96424. For reference write W. C. BANTA, Fairfield, Ill. 1-2

For Sale—2 excellently bred Jersey bull calves, 4 and 5 months old. Both sired by a son of Lucky Farce. For particulars address NEW JERSEY EXPERIMENT STATION, Dairy Department, New Brunswick.

One registered Jersey cow and bull calf for sale. Write for description. Priced to sell. A. W. NICKOLS, Indianola, Ia.

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

STOCK WANTED

Wanted—To buy for cash, registered Holsteins, young cows and bred heifers in lots of ten or more or will buy entire herds if priced right. LOCK BOX 97, Sterling, Illinois. 1-2

Wanted—Grade Guernsey or Holstein springer cows or heifers. Can use any number at a moderate price. Write me. State prices. EDW. M. NEWCOMER, Grinnell, Iowa. 1-3

Am in the hot bed of the south. Have sold over 500 calves this spring. Would like prices f. o. b. your station on high grade Holstein calves, 2 to 3 weeks old. Also registered bull calves, heifers and yearlings. E. W. SMITH, Toccoa, Ga.

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Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—Real bargain 28 cows giving good flow milk, 5 big type registered Poland China sows bred October farrow, 48 choice 70-lb. pigs sired by 5 herd boars. Price $3,700. CHAS. W. O'NEILL, Bridgeport, Wis. 1-2

For Sale—Big type Poland China pigs $12 each. G. W. BLAKE, R. 5, Jefferson, Wis.

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

FARMS FOR SALE

Secure War Prices for farm products; buy a farm; 40-acre farm $750; 80, $2,400; 120, $2,500; 160, $3,700; choice cutover land $15 to $20 per acre; write for particulars to THE E. L. C. CO., M-A, Dept. 31, Merrill, Wis. 24-tf

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Do you want a home in a rich valley near Spokane, on three transcontinental railroads? Where soil is perfect, rainfall ample, summers cool, winters moderate? The kind of stump land that pays to clear? Timothy and clover green eight months in year, natural stock country. Land cheap, 10 yearly payments at 6 per cent. HUMBIRD LUMBER COMPANY, Box 2, Sandpoint, Idaho. 4-tf

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Farm—147 acres two miles northwest of Waukesha; five minutes' walk to electric car, fifty minutes' ride to Milwaukee; new $3,000 barn, also house and silo. Price $27,000, no trade, reasonable terms. MRS. CHAS. JACOBUS, Route 8, Waukesha, Wis. 1-spl

Farm for Sale—110 acres. For further particulars write to E. H. WALKER, Camden, N. Y. 25-tf

Improved 80 acres, half in cultivation, balance pasture, black soil, no stones, near town, $4,500. Also consider trade. TOM WILLIAMS, Granton, Wis. 26-4

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—Dairy and Stock Farm. 300 acres near Mountain, Oconto county, Wisconsin, 1½ miles from C. & N. W. Ry. Station and graded high school. 100 acres cleared, 100 acres pasture, 100 acres timber. Well watered by trout streams. 9-room house, basement barn 42x105; concrete silo 16x40 feet; machinery sheds and stock sheds. Well equipped with farm and power machinery. Stone milk house with power and De Laval separator. Price $13,500; ¼ down, balance on time at 6%. Write THE ANSON ELDRED COMPANY, Stiles, Wis. 22-spl

Dairy, fruit farm, finest section southeastern New York; 283 acres; large house; tenant house; new modern dairy barn; 2,850 fruit trees; much tractor land; $15,000. MARTIN THEW, Arthursburg, N. Y.

Free. Free. Free. To every homeseeker. Our new fall land list showing pictures of a large number of choice Central Wisconsin dairy and grain farm bargains. Write today. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin.

Aitkin! Aitkin! It's the county about which you hear and read so much, for no other county in Minnesota offers such farms and homes at such low prices and on such easy terms. Rich clovers, abundant grasses everywhere, fat stock, sleek sheep, abundance on every side. Investigate Aitkin. Write ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

For Sale or Rent—One of the oldest and best equipped dairy farms in Michigan on shore of Gull Lake, Kalamazoo Co. 2 good houses, dairy barn 30x80, calf barn 20x100, 2 large silos, all cement blocks; 260 acres, 70 grain (seeded), 15 corn, 20 alfalfa, 12 apples. LONG BEACH FARM, Augusta, Mich. 2-2

Big Money Making Farm—$3,900 receipts last year. 117 Maryland acres, level, stoneless loam soil, good as the best that West can offer; 87 acres high cultivation, wire fenced pasture, 300 apple trees, valuable wood, timber, 2-story 7-room house, stock barn, poultry houses, carriage house, garage. Short winters, mild summers, 240-day growing season, plenty rain. On improved road, near school, only 1½ miles depot town, high school, creamery, canning factories, best markets. Aged owner must retire, makes low price $6,300, less than half cash. Many western men here making more money than when on high priced western land. For list showing wheat, corn, hogs, etc., sold for $3,900 in 1917 and farm not pushed see page 32 Strouts Catalogue with full details this and other farm bargains, many with stock, tools, crops included, copy free. E. A. STROUT FARM AGENCY, Dept. 3001, 150 Nassau St., New York, N. Y.

Colorado Dairy for Sale—Doing business of over $1,000 a month. Fifty Holstein and Shorthorn cows, tuberculin tested; good ones in good condition. Will sell cows, team and wagon, Ford delivery truck and full dairy equipment with power plant and lease 80 acres alfalfa and 60 acres pasture. 200-ton silo being erected, concrete floor and mangers in cow barn. Milk retails at 12½c, buttermilk 10c. A real opportunity for a live dairyman who has his own help. Enquiries truthfully answered. E. N. HEATON, Sterling, Colorado.

A Small California farm earns more money with less work. Raise the crops you know about—alfalfa, wheat, barley, etc.,—also oranges, grapes, olives, and figs. Ideal for dairying, pigs, and chickens. No cold weather; rich soil, low prices; easy terms; good roads, schools and churches. Enjoy life here. Newcomers welcome. Write for our San Joaquin Valley, also Dairying and Poultry Raising illustrated folders free. C. L. SEAGRAVES, Industrial Commissioner. AT&SF RAILWAY, 1800 Railway Exchange Chicago. 11-spl

FARMS FOR SALE

Virginia's best dairy, stock and grain farms, northern piedmont section, near best markets. Write for catalogue. CAVINESS & EWING, Leesburg, Va. 23-6

Administrator's Sale—160-acre farm on the bank of Tippecanoe river. Fine opportunity for dairying. Bargain for quick sale. CLAUDE R. NEWMAN, Culver, Ind. 1-2

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Wanted—By experienced dairyman over draft age, dairy in the south on salary and shares. Can make small investment. BOX 144, care Hoard's Dairyman. 2-4

FOR RENT

Will lease on shares to experienced dairyman or breeder, good Indiana dairy farm. Market and opportunity unlimited. Lessee must own interest in stock and equipment. BOX 139, care Hoard's Dairyman. 1-2

Farm to Rent—On shares. Includes 37 cows, 15 brood sows, over 90 ewes, besides young stock of all kinds. Possession at once to right party. ALVIN M. ANDERSON, Eau Claire, Wis. 1-2

Dairymen attention! For lease 750 acres school land near Jackson, Mississippi. M. LATIMER, Clinton, Miss. 2-3

Stock Farm for Rent—Good location, good buildings, 50 head registered Jerseys, 100 head registered sheep. Renter must have two boys to help, furnish 4 horses and machinery and have $3,000 cash to buy share in stock. Fine opportunity for good stock man. LOCK BOX 54, Hudson, Wis.

For Rent—An ideal dairy farm, on main city boulevard, in Duluth, Minnesota, (population 100,000). Unsupplied demand for milk at 16 cents a quart, large elegant, modernly equipped buildings, with ample space for 170 head of cattle, 350 tons silo capacity, 400 acres of land fine advertising location for registered herd Will rent for term of years from May 1st 1919, possession this fall at modified winter rent. Address CHAS. P. CRAIG, Duluth Minn.

WANTED TO RENT

Wanted—Good farm to rent. Age 33, fully experienced in dairying and handling pure bred or grade Holsteins. Would like to get in touch with a man who has a good farm with good buildings fully equipped to handle a dairy and to be run on halves. Prefer farm of 160 acres or more. Address BOX 149, care Hoard's Dairyman.

I want on 3-year contract a dairy farm proposition, of modern housing and equipment, to me in all respects, co-operating with owner for economical and efficient maintenance. Experienced in high grade A. R. O. work, buying and selling of stock, calf raising, scientific practical feeding. Planning and arrangement of buildings and fields, soil improvement and crop rotation. Modern machinery, mechanical milker, fruit, garden, poultry, swine. Care of estate. Exempt. Children. Particular as to schools and churches. References. $1,500 per year, one-half of profits over interest and depreciation. Use of farm products. Address BOX 150, care Hoard's Dairyman.

MACHINERY

For Sale—Calf-Way Milker in good running order, almost new. Cost $726. 6 single units 2 extra pails and large vacuum pump. We are selling our herd and have no use for milker. RYDERDALE FARMS CO., Black Creek, N. Y. 1-3

Moline Universal Tractor with two 14-inch plows. Almost new, only used to plow 5 acres and 35 hours on belt. Guaranteed in perfect condition. $900.00. W. H. WHITACRE, R. F. D., Limaville, Ohio. 22-tf

For Sale—Hinman Milker outfit, complete for thirty cows, subject to inspection, price $100. In perfect condition. MONROE MONROE, Alexandria, Va. 25-tf

For Sale—30-60 Fairbanks-Morse tractor with six John Deere bottom plows. Has been run fifty days and is in perfect working order. Priced for quick sale. For price and particulars write NEAL HOUSLET, Oxford, Wis. 26-4

For Sale—B-L-K Milking Machine, 4-unit compressor, piping, 20 stanchion cocks. Unused 6 weeks. $300. Guaranteed. Sold as herd. LONG BEACH FARM, Augusta, Mich. 1-2

Calf-Way Milker—Tank vacuum pump, etc. included, $165.00. Everything brand new. BOX 151, care Hoard's Dairyman.

For Sale—Waterloo Boy Milker, two double units, double cylinder vacuum pump, 24 stanchion cocks, etc. Used only a short time, first class condition. First check for $1 takes it. Address KENNETH BEBBS, Meadland Farms, Mentor, Ohio.

HAY

Wanted—Five carloads of alfalfa hay, choice second cutting. Quote price laid down at St. Prairie, Wis. C. C. GROVE, Columbus, Wis. 1-4

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-t

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago. 26-t

DOGS

Airedale Collies and Old English Shepherd Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 8, Oakland, Iowa. 5-t

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-t

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. KUCZYNSKI, Milwaukee, Wis. 24-13

Velvet Bean Meal feed; Peanut meal; Old Process cocoanut oil cane meal; ton lots or car lots. NEUSTADT & CO., 294-Ninth Ave., New York City. 2-4

LIGHTNING RODS

Diddie-Blitzen Rods—Quick sales; guaranteed lightning protection. $250 if they fail. Agents wanted. L. F. DIDDIE CO., Marshfield, Wis. 9-tf

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

PATENTS

Your idea wanted—Patent your invention. I'll help you market it. Send for 4 free books, list of patent buyers, hundreds of ideas wanted, etc. Advice free. Highest references. Patents advertised free. RICHARD B. OWEN, Patent Lawyer, 86 Owen Bldg., Washington, D. C. 2-5

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Experienced herdsman to take entire charge of growing herd of Guernseys. Milking about fifteen head. Apply by wire at our expense. FLETCHER PAPER COMPANY, Alpena, Michigan. 25-tf

Married man wanted for general work on dairy farm. Must be thoroughly reliable, competent, good milker, like Guernseys, be a good caretaker, also have the interest of his employer at heart. House, fuel, vegetables, milk, eggs and good wages. Give full particulars and references in first letter. MARIONDALE FARM, Genoa Jct., Wis. 26-tf

Wanted—For fine country estate where the best of accommodations and wages are provided for, one orchard man, one gardener, two teamsters, two milkers and two laborers. Only reliable, experienced men need apply. Send your application to "THE ELMS," 710 Chamber of Commerce, Buffalo, N. Y. 1-3

HELP WANTED

Wanted—Two experienced milking machine operators to operate two double Empire units and do their own stripping and barn work. About ten hours work per day, no farm work, wages seventy-five dollars per month, board and room, with a bonus of five dollars per month for a year's service. No railroad fare advanced. W. H. BORCHERS, West Sacramento, Calif. 1-2

Farm Help Wanted—Teamsters and farm hands. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Wanted at Once—Man not in draft age to help milk and deliver, milking machine used. Must be a hustler and capable of handling milk route. Wages $75, board, room. W. A. WOLFE, Box 471, Deer Lodge, Mont. 1-2

Milkers Wanted—For the great Anna Dean herd of Guernseys. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applicants applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Shepherd wanted on Brandywine Meadow Farm, West Chester, Pa. Apply to JOHN McBRIDE, Manager, Route D, West Chester, Pa. 1-2

Wanted—September 1, herdsman with experience, to care for large registered Guernsey herd, cows in A. R. test. Good habits and not in draft. $60 and board, chance for advancement. Give age and reference first letter. HOMER F. RUNDELL, Livingston, Wis. 1-5

Wanted—Married man to work on Holstein farm. Good house, milk and garden furnished. Give experience and wages desired. J. E. RUNDELL, Roberts, Wis. 1-2

Wanted at Once—A first class all around man to take charge of certified farm, fifty pure-bred Holsteins. ARDEN FARMS, 404 Hackney Building, St. Paul, Minn. 1-2

Wanted—Married man to take entire charge of small herd Holsteins. Must be experienced milker and calf raiser. Permanent position. Give references. C. W. HENRY, Greeley, Colo. 1-2

Wanted—Single man, good milker who can handle Ford truck. Business new, finances unlimited. Water and climate healthful. Wisconsin man in charge. Permanent position and splendid opening. $50 and board to start. Apply J. L. BISHOP, Waynesboro, Ga.

Wanted at Once—Married man for dairy work. Holsteins. Wife to board help. State wages. HOLMES DAIRY CO., Whiting, Iowa.

Wanted—One or two men for general ranch work on a mountain cattle ranch in Northern New Mexico. Want good experienced men and are willing to pay good wages. STERN LAND & LIVE STOCK COMPANY, Cimarron, New Mexico.

Wanted—Single man for all kinds of work on dairy farm. Permanent, beginning Sept. 1st. Good habits and reliable. Wages $40 a month, room and board. Raise when ability shown. Write. CLARENCE MATTHEWS, R. 3, South Bend, Ind.

Wanted—Good, healthy herdsman and milker to care for herd of 50 cows and milk. Mechanical milker. Must be good calf feeder. If married wife able to work in milk room. Swede, Dane or Swiss. High class retail trade. Kind with cows; state wages. E. N. HEATON, Sterling, Colorado.

Wanted—A man to strip cows after milking machine and do can house work. Wages $65 per month with board and room to start with. Address E. F. GENTRY, Wallace, Ida. 2-2

Wanted at Once—Reliable single man for general farm work and stock. Wages $650 a year, board and washing. A. F. TEST, Mitchell, South Dakota.

HELP WANTED

Position open—We want a good steady reliable man in our new test barn. Must take interest in the work and come with the idea of staying permanently and help improving the herd. Good wages and board with chance of steady increase if satisfactory. No previous knowledge of feeding necessary but must be observant and willing to follow instructions and must have references. All inquiries will be answered. Address BOX 143, care Hoard's Dairyman. 2-2

Wanted—Reliable men for dairy work, milking machine operators and strippers, also creamery men. Excellent conditions and salary. Prefer men not subject to draft. THE HARTMAN STOCK FARM, Columbus, Ohio. 2-3

Wanted for Dairy Farm by September 1st—Working foreman not over 45, but above draft age who understands machinery, handling of help, poultry, hogs, horses, Babcock tester, Hinman Milker. Have power churn. Wife to board help, about 8 men, has assistant housekeeper. Raise some cotton, grain, garden fruit. About 16 cows, will increase to 40 milkers. Location close in. Everything furnished. Wages $1,500 yearly besides liberal increase to man who is profitable after a year. THE GAGE FARM, Atoka, Okla.

Wanted—Man to work in dairy. Chance to learn A. R. O. work. Also man for milk house work. Everything modern. Give references and wages expected. BOX 152, care Hoard's Dairyman.

Wanted—On large farm in Virginia, first class farmer as working foreman. Must understand tractor and horses. Good wages and board, or house and equivalents. State experience and references. R. M. ROBERTSON, Lone Oak Farm, Warren, Va.

Wanted—Two single men or married couple to work on farm, men must be good milkers. Will pay $50 a month, board, room and washing. EUGENE L. BELL, Box 263, Camp Douglas, Wis.

Reliable, industrious man not in draft, wanted to run modern poultry plant in Western Pennsylvania. Must have either practical or scientific training. Wages seventy-five dollars a month with board and room and more when flock is made profitable. BOX 147, care Hoard's Dairyman.

Single, reliable men, not in draft, wanted for following year round positions on farm: Herdsman for herd of twenty Holsteins; Empire Milker used; wages fifty dollars a month. General mechanic, one experienced with gas engines, steam boilers and heaters; wages fifty-five dollars a month. Two general farm hands, no milking; wages forty-five dollars a month, board, room and washing. Splendid chance for advancement for industrious men. C. W. WRAY, Lowellville, Ohio.

Wanted—Married man to take charge herd of 50 registered Holstein cows. Would prefer man with son old enough to operate Hinman Milker. Must understand feeding and care of test cows, also a good calf raiser. Everything modern, good house. State wages expected. BELLEFONT FARMS, E. Dickinson, Mgr., Bellefontaine, Ohio. 2-2

Wanted—First class middle aged man as a working foreman on a 700-acre farm in Crow Wing County, Minn. Must have knowledge of stock raising of all kinds and be a general farmer. Address BOX 142, care Hoard's Dairyman. 2-9

Wanted—Experienced Advanced Registry herdsman, preferably married, over draft age, with first class testimonials, for New England Guernsey herd. State wages expected in first letter, when at liberty. House, fuel, milk furnished. Address BOX 141, care Hoard's Dairyman. 2-2

Wanted—A dairy farm hand, a year round job, state wages. GEORGE SPIEGEL, Algona, Ia. 2-2

POSITIONS WANTED

Farm Manager—American-Bohemian, married, wants position September or January 15th. Experienced in raising and handling stock and dairy cows, managing help for best results on any size farm. Guarantee success. In Central States. F. HENRY, care W. M. Young, R. 3, Eagle Grove, Iowa. 25-4

Wanted—Position as herdsman or farm superintendent by a college graduate, 31 years of age, married, no children. Life long experience on large farms with pure-bred and grade Holsteins. A. R. O. work a specialty. Only a large and liberal proposition with best of living conditions will be considered. Wife cannot care for help. BOX 122, care Hoard's Dairyman. 25-tf

Position wanted as dairyman or manager. Fully experienced in balanced rations, testing, calf raising, A-1 buttermaker, milking machine, tractor and gas engine operator. Good hog raiser and thoroughly experienced in farm crops. A hustler and wife a neat housekeeper. Temperate and no cigarette fiend. References furnished and good reasons for change. Address BOX 132, care Hoard's Dairyman. 1-2

Farm and dairy manager, thoroughly qualified in every respect. Practical and scientific. Now available. Address BARRON, 904 Wilson Ave., Chicago, Ill. 1-2

Manager, married, desires position. Expert developing land, stock raising, A. R. O. work, salary or shares. BOX 148, care Hoard's Dairyman. 2-3

Wanted—Employment by a Polish farm hand who can converse the English language sufficiently to make himself understood. He is a first class dairyman. Address and state wages to JOHN CHEMITZ, 186 Baden St., Rochester, N. Y. 2-2

Working farm manager and herdsman wishes to correspond with a party having such an opening Oct. 15 to Nov. 1st, 1918. Competent, married, no children, exempt from draft. Holsteins and the East preferred. For particulars. BOX 140, care Hoard's Dairyman. 2-2

Cornell University graduate; experienced dairy manager and herdsman; expert feeding and breeding; single, draft exempt. Wants responsible position. FELDBAUM, 905 Windsor Ave., Chicago.

Farm and dairy manager open for position. Eight years' experience, two years agriculture experiment station, breeding of live stock, A. R. O. work, balancing rations, cheese and buttermaking, rotation of crops, handling farm and dairy machinery, etc. Can furnish best of references. BOX 4, Massies Mill, Nelson County, Virginia.

Position wanted as herdsman—12 years' experience in dairy and show ring with some A. R. O. experience. Married, 3 children. Nothing but first class position. State wages and conditions in first letter. 507 S. 5th St., Oregon, Ill. 2-2

Single, first class swine herdsman wants place. Age 40. Up-to-date place preferred. Address BOX 146, care Hoard's Dairyman, Ft. Atkinson, Wis.

Wanted—Position as farm manager or herdsman Oct. 1st. Life experience and agricultural college training. Understand A. R. O. and testing. Can produce results and give satisfaction. Married, 25 years old. No booze or tobacco. References. BOX 145, care Hoard's Dairyman.

Married man wants position as working foreman by the year on dairy farm. Experienced in dairying and farming. Also have two boys to help milk and do chores. WM. F. FISCHER, Stephen, Minn.

Position as farm manager by American 26 years old, have run own farm five years. Brother enlisted so have sold out, want position, prefer pure-bred Holstein farm, familiar with them. Good with crops, dairying, machinery, Babcock test, etc. No liquor or smoking, best of reference. J. A. PARTRIDGE, Washington, Vt.

Brown Swiss Auction

The entire herd of registered Brown Swiss cattle owned by Professor H. C. Taylor of the University of Wisconsin was sold at public auction July 16, 1918, at the farm five miles south of Madison.

This herd has been assembled with great care during the past six years by selection from the best herds in this section of the country, and along the best blood lines of the breed, including the Teckla, Ilda, Merney, College Bravura, and Lady Belle families. Professor Taylor sold this fine herd only that he may feel free to undertake war work which will take him away from Wisconsin indefinitely.

Breeders of Brown Swiss cattle assembled from Minnesota, Illinois, Iowa, Michigan, and Indiana, as well as Wisconsin, and enjoyed the hospitality of the farm. Professor Humphrey, of the Wisconsin College of Agriculture, gave an address upon the progress of the herd. Ira Inman, secretary of the Brown Swiss Association, read the pedigrees of the animals as they were sold. L. E. Pennewell of Wisconsin did the selling, assisted by Mott Ayres in the ring. Seventeen breeders availed themselves of the opportunity to secure representatives of this herd. From the standpoint of the excellence of the animals sold and the high prices obtained, competent judges consider this the most noteworthy auction of Brown Swiss thus far held.

Thirty head sold for $9,560, or an average of $319 per head, with the high cow going at $660.

The herd bull, Carl 7th 6165, sold for $500; eleven mature cows averaged $437; eleven heifers and heifer calves averaged $300; and seven bull calves averaged $137.

The list of animals sold with prices of each and names of purchasers follow:

Jacob Voegeli, Wisconsin	
Carl 7th	$500
F. P. Minette, Minnesota	
Ella Martin	$660
Viola of Lake View	465
Esther T.	400
Lady 2nd of Tarpleywick	300
Margaret Phiefer	295
Andrew Martin, Wisconsin	
Believe	$570
Alice E.	550
Elsie I of Plymouth	525
Betty Brun	430
R. E. Huggans, Illinois.	
Mollie McConnell	$250
Myrtle J.	230
Esther T.	220
L. E. Pennewell, Wisconsin	
October Beauty	$430
Johann	385
B. H. Hibbard, Wisconsin	
Lady of Tarpleywick	$340
Belle Windsor	300
Wilmer A. Drollinger, Wisconsin	
Jessie B. M.	$280
Ella's Cincey	125
O. S. Dodge, Iowa	
Hope T.	$200
Alison 2nd	190
A. J. Lyon, Wisconsin	
Celeste B.	$400
J. H. Moore, Illinois	
Mollie's Cream	$325
John Ingold, Wisconsin	
Arbutus of Plymouth	$290
B. E. Skinner, Wisconsin	
Esther T. 2nd	$255
F. J. Thompson, Wisconsin	
Viola's Gem	$190
Fred Reuter, Wisconsin	
Elsie's Cincey	$170
L. S. Engen, Wisconsin	
Syene Cincey	$105
R. Nesbitt, Wisconsin	
David of Syene	$100
S. M. Graves, Wisconsin	
Una's Cincey	$80

Foreign Food Facts

The Food Minister of France has requisitioned 1918 forage crops. The maximum price for best quality will be $1 for 100 pounds and 86 cents for second quality.

Italy has published a decree requisitioning 1918 crops of wheat, barley, and rye.

The province of Milan, Italy, shows a decrease in live stock, based on the census of 1908, of 21 per cent for horses, 18 per cent for mules, and 8 per cent for swine.

The maximum price for milk in Rome has been fixed at 18 cents per quart. In 1914 the price was from seven to eight cents per quart.

Owing to lack of markets for their corn, farmers in Argentina, South America, are in some cases disposing of it for fuel at 40 cents per bushel.—U. S. FOOD ADMINISTRATION.

In 1917 about 100,000 truckloads of hay and straw were secured by Germans in occupied portions of France and Belgium.

Increased Egg Consumption

Reports on the nation's egg supplies lately received by the U. S. Food Administration show that the number of eggs in storage in the United States on July 1 was practically the same as on July 1, 1917. With this condition, it is interesting to note that consumption had increased about 17 per cent, indicating that production must also have increased in about the same degree. Imports and exports are a negligible factor compared with the enormous size of the egg trade within the United States.

Prices received by producers for eggs have been gratifying, according to reports from the country egg markets, and poultry markets are still short of birds, due, it is believed, to the high level of egg prices.

Jersey Cattle Notes

For week ending July 19, 1918:

Number of animals registered: Bulls, 180; cows, 505; total, 685. Number of transfers recorded: Bulls, 216; cows, 559; total, 775.

Assured Quality Engines

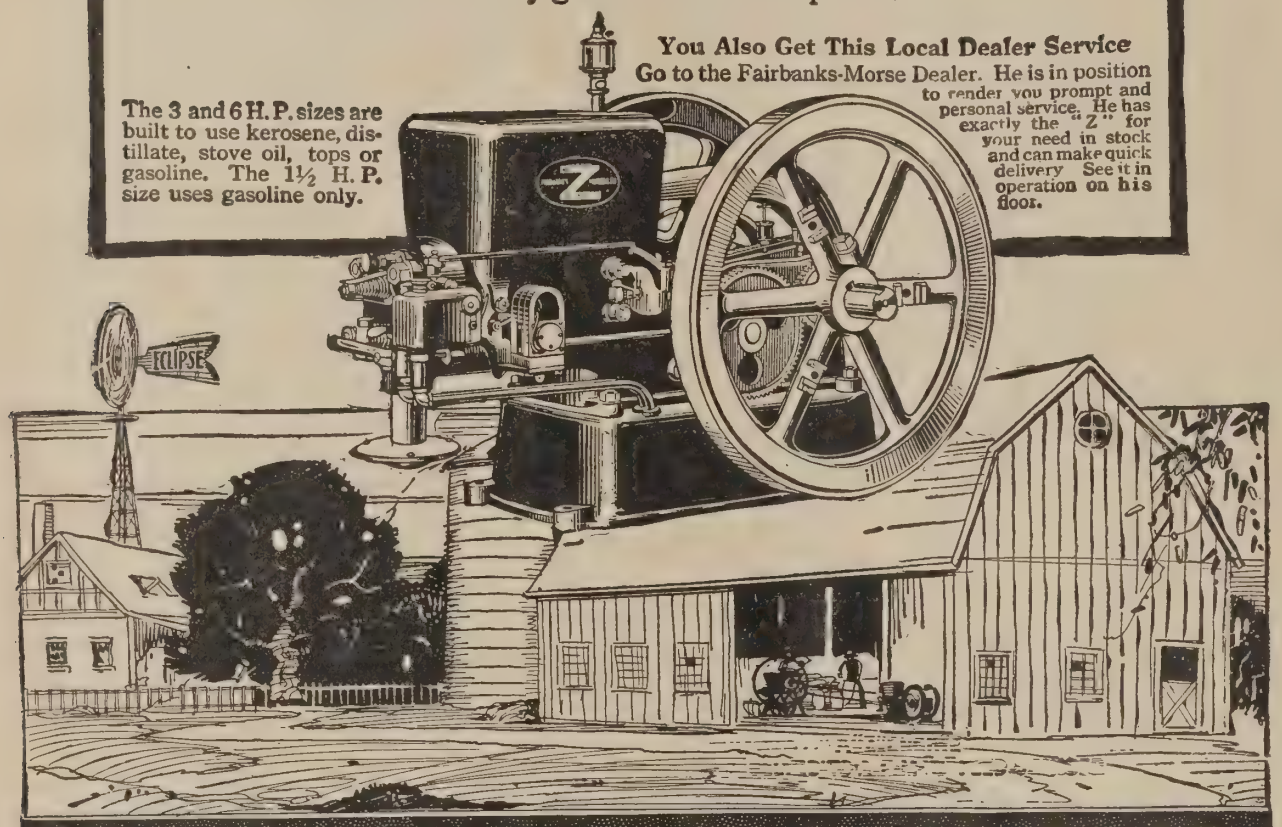
GENERATIONS know that the name-plate "Fairbanks-Morse" on any product assures quality.

This is the famous "Z" engine — all sizes with more than rated power — that over 150,000 farmers have backed with $10,000,000—to do their work best. No farm engine ever before has made such a record.

Cuts fuel costs in two — the 3 and 6 H. P. engines giving more than rated power on *kerosene* at *half* gasoline war-time prices.

You Also Get This Local Dealer Service
Go to the Fairbanks-Morse Dealer. He is in position to render you prompt and personal service. He has exactly the "Z" for your need in stock and can make quick delivery. See it in operation on his floor.

The 3 and 6 H. P. sizes are built to use kerosene, distillate, stove oil, tops or gasoline. The 1½ H. P. size uses gasoline only.



FAIRBANKS, MORSE & CO.
Chicago — *Manufacturers*

WATER! Lots Of It
When-Where You Want It!
DON'T DEPEND ON WIND
For the Summer's water supply! Our small pumping engine will pump water when and where you want it. Both portable and stationary type. Other tough jobs easily handled too. Order now the complete engine and pump jack here shown and be safe.
Only $3.50 Yearly Cost on Investment
Which is interest charge. Cheaper, more reliable than wind mills. For simplicity Galloway Engines are unexcelled. Leave them running without attention for hours! 300,000 satisfied Galloway customers—some near you—testify to the quality of Galloway Engines, Tractors, Spreaders, Separators. Until further notice this price of $65 40 for complete water-cooled pumping engine and double-geared belt-drive pump-jack. Order now!
EVERY SIZE - FREE ENGINE BOOK READY -- All engine sizes from 1½ to 16 h.p. heavy duty portable or stationary operate on any fuel. My new free engine book ready. A postal gets it. Also gives lowest prices on highest quality farm implements of all kinds.
Price Only **$65.40** Complete
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Close shipping points save freight.

WITTE
Kero-Oil Engines
Twice the Power at Half the Cost
Sizes 2 to 30 H-P.--Select Your Own Terms -- Direct-from-Factory prices. Write your own order--Save $15 to $200. Prompt Shipment. Big new catalog, "How to Judge Engines" FREE--by return mail. Postpaid.
Money Back if not satisfied on my New 90 Day Engine Offer
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Keep Her Udder Healthy

Cows can't make profits if their udders are diseased—every dairyman knows that. And he knows, too, that to prevent udder trouble nothing is more essential than stall floors that are clean and comfortable.

Circle A Cork Brick
For All Stall Floors



are always warm and dry—never cold and damp. Hence they practically eliminate garget and save bedding.

Write for the illustrated book, "Better Stall Floors", and a free sample.

"I have not had a cow with a caked udder since I installed Cork Brick."—
Rob't. T. Blair, Wagoner, Okla.

Armstrong Cork & Insulation Co.,
12 Twenty-fourth Street, Pittsburgh, Pa.
All genuine Armstrong Cork Brick bear the Circle A trade-mark.

When writing advertisers please mention Hoard's Dairyman.

Organizing for Feed Defense

(Continued from page 35)

levels. An abnormal demand situation prevailed, which continued throughout the winter. The result of the price movement is well known to all feed consumers—an advance of $15 a ton was scored in a comparatively short time.

With the foregoing facts in mind, the feed purchasing clubs can compare conditions of the market today with those of a year ago, and thereby gain at least a meager idea of what is possible in price fluctuations. War feed clubs should keep in mind, however, when comparing the trade situation, that new and highly complicated developments may arise in the market which possibly may completely change the indicated course of prices.

One of the most important influences in the market today is the small production of alfalfa in the Southwest this season. The crop is disappointingly light in volume. The first cutting, as a rule, was less than half of normal, and one-fourth to one-half of this harvest was damaged by rains falling as the hay was in the curing process. The second and third cuttings also have been reduced by a lack of moisture. In some portions of Kansas, Oklahoma, and Colorado, the third cutting was almost a failure. These states are among the four largest producers. Nebraska, the other member of this quartet of alfalfa growers, also has only a fair to light crop thus far. Crop experts estimate the production for the Southwest at 60 per cent of normal. Range conditions over the Southwest are only fair, dry weather retarding growth of grass. Parts of Texas are still suffering from drouth, but conditions in the Lone Star State are much improved as compared with a year ago. The world war continues on a much larger scale than at this time in 1917; instead of 250,000 horses and mules "enlisted in the ranks," there are more than 500,000 in the American army, thus requiring practically double the hay used in 1917. The winter wheat crop recently harvested amounted to practically double that of a year ago, and corn crop indications point to a yield above the record of 1917. But corn is not yet made. The oats yield is expected to equal that of last year. Wheat in the Northwest also promises to yield a big crop, unlike the previous year. The larger wheat crop means a plentiful supply of bran and shorts, offerings of which a year ago were extremely light. This means more competition for alfalfa. But federal price regulations insure against low priced bran and shorts, and make high grade alfalfa at the present level cheap in comparison. Large grain yields, however, will affect the car situation adversely. More cattle, hogs, and sheep are being fed this year than in 1917, which will further broaden the outlet for alfalfa. Government estimates on the total production of hay point to a yield of 107,000,000 tons, though this prospect has doubtless been reduced by drouth conditions in the Southwest.

The movement of hay to the Kansas City market is less than half of a year ago, owing to the reduced production, and dealers and other trade interests look for no important increase in the receipts. This is significant. It is too early to estimate the production in the far Northwest, but advices from that section indicate an acreage equal to a year ago has been devoted to the legume. The yield of alfalfa in 1917 in the Northwest was heavy, and, with a mild winter, only little of the hay was required by range cattlemen and flockmasters there. As a result, heavy shipments were made to Kansas City during the early

Get a 2 Man Silo Filler

DON'T be forced to wait for a traveling crew. Fill your silo when your crop is right and when you are ready for it. Refill your silo again later in the season without extra cost. You can get a 2 or 3 man machine in

Silver's "Ohio"

The Logical Silo Filler

4 h. p. up—40 to 300 tons per day capacity.

Silver's "Ohio" is the machine you want this year to make the most of your silage crop. Produce good, cheap feed at home when prices are higher than ever before. "Ohio" cut silage means better silage—fine, even cut lengths—the kind that packs air-tight in the silo. Makes better food for stock.

Remember, the "Ohio" features are not found in any other machine—the direct drive that saves power—the single lever control that means safety and convenience—the beater feed (on the 4 larger sizes) that saves a man's work at the feed table.

Write for Our Catalog—Mailed Free.

THE SILVER MFG. CO.
Box 303 Salem, Ohio

"Modern Silage Methods," 264-page text-book, 25 cents.



Save Your Soft Corn



Don't repeat last year's loss of frost-bitten corn for lack of a silo. Lessen your chances of loss with a

Lansing Vitrified Tile Silo

The silo with "Ship-Lap" joined blocks—strong walls, thin mortar line exposed, less chance for frost, twisted steel reinforcing, continuous doorway. Steel hip roof and chute fireproof. *Write for catalog.*

J. M. PRESTON CO.
Dept. 302, Lansing, Mich.
Also Climax Silo Fillers and Bidwell Threshers

TABER LINED SILO

"LINED" (Pat. App. for) Acid-Proof Lining keeps air out—and moisture and juices of corn away from staves. Prevents rot—freezing and spoilage.

Shipped in 24 Hours

Made of *absolutely clear* Long Leaf Yellow Pine boiled in Creosote. Acid-Proof Lined, Painted outside, Double Anchored. Won't blow down.

Non-Shrinkable
Rot-Proof Acid-Proof
No shrinking or swelling of staves. No frozen silage. Finest circle doors and frame.

FREE BOOK (just out) on Silos and Silage. *Write for it Today!*

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B-V-T-Silo

Built of everlasting Brazil Vitrified Fire Clay. Reinforced with steel ribs bedded in cement. You'll never have to rebuild it. Your neighbor has one. Ask him. Send for Booklet G.

Brazil Hollow Brick & Tile Co.
Brazil, Indiana



CORN HARVESTER

That beat them all. One horse cuts two rows. Carries to the shock. Worked by 1, 2 or 3 men. No danger. No twine. Free trial. We also make Stump Pullers and Tile Ditchers. Catalog Free. Agents Wanted.
H. S. BENNETT & CO., WESTERVILLE, OHIO.

spring, this being one of the important factors in the decline of $10 during that season. Feed purchasing organizations should watch closely the progress of the alfalfa season in the Northwest, notably in Idaho and Montana, for if these states raise large crops, the effect of the short production in the Southwest will be offset in a measure. But the Southwest is by far the heaviest producer with the greatest acreage. The Pacific Northwest, of course, usually is a slower seller of the first half of the crop year than the Southwest, as it must first await light on the severity of its winter before it can determine how much alfalfa it can spare. A mild winter may bring heavy shipments from the Northwest if the alfalfa crop there is more liberal than in the Southwest. On the other hand, reverse conditions may be witnessed, with the result that prices would be forced upward.

Still another factor in connection with the Pacific Northwest supplies is the new freight schedules now prevailing, which mean that it will cost more than ever to ship alfalfa hay a long distance. Thus Pacific Northwest alfalfa will not be so bearish an influence if in generous supply.

A review of the market situation fails to bring out a promise of lower prices on alfalfa; instead, the facts point to a higher market. In the event corn matures under ideal conditions and the weather is ideal the remainder of the growing season, which is hard to expect after the irregular rainfall and temperatures thus far witnessed, the present promise of alfalfa markets may be upset. But if the weather continues irregular and not generally satisfactory, and there is no cessation in the war, the buyers of alfalfa who make early purchases, so it is felt in the markets, will be the gainers. Some, naturally, may wait in order to obtain the third and fourth cuttings, which, because of relatively greater leafiness, are prized more highly by dairymen. But those who buy early after taking this leafiness into consideration, will insure a supply of this feed for themselves and be protected against the greatest probability—which is for a rise in the price of alfalfa.

Certainty of Dairying

In the midst of uncertainties some things remain sure, and one of them is the fact that dairy produce will always be in demand. Other industries crop up now and then and for a little while seem to overshadow the faithful cow, but sooner or later she emerges from under the cloud more illustrious than ever and continues her course in life unmoved by her adverse experience, as though nothing in the world mattered so long as she kept her place "in the sun", and produced the best food

Order your silo now. Then you will be sure of getting it in time for filling.

3 to choose from—
Saginaw Steel-Built
Saginaw Leader
Liberty Silo

Write us for catalog.

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Saginaw, Mich. 13 Cairo, Ill.

Who Fills Your Silo

THERE'S just one way of being sure of a full silo of clean cut ensilage. That is to fill with your own equipment. A farm gas or kerosene engine developing as little as 3 or 4 horse power will operate a small

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Ensilage Cutter

If a saving of from $100 to $200 a year appeals to you, you owe it to yourself to investigate the *PAPEC* Ensilage Cutter. Our 1918 catalogue illustrates in three colors and fully describes each of the four sizes of *PAPEC* Cutters. There's a size for your very needs. We have a catalogue for you—write for it today.

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There's a PAPEC dealer in your locality.



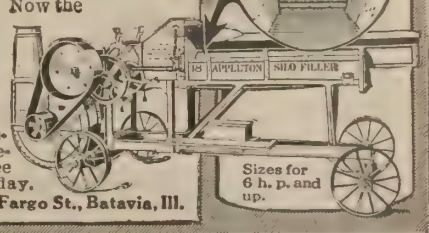
APPLETON Silo Filler

Double-type feed — one of the new features.

The best silo filler improvements ever made
—that's what you'll say when you find out about the new Appleton features that save time, labor and money. Thousands who have used the Appleton have proved that it does more and better work per hour than other silo fillers; that it is practically trouble-proof; is safe, requires the least power to run it; and stands up far longer. These facts are from the statements of actual users. Now the

new features make the Appleton the best value ever built.
Be sure you find out all about it.

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fully describes and illustrates these big improvements; silo book also free if you want it. Write today.
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SILOS for Appleton Silo Filler

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CLIMAX
ENSILAGE CUTTER

Fills Silos Quicker with Less Power

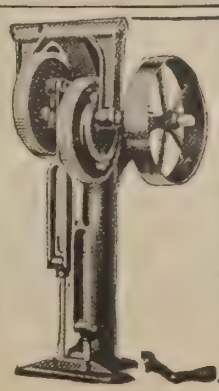
Because the knives cut from outer edge toward the main shaft where power is greatest. This feature is known as the

Inward Shear

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Stocks carried in all different centers for quick shipment. Write us for name of nearest dealer.

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Some territory open for live dealers.



More Water?
Chippewa Steady Stream Pump

Will Produce More Water with less Power than any other Pump. For Farms, Ranches, Pressure Systems and all other purposes.

Write for information.

CHIPPEWA FOUNDRY & MACHINERY CO.
Chippewa Falls, Wis.

Cut Your Ensilage When The Corn Is Right

It is good business to have your cutter right on the job when your corn is ready for the silo. It pays to cut it at just the right time. Even one week's delay in cutting means a big loss in feeding value. Don't wait till the last minute to order your cutter and don't depend upon someone else to do your cutting, for every cutter in the country will work overtime this year and those who wait will regret. Order a Kalamazoo Cutter now and be sure of getting your ensilage in the silo at just the right time.

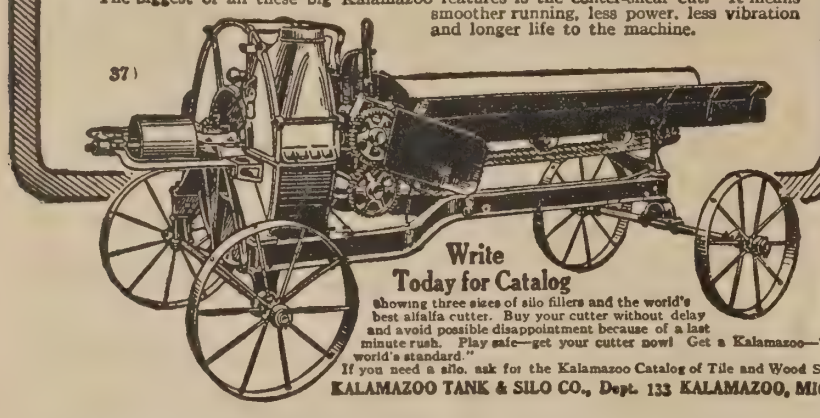
Kalamazoo ENSILAGE CUTTERS

Men who study and investigate silo fillers carefully before buying, select Kalamazoo cutters because of these

10 Big Features

1—Malleable unbreakable knife wheel.
2—All working parts covered to prevent accidents.
3—Center-shear cut gives even flow of ensilage.
4—Absence of vibration lengthens life of machine.
5—Less power required because of center-shear and no vibration.
6—Triple feed rollers insure steady feeding.
7—Strong sturdy, life-time frame of channel steel.
8—Reversible shear bar gives four cutting edges
9—Hard oil cups provide ample lubrication for every part.
10—Guard to prevent accident in case belt slips.

The biggest of all these big Kalamazoo features is the center-shear cut. It means smoother running, less power, less vibration and longer life to the machine.



Write Today for Catalog

showing three sizes of silo fillers and the world's best alfalfa cutter. Buy your cutter without delay and avoid possible disappointment because of a last minute rush. Play safe—get your cutter now! Get a Kalamazoo—"the world's standard."

If you need a silo, ask for the Kalamazoo Catalog of Tile and Wood Silos.

KALAMAZOO TANK & SILO CO., Dept. 133 KALAMAZOO, MICH.

A man may get tired of ordinary tobacco—but never of Real Gravely Chewing Plug, with its pure, clean taste and lasting quality.



Peyton Brand

Real Gravely Chewing Plug

10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia

ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY
YOUR OWN MAKE-SIMPLE. REGULAR BREEDERS BY
STERILOID

STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY, Dept. A. 398-408 Columbus Ave., New York City. Reference—Colonial Bank.

to be found for the race and especially for the children.

The experience of the past has demonstrated that the dairy cow is the best proposition on the farm. Those who have pinned their faith to her, and who, through thick and thin, through evil report and good, have given her a reasonable opportunity to make good have not failed. More notes have been met, more mortgages lifted, more barns built, and more homes made comfortable and happy through her influence and stability than through any other medium on the farm.

Will she fail now in her country's peril, when good food is needed as never before and when it will be needed in large quantities for all time in the future? If she fails nothing short of national disaster would be the result. No, she will not fail, and the man who remains on her decks will ride safely over the billows of financial disaster, that may threaten or even shipwreck some other lines of agricultural interest, and reach the port with his colors still flying.—Maritime Farmer, Canada.

VETERINARY

Advice is given free in this department. Inquires must be signed by the writer, and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Bunches on Cow

I have a cow that has bunches as large as acorns on her fore leg and shoulder and an ulcer below the knee which does not heal. I first noticed them about a month ago and they have grown larger. She freshened three weeks ago but does not give as much milk as usual and is very irregular in the quantity. She has always been very smart and healthy and seems to be now.

These bunches are just under the skin and are not tender to the touch. What can I do for them, and is her milk safe to use? I have been feeding it to the calf.

Bingham, Me. E. A. B.

The milk is safe for use if the cow has been tested with tuberculin and proved free from tuberculosis. The bunches may be small, fibroid tumors and should be left alone. Such growths sometimes are cancerous and return worse than ever, accompanied by more tumors (metastatic) externally and internally and in such a case the milk would be unfit for use. We take it that you are sure the growths are not warts. Cleanse the ulcer, swab it with tincture of iodine twice daily for three days, and then apply oxide of zinc ointment daily. Make it impossible for the cow to lick the sore.

Breeding After Twins

I just had a man pass up buying a cow because she had twin calves last year. He claimed that after a cow has twins they will not breed again. This cow was bred last February and has not come in heat since. Is not this idea false?

Ingram, Wis. J. V. P.

The statement which the prospective purchaser of this cow has made shows that he does not have a wide knowledge of animal husbandry. Any one who is well acquainted with the facts of reproduction knows that a cow which has given birth to twin calves is fully as liable to prove a per-



SILOS for This Year's Crop

Erected without Delay. Ready for Silage Immediately.

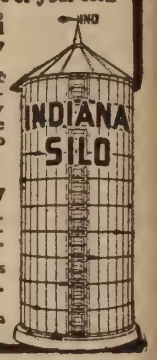
THIS year, of all years, you owe it to your country and to yourself to turn your corn crop into silage. Don't think it's too late to get a silo. You can have the kind of silo which 60,000 successful farmers consider the best and have it ready for your present crop. Being the largest silo manufacturers, we have your

INDIANA SILO

on hand ready to ship. You are assured of quick transportation. The silo will reach you promptly. You'll find it easy to erect. You'll have your silo up and ready in ample time.

The Indiana Silo is built of materials which are free from defects, and which do not cause or permit the ensilage to become moldy at the walls of the silo. Staves have tight mortised joints and are interchangeable, making the silo easy to erect. There is no metal spline at the joints to rust out or complicate erecting.

It doubles the feeding value of your corn crop, enables you to keep 50% more cattle on your farm, and get an increased milk flow during the feeding season.



Write to nearest address at once for catalog and full particulars showing how easily you can pay for and make money on an Indiana Silo *this* year.

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501 Indiana Bldg., Des Moines, Ia.
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TOP PRICES will prevail for many years' harvest, but the great war has drained men and animals off the farm. Replace them with a

BULLOCK CREEPING-GRIP TRACTOR

and swell your profits at the same time. Bad weather and unfavourable soil have no terrors for the British Battle Tank nor for its worthy offspring, the BULLOCK CREEPING GRIP TRACTOR. Will work in ground so soft a man would mire, or a hillside so rough that the wheels of the ordinary tractor would spin and slip. The CREEPING GRIP has no wheels—it lays its own broad track and then rolls over it.

You can bank on the CREEPING GRIP doing more work than three men and six horses on any farm.

A three-bottom tractor—15 h. p. on drawbar. Write for catalog today.

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SELDOM SEE



a big knee like this, but your horse may have a bunch or bruise on his ankle, hock, stifle, knee or throat.

ABSORBINE
TRADE MARK REG. U.S. PAT. OFF.

will clean it off without laying up the horse. No blister, no hair gone. Concentrated—only a few drops required at an application. $2.50 per bottle delivered. Describe your case for special instructions, and Book 8 R free. ABSORBINE, JR., the antiseptic liniment for mankind, reduces Painful Swellings, Enlarged Glands, Weas, Bruises, Varicose Veins; allays Pain and Inflammation. Price $1.25 a bottle at druggists or delivered. Liberal trial bottle postpaid for 10c.

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Wyandotte Dairyman's Cleaner and Cleanser

Cleans Clean

Order from your dealer, or supply house.

The J. B. Ford Co., Sole Mnfrs.,
Wyandotte, Mich.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

sistent breeder as is any other cow. Because she has given birth to twins s absolutely no reason for believing hat she will not breed again, that is, nless she was badly injured at the ime of the birth of these calves.

If this cow was bred in February nd has not been in heat since there s every reason to believe that she is it this time with calf.

Barrenness

We have a fine Holstein heifer, 15 months ld, that is in good flesh and good size for her ge that has never shown any signs of coming in heat. Is there any treatment or operation that will help her?
Champaign, Ill. H. B.

Massage of the ovaries by way of the rectum may help but can only be properly done by a specially trained and experienced veterinarian. Meanwhile, feed a quart of stove-dried whole oats the first thing each morning and once daily syringe out the vagina with blood warm water containing a heaping teaspoonful of common salt to the quart.

Milking Heifer Before Calving

I have a heifer that was bred in March and is giving milk. I milked her for about a week when I heard it was inadvisable to do so. She gave about two pounds per milking. I have not milked her now for three days. Her bag seems tight but not inflamed; neither is the milk set up.
Holland, Ind. H. W. M.

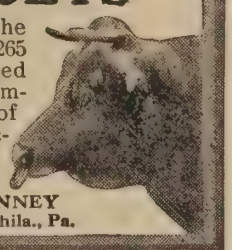
It is unwise to milk a heifer which "comes to her milk" before she has been bred or within a short time afterward. Such an animal would not produce sufficient milk to be profitable and is very apt to be injured if milking is continued.

With this animal the safe treatment would be to immediately cease milking her. There will be very little danger from udder injury if milking is stopped at once without going through the process of gradually "drying her off". If marked inflammation appears it would be advisable to relieve the udder of distension occasionally.

JERSEYS

MERIDALE JERSEYS

Three sons of The Imported Jap 75265 (sire of 33 tested cows), out of imported Register of Merit dams. Recommended as herd-headers.



AYER & McKINNEY
300 Chestnut St., Phila., Pa.

You should head your herd with the very best butter bred bull, if possible to get.

This week we are offering you a full brother to Raleigh's Foxlett 11734 lbs. milk, 535.87 lbs. butter at 1 yr. 11 mos. of age. He was dropped May 23d, 1918, is a very fine individual and carries that pronounced dairy type that produces at the pail. He carries the blood of Raleigh, Oxford Lad, Financial King, Jimp, Fancy Harry, Flying Fox.

We also offer his half brother sired by Oxford You'll Do's best bred son, dropped June 13, 1917 and ready for light service. This fellow is good enough to win in hot company.

These bulls have the same dam, a large smooth cow, large square udder and teat on each corner. She has given up to 52 lbs. milk a day on herd feed; she is the kind of mother for herd bull, she is 25th Financial King breeding.

Your choice $250.00 delivered anywhere in the U. S. For further particulars address or come to

MEAD SIDE FARMS,
MEADVILLE, PENNA.

We have other bull calves sired by good sons of Oxford You'll Do and Gamboga Knight.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

ENTIRE HERD

60 Registered Jersey Cows and Calves 60

For Private Sale

Having recently been elected Secretary and Treasurer of the White Eagle Dairy Company, I will not have the time to give the close attention to breeding and the production of milk which I have in the past and am offering the public a rare opportunity to buy some choice foundation stock, both cows and calves. I have been engaged in the breeding of Jerseys for nearly ten years, and have never had a public sale and will depend largely on my many satisfied customers to buy this stock and will give them the same fair treatment which has characterized my business from the start.

Write me for list of the stock, the milk and fat records, the breeding and prices. This will be your best opportunity this year to select some choice foundation stock, rich in the blood of Noble Oaklands and Oonan of Riverside.

Unprofitable cows have always been culled from my herd. Nothing but good paying cows in this offering.

Five tests of my herd and never a case of tuberculosis.

D. V. VANDIVER, Columbia, Mo.

HERD LEADERS

of Breeding Age

ALL SOLD

Have your name put on list for information on next ones to mature.

Pure-bred Jerseys and Guernseys

LONE TREE FARM
Green Lake, - - Wisconsin

Jersey Crest Farms

are offering

Bulls and Bull Calves

which are a credit to the breed. Bred for type and production. Let us send you pedigrees and description. Jersey Crest Farms, Oconto Falls, Wis.

Jersey Bulls

FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys

Every bull over 8 mos. old is sold, but we have some fancy calves

from Register of Merit dams sired by Ibsen's Chief who won the A. J. C. C. gold medal for Grand Champion at the Wisconsin State Fair, '17.
CHAS. A. PETERSON, Rosendale, Wis.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

Dairymen Attention

We have several bull calves and Two Bulls ready for service. Rich in the blood of the Grand Champion Producing Cow, Sophie 19th of Hood Farm, seven years' tests 91,869 lbs. milk, 6,600.8 lbs. butter; Hood Farm Pogis 9th, Champion Sire, sire of 79 and 24 producing sons; Hood Farm Torono, sire of 73; 6 over 1,000 lbs., 16 over 800 lbs., sire of 21 producing sons. The use of a Hood Farm bull carrying this prepotent high producing blood, means increased production in your herd. Write for prices, etc., to
HOOD FARM, - LOWELL, MASS.

Lime Ridge Farm

Offers Bull Calf dropped June 7th, 1917.
A Grandson of

Hood Farm Figgis Torono 90517

who has 10 daughters in the Register of Merit with records up to 600 lbs. of butter as 2-year-olds. Dam is now on test and has made 148 lbs. of butterfat in 3½ months.

All grandparents in the R. of M. Five crosses to Sophie's Tormentor.

Ask for delivered price. Tuberculin tested.
Lime Ridge Farm, Poughquag, N.Y.

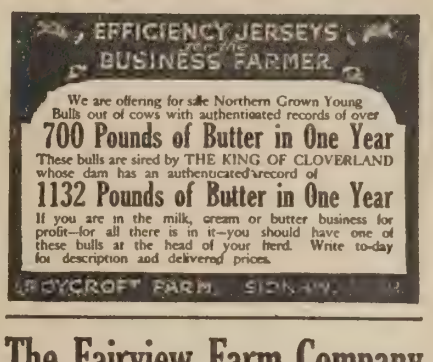
Lookout Farm Jerseys

A Rare Opportunity Is Offered

to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.

SIRE. Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.

DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.
Henry S. Redfield, 1925 Seventh Ave., New York City.



The Fairview Farm Company

Sophie's Tormentor Jerseys

"Production" Our Watchword

FOR SALE—Bull Calf No. 244, dropped March 21st, 1918; solid color, black tongue and switch; an extremely good individual.

SIRE—Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85% butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.

DAM:—Tweedledum's Emma of H. S. F. 291389, on Register of Merit test and in 2 months has made 164.84 lbs. 85% butter from 3,151.1 lbs. milk. An exceptionally good dairy cow in every respect.
R. L. PIKE, President, Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.

14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow. Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

OWL-INTEREST

Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.

His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.

His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on retest has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address
MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughter. Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of the Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows with records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSIN.**

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place

Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

BIRCHWOOD GUERNSEYS

We are offering some well bred and nicely marked young bulls nearly ready for service out of A. R. dams and sired by good bulls. Also a few heifer calves. Eighty head in herd. Herd on the State Accredited list. Send for sale list.
M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.
W. G. Jamison & Sons, Appleton, Wis.

Elderwood Farm

Offers for sale the Guernsey Bull, Princelings Son of Elderwood, born Jan. 4, 1915, sired by Langwater Princeling A. R. out of an Imp. cow, Violet of St. Croix, who gave 10,000 lbs. milk and 465 lbs. fat as a two-year-old. Write for price and description.
ROY BURTON, EAGLE, WISCONSIN.

Young Guernsey Bulls

Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

SARNIA

Imported and Home Bred Guernseys. 300 Head Imported

in 1917 are all sold. Several good cows for sale. Also young bulls from high class A. R. cows. Place your order early for bred heifers from 1918 importations. Send for sale lists.
Charles L. Hill & Son, Rosendale, Wis.

Jean Du Luth Farm

A. R. May Rose Starlight Guernseys
A. R. Wild Rose Beauty Red Polls

Guernseys line bred to the blood of May King of Linda Vista. Red Polls strong in the blood of Wild Rose of Kilbourn or her sister, Floss II, which were "in and in" bred Beauty W-2 cows.

JEAN DU LUTH FARMS,
Nickerson, Minnesota and Duluth, Minnesota.

FOR SALE

Sixty Imported

Guernsey Heifers

About forty head now in calf, a few three-year-olds milking with their first calves and the balance yearlings ready to breed.

I spent several months on Guernsey last Autumn and early Winter during which time these heifers were selected. I personally inspect every animal imported and in this way am assured of only high class individuals.

Send for catalog and price list. Every animal for sale.
Frank S. Peer, Osceola Farms, Cranford, N. J.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

A few well bred young

Guernsey Cows and Heifers

Also a couple of bull calves from cows with splendid records.
W. R. DUNLOP, FAYETTEVILLE, N. Y.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.

Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Harbor Hill Offers

Linden Lad of Harbor Hill 7th. Dropped June 15th, 1917. A good individual, nicely marked.

SIRE:—A son of Linden Girl A. R. 3607 with three A. R. records averaging 14,149.8 lbs. milk, 708.85 lbs. butterfat.

DAM:—A daughter of Brilliant of the Gree. Her herd work at 2 and 3 years exceeded A. R. requirements by a good margin. Price $150.00. Write for photograph and pedigree.
C. H. Hechler, Supt., Box 50, Roslyn, N. Y.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

"OAKS FARM GUERNSEYS"

C. W. BARRON, Prop.

FOR SALE

Young bulls from two to ten months old, from dams which have or are now making credible Advanced Registry records. Write us before buying your next bull.

W. S. KERR, Mgr., Cohasset, Mass.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.
Louis McL. Merryman, Cockeysville, Md.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.
L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

$75.00

takes the choice young bull calf R23, dropped Nov. 11, 1918.

Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.

Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.

The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from
Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

DAVIS FARMS

The Licking Creamery Company, Proprietors, Newark, Ohio

GUERNSEYS

THREE YOUNG BULLS READY FOR LIGHT SERVICE, FOR SALE. ONE FROM AN A. R. COW WITH A RECORD OF 354 LBS. OF FAT AS A YOUNG COW. TWO ARE SIRED BY A SON OF GALAXY'S SEQUEL. ALL HAVE CLEAR NOSES AND GOOD TOP LINES. PRICES $150 TO $175. PHOTOGRAPH ON REQUEST. Address

THE LICKING CREAMERY CO., In Care of C. Harrington Davis.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices
Raemelton Farm Mansfield, Ohio.

Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, I.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BELLWOOD FARM

One exceptionally fine bull calf, a grandson of Masher Sequel and Jethro Bass. Pink nose, nicely marked and straight and alright. Price $150 for quick sale. Another bull calf two months old, sired by a great son of Jethro Bass and a great granddaughter of May Rose King. Price $125. Dark nose. Here are two calves that their breeding cannot be excelled. We guarantee them alright in every respect.
1003 Empire Bldg., - Pittsburgh, Pa.

FOR SALE

My Entire Herd of

30 Registered Guernseys

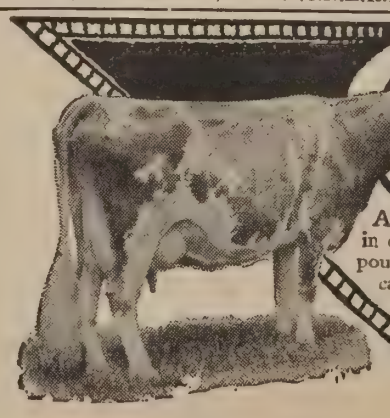
including herd bull Lohier's Raider of Waddington. Several cows of good A. R. Records.
Joe Speidel, Jr., Jobetty Farm, Elm Grove, W. Va.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bull. Stock guaranteed sound.



Guernseys

Persistent Production —is a— Characteristic of the Breed

A Two Year Old Heifer in New York produced in one year 712 pounds of butter fat and 12,270 pounds of milk, besides giving birth to a vigorous calf a month after the completion of record.

Write for "The Story of the Guernsey Cow"

American Guernsey Cattle Club
Box H Peterboro, New Hampshire

Infectious or Contagious Abortion

Infectious or contagious abortion is at the present time one of the greatest scourges of the cattle breeding and dairy industries. While at present no sure cure for the disease is known, it is essential that all dairymen should understand the nature of it and how best to prevent its spread. The New Hampshire Experiment Station has recently issued Extension Circular 19 on this subject. The publication devotes considerable space to common methods of treating aborters, from which we quote as follows:

"When a cow aborts, the afterbirth usually clings tightly to the cotyledons in the womb and should be carefully removed from them. Previous to this secure a douche can and smooth non-collapsible rubber tube (preferably a horse stomach tube) about ¾ inch in diameter. A douche can may be made by attaching a faucet to the side of a pail near the bottom or to the bottom of the pail. The rubber tubing should be attached to the faucet. The pail may be raised to the desired height by means of a rope and pulley fastened to the ceiling. The cow's genitals should be rinsed off with an antiseptic solution (such as lysol or compound cresol solution) and then the hose should be inserted into the birth canal and down into the womb. About a gallon of the solution may be allowed to run into the cavity.

"Daily irrigations of the womb and vagina should be kept up for a week or ten days, when the cow should be syringed two or three times a week for another week or two. When properly treated, the discharge usually stops in two or three weeks, but the cow should be syringed once weekly until she is bred. She should not be bred for three months after abortion as it takes about ten weeks to properly treat an aborter. Neglect in properly cleaning a cow is apt to result in sterility or at least it will be very difficult to get her in calf. Cows bred before the discharge has stopped are not likely to "catch" and, if they do conceive, abortion is apt to reoccur in a short time.

"To prevent the bull from carrying infection, the sheath should be disinfected before and after each service with about a quart of a 2 per cent solution of lysol or creolin. This may be done with a douche can, injection pump, or a large syringe. The rubber tube or nozzle of the syringe should be inserted into the end of the sheath, which should be held firmly to the nozzle or rubber tube so that the disinfectant may be forced up into the sheath. Some bulls object to this procedure and must be securely tied so they cannot step from side to side or kick at the operator. Care should be used to insert the tube or nozzle gently so as not to irritate the bull. The long tuft of hair at the opening of the sheath should be clipped and disinfected. When it is possible to do so, a separate, clean bull should be used for heifers and clean cows.

"Various agents and means have been recommended from time to time as specifics for the treatment of abortion. For preventing abortion that is imminent no drug seems to be of any avail. As a cure for abortion, carbolic acid has been recommended for fifty years, to be given both subcutaneously and in the feed. However, this remedy has been given up as unsatisfactory by many who have tried it. Recently methylene blue has been hailed as the specific cure but in many herds where it has been tried it has been discontinued because it was found ineffective. There seems to be no evidence that mythylene blue or carbolic acid reaches the uterus where the infection is operating.

"Some dairymen practice selling aborting cows, thinking thereby they can rid their herds of the disease. The fallacy of this reasoning is shown by the fact that new cows and heifers taken into the herd will abort. If a cow is not a good producer and becomes unprofitable after aborting, she should be sold for economic reasons, not as a dairy animal, but to be slaughtered. The practice of selling aborting cows for breeding purposes, thereby spreading the disease, is to be vigorously condemned. Good cows which have aborted, should be retained, treated, and again bred."

Greeting to Farmers

The Federal Board of Farm Organizations wishes to extend the following greeting:

TO THE FARMERS OF THE UNITED STATES:—When our country entered this great world war it was recognized in a peculiar way that food would decide the outcome. Appeals to the patriotism of the farmer were freely and constantly made by the government at the same time that the conditions upon which he might make answer to these appeals daily became more difficult.

In spite of scarcity of labor, in the face of the fact that the prices of much which the farmer had to sell were fixed and the prices of what he had to buy mounted sky-ward and profiteering thrived, yet he has gone ahead bravely, patriotically, and produced a yield per capita of farm operators possibly never exceeded in our history.

Not only has the farmer toiled early and late to produce this food, but the call of the Red Cross and Y. M. C. A. received from his hands a quick and admirable response. In the first two Liberty Loan campaigns the amount subscribed by farmers was not segregated from the total, but in the Third Loan the farmer went "over the top" in splendid shape, as no doubt he did in the other loans though no credit was given therefor. War Saving Stamps are in nearly all farm homes. Whatever calls our government may make for further financial assistance from the farmer—and such calls will be made—will be met fully, generously.

The Federal Board of Farm Organizations wishes to extend its appreciation of this great record, and urge that, in view of the importance of this basic industry in which you are engaged, you will assist us in securing for farmers a full and just recognition in governmental affairs in all matters pertaining to production, transportation, and marketing, to the end that your ability to continue in this patriotic service may not be lost or injured. (Signed)

W. T. CREASY,
Chr. Executive Committee;
CHARLES A. LYMAN, Secretary.

DON'T PUT OFF
Seeing your friends and having them join in for a club of subscribers.

SWINE

Cedar Crest Farm Berkshires
Cholera Immune
The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms
Pure-Bred Brown Swiss Cattle
Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

Pleasant View Herd
Brown Swiss Cattle
FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK, WIS.

AYRSHIRES

FAYRE FARM AYRSHIRES
ST. ALBANS, VERMONT.
Advanced Register and Show Ring Records. Tuberculin Tested by U. S. Dept. of Agriculture. Calves only for sale.
Geo. H. Dunsmore. R. D. 1. Swanton, Vt.

Van Etta's Ayrshires
10 HEIFERS FOR SALE
I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.

Edelweiss Farms—Ayrshires
Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Willowmoor Ayrshires!
6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

World's Champion AYRSHIRES
If you want the blood of the champion cows of the breed write us. We offer a few cows, heifers or young bulls.
PENSHURST FARM, NARBERTH, PA.

Crestmont Farm AYRSHIRES
Few Choice Bull Calves
BERKSHIRES—Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.

IROQUOIS FARM
AYRSHIRES
High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. WALDO C. JOHNSTON, Agent.
Cooperstown, New York.



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

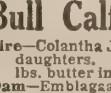
Orchard Hill Farms AYRSHIRES
Young stock of select imported breeding for sale.
W. S. MacDONALD, Manager
Chappaqua, - - - - New York

REGISTERED AYRSHIRES FOR SALE
Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

HOLSTEINS



HOLSTEINS
are the most profitable dairy breed. They are the direct result of a consistently scientific testing and breeding system that in a number of years has raised their 7-day butter-fat record from 21 lbs. to over 50 lbs.
Their history should be an incentive to every dairyman to improve his own herd by testing his cows discarding the poor ones and filling their places with pure-bred Holstein Cows. Investigate the large Black and Whites.
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

Holsteins At Auction

Send for information about the sales of healthy reliable registered cattle, held at *Brattleboro, Vermont. the First Tuesday and Wednesday of every other month. Come to Brattleboro, the Holstein-Friesian Capital of America.*
Address The Purebred Live Stock Sales Company.

Bull Calf, Born Jan. 6, 1917
Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.
Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.
This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.
EMBLAGAARD DAIRY. Marquette, Michigan.

The Traverse Herd
Great Values In Bulls
from A. R. O. Cows with records up to 30 lbs. Let us know your wants. We will send extended pedigrees and prices.
TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

The Pontiac Herd
"Where the Champions come from"
Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*
Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.

5 Holstein Bulls
Ready for Business At ½ Real Value
They are from world record sire and A. R. O. dams. We are selling farm.
LONG BEACH FARM, AUGUSTA, MICH.

Registered Holsteins
Must sell my selected foundation herd. 4 Heifers—age 20 to 27 mos. Sire has 28.44-lb. dam and sire with 57 A. R. O. daughters. Price $950. 4 Heifers—age 2 to 13 mos. 30-lb. Sire. Price $600. One fine yearling bull. 25-lb. Dam. Price $150. Let me tell you why you should buy these now. Breeding and photo on request, they are worth it.
C. A. CLARK, TRENARY, MICHIGAN.

Bloomingdale Herd
...HOLSTEINS...
For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.
A. A. Courtelyou, Somerville, New Jersey.

Milford Meadows Stock Farm

Now Offers For Sale

M. M. Rag Apple Oak Denver

A most promising young sire, born June 4, '17. Nearly half white and an exceptionally good individual.

His sire is Dutchland Creamelle Denver Prince, a 36.25-lb. grandson of Colantha Johanna Lad.

His dam, Milford Josephine Oak DeKol, made 22.82 lbs. butter as a junior 2-year-old in June. Her sire is a son of Canary Paul Fobes Homestead and from a 29.55-lb. daughter of Homestead Junior DeKol. Her dam, 31.77 lbs. butter, 616.2 lbs. milk, is a granddaughter of Dutchland Sir Pontiac Rag Apple.

The three nearest dams of this young sire average over 30 lbs., one a junior 2-year-old. His dam is one of our good prospects and is to be retested this winter.

Milford Meadows Stock Farm, - Lake Mills, Wisconsin.



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.

JOHN PULS, - HARTFORD, WISCONSIN.

RICHLY BRED HOLSTEIN BULLS

from 5 to 16 months of age and sired by King Korndyke Veeman, the bull with 40-lb. breeding, whose two nearest dams average over 37 lbs. butter in seven days. These bulls are out of cows with large A. R. O. milk and butter records. Write us for full particulars.

Wisconsin Star Stock Farms, Ed. M. Schultz, Hartford, Wis.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

Must Reduce My Herd

QUACKENBUSH for QUALITY HOLSTEINS

Because of lack of barn room. I am now offering for sale some excellent yearling and 2-year-old heifers and a few young bulls. Sired by King Segis Pontiac Polkadot 8th, a grandson of King Segis Pontiac and Johanna McKinley Segis. Some of the heifers bred to Rag Apple Pontiac, a 30-lb. brother to Rag Apple Korndyke 8th. A few of the young bulls sired by him. Write for full information.

W. W. QUACKENBUSH, WEST SALEM, WIS.

King Pontiac Champion

Is now five daughters nearer the century mark, having 80 A. R. O. daughters in all to his credit. Of this number three are State Champions in the 7-day division, one in the 30-day, one in the yearly and another has the distinction of holding the highest 30-day butter record of any cow living in the state. In view of the fact that King Pontiac Champion is now in his prime and in the finest physical condition, that he is at the head of a herd where his daughters will be given the best opportunity for future development and that the production of King's daughters in both short and long distance tests excel those of any other sire of the breed, where can you select a sire whose progeny has a more promising future?

Our prices are reasonable. Write for sale list before selecting a herd sire.

PABST STOCK FARM,
Oconomowoc, Wis.

Save Money On Your Herd Sire

I am now offering several fine bull calves 3 to 6 months old; all of them from dams with good A. R. O. records and sired by a grandson of Sir Pietertje Ormsby Mercedes, whose 3 nearest dams average 31 lbs. in 7 days. You can raise them as cheaply as I can and my price on these youngsters makes it a paying proposition for you to buy your herd sire now and raise him yourself. Write W. P. Kissinger, Waupaca, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

LOOK!

Waupaca County Holsteins

Best in the State at "The Willows"

S. D. SHAMBEAU, - WAUPACA, WIS.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

JOHN HETTS, FORT ATKINSON, WIS.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. FAIRVIEW STOCK FARM,
W. G. Marshall, Prop., Whitewater, Wis.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.

JOHN MURPHY, R. 27, Eagle, Wisconsin

CEDAR LAWN FARMS

A bull of rare individuality and size—¾ white. Six months son of Cedar Lawn Champion, No. 107976. Dam 14.07-lb. senior two-year-old, granddaughter of Sir Johanna DeKol. Price right. C. A. Schroeder & Sons, West Bend, Wis.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

Illiona Holsteins

3 Service Bulls

44-lb. Breeding
Excellent Individuality
Reasonable Prices

Phone Elmhurst 63, R. 1 or write
A. W. FISCHER, Bensonville, Ill.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a ¾d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.

ARLINGTON HEIGHTS, ILLINOIS.

PREPARE

For the greatest demand, highest prices the world has ever known for dairy cattle.

Send for our free price list of 100 choice females, also bull list on request.

WOODLAWN FARM, Sterling, Illinois.

LISLE FARMS COMPANY HOLSTEINS

For Sale Bull Calf. Born March 26, 1918, almost White, a good individual. Is sired by a 24-lb. bull and his dam is a granddaughter of Hengerveld De Kol and out of a 27-lb. daughter of Lilith's Pauline De Kol's Count. Priced right. Write for chart pedigree.

H. BARKER, Herd Manager, Lisle, Illinois.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON,
Cortland, New York. Office 50 Clinton Ave.
Telephone 116 or 1476M.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.

MARKHAM & PUFFER, - AVON, N. Y.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

HOLSTEINS

Carload Registered Springers.
Carload Registered Fall Cows.
Carload Registered Heifers Unbred.
Two Carloads Grade Springers.
Write your wants. Come and see us. Price right. J. A. LEACH, Cortland, New York

LAKESIDE HERD

For forty years this herd has taken the lead in breeding for the highest individuality, largest average production, 4% butterfat, greatest uniformity and prepotency, with the result that over four-fifths of all the cows which have made A. R. O. records of 30 lbs. or more trace their pedigrees to the Lakeside Herd.

Breed this kind and get same results.

E. A. POWELL, SYRACUSE, NEW YORK

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Your Last Chance! To Get a Son of The World's Greatest Sire

KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.

Geoffrey Burlingame, Cazenovia, N. Y.

U. S. Soldiers' Home

FOR SALE—A number of young Holstein Friesian Bulls from a clean herd, tuberculin tested, no re-actors in last four years. All from A. R. O. sires and dams. Full information and description with prices, on request.

ADDRESS SECRETARY - TREASURER
U. S. Soldiers' Home, Washington, D. C.

SOUTHERN HOLSTEINS

YOUNG BULLS FOR SALE

I am offering a bull calf born April 15th. His sire a grandson of King Colantha Clothilde A. R. O. daughters (2 above 30 lbs., 18 above 25 lbs). His dam a 24.78-lb. daughter of Tettje Jazen Soldene Master. Well marked and a good individual. Also several other young bulls from A. R. O. stock for sale. $150.00 each. Write

Herman Feldmann, Licking Pike Farm
Newport, Kentucky.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, I will pay you to write.

DR. BLACKBURN, - CUBA, OHIO

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO

PEDIGREES PRINTING Dairy Cattle Pedigree Compiled by Experts.

Catalogs, stationery, etc. printed. Holstein herd registers. Write today.

Live Stock Printing Co., La Grange, Ill.

Beaumont Farm Has a Young Bull Sired by King Colantha Rag Apple

positively one of the best sons of RAG APPLE KORNDYKE 8TH. Dam a 32½-lb. granddaughter of the KING OF THE PONTIACS.

YOU CANNOT GET ANYTHING BETTER THAN THIS. Another young bull, out of one of the finest daughters of JUDGE SEGIS, which recently sold for $10,000. Remember that KING COLANTHA RAG APPLE is a brother to the $53,200 bull.

BEAUMONT FARM, MT. SAVAGE, ALLEGHANY COUNTY, MARYLAND

The Only First Prize Winner at the National Dairy Show Having a First Prize Dam and Sire



Sir Korndyke Fytje

We Offer One of His A. R. O. Daughters For Sale

SIR KORNDYKE FYTJE is the best show bred bull in the world—a positive guarantee of type in his offspring.

BOTH HIS DAM AND SIRE won first at the National Dairy Show besides being first prize winners at several state fairs.

THE DAM OF SIR KORNDYKE Fytje made 23.15 lbs. butter at 24 months of age and in a year made 783 lbs. from 18,431 lbs. milk. This was six years ago.

SHE IS A DAUGHTER OF Sir Pietertje Ormsby Mercedes, the greatest yearly record sire in the world, and from

MINNESOTA'S FIRST 1000-lb. cow, Riverview Fytje DeKol Ormsby.

THE YOUNG DAUGHTER of Sir Korndyke Fytje that we are offering made 16.66 lbs. butter in 7 days at 24 months of age.

SHE WILL FRESHEN early in November to the service of King Piebe Ormsby Mercedes, a young bull whose dam made 35 lbs. in 7 days and 1,136 lbs. in a year at 4 years.

HIS THREE NEAREST DAMS average 32 lbs. butter in 7 days and 1,040 lbs. in a year at an average age of 4 years.

SHE IS A SPLENDID heifer for type and size and will make someone a great foundation cow.

THE DAM OF THIS HEIFER made 26 lbs. in 7 days as a junior four-year-old and has a full sister with 26 lbs.

SHE IS SIRED BY Changeling Butter Boy 7th and from a 24-lb. daughter of Queen Piebe of Fairview, one of our greatest foundation cows.

QUEEN PIEBE OF FAIRVIEW made 22 lbs. in 7 days several years ago.

AMONG HER GREAT DAUGHTERS is Queen Piebe Mercedes, 1,389 lbs. butter and 30,230 lbs. milk in a year as a junior four.

THESE ARE BOTH WORLD'S records for her age and no cow, regardless of age or breed, can equal both her milk and butter production.

IF YOU ARE IN THE MARKET for females you want the blood that has produced winners. The pedigree of this heifer contains some of the greatest producing dams and sires in the world.

$750.00 BUYS HER—GUARANTEED SOUND.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

Enlisted for Immediate Service

A Fine Young Holstein Bull

GOVERNMENT INSPECTED—PHYSICALLY FIT.
AGE 18 MONTHS—BRED FOR PRODUCTION.
BEST BLOOD LINES OF BREED.
SERVICE RECORD OF HERD UNBLEMISHED.

A. A. Busse | **SUNNY HILL STOCK FARM** | **Slayton, Minn.**

Unless You Want a Good One Don't Write

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

When writing advertisers please mention Hoard's Dairyman.

Bull Calf Advertised in Last Issue Sold

Having purchased a son of Colantha Johanna Lad for my Junior herd bull I can now release and *offer for sale a two-year-old* that we have been using the past year. Fine individual, well-grown, more white than black. Sire, *Sir Korndyke Ormsby DeKol No. 89006.* Sired by a son of *Hengerveld DeKol* and grandson of *Pontiac Korndyke.* Dam 18.74-lb. 2-year-old, *King Walker breeding.* Price for immediate sale $250.00. A number of choice bull calves under six months at reasonable prices.

GEO. H. ELWELL, - MINNEAPOLIS, MINN.

3 BULLS — **HOLSTEINS** — **3 BULLS**

	No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.	
No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-old junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 4 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by ***Aaggie Pontiac Grahamholm Lad*** —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A World Record BULL

From a sister to Duchess Skylark Ormsby sired by a brother to Pietertje Maid Ormsby. His dam has 25 lbs. in 7 days and 725 lbs. in 1 year made at 3 years and 5 days.

Dropped Nov. 1917. Well grown, ⅗ white. Buy him now and profit by the increase in his value that is sure to result when his dam increases her record at the next freshening.

V. S. CULVER, STILLWATER, MINN.

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address

W. J. BOYNTON, Mgr., Rochester, Minn.

A Few Holstein Bull Calves

From a sire whose dam was a former state champion yearly cow—

For Sale

R. B. GOODHUE, - DENNISON, MINN.

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. Poplar Hollow Stock Farm,

P. O. Station F, - Minneapolis, Minn.

FOR SALE: A BULL CALF

born November 12, 1917. This calf is seven-eighths white and a good individual. His dam has an A. R. O. record of 16 pounds; a second record of 22 pounds. And the sire is a 27-pound bull. Price $75. Write for photo and full information. **E. R. Emery, Stanton, Minn.**

Mankato Holstein Herd

Offers you this

WONDERFUL BARGAIN BULL born February 9th, 1918. ¾ white. Large and straight—a beautiful show calf, from a 32-lb. sire and 20-lb. dam. 5 nearest dams average 25 lbs. butter in 7 days. Price $350. **Marlow and McCargar, Mankato, Minn.**

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

BULL CALF—Rosecliff King Segis Johanna, born June 26th, '17, well built, nicely marked. Sire: King Segis DeKol Fayne 8th, whose dam has 25.63 lbs. butter in 7 days. His grandsire is the sire of Segis Fayne Johanna the World's record butter cow for 7 days. Dam: Johanna Alicine made 14 lbs. in 7 days as a 2-yr.-old. Record made in warm weather. C. I. Reamer, North Liberty, Ind.

Bull Calves For Sale

AT REASONABLE PRICES

Sired by Sir Johanna Piebe White, whose first 3 daughters to freshen, average 22 lbs. butter 7 days at the average age of 2 years, 3 months. His dam and full sister have yearly records averaging 1030 lbs. butter for 1 year. Dams of calves have good yearly and 7-day records. Herd on federal accredited list.

RAY MEEKER, - - MUNCIE, IND.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1234.7 lbs. butter in 365 days, at $400 and up. Descriptive catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

HOLLYWOOD FARM HOLSTEINS

BEST BREEDING
HIGHEST RECORDS
BOTH SEXES FOR SALE

HOLLYWOOD FARM

HOLLYWOOD - - - - WASHINGTON

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Offer a Yearling Son of King Segis Pontiac Canary

who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.

H. H. Wickwire & Son, Hubbardsville, N. Y.

Cleveland Tractor



A Tractor That Does The Things You Want a Tractor To Do

The Cleveland Tractor is not confined to a narrow field of service. It does the things you want a tractor to do.

It plows, it harrows, it plants, it reaps. Its great power and small size enable it to work satisfactorily in difficult, awkward places. It works efficiently under and among small trees, close up to fence corners, around boulders, on hillsides, over ditches, gullies and rough ground.

With 600 square inches of traction surface, it goes through sand, gravel, gumbo, mud and even wet clay without packing the soil.

The Cleveland Tractor lays down its own tracks, crawls on them, and picks them up again as it goes along—just like the famous war "tanks."

It does *faster* and *better* work than was possible before. It plows 3½ miles an hour—eight to ten acres a day—equal to the work of *three* good men with *three* 3-horse teams under favorable conditions.

But the Cleveland is *far more than just a tractor.* With pulley and belt, it will saw, cut ensilage, pump—and do the things you demand of a stationary engine.

In addition it can be used for hauling the manure spreader, for grading, dragging logs and pulling road machinery.

It develops 12 horsepower at the drawbar and 20 horsepower at the pulley. Yet with all this power the complete machine weighs less than 3200 pounds, and can be housed in less space than is required for a single horse.

Rollin H. White, the well-known engineer, designed the Cleveland Tractor. It is built under his personal supervision, and is constructed for long service. The track sections are joined with hardened steel pins which have their bearings in hardened steel bushings. Gears are protected by dirt proof cases and are of the same high quality as those of the best trucks. The finest materials are used throughout.

Farming today demands the most comprehensive machinery obtainable—machinery that is useful in doing *many* different things—machinery that is adaptable to widely varying conditions.

Thousands of farmers are looking to the Cleveland Tractor in the present crisis. And the Cleveland is meeting the demands—severe as they are—and is *making more money* for its owners.

It is truly the tractor that does the things you want a tractor to do.

Nearly every farm can use one or more Clevelands to speed up production and cut down costs. Write *today* for complete information and the name of the nearest Cleveland dealer.

The Cleveland Tractor Co.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., AUGUST 9, 1918 — Number 3

Price Fixing and Cost of Farm Products

MANY who in the past have been satisfied to leave the fixing of prices of farm products entirely to competitive forces operating under the law of supply and demand now see the need of commissions to adjust prices. The price commission, to be successful, cannot represent a class, but must stand for economic justice to all classes. The condition and needs of the producer, the distributor, and the consumer must be considered with equal care. The biggest problem in price-fixing is to get the facts needed as the basis of action.

For many years the idea of price control has received the attention of farmers who have been hard pressed to make both ends meet. Dollar wheat sounds cheap now, but at one time it looked like a cure-all for the ills of the Dakota farmers. The control of cotton prices has often been talked about in times of low prices, and the price of Burley tobacco was more than doubled by the concerted action of farmers in holding their product and refraining from growing a crop in 1908. In all this agitation it was argued that the price should be enough to pay the cost of production and a reasonable profit. This point of view stimulated interest in farm cost accounting as a basis for price-fixing.

The United States Department of Agriculture and many state experiment stations have co-operated with farmers in keeping detailed records of man and horse labor, the use of equipment, and other elements of costs, as well as the yield, in quantity and value, of each kind of product. Occasionally a farmer has undertaken detailed records on his own initiative and without official aid, but the amount of clerical work in keeping a complete system of cost accounts is more than most farmers have time to do.

In the official promotion of farm cost accounting, the purpose has not always been well defined; but there have been at least two points of view. A position taken by many who are interested in the marketing problem is that costs should be known in order that they may be used as a basis of price-fixing. A view held by men interested in the problems of farm management is that cost accounts show the relative profitableness of competing crops and live stock enterprises, and hence give the starting point for scientific farm management.

It would seem that the Federal Food Administration in fixing the price of wheat, and the Chicago Federal Milk Commission in its work of the past winter, assumed the cost of production as the foundation of price-fixing, yet when these officials have approached the final problem of price-fixing, they have found themselves confronted with unexpected difficulties.



"YE HAPPY FIELDS! UNKNOWN TO NOISE AND STRIFE
THE KIND REWARDERS OF INDUSTRIOUS LIFE."—JOHN GAY

Why all this difficulty in the use of cost accounts as a basis of price-fixin? There are doubtless many reasons, but there are three of unusual importance: First, variation in costs; second, joint costs; and third, disagreement in the elements of costs. But in spite of these difficulties, accounting may be used in price control.

Variation in Costs

There is a very wide range in the cost figures which have been secured by careful methods of accounting and there are wide ranges in the estimates of costs of different producers. On the basis of a farm management survey made on 51 farms in one dairy district in Wisconsin, the return per dollar of annual outlay ranged from 77 cents to $3.05. The results of the Wisconsin Dairy Cow Competition carried on in 1909-11 illustrated this point. The return per dollar's worth of feed consumed by the 398 cows in this contest varied from 92 cents to $2.71; the average of the best ten was $2.38 worth of product per dollar's worth of feed and the average of the poorest ten was $1.11.

With wide ranges in the costs of production, which cost shall be accepted as the basis of price-fixing? The average has been seriously suggested but abandoned in disgust when it has been realized that a price fixed on the basis of average costs would probably result in a loss on half the farms.

The marginal or greatest costs have also been suggested. Economists have a theory that prices tend to equal marginal costs; this is thought to be true because it is assumed that the man who is producing at a loss will drop out; or, if the supply is short, the price will rise to the point attracting others less favorably situated to enter the same line of production and thus keep the price and the greatest cost tending to equal, though at any given time they might be far apart. There seems to be some relation, therefore, between the highest cost necessary to produce a given supply and the price which in the long run will have to be paid in order to get the supply.

Disagreements Regarding the Elements of Cost

The price at which to charge the supplies which have been produced upon the farm presents further difficulties in the efforts to determine costs. Shall feeds be charged at cost of production or at market price? In calculating the cost of a 1918 corn crop, should the seed corn be charged at the cost of production or at the market price? A similar question arises with respect to seed potatoes. In figuring the cost of milk the question rises: Should the hay, the oats, and the corn produced on the farm be charged on the basis of cost of production or at the market price? There seems to be an accepted rule of accounting which gives definite directions to charge all the produced supplies at cost and not at market price. On the other hand, farm cost accountants connected with the United States Department of Agriculture and the various experiment stations have quite generally charged these produced supplies at market price minus the cost of delivering them to the market.

A few years ago when the point of view was that of proving that dairying was profitable and an industry which should be stimulated by the press in every way possible, one agricultural paper held tenaciously to the old accounting rule of charging feed to the cows at cost of production because this magnified the profits of dairying by throwing the field profits into the dairy account. Now that the point of view has changed and the price of milk is looked upon as the objective point in cow cost accounting, this same paper is definitely of the opinion that produced feeds should be charged to the cows on the basis of market price. It is not difficult, therefore, to understand why there should have been two opinions on this point before the Chicago Milk Commission. Each party accepts the rule of accounting which best serves his interest.

If there were two methods of testing the amount of butterfat in milk, one of which favored the farmer and the other the purchaser, this same alignment of the interests would doubtless be formed. Fortunately there is one accurate fat test accepted by all, hence this occasion of trouble is avoided. What is needed to settle this question in accounting is one correct rule based upon the economic principles underlying the case. Obviously both of the opposed rules cannot be based upon a sound founda-

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Hoard's Dairyman

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Entered at Fort Atkinson, Wis., - second class matter.

Basis on Which the Department of Agriculture Standardized Wheat

The following extract from a bulletin issued by the Bureau of Markets will give some idea of the thoroughness of research which preceded the standardization of wheat and the price which has been fixed:

"The facts collected by the Department during the 10 years of systematic study of the subject of wheat grading cover every step in the marketing of wheat from the time it leaves the wheat field until it reaches the consumer. These facts resulted from an examination of a large number of samples collected from the threshing machine, from the farmer's wagon at the country elevator, from the car upon its arrival at the central market; samples taken before and after grain had passed through terminal elevators and mixing houses; samples taken from the grain as it arrived at the mill and from the mill stream on its way to the rolls; samples taken as the grain went aboard vessels at seaboard markets and as it was discharged from vessels in foreign ports. Upon information obtained by examination of thousands of such samples representing as they do, wheat at every stage of marketing, supplemented by personal study of the inspection procedure in the principal markets of the United States, the Department issued the present standards of wheat. It is apparent, therefore, that in securing the information upon which the standards were based no single interest has been favored at the expense of any other."

The foregoing is a very clear and illuminating statement of the important action taken by the Department of Agriculture and should prevent a vast amount of misunderstanding.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

An Amateur's Confession

Cow, I am done—I'm defeated.
Milking is not in my line.
Maybe, however, you've cheated—
Anyhow, Cow, I resign.
It takes a hero to do it.
There is a knack to the game.
There is a trick—and you know it.
What I produced is a shame!

Gee, you were nervous and balky.
How could I handle the job?
Milk—if I want to grow talky—
Sticks like green corn to th' cob.
Cow, you looked back at me, mooing—
Pitied me—knew I would fail—
Wondered what I could be doing.
Then you kicked over the pail!

Oh! but the task it looks easy,
When someone else has the stool.
They have an air, brisk and breezy.
I—well I felt like a fool.
Here I've been fussing for hours,
What can I show for it, Cow?
Milking!—the soul in me cowers
Leave it to those who know how.

A Matter of Aim

"How is that new helper you've got to milk the herd?"

"Had to fire him—wasn't practical."

"What was the matter?"

"Oh, he had a cross-eye, and every time we milked, we had to put five buckets under the cow, so's he'd be sure to hit one of 'em."

Philosophy of the Oldest Dairyman

"How anybody can be cruel to a cow after once looking into them fine eyes of theirs I can't figure out."

"Sure cows have a pull—you can tell that by the way some of 'em lift mortgages off farms."

"The good Lord made crows and put 'em in corn patches, just as a test to see how long folks could live without cussing."

"You can begin to look for the best when your eldest daughter would rather play the cream separator than her pianola."

Where Honor is Due

It was at Washington and the lobby of the big hotel was crowded with important people, brought together by patriotic duty. Suddenly the crowd began to surge to a certain corner surrounding a thick-set gentleman in a slouch hat. They fought to shake hands with him.

"Who is that—a United States Senator?" inquired the casual observer.

"Nope," was the answer.

"Congressman, mebbe?"

"Wrong again."

"Head of one of the big committees or the Secretary of the Navy?"

"Ho, he's the owner of as fine a dairy herd as there is in the state and he's just won five medals out of a possible six."

Don't Believe All You Hear

The hired man called his farm chum and they walked softly to the door of the barn. "I just want you to listen," said he, "the boss must have struck up a love affair with one of them farmerette gals. Hold your ear close."

And this is what they heard:

"You dear old thing—bless your heart—I certainly do love you—my pretty girl—just the sweetest thing that ever was—I wouldn't swop you for a million dollars—you're all the world to me—put her head up against papa's."

"Humph!" grunted the second hired man, "he's just talking to his favorite Holstein—she won him a cup yesterday at the state fair."



This is a 750-lb. latest style

DE LAVAL

CREAM SEPARATOR

Acknowledged by cow owners the world over to be the closest skimming, the easiest running and the longest wearing separator.

360 pounds of butter would have been needed to buy this machine in 1914.

255 pounds of butter will buy it now.

96 bushels of wheat would have been needed to buy this machine in 1914.

55 bushels of wheat will buy it now.

139 bushels of corn would have been needed to buy this machine in 1914.

87 bushels of corn will buy it now.

There never has been a time when you needed a De Laval so much.

There never was a time when you could so well afford to buy it.

Don't waste food and money and time trying to get along without a cream separator, or with a half-worn-out or inferior machine. Order your De Laval NOW when you need it most.

Why not see the nearest De Laval agent at once? If you do not know him write to the nearest office for new catalog or any desired information.

The De Laval Separator Co.

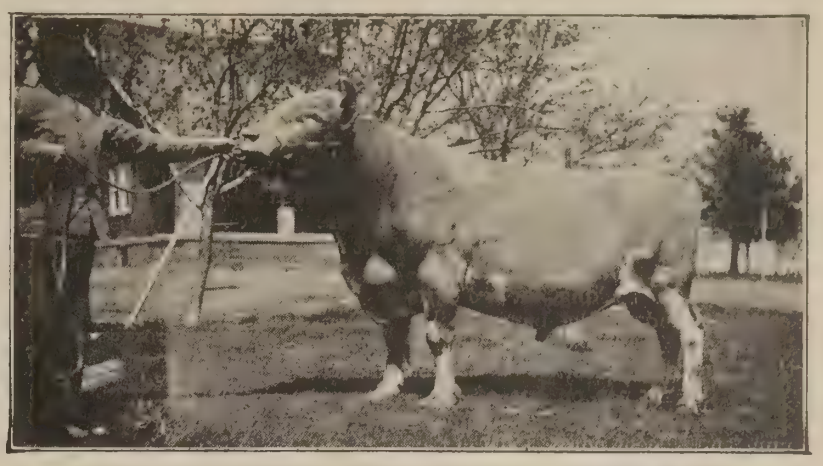
165 Broadway, New York 29 E. Madison Street, Chicago

Winnebago County, Wis., Guernsey Breeders' Picnic

BETWEEN 750 and 1,000 people from eight different counties met at the first annual picnic of the Guernsey breeders of Winnebago County, Wisconsin, June 14. About fifty families of city business men were entertained as guests of the breeders. A parade of twenty-five selected Guernseys was a feature of the inspection of the animals assembled from a number of herds. A boys' and girls' judging contest was conducted by E. A. Onsrud of the American Guernsey Cattle Club, and a breed type demonstration was given by Professor George Humphrey of Madison.



TWO GUERNSEY HEIFERS OWNED BY GEO. HYDE
They were used by Professor Geo. Humphrey in a demonstration of breed type at the first annual picnic of the Winnebago County Guernsey Breeders' Association.



SISTER SUE'S YEOMAN, HERD SIRE OWNED BY JOHN BLOOM
This good Guernsey bull was sired by Yeoman and out of Sister Sue of Mosegiel whose two-year-old record was 10,622.26 lbs. milk, 582.37 lbs. fat. Such bulls as this guarantee the future of the herds where they are used. The production back of them and their vigorous strength of individuality give large promise that their offspring will be profitable animals.



A GLIMPSE OF THE BOYS' AND GIRLS' JUDGING CONTEST
In the older group the winners were Ervintah Bloom, Alvin Auckerson, and Merle Mosely; in the contest for younger boys and girls, the winners were Lawrence Tice, Leone Burdick, and Fern O. Harrow. The privilege of attending such gatherings and engaging in interesting competition in judging high class stock keeps farm boys and girls on the farm.



FOUR BREEDERS WHO ARE LEADING IN THE WORK OF BREEDING IMPROVED GUERNSEY CATTLE IN THEIR COUNTY
They are members of the executive committee of the association. From left to right they are: Slayton, Bloom, Mosely, and Foote.

Organizing for Feed Defense

SANDERS SOSLAND, MISSOURI

I. COTTONSEED AND LINSEED FEEDS

EXCEPTIONAL conditions — even for war time—prevail in the cottonseed and linseed feed trade. Besides the restrictions promulgated by Washington, which affect these commodities more severely than many articles of export, the trade is confronted by unusual crop and supply influences. No dairyman can dismiss the trade situation in cottonseed and linseed products with the feeling that "it's all on account of the war", but all who buy these feedstuffs must go deeper into the markets and govern themselves by the necessity of guarding against shortage or higher markets.

War feed community purchasing organizations can best solve the problem of abnormal conditions in the cottonseed and linseed feed trade by insuring their members as plentiful a supply as possible of the commodities for winter's use, which, briefly, means early buying. With a knowledge of factors affecting both cottonseed and linseed feeds, leaders of war feed clubs will hesitate only little in reaching a decision for early purchases.

The losses suffered by dairymen and other live stock handlers the last few years as a result of delay in purchasing cottonseed and linseed feed for winter probably aggregate relatively a greater total than in any other feedstuffs. Where stockmen suffered only lightly in direct money losses by delaying their purchases, doubtless there was a heavy loss because of their inability to obtain the feeds at the critical moment.

The serious drouth in the Southwest a year ago, particularly in Texas, furnished a huge outlet for cottonseed feeds. Rather than permit their cattle to starve because of a lack of grass, Texas cattlemen paid record high prices for cottonseed cake and meal. Such a great demand prevailed in the Lone Star State, the heaviest producer of this feed, that supplies intended for other territories were cut off temporarily, and later the United States Food Administration found it necessary to fix prices on cottonseed feeds. Present conditions in Texas, while not as serious as a year ago, will necessitate the consumption of large quantities of cake and meal the coming winter. Other portions of the Southwest, extending to Kansas and Oklahoma, will require more cottonseed cake and meal because of a lack of moisture which has stunted growth of pastures and other crops. It should be remembered that a very small crop of alfalfa hay will be produced in the important hay growing states of the Southwest this year, thus forcing enlarged consumption of cottonseed feeds. Corn, too, is not highly promising in that territory.

Prices on cottonseed meal fixed after voluntary agreement between the United States Food Administration and seed crushers of Oklahoma, Arkansas, Texas, and other southern states, still are in force and no intimation has been given the trade by Washington food officials that the schedule will be eliminated on the new crop. There is a possibility that changes will be made, such as the fixing of a maximum price rather than a fixed level, or prices may be regulated by natural demand and supply conditions. It is only guesswork now, however, for one to attempt to analyze the probable course the food officials will take.

The fixed price on cottonseed feed, f. o. b. Oklahoma and Arkansas points, per ton, in car lots, are approximately as follows: 38½ per cent protein meal, $49; 41 per cent, $51.50; 43 per cent, $53.50. When purchased through dealers, another $1 per ton, the permitted profit for rehandlers, is added. Another important point in the federal regulations of the cottonseed feed industry is the fact that all forward sales are limited to 60 days. War feed clubs should have this in mind when making purchases for forward delivery.

Optimism prevails over the outlook for nearly a record crop of cotton, although recent weather in Texas, the largest producer, has been unfavorable. The July forecast of the Department of Agriculture indicates a crop of 15,325,000 bales of 500 pounds each, the second largest crop in the history of the country. The actual yield in 1917 was at a low point, 11,300,254 bales; in 1916, 11,449,930 bales were produced; in 1915, 11,191,820 bales; in 1914, 16,134,930 bales, the largest crop in history. The area sown to cotton aggregated 37,073,000 acres, compared with 34,925,000 acres in the preceding year. The acreage picked in 1917 was only 33,614,000 acres; the area picked in 1916, 34,925,000 acres; the largest area ever picked was 37,089,000 acres in 1913. Thus far, no abandoned acreage has been reported this year. The condition of the crop also is relatively high, being 85.8 per cent of normal on July 1, 1918, against 82.3 per cent on June 1, 1918, 70.3 per cent on July 1, 1917, and 79.4 per cent as the 10-year July 1 average. These figures are given because of the relation between the production of cotton and of cottonseed, the latter being a by-product of the staple and the commodity from which cottonseed feed is derived.

Flaxseed from which crushers, in the Northwest, manufacture linseed meal, gives hope of an increase in production. However, the condition of this crop on July 1 was below a year ago, and it has since deteriorated. The Department of Agriculture forecasts a crop of 15,800,000 bushels, compared with the 1917 crop of 8,500,000 bushels. The average produc-

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Where Water and Cows Win

California Finds Gold in the Irrigation Ditch

L. L. DE BRA, California

BACK in '49 and the early fifties many a prospector paused in his climb up the steep slopes of the Sierras, wiped the sweat off his forehead with the sleeve of his flannel shirt, and looked off in the distance where the great interior valley lay baking in the hot California sun, and the thought no doubt came to him that there was an agricultural kingdom of inestimable wealth—all it needed was water. But water there was none, so the miner continued to swing his pick at the outcropping ledges seeking the gold he expected to find in the barren hills, and gave no further thought to the fertile valley at his feet.

Today, the farmer on one of those little valley farms sits of a summer's evening on his cool porch, looks off in the distance at the barren hills glinting in the last rays of the setting sun, and with his crops in mind, says thankfully: "There's gold in those hills."

But he isn't thinking of the yellow gold the old prospector spent his last days trying to find; he's thinking of the silvery streams of water that come foaming down the hillsides to make the arid valley blossom forth into a garden of wealth. For it was the irrigation engineer who found the gold in the hills. He harnessed the melting snows and put them to the farmer's use.

The marvelous change irrigation has wrought in the valleys has been aptly described by some one in this way: "For forty years the old dry farmer jogged to town perched on the seat of an old farm wagon bought with the profits of his 640-acre farm. When irrigation came, the farmer found he could make more on 50 acres than on the whole 640 under the old way. So he sold the balance, hired men to run the 50 acres for him, and now he rides around with the family in an automobile."

This is not the highly colored talk of the real estate agent but the cold, straight-from-the-shoulder facts from records of banks and business houses. And it is a noteworthy point that most of the money has been made because irrigation made it possible to supplant farming with dairying. A few years back, Humboldt County, long the "Banner Butter County", was turning out annually close to five million pounds of butter while the old wheat counties in the valley were at a standstill and wondering whether they'd continue to grow poor trying to raise grain on worn-out land, or invest money in an irrigation scheme and try dairying. You could buy plenty of that land then for $25 to $35 an acre. The irrigation ditches were put in finally, and they turned the water on the thirsty soil. As though by a miracle the brown, dead, grain land blossomed into wide, green fields of alfalfa. The ditches were not of cement at first, and the cool streams of water running along between banks of green looked mighty good to Old Bossy, so the gentle Jersey and the homely Holstein meandered down the streams and almost overnight that land that went begging at $30 an acre went up to $300.



The cool streams of water running between the green banks of the irrigation ditches of California look mighty good to Old Bossy, while her owner looks off from his fertile valley that was once disdained by the gold prospector and in the distance sees the barren hills and mountains glinting in the last rays of the sun. The farmer and the prospector are as one in the thought: "There is gold in those hills for me." The former looked for the yellow metal with pick and "pan", while his present day prototype, the dairy farmer, sees the streams of mountain water trickling down to his thirsty acres to make them break forth into the green succulent grasses that are transformed by the alchemy of the cow into the healthful growth promoting products that babe and man demand in ever increasing quantity. The dairy farmer sees the good in yonder hills and is content.

Then it was the California State Dairy Bureau found it necessary to revise their figures on butter production. They used to have it standing in type from year to year that "Humboldt County, because of its ample rainfall, produces far more butter than any other county." When figures began to come in from the counties in the interior under irrigation they seemed unbelievable. Stanislaus, formerly a wheat county, had broken Humboldt's standing record! Imperial County, formerly a barren desert, home of the horned toad and deadly rattler, had produced 5,000,000 pounds of butter! That was back in 1913. In 1914, Imperial went to nearly six million, while Stanislaus went over the top at eight million. Humboldt straggled along in the rear with a little over five million pounds, and was closely crowded by a little stranger, Tulare County, with a record of 4,362,290.

Investigation showed that the irrigation ditch was behind the whole thing. With irrigation, Imperial county, since its formation in 1908, has increased its butter production from a little over a million pounds of butter in 1909 to over four million. Tulare county, in the same period, has more than doubled its butter output and now crowds the five million mark. And Stanislaus, once the home of the wheat king and cattle ranger, now the home of the Holstein and the Jersey, is now the "Banner Butter County" with an annual output of from nine to ten million pounds of butter.



OUTLET FROM THE PUMPING PLANT OF THE PATTERSON IRRIGATED FARMS IN STANISLAUS COUNTY, CALIFORNIA

Some idea of what irrigation has done for the butter industry of California is shown in the following table giving the butter production of the state since 1913. The slight falling off in 1917 was due to the increased production of cheese and condensed milk because of war conditions: 1913, 55,542,709 lbs.; 1914, 59,286,460 lbs.; 1915, 67,549,409 lbs.; 1916, 70,030,174 lbs.; 1917, 68,373,021 lbs.

There used to be an old joke about the dairyman making money by putting water in the milk; but it's no joke that by putting water on the land, California dairymen have boosted the total annual value of all dairy products from something over thirty million in 1913 to fifty million last year.

Some idea of the extent of irrigation projects in this state can be gained from the figures of the Department of Agriculture which show that close to five million acres of land are now under irrigation in California. They believe that in a few years more, taking into consideraton the many irrigation projects now under way, the total irrigated land in this state will aggregate close to ten million acres. It has been shown that the best agriculture, especially in this state, is founded on irrigation. Even in portions of the state where rainfall is ample, irrigation is being practiced or projects are under way, because with irrigation the land may be given the required quantity of water at the right time instead of being flooded by heavy rains one month and subject to a severe drought the next two months. They're irrigating in old Humboldt county now!

All the streams have been surveyed and it has been figured that with just the supply in the larger streams it would be possible to cover the 14,000,000 acres of agricultural land in California to a depth of 36 inches, which is ample for all crops. In other parts of the state there are good wells. In parts of the interior they depend on the snows in the mountains, and this year there threatens to be a shortage for those dependent on that source.

More than half the improved farms of the state are now under irrigation. Over one-fifth of all the irrigated land in the United States is in California. California has the highest priced irrigated land in America. In no other state is there so great an area of fertile farming land for which the available supply of water is so large and in no state has water for irrigation reached so high a value or been so carefully and economically used. We do not say this boastingly; we say it with sincere thankfulness.

Cost of Keeping Work Horses

Results of investigations on the cost of horse labor on the farm by the University of Missouri College of Agriculture show that, exclusive of depreciation, the average cost of keep per head of 75 farm work horses during 1912-13 was $92.33; of 113 head for 1914, $95.58; and of 132 head for 1915, $86.63; or an average for the whole period of $91.22.

It was found that the cost of feeding, as a rule, made up 72 per cent of the total cost of keeping a farm work horse. Farms on which the feed cost per head ran lowest (average $45.69 per head) fed an average of 10.3 bushels of oats per head to work stock, while farms on which the feed cost per head ran highest (average $93.25 per head) fed an average of 41.6 bushels of oats per head to work stock. Farms which used corn for grain and no oats had an average feed cost of $58.79 per head and received approximately the same amount of work from their horses as farms which fed oats almost pound for pound with corn at a feed cost per head of $71.56.

The average amount of labor per horse for 1912-13, 1914, and 1915 was found to be 1,165 hours, 1,164 hours and 1,127 hours respectively. The heaviest working of horses with the most liberal feeding or the lighter working with approximately a maintenance ration did not in general prove as economical from the viewpoint of horse labor cost as medium work on a moderate ration. From the viewpoint of economy, experience seems to warrant keeping sufficient work stock on a general farm in the region so that each horse will not have more than an average of 1,400 to 1,500 hours work, but it will not warrant a large enough supply to make the average amount of labor per horse less than 800 hours.

Records from the farms indicate that mules do more work on a given cost than either geldings or mares, and likewise geldings do more work than mares.

America's glorious privilege is to feed the world while it fights its way to freedom.

How To Judge a Dairy Cow

CHARLES L. HILL, Wisconsin

'O lay down something as a fundamental principle in the selection of he dairy cow, I would say that the rst point is that every single bit of eef tendency that you get into the airy cow hurts her as a dairy cow, nd the opposite is just as true, that ery bit of dairy blood you get into ie beef cow and steer hurts them for ieir purpose in life.

That is not saying that the two ings cannot be combined into a ual-purpose cow, but if you want to into either branch of the industry the extreme of profitable produc- on, you must have an animal that is ed for the purpose in view. All of ie things of which I will speak are ndamental to the profitable dairy w regardless of the fact of what e, particular color, or previous con- tion of servitude may have been rs. You may have a cow that, af- r you have learned to judge a dairy rm, may look to you to be of the eal form, conformation, and tem- rament, and nevertheless you ven't a dairy cow because there is mething about her that makes her very little use in the world as a iry cow.

Constitution

A cow cannot produce or reproduce less she has what is ordinarily rmed a constitution. If there is any e thing that is most elusive about cow, as it is also about a human be- g, it is this constitution of the cow. fferent people in talking about this bject will give different ideas of at they claim constitute constitu- n, and when you get through with a w after five or ten or twenty years' rk, the cow that you thought did not ve any constitution to start with is ll doing business at the old stand, ile the cow that you picked out as ing of the right build to have con- tution is dead and forgotten. I have mind one Jersey cow that was in my ighbor Scribner's herd, named "Ma- e Surprise". She was one of his own eeding, and every time we had the ys over from the University on eir annual students' trip, much at- ation was paid to this cow that is of most ideal type, but just the same e lacked constitution according to e judgment of the boys, but that w was still producing profitably at e age of seventeen years, while ner cows that we all passed as hav- g constitution have passed on long o.

I am not going to tell you how to d out about this most important ing in the dairy cow, this constitu- n, because personally I have con- ded I don't know anything about The ordinary things that we talk out most are, that as you stand king at that animal from the front, u see that the front legs are set ll apart and that just back of the oulders there is no droop to make at we call a smart heart girth. ey should have lots of room for g and heart work and power.

As I look at the cows of the United ates, all over this country, I con- de that those things that we talk out as constitution we know very le about.

The Front End of a Cow

A cow cannot produce if she cannot . The two evidences perhaps that can see most clearly in an animal indicate that she can eat are, first, t she will be wide at the muzzle l that she will have a strong jaw l a rather thin neck. Those things m to go with a bright yet quiet ression of the eye; they seem to go h that thing in the dairy cow that call ability to consume. If she has se things, you will find with them a great large belly that gives that cow a place to put this food after she eats it.

As you stand in front of her and look at the cow, you may see that she is very deep in the middle, and you say she has capacity all right. Not necessarily; she may be so slab-sided that she hasn't a large barrel; or, on the other hand, you may find that she is not deep, but she is round, not flat, and very much longer than the cow that perhaps looks deep.

You must remember that I speak of an ideal cow. I mean the ideals that conform to what we have in our mind. The ideal form of the dairy cow is that she shall be medium in length, fairly well sprung in the ribs, and deep. All good cows must have great capacity, but some get that capacity by being longer and rounder and not so deep.

The dairy cow is the opposite of the beef cow. We want in the beef cow that tendency to put on flesh and fat on those places in the animal's body that make the highest priced cuts of beef. She will have a tendency to so use her food that her flesh will be developed in those places where we want it to use as high priced beef.

The beef cow must have the same ability to consume and digest food as the dairy cow, but the difference between the two would be, first, in the leaner, cleaner face and the slimmer neck and greater broadness at the shoulders of the dairy animal, while in the beef cow (we used to say you could pour a bushel of shelled corn on her back and it wouldn't run off)—the back is kind of hollowed out. The back of the dairy cow slopes off and cuts off in the ham, while in the beef cow it should go straight down, making a great, big round steak. The things that evidence the ability to consume and take care of food must be largely the same in the two animals, but you must get away from any inclination toward beefiness in the cow if you want her to be a profitable dairy cow.

She must be sharp at the shoulders and slightly flattened out to the point of the short ribs and then moderately sloped.

There are many things that as dairymen we ought to let the breeders fuss with, things that are what we call fancy points in the cow. I can remember the time when in order to judge a dairy cow you should see that she was free of black color. In those days one very essential feature of an animal was that her tongue should be black, and this applies to all breeds. You should see a Jersey cow, and somebody would say, she is fine but she has a black nose; or something else, some other little point that is absolutely non-essential to the usefulness of the dairy cow, the kind that we want to keep on our farms for the sole purpose of the profitable production of milk.

If you go to buy a cow or a bull to sire your dairy cows, pay no attention to the fancy points that the breeder talks about, some little point of off color in an animal or something of as little importance as that. You can buy a bull for a less price that has just those little things about him that only the breeder would notice, and get a better one than if you tried to buy only a fancy bull that is perfect in color.

I could go on and elaborate to you points that I believe are fancy points. For instance, we like to see what we call an open conformation of the ribs. You look at an animal, an individual that you know to be a good dairy animal, and then compare it with another animal you know is not, and you will see that they have a conformation of the bony structure of the body that is different from that of the beef animal.

The Udder

In all score cards of the different dairy breeds a great deal of attention is paid to the shape of the udder. That udder shall have what we call a "flat floor"; it should be attached well out under the cow's belly, and it should be from four to eight inches in front of the front teats. The teats should be wide apart each way and should be set squarely on the udder. But the principal thing you should be concerned about in considering the cow's udder is that she should have a good attachment to the body, because we believe that it gives a greater opportunity for the production of milk; and also for another reason, and that is, that it is not so likely to become what we call a pendulent udder. A pendulent udder is down in the way, down where it gets dirty and down where the cow is more likely to have her teats stepped on by other cows. In fact I have known one very valuable cow that finally destroyed all four quarters of her udder by stepping on it herself. That kind of an udder is never desirable. An udder should be well attached to the body. The fact as to whether it shall be placed squarely on the body is of very much less importance, but what you ought to think about is that the teats shall be of good size and that the cow shall be an easy milker.

Dairy Temperament

Nearly all score cards have something to say about disposition. You can tell of the disposition more by the expression of the cow's eye than by any other thing. When you come to look at her and to handle her, you will know at once whether you have a cow of desirable dairy temperament.

Now, when we used to talk of dairy temperament, we talked about nerve force and some people got the wrong idea, that we meant a nervous cow. We did not mean that at all. I do not believe there is any reason to say that a nervous cow will be a better producer than one of a quiet disposition. Indeed, I know that the opposite is true. I have in mind a herd of cows where there have always been two or three or four cows that were so nervous that if a stranger came into the stable those cows were all upset to the limit, and if a visitor stayed around the barn three or four hours, they would begin to scour and be good for nothing.

One of the other things that we, as breeders, think, from the fancy standpoint, is very desirable, is what we call a "straight rump" animal, an animal that carries out straight rather than sloping off, as some cows do. The theory is, as far as the breeder's standpoint is concerned, that the cow with an undesirable shaped udder is more apt to have with it a drooping rump, and that gives an inclination forward of the whole body. We want the cow moderately wide at the hips, about her thurls.

A cow has got to have large amounts of oxygen that she must breathe in from the air, in order to be able to oxygenize the blood and do the work she is expected to do. You will remember that the cow running out on the prairies is expected to give just milk enough to rear her calf, she is going to get no grain, she is going to have lots of exercise. We want to shut our animal up for a large part of the winter, we are going to feed her a large amount of concentrated food in the form of grain that Nature did not teach her to eat; we expect her to produce largely—anything we can get, and we have got up to 1,200 lbs. of butterfat from a certain animal. If we are going to expect that kind of thing, our cow must have ability to take in large amounts of fresh air, and so it seems necessary that she should have a large, wide, open nostril.

Then she should have a moderately long neck and she should be thin and sharp at the shoulders; she must not be round and heavy at the shoulders.

Do not make the mistake that this would apply always to the younger animals, particularly heifers that are



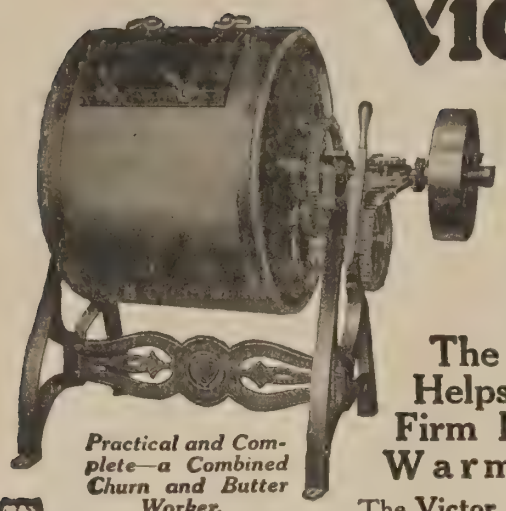
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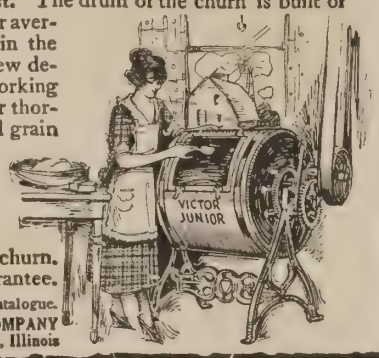
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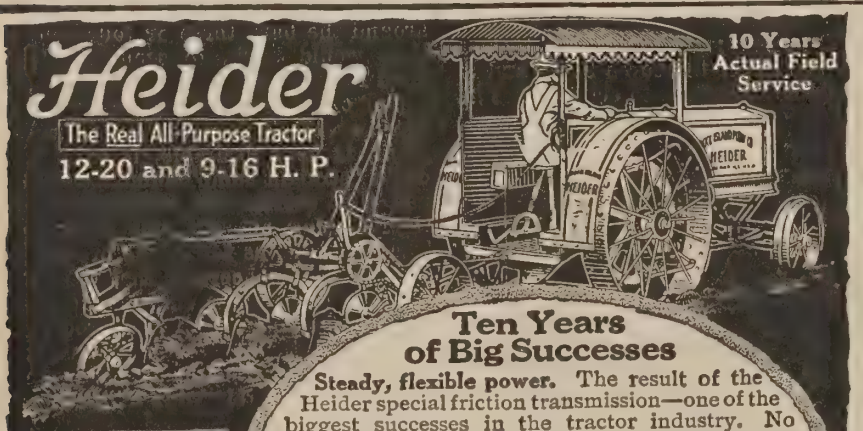
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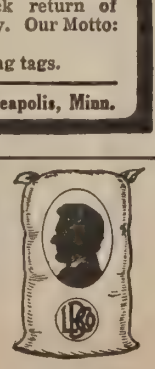
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going to have their first calves. After they are five or six months in calf, if they are in a condition that looks pretty wide there, it will not injure their qualities. I saw a cow last summer which has since milked down to a very, very spare form after being very round. Lillie Ella was so fat when she first came in, that most everybody, including her owner, thought she was nothing but a steer, and three months from that time she was right down to the spare dairy form.

As soon as a cow gets to milking, she wants to get away from anything that resembles the beef form where there is shown a pound of flesh on her used for any other purpose beyond sustaining her life vitality. It is true that cows closely housed and fed large amounts of grain, working on the Advanced Registry, do not become as spare as those working regularly in the dairy. One reason is those cows are allowed to become dry two or three months before they freshen, and then they are fed so much that they never get as thin as they normally would get.

Milk Veins

We used to talk about the milk vein, thinking that it carried the blood to the udder. Now we know that the circulation is the opposite way from the body, that it is down from the body into the udder and back to the heart. Now, milk is not much else but blood with the red corpuscles taken out of it. You will remember that if you had a cow that was ready to give twenty or thirty pounds of milk and you should cut the udder open you would find in that udder but very little milk. The bulk of the milk is elaborated during the process of milking. You have all noticed that you can milk out a cow's udder quickly and the milk stops coming. You wait a few minutes and it comes along all right.

The blood runs down through the body and goes up through holes in the body that we call "wells", and we like to see those large. Just the same, many cows do not have milk veins, and I don't know that we know as much about the function of milk veins as we ought to know in order to be able to talk intelligently on the subject. One thing, however, is quite certain, that many of the cows that have had great milk veins, we found that they were large because they had very small orifices for the blood to go back through the wall, and the veins were enlarged in size, because the circulation was not free. But it is true that nearly all good cows have large milk veins and, in judging cows, you want to pay attention to this vein that goes back along under the belly carrying the blood back to the heart. Sometimes the belly is covered with small veins. The longer they are, the crookeder they are, the more desirable we think them. Sometimes the best cows will have half a dozen wells that go through the stomach wall to carry the blood back to the heart.

The Quality of the Skin

A man in judging a cow will take and grab the hide just back of the shoulders. When that is done, we like to find that hide only moderately thick and especially loose on the body, so that it has a soft, pliable feeling, with a good condition of the hair. Of course the condition of the hide depends on the condition of the animal at the time, the condition of the individual cow, but you go along through a bunch of cows where they are all getting good care, and you will see a very marked difference in the character of the hide. We like the hide to be moderately thin and loose and soft feeling to the hand.

You can always tell an animal that is out of condition by its hide. And then it indicates the general thrift of the animal. Animals with hard, thick hides apparently do not properly assimilate their foods and are not doing well.

The cow with short legs is more or less of a nuisance, because her udder gets dirty. The great grandmother of Colantha 4th's Johanna was that kind of a cow; her teats came within four inches of the ground. That cow was shown about in 1882 or 1883 at the Wisconsin State Fair, when she was fresh in milk, and her udder almost dragged on the ground. A deep-bodied cow is all right, a cow with a deep body and large barrel, whether she is low down or up. I have one cow in my barn and every single young fellow that comes there picks her out as the best one, because he stands off and sees a very deep body with very much springing ribs, and he doesn't realize how low to the ground she is.

There are lots of things we don't know about. We go on and educate ourselves to make a cow look like something that we think she ought to look like, but just why those things come about we don't know. Just why we say that particular conformation is more beautiful than the other, I don't know. You go to an art gallery and you say, looking at a picture, that the artist hasn't any conception of what a cow ought to be, and he hasn't if you take one of our particular score cards and work out the picture by that; but the artist thinks he knows what a beautiful animal is, and he will go out into a field and pick out one that you and I think is the ugliest animal there. I have spent days in picture galleries, studying actual pictures there and I have found, in one instance, that the great Holland animal artist, Kyte, who painted in 1600 or 1700, certainly did one of the oneriest looking ewes that ever happened. According to these pictures beauty as considered by the artis



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wouldn't have very much to do with dairy production.

I think we are going to get our ideas of dairy cows by looking at cows that we know have done the business rather than by trying to make cows do the business that look as we think they ought to look. Our American Guernsey Cattle Club endeavored several years ago, as some other clubs were doing, to make a chart drawn off in small rectangles and then photograph the cow against that, and then study out and endeavor to get, if we could, a correlation between the production of a cow and the conformation of that cow. The further we got into that proposition the bigger the subject looked and the harder to handle, until we have dropped it for the time being.—Abstracted from an address delivered at 1915 meeting of Wisconsin Dairymen's Association.

Price Fixing and Cost of Farm Products

(Continued from first page.)

tion; hence arises the question, Is either rule correct? If not, how can the correct principle be discovered? It is believed that the true solution of this problem lies in the substitution of total farm profits for specific costs as a basis of price regulation.

Joint Costs

The typical farm provides a much more difficult accounting problem than a sawmill, a flour mill, a cotton mill, or a steel mill. The problem is more nearly comparable to that in railway accounting, where one expenditure affects a great number of sources of income. The farmer who produces but one crop is rare. On the typical dairy farm, corn, small grain, clover hay, and pasture, cattle, horses, and hogs are all produced. The same plows, harrows, and horses are used for the various crops which require attention at different seasons and the same laborers are used for crops and live stock. When the corn is being cultivated the corn is not only benefited but the land is being put into condition for the small grain crop which will be grown the next year. When the land is prepared for small grain the seed bed for the clover is being prepared, and oats or barley serves as a nurse crop for the clover plant which in turn is able to draw upon the nitrogen of the air and provide plant food needed for its own growth and for the corn crop which is to follow. Hence the costs of these crops are said to be joint costs.

Under these circumstances, suppose it is found that the oat crop costs more than the market price, that the cost of oats is ten cents greater than the price. What can the farmer do about it? He can do a little figuring to see whether or not another crop which requires his attention at the same periods and which serves equally well as a nurse crop, barley for example, can be substituted with a profit or with a smaller loss. If not, should the farmer cut out the small grain crop? Usually not. The total cost of man and horse labor would be reduced little by omitting the oat crop because oats and corn require labor at different seasons and are supplementary to each other. If this crop were not grown the hours of productive labor would probably be reduced and the average charge per hour for labor applied to the corn would be greater.

But this is not all. Oats are used as a nurse crop for clover and while it may be possible to grow clover without a nurse crop, this would cost nearly as much as putting in the oats. Hence the growing of small grain is usually the cheapest way to get a seeding of clover and where clover thrives this is the best way to secure nitrogen for the corn crop. Thus it is the joint results of the joint costs which are important.

Having adopted the system of farming, the parts of it should be adhered to so long as the system as a whole continues to be attractive, and so long as each part of the system continues to pay better than the substitute which is competing for a place in the system.

The corn, oats, and clover combination is not a complete system of farming in itself. It is usually combined with one or more live stock enterprises. Beef cattle and hogs, dairy cattle and hogs, or straight dairying may be combined with this cropping system. In each of these systems there are many instances of joint costs. The joint cost of fattening steers and hogs is commonly understood among feeders. Where butterfat and pigs and veal calves are the products sold, these three products have elements of joint cost. Where pure-bred cattle and milk are sold the costs are joint and inseparable; the important question relates to the profit of the system as a whole.

Where grade cows are purchased and used for the production of city milk we approach more nearly to a specific cost of a specific product as far as the live stock industry is concerned, with only a small by-product in the form of a veal calf. And yet this type of dairying has its costs intermixed with the system of cropping, notably in the use of labor, the use of crops, and the provision of fertilizer. Hence, in mixed farming, joint costs are present to block the effort to arrive at the cost of producing any specific farm product.

Where two articles are produced as a result of the same work the combined prices of the two tend to equal the greatest necessary cost of producing them, but the price of each article is determined separately on the basis of supply and demand.

Consumers want a variety of things produced by the farmer. How much a consumer will pay for a given article depends upon the intensity of his desire for it. The intensity of his desire depends upon how abundantly he has been supplied. The more he takes the less he will pay for any given unit of the goods. Unfortunately, under conditions of joint costs there are certain physical facts which determine the ratios in which goods are produced, without much regard to the ratios of the intensity of the desire for them. As a result the supply demand price of one product may be higher and that of another lower than the cost, but the combination of crops may prove profitable. The case is similar to the situation in the oil business. Gasoline and kerosene have a joint cost; and it is the condition of the market and the relative proportion in which they are obtainable at a common cost which makes the price of gasoline nearly twice as high as that of kerosene at the present time.

Total Farm Profits and Price Regulation

When the point of view of total farm profits is accepted by the price commissioner, the problem becomes that of so regulating prices that the farmer in one line of production may reap as large a reward as he could earn producing some other product, or else of helping him in getting into some other line of production. By looking to total farm profits he avoids many of the difficulties arising out of differences in the cost of producing a given article by different men. Even if it costs one man 2 cents a quart to produce milk, another 3 cents, another 4 cents, and still another 5 cents a quart in a given city milk belt, yet each of these men may be doing the type of farming which pays him best and the industry may be stable so long as relative prices re-

(Continued on page 86)



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Coming Events

August 30 to Sept. 8, Michigan State Fair, Detroit, Michigan. Secretary, G. W. Dickinson.

September 1 to 6, Nebraska State Fair, Lincoln, Nebraska. Secretary, E. R. Danielson.

September 2 to 6, Connecticut Fair, Hartford, Connecticut. Secretary, H. C. Parsons.

September 2 to 7, Indiana State Fair, Indianapolis, Indiana. Secretary, Chas. Kennedy.

September 2 to 7, Spokane Interstate Fair and Live Stock Show. Acting Secretary, W. L. Tennant.

Missouri State Fair, Sedalia, Missouri, August 10 to 17. Secretary, E. G. Bylander.

Iowa State Fair and Exposition, Des Moines, Iowa, August 21 to 30. Secretary, A. R. Corey.

California State Fair, Sacramento, California, August 31 to Sept. 8. Secretary, Chas. W. Paine.

Kankakee Interstate Fair, Kankakee, Illinois, August 26 to 31. Secretary, Len Small.

Ohio State Fair, Columbus, Ohio, August 26 to 31. Secretary, E. V. Walborn.

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

Wisconsin Breeders at Barron

The Wisconsin Live Stock Breeders' Association will hold its next meeting at Barron on August 10. Afternoon and evening programs will be given. Mr. Fred W. Hoxie, secretary of the Barron County Holstein Breeders' Association writes us: "Special emphasis will be placed on dairying and the uses of milk, as Barron and the surrounding countries are greatly interested in the production of milk and milk products. Barron County will be glad to welcome people from all parts of the state and special effort will be made to have the occasion an enjoyable one to all."

Dairying in Australasia

HOARD'S DAIRYMAN:—Some are contending that the big consignments of butter cleared from Australian stores for the Imperial Government have left local scarcity. During the first three months of this year butter to the value of £3,000,000 was removed, as compared to £2,216,000 in the corresponding period of last year. But the government controlling export had in mind the favorable character of the season which saw endless feed in the autumn to carry over the winter months. Whether the prophesied scarcity will materialize or not, the fact remains that prices have not risen much, though in New Zealand the retail rate has been put up by 4 cents per pound, making the rate 40 cents against Australia's 36 cents.

⚜

A federal commissioner has been investigating the allegation that there is in existence in Australia a condensed milk combine. He found that there was a compact between companies to abstain from competition and that the Nesle Company was not to charge more for its sweetened milk, condensed milk, than 61 cents per case above the lowest price for any other brand. There is an agitation for an all-round increase in condensed milk and it is believed that the commissioner in charge of the price-fixing department will consent to another two cents per pound.

⚜

The Australian government has again closed with the British government for the whole of the coming season's output of butter. Dairymen evinced a desire not to follow the example of New Zealand and ask for $42.58 a hundredweight but agreed to be content with last year's price of $36.74 f. o. b. The quantity taken last year amounted to thirty thousand tons and it is expected that this year the figures will be passed as the season promises well. Fearing a shortage last year the government had half a mind to put Australia on a butter ration as it was represented to them that the British government placed butter first in foods sent from Australia and they were then in urgent need of it. However, the season turned out well and there was no reason for the ration.

Australia. J. S. DUNNET.

Early Plowing for Wheat

Early plowing returns a yield of from 3 to 10 bushels more wheat per acre than late plowing. Figuring this increase at present wheat prices it means at least $6 to $20 more per acre for the land. Early plowing for wheat puts soil in shape to absorb every shower, makes a firm, moist seed bed and keeps the weeds down so that moisture and available plant food can accumulate in sufficient quantity to give the wheat a quick, vigorous start when planted. The University of Missouri College of Agriculture recommends that the plowed land be worked down as soon as possible. The practice of dragging or harrowing land within a half day or day after it is plowed saves labor and gives better results. Weeds should be kept down after plowing since they use much water and plant food. A well prepared seed bed will undoubtedly add bushels to the wheat field.

Early plowing buries the Hessian fly, conserves moisture, and makes a good seed bed for wheat. The ground should be plowed or disced as soon as possible after harvest. Discing and then plowing is often advisable because then the plowing is much easier. Discing also destroys the Hessian fly and exposes the flaxseed stage of the pest to the hot sun and the attack of insect enemies.

Volunteer wheat and weeds may be kept down by cultivating the plowed ground after rains. The main food supply of the Hessian fly is wheat, and if the volunteer wheat is destroyed the fly will starve. A better seed bed is also made by numerous cultivations of the plowed ground.

The Hessian fly is well under control now as a result of last year's fight against it, according to T. J. Talbert of the University of Missouri College of Agriculture, and if the farmers take special pains to plow early again this year the fly will be unable to do any material damage to next year's wheat crop.



CREAMERY ON LONG BEACH FARMS, MICHIGAN, 14 FT. BY 20 FT., AND FULLY EQUIPPED

Both an upright steam and a gasoline engine can be used for power. They furnish power for the milking machine. In the background two driveways to the barn are shown; one, built so that it will shelter a wagon which is drawn under it, and the other built in to cover a root cellar opening into the barn.

Sale Announcements

Aug. 20—Guernseys and Clydesdales. Glen Farm Sale. Newport, R. I. Leander F. Herrick, Worcester, Mass., Mgr.

Aug. 27—Guernseys, Dispersions of the T. D. McChesney, Minette, N. Y., and Winthrop Condin, Mt. Kisco, N. Y., herds at New Castle Farm, Mt. Kisco, N. Y. Leander F. Herrick, Worcester, Mass., Manager.

Sept. 4—Holsteins, Sauk Valley Dairy Farm, Holsteins. O. S. Cass, Sauk Center, Minn.

Sept. 11—Holsteins. Consignment Sate at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 11—Holstein Dispersal Sale. Springdale Farms, Fishers, Ind., Dr. S. P. Scherer, Owner.

Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 17—Holsteins. Centralia Calf Farm, Centralia, Ill.

Sept. 18—Registered Holsteins. Complete dispersal sale, Charles Prange, New Douglas, Madison County, Ill.

Sept. 25—Holsteins. Absolute Dispersion of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.

Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.

Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.

Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.

Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.

Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.

Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

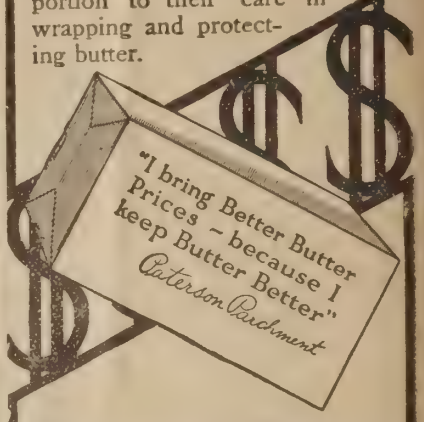
Certified Milk Producers to Meet

Eleventh annual convention of the Certified Milk Producers' Association of America will be held at Hotel Statler, Buffalo, N. Y., August 20-21, 1918. Programs and announcements will follow. Don't miss this meeting.

HARRY B. WINTERS, Sec.-Treas.

Increase Your Butter Profits

Money-making dairymen everywhere are looking to the *quality* and *cleanliness* of their butter. They know butter brings top market prices when it is clean, sweet and pure. They know that their trade increases in proportion to their care in wrapping and protecting butter.



Paterson Pioneer Parchment Paper

makes butter *taste* better, *keep* longer and *look* more appetizing. And don't forget that *looks* go a long way toward selling butter profitably. The best protection for butter and for good butter prices is Paterson Pioneer Parchment Paper. *Prove* it today.

Write for free samples and booklet "Better Butter". Contains money-making ideas for every dairyman.

THE PATERSON PARCHMENT PAPER COMPANY
37 Eighth St.
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THE PATERSON PARCHMENT PAPER CO. PIONEER PASSAIC N.J. TRADE MARK





James planned and equipped dairy barns mean more milk and less work. Make your dairy barn an efficient work shop and profit maker. Install

JAMES
Sanitary Barn Equipment

Give your herd contentment and comfort and they'll give you more milk. James equipment is the practical profit-maker that thousands of America's dairymen use. Tell us when you intend to build or remodel and for how many cows — we will send you the big "Jamesway" Book Free.

James Manufacturing Co.
23 Cane Street, Ft. Atkinson, Wis. Elmira, N. Y.

WISCONSIN STATE FAIR
MILWAUKEE
SEPT. 9, 10, 11, 12, 13 AND 14
SIX DAYS - FIVE NIGHTS



FIFTY ACRES OF MACHINERY; THIRTY MARES OF TRACTORS.

GREATEST AUTOMOBILE SHOW IN AMERICA; 100 1919 MODELS.

20,000 SQUARE FEET OF EXHIBITS SENT BY U. S. GOVERNMENT.

10,000 SQUARE FEET OF ENGLISH WAR EXHIBITS; FUNDS GO TO RED CROSS.

WORLD'S BEST CATTLE, HORSES, SWINE, SHEEP, AGRICULTURAL, HORTICULTURAL AND DAIRY PRODUCTS; WOMEN'S WORK AND FARM BOYS' AND GIRLS' WORK.

PREMIER POULTRY EXHIBIT; NEW BUILDING NEWLY EQUIPPED.

MAMMOTH U. S. NAVAL TRAINING STATION "JACKIE" BAND, AND FULL QUOTA OF OTHER BANDS AND ORCHESTRAS; DAY AND NIGHT, ALL WEEK.

$20,000 "WORLD'S WAR" FIREWORKS SPECTACLE; STAGE 450 BY 250 FEET; 500 PEOPLE; EVERY NIGHT.

$20,000 WORTH OF CLEAN, HIGHEST CLASS VAUDEVILLE AND CIRCUS ACTS; DAY AND NIGHT.

12 WORLD'S CHAMPION WRESTLERS, INCLUDING JOE STECHER, ZBYSZKO, HUSSANE; WEDNESDAY, THURSDAY, FRIDAY NIGHTS

TEN-ACRE PAY SHOW WONDERLAND.

HARNESS RACING—SEPT. 9, 10, 11, 12.

AUTOMOBILE RACING—SEPT. 13 AND 14; WORLD'S FASTEST DRIVERS AND CARS.

STATE FAIR EDUCATES, INSPIRES AND ENTERTAINS ON BIGGEST POSSIBLE SCALE.

DAYS 50 Cts. NIGHTS 25 Cts.
NO WAR TAX.

New York Butter Market

NEW YORK CITY, JULY 30:—Quotations on butter, much to the surprise of all dealers, have undergone practically no change for a week. In spite of that fact the market has been decidedly weak. Large quantities of butter continue to be stored up in local warehouses and private boxes and distributing trade is very quiet. The factors which tend to sustain the present high quotations are the dry weather in the Middle West and the universal rapid shrinkage in make. Because of the hot wave throughout the dairy sections of the country the quality of the butter received continues to be much below normal. That, too, has a tendency to sustain the present prices of butter, especially of the higher grades.

It does not seem reasonable with the accumulations of stocks growing larger and larger that the present prices can prevail for any considerable time. Unless something happens to clear out the accumulations prices must fall. It would be contrary to the law of suply and demand if they did not. To be sure, the army and our allies are using varying quantities of butter and it may be that through those agencies the present prices may be maintained. With the passing of one more week the situation should be cleared up to a considerable extent.

Today's quotations are as follows: Extras (92 score), 44¾@45c; higher scoring than extras (93 score or above), 45¼@46c; firsts (88 to 91 score), 43½@44½c; and seconds, (83 to 87 score), 41½@43c.

New York. W. B. LIVERANCE.

Regarding Threshing Prices

Regarding prices charged for grain threshing this season, the U. S. Food Administration emphasizes that its chief interest in threshing operations is the conservation of cereal grains by efficient operation of threshing machines. The Food Administration has not fixed nor has it authority to fix prices which threshermen shall charge for their services.

It has suggested, however, that the county threshing committees now organized throughout the country hold meetings at which both threshermen and farmers are represented. Acting merely in an advisory capacity these committees have assisted in formulating fair charges based on local methods and conditions. Lack of uniformity in threshing operations makes the establishment of any single price over a large territory impracticable and unjust. In some areas threshing from the stack is the customary practice, while in others the grain is hauled directly from the shock to the threshing machine. Sometimes the thresherman furnishes the entire crew, but more often farmers supply the majority of men. The kind of grain to be threshed, local labor conditions, and meals for the threshing crew are other considerations.

It is believed that the county threshing committees are in the best position to act as voluntary tribunals in arriving at threshing charges satisfactory to all concerned. A large number of threshing committees have already acted as intermediaries between threshermen and farmers, with encouraging results.

Receipts of cheese during the week ending July 27 were as follows: Chicago, 1,862,370 lbs.; New York, 1,524,893 lbs.; Boston, 433,837 lbs.; Philadelphia, 703,190 lbs. Wisconsin supplied 90 per cent of the cheese on the Chicago market.



9 Units Sold up to 1907.
36,000 Units Sold up to 1918.

The Correct
Milking Machine Principle

The success of the milking machine as a labor-saving and profit-making dairy equipment has been due largely to the correct principle of the HINMAN Milking Machine.

The early prejudice against the milking machine was natural because of the many unsuccessful experiments with complicated mechanisms. The simple operation of the HINMAN, more than anything else, has helped to overcome prejudice against using a machine on a live animal.

The HINMAN principle has never been changed from the original machine. Over 10 years' experience in perfecting details has resulted in absolute justification of the machine.

To work well, a machine must be simple—simple in construction and simple in operation.

HINMAN MILKER

Proven by 10 Years' Success

This single-unit machine milks easier, milks cleaner, permits changing pails without stopping milking, and keeps each cow's milk separate to weigh out the slackers.

Simplicity Means Low Cost

There are no expensive pipe lines, air tank or complicated pulsating mechanism. Simple combination of vacuum pump (pressure of which can not exceed 15 lbs.) valve chamber in pail cover that cannot wear out, and natural-action teat cups that soothe the cow.
One man with 3 units can milk 18 to 25 cows in an hour. The outfit costs about $225 installed.

Big Catalog FREE

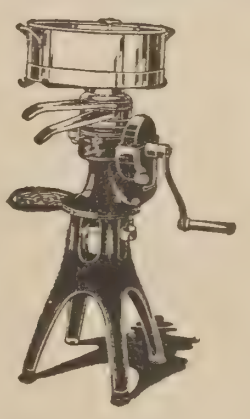
If you milk six cows or more, send for this book. Read about the experience of successful dairymen in the leading dairy sections of the world. It tells why more HINMAN Milkers are in use than all other makes combined. Ask about our free service which guarantees satisfaction.

Hinman Milking Machine Co.,
71-81 Elizabeth St., Oneida, N. Y.
Some territory open for live agents.



Send for this big Catalog Today

Lily and Primrose



NEVER buy a cream separator in a hurry. Your reason for buying is not so much to get a cream separator, as *to get all the cream from your milk, all the time.* It takes time to pick that kind of a machine out of the many on the market.

Send to reputable firms for catalogues, and study them carefully. See which machine requires the fewest and simplest adjustments; which has the best oiling system; which is most sanitary and most easily cleaned; which is so well made that it will undoubtedly do good work for a long time. Go into details, and pick the best two or three of the lot.

Then ask for skimming demonstrations to determine how little cream is left in the skim milk. This is important, because the wrong machine can waste more cream than it is worth, while the right one will put money in your pocket every time you use it.

When you are through you will find that you have bought a **Lily** or a **Primrose Cream Separator** because the **Lily** and **Primrose** will prove to be first on all these counts. We will send catalogues on request, leaving the final decision to your judgment.

International Harvester Company of America
(Incorporated)
CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne

EDITORIAL COMMENT

BOUNTIFUL crops have come to us when we were in need of them. It should be a source of deep satisfaction to us all to read the reports of large yields of wheat, rye, oats, and barley and the promise of a bumper corn crop. The only crop which is short in our country is hay, but with a good corn crop and the silo this can be met without hardship.

CHICKENS CAN PICK UP REST

A group of farmers gathered in front of a hall, where a meeting was to be held, and fell to discussing the rules of threshing as outlined by the U. S. Food Administration. It was understood by these men that the rules simply required the thresherman to do a good job of threshing and to clean up thoroughly after each setting.

"Well," said one of the farmers, "we have never wasted any grain in our neighborhood. We have always been very careful. One of my neighbors was so anxious last year to get all the grain that he ran through the separator about six inches of soil all around and under the machine. After this thorough cleaning up he said: 'Well, boys, never mind what's left, the chickens can pick up the rest'."

MILK LEAFLETS

The U. S. Food Administration issued, some months ago, a four-leaf pamphlet setting forth the importance and food value of milk. About two million copies of this leaflet have been distributed by the U. S. Food Administration and the U. S. Department of Agriculture. This leaflet should be in the hands of every consumer, but the appropriations to these Departments are limited and they have not the funds to print the required number to reach every home.

The U. S. Department of Agriculture is in position to furnish these pamphlets in quantities to dealers, associations, or commercial organizations for the sum of $1.13 per thousand delivered to any address in the United States. Make checks payable to the American Security and Trust Company, Treasurer, (who is handling the funds under this joint arrangement) and mail checks together with order for leaflets to the U. S. Department of Agriculture, Attention Alexander H. Kerr, Special Assistant, Washington, D. C.

We can fully recommend this leaflet and would urge that milk distributors especially avail themselves of this liberal offer. Every school should order enough of these leaflets to give one to every student capable of understanding it. It could profitably serve as a lesson in all classes from the fifth grade up.

FEED LIBERALLY NOW

This is a season for liberal feeding. At no time in the year will cows make larger returns for a plentiful ration than now. What the herd receives at this time largely influences the whole year's production. Not only is the milk flow immediately increased when grain and other feeds are supplied during the period of short pasturage but vitality is maintained, cows are carried to winter quarters in good strength, and production is kept up. He is a man of wisdom who feeds now rather than allowing cows to decline in flesh and milk and then later expending high cost feed in a vain effort to bring the herd back to a liberal milk flow.

V. C. Manhart, tester in an Indiana association, gives pointed proof demonstrating the value of supplementing short pasturage with feed. He says in reporting for the various herds on which he keeps records: "One herd during the month of June only produced 61 per cent of the amount of butterfat they produced in May when fed (grain). One cow when fed six pounds of grain per day increased her milk production from 1,080 lbs. per month to 1,491 lbs., and her butterfat from 27.3 lbs. to 41.7 lbs.

BARLEY AS A STOCK FEED

You may think you know a good deal about barley but let us say that a reading of Farmers' Bulletin 965, on the "Cultivation and Utilization of Barley", by the United States Department of Agriculture, will take that conceit out of you. When read, you will wonder at the amount of information there is contained in this modest volume. Dairy farmers are particularly interested in growing a grain of a high feeding value for cows, calves, and hogs. Let us quote from this bulletin as follows:

"On the Pacific slope where corn or oats do not flourish in equal degree, barley is extensively used as a feed for animals. The horses of California are quite generally fed on rolled barley with wheat, oat, or barley hay for roughage. Barley is the common feed for dairy cows in Northern Europe. The Danes sow barley and oats together in the proportion of one peck of barley to two of oats, the ground mixed grain from this crop being regarded as the best available for cows and other stock. For horses barley is somewhat less valuable than oats. At the Virginia Station calves made excellent gains on barley and skimmilk but corn proved cheaper. In Great Britain and Northern Europe barley takes the place of corn for pig feeding, leading all grains in producing pork of fine quality."

COTTAGE CHEESE RECIPES

The Gridley Dairy Co., Milwaukee, Wis., has issued a pamphlet containing 100 cottage cheese recipes. Some of the recipes were obtained by offering prizes for various dishes made from cottage cheese. This brought to light many recipes not generally known. The pamphlet is distributed free to the patrons of the Gridley Dairy Co. and will be sent to any address in the United States for ten cents a copy.

Too few people have appreciated the food value of cottage cheese and the number of toothsome dishes that may be made from it. Millions of pounds of cottage cheese will be made when the housewife will use a few pounds each week. The manufacture of this cheese is simple, but if there is little demand it is not to be expected that it will come to the market in large quantities. Every effort should be made by milk dealers to teach their customers the food value of cottage cheese, for it is in this way more of this product will be consumed.

The U. S. Department of Agriculture reports a big increase in the consumption of cottage cheese. It says:

"Reports from four western cities where cottage cheese campaigns have recently been completed show largely increased sales of this wholesome meat substitute. The following increased daily sales are recorded: Salt Lake City, Utah, from 375 to 850 pounds; Spokane, Wash., from 100 to 1,800 pounds; Seattle, Wash., from 1,115 to 1,675 pounds; San Francisco, Cal., from 393.5 to 1,624 pounds; or a total increase of 3,969 pounds of cottage cheese sold daily in the four cities.

"This is the result of 10-day campaigns in each city in which the food value of cottage cheese and its use in new dishes was demonstrated by a woman agent in dairying and in which the creameries and milk plants were assisted in making cheese by two representatives from the United States Department of Agriculture and the state agricultural college."

This shows what systematic demonstrations and advertising will accomplish.

YOUNG MEN TO SCHOOL

The call of our country is appealing strongly to our young men. It is ever urging them to offer themselves to the service of Uncle Sam. We commend their spirit and their willingness to offer their all to their country. But we must not forget that this country has other duties than the big job over the seas. We of course must win the war, but in doing this task we must not neglect to prepare for peace and all the complicated problems that will come with it. The war is bringing many changes, some of which will last, while others will disappear as soon as it closes.

Our government sees the necessity of continuing our schools so that we can prepare our young men to meet their duties intelligently. Both President Wilson and Secretary Baker urge that education during the war be not neglected for the more active duties of war. Philander P. Claxton, United States Commissioner of Education, says, in an open letter, that we must not make the mistakes which England and France made during the early years of the war by closing both their secondary schools and colleges. He states further:

"America must come to the rescue. We must be ready to assume all the responsibility and perform thoroughly and well all the duties that will come to us in the new and more closely related world which will rise out of the ruins of the old world now passing away in the destruction of the war. To what extent and how well we may be able to do this will depend upon you young men and women who are this year graduating from our high schools and upon those who will follow in the next few years, to a larger degree than upon any other like number of people.

"Therefore, I appeal to you as you love your country and mankind that you make full use of every opportunity offered by our colleges and other institutions to gain all possible preparation for the mighty tasks that lie before you, possibly in war and certainly in peace. To you comes that call clear and strong as it has seldom come to young men and women anywhere in the world at any time. For your country and for the world—for the immediate and the far-reaching future, you should respond."

Young men under the selective draft age should consider this appeal and put forth every effort to meet it. Not only our country but the whole world is going to need trained minds to guide its destinies.

CLOVER AND ACID

Much of the clover killed out last winter in all parts of the country, but some fields escaped and produced large crops of hay. We have observed unusually heavy fields of clover close to fields where the clover was killed. These fields were subjected to the same rain and snow falls and to the same freezing and thawing. On adjoining farms one field of clover lived and the other died. Why?

Plants like animals feed and like animals, too, they must be provided with environments in keeping with their natures. Domestic animals require protection from the rigors of winter and so do some plants. It is impractical to house all plants as we do our animals, but it is possible to provide for them an environment which will protect them from death.

In growing both clover and alfalfa it is necessary to have the soil in good physical condition; well drained, full of plant food, and sweet. When plants are properly fed and given the right kind of an environment they grow strong and are capable of resisting severe winters. Clover winter-kills, at times, on soils in good physical condition and in a high state of fertility, but run-down soils, especially if acid, are uncertain in the production of clover.

In bulletin No. 213 of the Indiana Experiment Station, the following summary is made concerning the value of lime for growing clover:

Clover will not thrive on acid soils.

Liming is the only practical means of correcting soil acidity.

Three-fourths of the soils of Indiana are acid and in need of liming.

About one-fourth of our soils is so very acid that clover fails almost every time it is sown.

About one-half of our soils is of slight to medium acidity and clover will fail whenever the weather conditions are at all unfavorable.

Only about one-fourth of the soils of Indiana is well enough supplied with lime to enable clover to develop properly.

A liberal application of pulverized limestone or some other form of lime is needed to insure a clover crop on any acid soil.

Wherever clover fails to thrive, the soil should be tested for acidity.

If the soil is acid enough to need liming at all, at least two tons per acre of ground limestone or its equivalent in other forms of lime should be applied.

Ground limestone may be applied at any time, but the best plan is to apply it on plowed ground and disk it into the surface soil.

Lime will often produce immediate increases in grain and other crops, but the greatest benefit derived from it comes through increasing clover and other legumes in the rotation.

Following a good clover crop, it is possible to grow good grain or other crops.

The greater the proportion of legumes that can be turned under, either directly or in the form of manure, the easier it will be to maintain the fertility of the soil.

Lime is not a fertilizer. Manure or fertilizer, or both, should be used in addition to lime.

On seven experiment fields in different parts of the state, ground limestone has produced crop increases worth from $10.50 to $67.70 per acre per rotation of corn, wheat, and clover. The average net profit has been $6.78 per acre per year, and $2.68 per dollar invested.

Fence Jumping

Give me some way to keep some young Holstein heifers from jumping good wire fences.

Goshen, Ala. J. M. M.

A good many years ago a common difficulty in the sections which are now highly developed in dairy farming was that which is here mentioned.

Hoard's Dairyman was commonly asked to recommend measures which would keep cattle from jumping fences. Within recent years, however, this difficulty has been slight. The reason for this is that cattle are better fed these days; they are treated well and kept gentle. They have no reason for jumping fences; they are supplied enough feed within their own confines that there is no reason for seeking other pasturage. It has taken a good while for dairy farmers to improve their methods of management so that their cattle are cared for well enough that they do not give trouble in jumping fences.

We wonder if the difficulty of this correspondent arises from the same source. Are these heifers well fed and well cared for at home? If they are and are still persistent fence jumpers, unless they are highly valuable animals, the easiest way out is to dispose of them. A yoke can be fastened on them; they may be haltered and their heads tied to their front feet; a chain and pole may be tied to their halter or any one of several measures which have been recommended may be adopted, but such animals are nuisances and not worth keeping unless they are extremely valuable for breeding purposes.

Highest Record Animals—In Production and Price

Please give the names of the highest producing Holstein, Guernsey, and Brown Swiss cows together with their records and the names of their owners.

Will you also quote me a few record prices paid for dairy sires and dams?

Wisconsin. L. E. P.

The following is the list of the cows in the five leading dairy breeds which have the largest yearly fat records for their breed:

Breed	Name	Milk, lbs.	Fat, lbs.	Owner
Jersey	Sophie 19th of Hood Farm	17,557.8	999	Hood Farm, Massachusetts
Guernsey	Murne Cowan	24,008	1,098	O. C. Barber, Ohio
Holstein	Duchess Skylark Ormsby	27,761	1,205	J. B. Irwin, Minnesota
Ayrshire	Lily of Willowmoor	22,590	955.56	J. W. Clise, Washington
Brown Swiss	College Bravura 2d	19,460.6	798.16	Michigan Agr'l. College

The highest price ever paid for a dairy animal was recently paid for the Holstein bull calf, Champion Sylvia Johanna, formerly owned by A. C. Hardie, Canada, and sold at the 1918 National Holstein sale at Milwaukee to Carnation Stock Farm, Washington, for $106,000. The highest priced Holstein cow ever sold is Wandemere Belle Hengerveld which was sold at the 1917 National Holstein sale for $18,300 by Leroy Pelletier, Michigan, to Shanahan & Dodd Brothers, New York.

The highest priced Jersey bull which has been sold was Golden Ferns Noble which in 1916 was imported for Mr. Proctor of New York and for which he paid a sum of $25,000. The highest price of which we have record for a Jersey cow is $10,099, which was paid for Sophie's Agnes at the 1918 Hood Farm auction sale. Ayredale Stock Farm, Maine, was the purchaser.

W. G. Jamison and Sons, Wisconsin, recently sold the Guernsey bull, Pencoyd's Golden May Secret, to Edgemoor Farm, California, for the sum of $10,100, the highest price yet paid for a Guernsey bull. At the Langwater Farms (Massachusetts) auction in 1916, Langwater Dairymaid was sold to C. L. A. Whitney, New York, for the sum of $6,150, the highest price yet paid for a Guernsey cow.

Penshurst Farm, Pennsylvania, sold the Ayrshire bull, Penshurst Mischief Maker to Froh Heim Farms, New Jersey, for $6,000 in 1916, the highest price which has been paid for an Ayrshire bull. At the recent Ayrshire consignment sale in Connecticut, South Farm, Ohio, set a new record for Ayrshire cows by selling Pansy's Daughter of South Farm to C. S. Mawhinney, New York, for $4,200.

Sow Thistles

I write you to find out how to get rid of sow thistles. They blossom yellow. They grow all one leaf and above the leaves there's a stem where the flowers grow. There will nothing else grow.

Hayton, Wis. N. S.

In general there are two kinds of sow thistles, annual and perennial. The annual thistle has a pale, yellow flower from one-half to one inch in diameter. The roots are fibrous. It is spread by seeds distributed by the wind and is especially troublesome in cultivated lands where it is difficult to suppress because of its ease of distribution. It can be eradicated by preventing it from seeding in waste places from which the seed is blown into cultivated fields. These places should be cleaned up and seeded to permanent, vigorous grasses which will choke out the thistle. The plant is destroyed if during any one season every single plant can be kept down so that there is no seed produced. Annual varieties of sow thistle are relatively easy to eradicate.

Perennial sow thistles are very difficult to completely clean out of a field in which they have gained much headway. They are distinguished from the annual plant by having bright yellow flowers about 1½ inches across. They are somewhat more vigorous in growth, attaining a stem height of one to five feet, while the annual plant seldom reaches a height of four feet. The perennial stem is hollow, has few leaves, and is branching at the top. The plant is deep-rooted and is propagated both by seed and by large and very vigorous running rootstalks. The most positive differentiation between the two general types of thistles is in the root system, the annual thistle having a simple fibrous root while the perennial plant has running rootstalks.

The perennial sow thistle is one of the most aggressive weeds. It causes great loss in reducing crop yields and is a dangerous weed because of the extreme difficulty in eradicating it. In some sections it is the worst of all weed pests, rendering in many instances whole fields unfit for crop production. In grain, if left undisturbed, the seeds of the perennial thistle ripen before the grain is cut and are carried long distances by the wind. The seed is sometimes carried to new ground in clover and other small seeds.

The fight against this vigorous aggressive pest should be begun as soon as it is discovered and continued vigorously until it is completely eradicated. It will continue indefinitely unless extreme measures are taken and continued throughout the season and from season to season. Make certain that no plant matures either in fields or in waste places so that its seeds are distributed. Small patches of the pest can be cleaned up if all of the roots can be dug from the ground and destroyed. This should be done several times during the season. Fields in which the weed occurs should not be cultivated with implements which will drag pieces of the roots over the fields, as every small piece of the root which is carried to a new part of the field may propagate the weed there. If the weed is started generally over a field, close attention must be given through the season and for a number of years before it can be made certain that the eradication is completed.

A treatment which is recommended as being most effective is to plow lightly just after the hay or grain crop is removed and follow this with frequent cultivation with a broad-shared cultivator. Later in the season the field should be plowed again, this time somewhat deeper. The following spring frequent cultivation should be continued in order to prevent the development of any leaves and to weaken the roots as much as possible. By the middle of June or the first of July rape or any other heavy leaf plant should be sowed in drills rather heavily. Between the drills the ground should be cultivated at short intervals until the ground is completely shaded by the rape. Hand hoeing is better than the use of horse drawn implements. If some plants remain even after this treatment when the rape is cut or pastured off, the field should be fall plowed and put into a hoed crop for the next year, special attention being given to any small patches that may appear. If the field is badly infested at the start, it may be necessary to fall plow after the use of such a crop as rape or buckwheat and continue surface cultivation until late in the fall and spring when such a crop as oats or barley can be sowed to be cut green for feed. After this crop is taken from the field care should be given that no single plants of the thistle are allowed to grow.

This recommendation necessitates a rather strenuous program but if the thistles are of the perennial variety, easily distinguished by careful examination of the roots, it is necessary that immediate and close attention should be given to it, else, by its spreading, it will cause very great loss, both in immediate loss in crop production and in the end in lessened sale value of the land.

Slough Hay for Silage

We are considering building a silo and to fill it with slough hay. This hay is more like prairie wild hay than it is the regular hay that we sometimes get in the swamps, as we have here some of the Blue Joint. Will you kindly give me your advice whether this would make silage or not and, if so, what size of silo would you recommend to build for an experiment? What is the smallest you would consider a profitable one to build?

Creston, B. C. C. O. R.

We are in doubt as to the desirability of building a silo for taking care of the slough grass. There is nothing about the ensiling process which will improve the quality of this feed, but, if it makes good dairy cow feed when green and it is not practical to use it for hay or to have a better silage crop, it might be desirable to use this for succulent feed for cows during the winter months. Weeds, grass, thistles, sunflowers, and many other crops have been ensiled, but we question whether these will furnish the cow with a wholly desirable forage. It is more than likely that in most cases they were ensiled with a good feeding crop and do not detract from its value.

We would not suggest building a silo smaller than 10 feet in diameter and 25 to 30 feet in height. A pit 8 or 10 feet deep and 10 feet in diameter might be built to try out the crop of slough grass. If this proves successful or if decided later to use the silo for other crops, this height could be increased by building the silo above ground.

"Hollow Horn"—Charbon

I wish you would republish a piece that appeared in your columns some months ago on "hollow horn" and "wolf in the tail". Most of these people here believe strong in that, in fact, that is about the first aid to a sick animal.

Can you give any information on what charbon is and its remedy?

Selma, Ala. W. J. E.

The following statement was published in 1916 in Hoard's Dairyman in reply to an inquiry concerning "hollow horn" and "wolf in the tail".

"These diseases are entirely mythical and exist only in the minds or imagination of the ignorant. They date back to the dark ages of barbarism when harmless old women were burned as witches and belief in them is on a par with that in the signs of the Zodiac which have no appreciable or important influence upon mundane affairs or those on the farm. The horns of all adult cattle are hollow. Alleged "hollow horn" commonly is hollow belly from lack of feed. The soft place in the tail is due to pulling apart of the coccygeal vertebrae and ligaments when the cow has caught the brush of her tail on a snag or fence and yanked it loose."

Charbon is the French name for anthrax and is a term sometimes used to describe the disease in southern states. It is not used in the North. The disease is malignant, contagious, incurable, caused by a bacillus, and is communicable to man as well as cattle and other animals. Blood flows from the natural openings of the body after death. Attacks are characterized by high fever and occurrences of swellings which do not crack when handled as do the swellings of blackleg. The disease may successfully be vaccinated against by the trained veterinarian.

A Ration

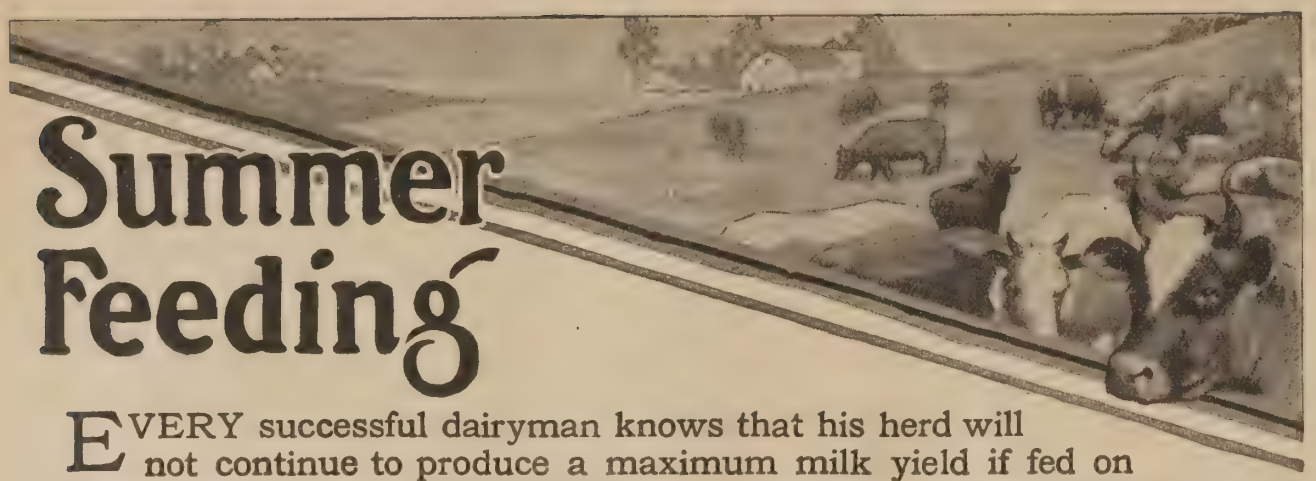
Kindly balance a ration of ground oats, gluten, and cottonseed meal or state other grains necessary.

Barberton, Ohio. W. S.

The most economical basis for a dairy ration is a liberal supply of the right kind of roughages. The first concern in feeding dairy cows should be that they receive during the winter season all of a legume hay, such as clover or alfalfa, that they will eat. Even at last winter's high prices the nutrients in these feeds were very much cheaper than those purchased in concentrates.

In addition to such a hay, cows will pay high prices for corn silage supplied at about the rate of thirty pounds per cow for the average cow. With these two feeds a splendid basis for economical production is had and a concentrate mixture in addition to this to the heaviest milkers should give splendid returns in profits.

The three feeds listed, if made up in a combination, would be disproportionately high in protein. If a high carbohydrate concentrate such as corn meal, hominy, or a commercial feed mixture such as Schumacher Feed can be included, the ration will be more suitable to milk production. We recommend a mixture of 400 lbs. of a high carbohydrate concentrate such as corn, 300 lbs. ground oats, 200 lbs. gluten, and 100 lbs. cottonseed meal; this mixture to be fed to the heaviest milking cows in addition to the roughage at the rate of one pound for each 3 to 3½ pounds of high testing milk produced or at the rate of one pound for each 3½ to 4 pounds of low testing milk produced.



Summer Feeding

EVERY successful dairyman knows that his herd will not continue to produce a maximum milk yield if fed on grass alone. That is why thousands of prosperous feeders all over the country who know how to feed for results, are using Krause Dairy Feed, twelve months in the year—are depending upon it for a large part of their summer as well as their winter rationing.

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Krause Dairy Feed is an exceptional all-year-round feed because it is composed of nine of the best milk producing feed stuffs on the market, carefully and scientifically proportioned to secure a balanced ration containing a protein content of 24% to 25%. It contains Distillers Grains, Gluten Feed, Cotton Seed Meal, Wheat Bran, Malt Sprouts, Wheat Middlings, Brewers Grains, Hominy Feed, Linseed Meal and a small percentage of salt.

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TRADE BADGER MARK

Watson Ayrshire Secretary

The Board of Directors of the Ayrshire Breeders' Association have elected James G. Watson secretary and treasurer of the association, as successor to the late C. M. Winslow.

Mr. Watson is admirably fitted for his new duties. He is a native of Scotland and knows Ayrshires in their land of origin and in their adopted home in America. He is a graduate of the Iowa State College and served Iowa and Missouri as extension dairyman. As manager of the Southwestern Dairy Show in 1916, he was responsible for the success of the undertaking. Since October, 1916, he has had charge of the extension activities of the Ayrshire Association.



JAMES G. WATSON

No one is better qualified to direct association work for Ayrshires. He has a wide acquaintance among the breeders in all sections of the country and is thoroughly informed concerning the red and white breed. His capabilities make him a valuable man to the Ayrshire Breeders' Association. It is to be congratulated on securing his services.

Index Ready

The index for volume 55 of Hoard's Dairyman is ready for distribution. Those desiring this index may secure it for the asking. Address a postal to Hoard's Dairyman Ft. Atkinson, Wis., and state: "Send me index for volume 55." Sign your name and address plainly. There is no charge for the index.

The government has requested that all publications be saving of paper. This is the reason why we are not mailing the index to each one of our subscribers as has been the custom. We shall, however, send the index to every one desiring it.

Hemorrhagic Septicemia

I lost two heifer calves, 5 and 6 months old, from what farmers here claim is poison. They were pastured in an uncleaned lot, with a good deal of swamp in it. They died within a few days of each other, the first one in a few hours. Blood came out through the hide, and they bled profusely from the mouth, had high fever and much pain. The veterinarian could do nothing. Farmers claim they ate a poisonous weed that grows in swamps. One farmer lost five calves some time ago; another three, under same conditions. Is there such a weed?

Tomahawk, Wis. C. H. G.

The cattle in question have died of the acute form of hemorrhagic septicemia, a malignant, contagious germ disease and you should at once keep cattle off all infected pastures and notify your neighbors to the same effect. Meanwhile the state veterinarian, Dr. O. H. Eliason, Madison, Wis., should be notified and arrangement made to have the remaining animals vaccinated.

20 to 25% Bigger Winter Milk Yields



WITH pure, rich milk analyzing 87% water—and with your winter herd *getting only ¼ to ⅓ of their natural water requirement from icy outdoor tanks*, you can see where cold weather cow-thirst is one of the biggest causes of your year-after-year winter milk shortages. With **Simplex Improved Water Bowls** your cows drink "to their hearts' content" day and night. Result—*20 to 25% more milk from every cow all through the housed-in season.* And no more frozen tanks—no tank-heater makeshifts—no more twice-a-day "herding out" periods. *Write for Full Particulars on the Only Drop-Down Water Bowl on the Market.*



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The best northern grown Winter Barley.

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The rye that has nearly doubled Michigan's acre yields and is giving exceptionally good results in many other states. Remember rye cross fertilizes so get pure seed from farmers who have produced it under inspection. For list of those having it for sale write the

Secretary of the Michigan Crop Improvement Ass'n., J. W. Nicolson, East Lansing, Michigan.

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Jersey Breeders' Picnic

HOARD'S DAIRYMAN:—The annual picnic of the Burnett County, Wisconsin, Jersey Breeders' Association was held on June 29th at the home of Mr. A. J. Dufty on the shore of Devils Lake. It proved to be one of the most interesting events of the kind the writer has had the privilege of attending. One of the strong features of their annual picnics is the splendid exhibition of Jerseys they put on and there is marked improvement from year to year. At this time there were some thirty animals exhibited and first prize state fair winners among them.

This is one of the newer sections of the state but one that is rapidly coming to the front in every way. The farmers are co-operating in the true sense of the word. Several years ago bull clubs were formed and good sires purchased, a little later two carloads of pure-bred females were purchased and distributed among the farmers at a great saving in price over individual purchasing. Some of the highest record cows and at least one of the best bulls in the state are now owned in this community. A co-operative creamery is running and butter of the finest quality is made from this Jersey milk and sold as "Special". The buttermaker informed the writer that the only complaint they had heard about their butter was because of too high color, while as a matter of fact the only color in the butter is what the Jersey cows put in.

The program, following a bountiful lunch, was held under the auspices of the Wisconsin Jersey Breeders' Association, the president of which, Mr. Wm. C. Bradley, gave a splendid address on the Jersey cow and the war, making the audience feel that they were headed right and spurring them to further effort. Mr. M. D. Munn, president of the American Jersey Cattle Club, was the principal speaker and in his masterly way gave a very comprehensive view of the dairy situation and the large part the Jersey cow plays in this field. Following this Mr. Munn also gave a Jersey cow demonstration showing the type desired and the strong points of a good dairy cow. County Agent Briggs who, by the way, is one of the most live and progressive of the men engaged in this work, spoke of some of his ideals for the county. Rev. Krugg gave a very stirring patriotic address in which he also touched upon the necessity for better farming and improved live stock. The writer made a few remarks on the state and county Jersey breeders' associations, calling attention to the bright prospects before the Jersey breeder and urging loyalty, support, and co-operation in this work.

We can safely predict that when the thousands of acres of desirable farming lands in Burnett County are taken up, the older counties will have to put their best foot foremost to hold their place in the sun.

CHAS. A. PETERSON, Sec.,
Wis. Jersey Breeders' Association.

Decline in Washington Dairying

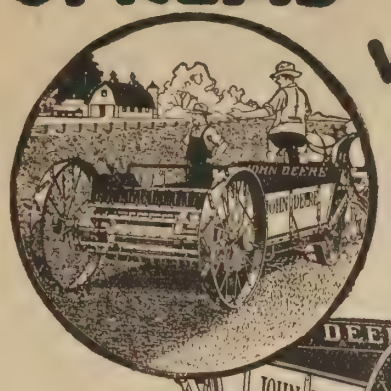
HOARD'S DAIRYMAN:—The dairy business has taken a slump due to a long continued drouth extending from the first of May until the present time. As a consequence pastures are very short and the hay crop is light, and in a very few instances will there be a second crop.

Prices of cows have declined gradually but the farmers are disposing of their surplus stock systematically. Quite a number of cows in the testing association have been sold, but as a rule they have been low producers and the dairy industry as a whole should profit thereby.

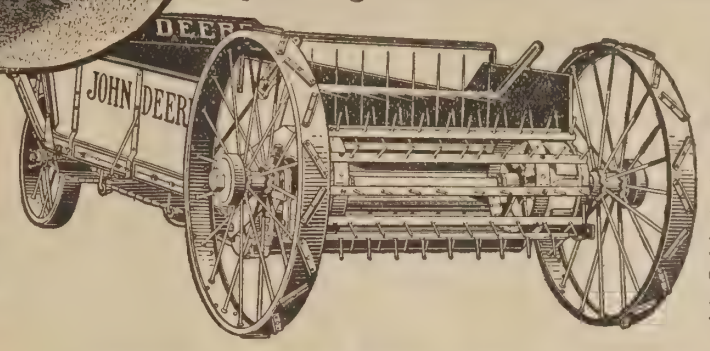
Canadian buyers have been active in this district recently and to date several car lots have been purchased for shipment across the line. They offer a pretty good price but only want sound young cows that have recently calved or will soon freshen.

Washington. H. B. CARROLL.

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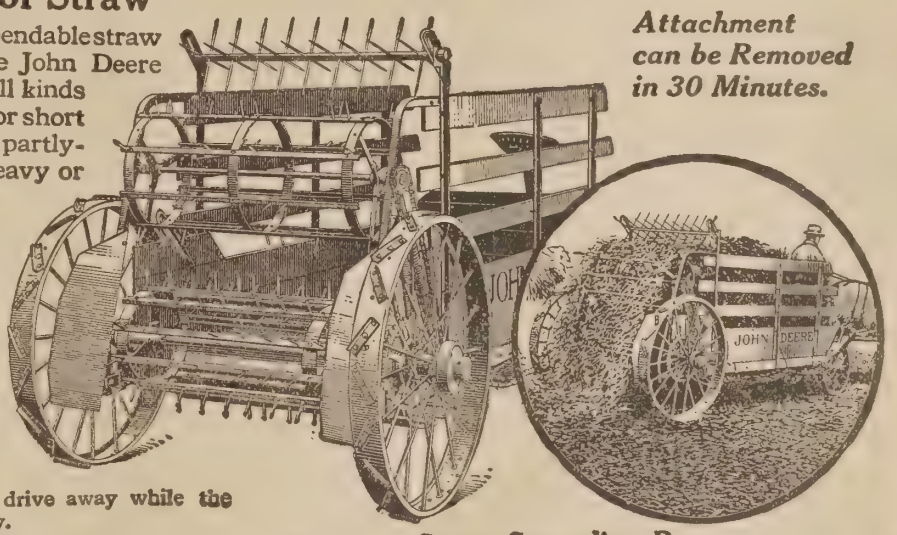
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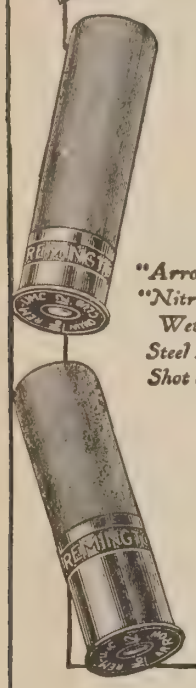
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¶ Unicorn Dairy Ration is the only feed that contains Ajax Flakes.

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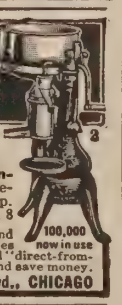
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Nearly 100,000 Galloway Sanitary Separators giving satisfaction everywhere. Four practical sizes. Also build engines and spreaders. 300,000 satisfied customers—some in your vicinity. Close shipping points save freight. My free catalog honestly describes Galloway goods. Get it before buying.

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Only $2 DOWN ONE YEAR TO PAY



$29 Buys the New Butterfly Junior No. 2. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in five larger sizes up to No. 8 shown here.

30 DAYS' FREE TRIAL Earns its own cost and more by what it saves in cream. Postal brings Free catalog-folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

100,000 now in use

ALBAUGH-DOVER CO., 2161 Marshall Blvd., CHICAGO

Dairy Alfalfa

WE ARE SHIPPERS OF HAY THAT PRODUCES MILK

FERSON HAY COMPANY
Kansas City, Missouri

When Writing to Advertisers, Mention Hoard's Dairyman

Organizing for Feed Defense

(Continued from page 67)

tion in the period between 1912 and 1917 was 17,600,000 bushels. The condition of the crop on July 1, 1918, was 79.8 per cent, compared with 84.0 per cent on July 1, 1917, and 83.2 per cent as a 10-year average. The yield per acre is estimated at eight bushels this year, compared with the final yield a year ago of 4.7 bushels and 8.2 bushels as the average between 1908 and 1917.

Probably the most important immediate influence in the linseed cake and meal market is the recent announcement by the War Trade Board of Washington, forbidding the importation of flaxseed to the United States. Students of the flaxseed situation estimate that between 28,000,000 and 30,000,000 bushels of flaxseed are required by crushers each year, while our average production is more than 10,000,000 bushels below this total. The greatest production of flaxseed in the United States was only 25,000,000 bushels. With a crop of less than 16,000,000 bushels this year, and the country having witnessed abnormally small yields in the two preceding years, many crushers doubtless will be forced to suspend operations, and a shortage of linseed cake and meal may be expected. The visible supply of flaxseed at Minneapolis is less than one-third of a year ago.

Argentine usually exports a great quantity of flaxseed to the United States, but, aside from that already in transit or loaded for this country, the War Trade Board will refuse entrance to all shipments. Due to this order, prices for flaxseed advanced to the highest price in history on the Minneapolis Chamber of Commerce recently, $4.60 per bushel.

Linseed meal is selling at approximately $56 a ton in bulk, basis the Minneapolis market. The price a month ago was $44 a ton. Last spring, when accumulations arising from the blockading of the export outlet, supplies were offered as low as $27.50 a ton. A year ago this season the market was on a basis of $28 a ton in Minneapolis.

Unlike former years, the export markets are receiving only a small quantity of linseed and cottonseed cake and meal. The great decrease in exports of these commodities is the result of drastic prohibitions of foreign shipments by the War Trade Board, short crops of both cotton and flax in the United States, and an extreme scarcity of shipping space. No surplus of either cottonseed or linseed feeds has been created as a result of the absence of export business, as crushers never before witnessed such a widespread domestic demand for their products. Because of a shortage of potash, which normally is imported from Germany, fertilizer manufacturers have been forced to purchase great quantities of cottonseed products. Live stock feeders, too, are using far more cottonseed and linseed feed than in normal periods.

A year ago today, the present export restrictions were not yet in effect, but this difference on the new crop, which means relatively more feed for domestic consumption, will be overcome by the import restrictions and light flaxseed crop. Also, peace would be bullish on these feeds temporarily, as the outlets to the big European importing markets would be re-opened.

A shortage of labor will doubtless further restrict the operations of crushing plants in both the South and Northwest. Then, too, it must be remembered that neither the flaxseed nor the cotton crops have been made. The critical periods in the growth of both plants are yet to come, and war feed clubs should keep in mind the

possibility of a reduction in the probable yield because of unfavorable weather conditions. A year ago much cotton acreage that gave hope of a fair crop in July proved a failure because of drouth. A shortage of tank cars for shipment of cottonseed oil from crushers' plants is another probability affecting the operation of the plants. Then, of course, possible scarcity of freight car equipment to move the feed must be considered.

It seems probable that early purchases of cottonseed and linseed feeds, that is, buying when the new crop supplies become available, will prove profitable to war feed community organizations. Present market conditions do not indicate lower prices; instead, the outlook is for higher prices during winter months, or at least a maintenance of current quotations. As already noted, too, the storage and interest charges may be more than offset by the value of the assurance that needs of these feeds are supplied.

Farmers' Excursion to Green County, Wisconsin

HOARD'S DAIRYMAN:—Eighteen of Iowa County's most progressive farmers formed the excursion party which went on a sight-seeing tour into Green County on Thursday, July 11. The trip was made by automobiles, and although the men actually saw but a small portion of Green County's great dairy advantages, they were unanimous in voting that Green County was "different".

The men from Iowa County wanted to see some fancy dairy herds. They saw them at the farms of J. Carl Penn, Herman Gempler, and Arthur Collentine. Mr. Penn's herd is made up of exceptionally good, pure-bred Holsteins, and each and every one a splendid individual. They wanted to see some up-to-date dairy barns. They saw at least one splendid type at the farm of Mr. Collentine.

The men from the northern county wanted to see real alfalfa, and to secure some information on the use and value of ground limestone as a neutralizing agent for soil acidity. They saw alfalfa, a great deal of it, on the farms of W. N. Preston, John Waelti, and T. J. Patton. However, the outstanding feature of the alfalfa demonstration was the superiority of the Grimm variety over the common strains. In the judgment of the visitors, the Grimm scored a knockout over any other variety grown in the county.

The demonstration plots at the Green County Poor Farm plainly showed the value of limestone as a corrective of soil acidity. Here, too, were very good illustrations of other growing crops. Corn high in percentage of germination showed poor growth because of deep planting. Soy beans, planted with corn, are being grown for silage purposes. Fifty-five alfalfa plots of numerous varieties, and with widely varying rates of seeding, are being grown to determine the varieties and rates of seeding best suited to Green County conditions.

Nor were the benefits of the trip limited to knowledge gained by observation. Professors G. C. Humphrey, E. L. Luther, and W. W. Weir, of the University of Wisconsin, gave some exceedingly interesting and valuable talks on different phases of farm improvement. Professor Humphrey talked on "Feeding the Dairy Cow", Mr. Luther on "Farm Marketing," and Professor Weir on "Value of Commercial Fertilizers."

"Green County is different," the visitors said. "It differs mainly in its progressiveness."

Wisconsin. JAS. LACEY.

FEDERAL

One to Seven Ton Capacities

Another FEDERAL

1½ ton Federal in constant service for the Cottage Creamery, Cleveland, Ohio.



Federal Figures For Dairymen!

HERE is the record of a Federal Truck in service for a dairyman at Los Angeles, Cal. The figures tell the whole story.

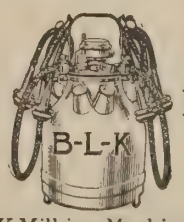
In 32 months it has been driven 40,000 miles at a repair cost of $45. It has been in use every day in the week, carrying 4,500 pounds, and hauling a trailer with 3,000 pounds.

This kind of a record means added profits in the dairy business. It demonstrates Federal stability—economy—and continuous performance.

Write for your copy of "Federal Traffic News" —a magazine for motor truck owners and buyers.

Federal Motor Truck Company,
33 Federal St. Detroit, Michigan.



BURRELL  MILKERS

The B-L-K Milking Machine will solve your labor troubles. Write for free booklet and information.

We handle a full line of supplies for the Dairy and Dairy Farmer. Highest grade goods at lowest prices. Prompt shipments.

N. A. Kennedy Supply Co., Kansas City, Mo.



Running Water

in your Dairy, Kitchen, Pastures—wherever you want it—fresh and cold from the bottom of your well—is yours if you install a

BETHALTO WATER SYSTEM

Can't freeze or get stale or warm. Stays in order and does business. Extremely simple and strong. Easy to install. Write today for free booklet.

SOUTHERN AUTO & MACHINERY CO.
116 ROBERT AVE., ST. LOUIS, MO.

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Wash.	Ferndale	Victor Morgan	June	455	106	49	J. A. Porter
Wis.	Manawa and Ogdensburg	Howard Fidler	July	400	26	56	A. Abraham
N. Y.	Carroll	A. W. Kelley	June	293	60	69.9	H. W. Ploss
"	Chenango Valley	R. J. McEnemy	"	735	37	68.5	Geo. Smith
"	North Chenango	R. H. Taylor	"	442	59	72.5	Walt. Saxton
"	Texas Valley	H. G. Chamberlin	"	481	3	48.1	W. B. Lusk
"	Bovina	J. R. Colegrove	"	712	21	56.4	C. J. Russell
"	Delhi	A. E. Monroe	"	732	29	69.1	H. Jack
"	Franklin	A. C. Hazard	"	523	9	53.5	S. J. Scrambling
"	Pepacton	E. D. Daley	"	540	10	47.8	Karl McCure
"	Erie County	Baker, Ass't Co. Agent	"	211	22	57.4	W. Flint & Sons
"	Malone	J. Wheeler	"	601	31	72.5	R. Wilson & Son
"	Mohawk Valley	R. Quackenbush	"	365	21	63.2	W. A. Bennett
"	Oswego County	W. S. Peck	"	496	22	56.1	R. S. Sponenberg
"	Otsego No. 1	Walter Cornell	"	456			
"	West Exeter	H. H. Carr	"	519	41	57.5	P. J. Watkins
"	Lawyersville	C. J. Kinaman	"	516	62	63.7	D. C. Dow, Jr.
"	First Tioga	G. H. Ball	"	452	22	68.1	J. Smith & Son

Association Notes

Manawa and Ogdensburg, Wisconsin:—Two boarder cows have lately been sold for beef and one pure-bred bull purchased in the association. Milks sells for $2.20 per hundred pounds, a test of 4% being required. The creamery pays 48c for fat and the cheese factory, 49c. Milk retails for 10c, butter for 45c, and cheese for 42c, Oats costs 85c per bushel; corn bran, $48 per ton; and wheat bran $40.

Meadville, Pennsylvania:—We have lately held a very successful testing demonstration in the Townville high school. In ten months of this testing several of the old members exceeded the record made by their herds for the twelve months of the first year. Milk sells for $2.10 per hundred pounds, a test of 3.5% being required. The cheese factory pays 47.4c per pound for butterfat. Feed prices are as follows: Big Q, $62 per ton; corn meal, $68; bran, $50; cottonseed meal, $60; oil meal, $63.

North Chenango, New York:—The past month has been a very successful one in the North Chenango Association. Most of the dairies have done fine work as shown by the high producing cows, over fifty producing over twelve hundred pounds of milk or over forty pounds of fat.

Ten cows were sold last month, none were bought in, and a few very fine two-year-old heifers have freshened. A few more carloads of feed have been bought by members of this association at what seems to be a very reasonable price. Many of them are beginning to feed grain now and most of them mix their own rations at quite a saving in price and with better results. All of the members are using pure-bred sires and all but two own them. There are a few very fine and valuable bulls in this association. Ten members of the nineteen are using milking machines at a saving of much time and labor.

In the past month in this community the following prices prevailed: Milk sold at shipping stations for $2.40 per 100 lbs. plus 4c per point above 3 per cent. Milk retails in local urban districts for 10c per quart, butter for 50c per pound, and cheese for 30c per pound.

Otsego No. 1, New York:—About one-half of the farmers are feeding grain during the flush of feed and will get paid for it in the long run. My experience with three years' testing is that the cows hold up better on milk and do not lose flesh as they are apt to if not grained.

In the past month in this community the following prices prevailed: Milk sold at shipping stations for $1.60 per 100 pounds plus 4c per point above 3 per cent. Milk retails in local urban districts for 12c per quart; butter, for 45c per pound.

Minnesota Record Herd

The highest producing herd in June in Minnesota associations was that owned by Wm. Martig of the West Concord Association. The herd of 20 cows averaged 1,260.3 lbs. milk, 41.8 lbs. fat. About 450 herds from 15 different associations were reported.

Impotent Bull

What would be the trouble when a bull is a slow and poor breeder? We have a bull coming 2 years old and he is getting to be a poor breeder. He has plenty of exercise and he has fully a half acre for pen. He is in good condition, but not fat. We feed him clover or alfalfa hay, but never more than what he can clean up. We fed him a little corn and cob meal and bran mixed last winter and now we feed a little bran. We mostly used him for young heifers and a few cows last winter and we never gave him more than about three or four a month. He is also getting very mean. What would you suggest to do in this case?

Florissant, Mo. J. W.

Put the bull to work in harness or a treadpower. If that is impossible, let him butt at a big wooden block or smooth stump hung by chains from an overhead beam in his paddock. Feed oats and bran in addition to good hay and green feed. Better have him dehorned if he is mean. If he is not a confirmed masturbator he should improve under this treatment.

The Holstein-Friesian World and the Black and White Record announce a merger, effective August 1, 1918. At that time both organizations will unite in building a bigger and better Holstein-Friesian World.

DAIRY MARKETS

CHICAGO, Aug. 1—Butter—Creamery, extras, 43½c; standards, 43½@43¾c; dairy, firsts, 41@43c; seconds, 39½@40½c.

Eggs—Ordinary, 35@36c; firsts, 37@37½c.

Cheese—Twins, 24@24½c; Young Americas, 25½@26c.

MILWAUKEE, Aug. 1—Butter—Creamery, tubs, 43½@44c; prints, 44½@45c; extra firsts, 42@42½c; firsts, 39@40c; dairy, fancy, 40c.

Eggs—Current receipts, 37@38½c; dirties, 32@33c; seconds, 29@30c; checks 28@29c.

Cheese—Twins, 25@25½c; Daisies, 24½@25c; Longhorns, 26½@27c; Young Americas, 26c; Brick, new, 28@29c; Limburger, new, 1 lb., 27c; 2 lbs., 26c; Swiss, loaf, 42@44c; block, 32@34c.

NEW YORK, Aug. 1—Cheese—Firm; state milk, common to specials, 21@25¾c; skims, common to specials, 5@20½c.

Butter—Quiet and easy; receipts, 7,930 lbs.; creamery extras, 44¾c; state dairy tubs, 36@45c; imitation creamery, firsts, 37@38c.

Eggs—Quiet; receipts, 15,289 cases; nearby white fancy, 55@56c; nearby mixed fancy, 38@47c; fresh firsts, 40@47c.

30 COWS WANTED

MUST BE HOLSTEIN

well marked, milk 40 pounds at best: fresh before December 1st. State age and price.
W. F. COOK, GRAY'S LAKE, ILLINOIS.

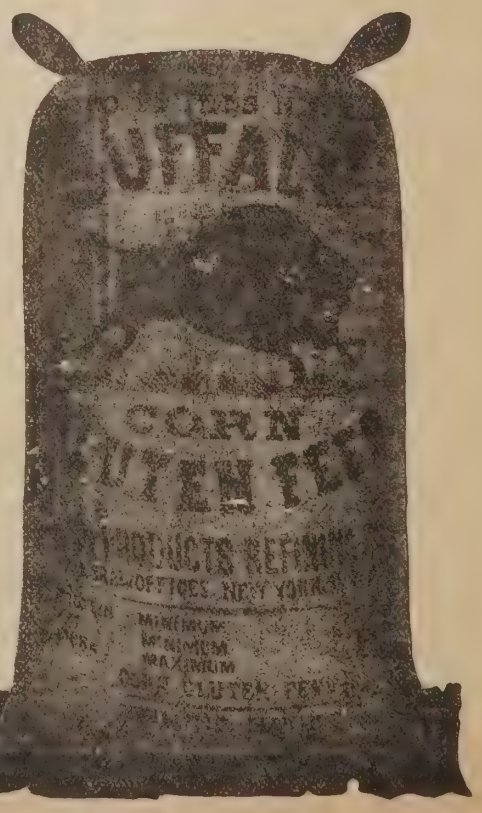
Feed Well in Flytime

When the good pasture of early summer is baked and tramped out—and the flies are bad—and it's dry and hot—

That is the worst time of the whole year for the cow.

Then is when so many good dairymen feed their cows

BUFFALO
CORN GLUTEN FEED



The cows, when they are back in the barn at hard work next year, will pay well for all the Buffalo Corn Gluten Feed they get this summer.

Not only that, but they pay well for their summer Buffalo Corn Gluten Feed right along as they get it. It keeps them up in production in the hot season.

We know a great many very good dairymen who feed Buffalo almost as heavily in summer as they do in winter.

And when men follow that system for thirty years it surely must be a paying proposition.

NOTICE—It would pay you to return to your dealer any feed bags bearing our brands which you may have in good condition.

CORN PRODUCTS REFINING CO.
CHICAGO NEW YORK

New York Holstein Picnic Sale

HOARD'S DAIRYMAN:—Holiday pastime was evidently the motive that attracted a large portion of the crowd of more than 3,000 persons who attended the annual picnic sale of the Otsego County (New York) Holstein Breeders' Association on the Fourth of July. The day was perfect, accommodations comfortable, Governor Charles S. Whitman spoke, a band furnished entertainment.

To Holstein breeders, the really important part of the program was the sale of 57 head of selected animals consigned from prominent local dairies. The total sum received was $11,735, making an average of $205.87. A few low priced male calves without special record backing are included in this report, so the average price of mature cows was considerably higher. The central figure in the sale was Otego Valley Christmas Belle who, on her sixth birthday last Christmas, gave 93 lbs. of milk. This was during her test when she made a 7-day record of 24.02 lbs. of fat from 613 lbs. of milk. She was bred and consigned by Leon J. Potter and went to the large dairy farm owned by Linn Kinne. She sold for $1,075, and her four-year-old daughter brought $300. Segis Aaggie Ormsby Lyons, of the line of breeding of the Great White Heifer and consigned by Ernest M. Johnson, sold for $500. Several cows ran around $300 each.

Bidding lacked enthusiasm on many of the likely young cows with excellent blood lines, but without marked record backing. Such stock is not uncommon, and the demand is just now somewhat slack owing to light hay and failure of the corn crop in some parts of central New York. Prices on a few such cows was as low as $145, the value placed on superior grade cows last spring. Varying uncertainties of the milk market tend to panicky conditions, while close money weakens speculation of small breeders. Spectators overbalanced bidders throughout the sale, but keen interest was felt by most persons who packed the large tent. C. F. MEYER.

Otsego County, N. Y.

California Milk Prices Go Up

HOARD'S DAIRYMAN:—The milk producers of Alameda County, California, have notified the distributors that, effective August 1, 1918, the price of milk will be raised from twenty-five cents per gallon, the present schedule, to thirty-one cents. Since this means that the distributors will have to raise the price to the consumer, they have asked State Food Administrator Merritt to take up the matter and try to adjust the difference. They claim the producers are making the raise without the authority of the federal food administration, and the producers claim they do not need governmental authority because they do not come within the class of firms required to take out government licenses.

The retail price of milk in Alameda County is now somewhat lower than in most eastern cities.

Across the bay, in San Francisco, the producers and distributors, acting in conjunction with the federal food administration, have been working on plans to cut the cost of distributing milk, and it is reported that they have devised a plan to do away with duplication of routes by different distributors. It is probable that the food administration will be asked to do something along the same line in this county.

California. L. L. DE BRA.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.



Don't run the risk of a possible feed shortage next winter due to shipping difficulties—be on the safe side—order your feed NOW and be sure that you order feeds that meet your requirements best. Actual feeding results and low cost make it decidedly to your advantage to stock up on the "old reliable"

SCHUMACHER FEED AND BIG "Q" DAIRY RATION

SCHUMACHER FEED has time and time again proved its merit in record making, record breaking long distance milk and butter production tests—it has to its credit (fed with high protein concentrates) more World's Champion Milk and Butter Records than all other feeds combined. SCHUMACHER FEED is a grain ration that supplies ENERGY — STRENGTH — STAMINA and ENDURANCE that cows must possess if they are to be big producers. SCHUMACHER FEED is also an ideal feed for dry cows, horses, hogs and growing stock.

15 Cents Apiece for Jute Sacks

Your dealer will pay you 15 cents apiece for empty jute sacks of our brands returned to him in good condition.

BIG "Q" DAIRY RATION is a protein ration of the highest quality made on the modern idea of "highest quality" of protein content—a wonderful milk producer.

By having a liberal stock of SCHUMACHER FEED and BIG "Q" DAIRY RATION you will be independent of a feed shortage and be assured of best results from all your stock because SCHUMACHER FEED and BIG "Q" are splendid result-producing feeds.

Also as a price consideration it is to your advantage to stock up on these feeds. Our liberal allowance of 15c each for jute sacks of our brands makes SCHUMACHER FEED $20 to $25 per ton cheaper than good corn and many dollars per ton cheaper than hominy feeds.

Don't delay — order NOW. Your dealer can supply you NOW — he may not be able to later. "A WORD TO THE WISE IS SUFFICIENT."

(96) **The Quaker Oats Company** Address Chicago, U. S. A.

Is It a Matter of Luck

that the Dairy Colleges and Dairymen from coast to coast use

Wyandotte Dairyman's Cleaner and Cleanser

or is it rather because they find this cleaner is especially suited to their purpose?

Order from your dealer. It Cleans Clean.

The J. B. Ford Co., Sole Mnfrs.,
Wyandotte, Mich.

Thousands of men have chewed Real Gravely Chewing Plug for twenty-five years and more. And every time they have tried some other brand it made them think more of Gravely than ever.



Peyton Brand
Real Gravely Chewing Plug
10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Junior Farmers at the State Fairs

How many of you juniors are going to exhibit at your state fair this fall? A good many of you should. The management of your state fair has very likely made special provisions for junior farmers. In some cases they even pay the cost of the exhibits to and from the fair, and give the boys a chance to stay during the entire fair at practically no cost to them. They want you there and you should want to be there.

Why? In the first place, a good state fair is an education. There is no better place to find out just what other dairymen and farmers are accomplishing. This is particularly true if you are exhibiting. Then, you can hardly help but see where the other fellow's calf is better than yours and if you're wise you'll try to find out why he was more successful. There is a chance for you to learn a good deal and of course there is also a chance to win some of the prize money as well as to have a very good time.

Be an exhibitor this year if you can. If not, go anyway, keep your eyes open, find out about the junior farmer exhibits, and plan to have a share in that department next year. It will be worth your while.

Wisconsin Juniors at Their State Fair

There should be more boys and girls at the Wisconsin State Fair Sept. 9-14, as exhibitors, than ever before and present indications are that there will be. Approximately $3,000 is offered in prizes and the many classes of exhibits open to junior farmers makes it possible for almost every Wisconsin boy or girl to be an exhibitor.

This year there are nearly 1,000 young people feeding dairy calves and at least 100 of them will exhibit at Milwaukee. There are 1,100 pig club members and a good proportion of these will be there, too. A new exhibit in the live stock department will be the sheep brought in by members of the sheep clubs, which were organized during the past winter and spring. Five thousand young people belong to poultry clubs in the state and they too will be well represented.

In addition to the live stock contests there will be classes for field and garden exhibits, beef calves, and samples of work done by sewing, baking, and canning clubs. In short, there will be a chance for every one, whatever he or she may be interested in.

Not the least interesting or important of the features planned for junior farmers is the camp for boys and girls. The object of it is to furnish meals and lodging for the boys and girls who come to the fair as exhibitors or contestants. It will be under the direction of the Young Men's and Young Women's Christian Associations with W. H. Wones, state Y. M. C. A. secretary, in charge. The price of board is seventy-five cents a day for those who remain more than two days and one dollar a day for those who are in camp two days or less. Each camper furnishes his own bedding. Here is his daily program:

A. M. 6:30—Reveille: rising call.
7:00—Breakfast.
7:30—Brief devotional exercises.
8:00—Camp duties.
8:30—Excursion to some department of the fair.
9:30—Preparation for contests.
10:00-12—Contests.
P. M. 12:30—Dinner.
1:30 to 5:00—Contest work, sight seeing at the fair or excursions to Milwaukee under special supervision.
5:30—Supper.
6:00 to 7:30—Group games.
7:30—Evening entertainments.
9:30—Tattoo—Get ready for bed.
10.00—Taps: Lights out.

Mr. T. L. Bewick of the State College of Agriculture, Madison, is superintendent of this Boys' and Girls' Department.

For Minnesota Boys and Girls

Minnesota always has a strong state fair which includes an excellent department for junior farmers. This year, Sept. 2-7, this is expected to be an especially strong feature, better than at previous fairs.

One of the best of junior exhibits will be that put on by pig club members. These clubs are strong in that state and for several years the members have been showing very good pigs at the state fairs. This year the boy or girl owning the winning pig in each of the counties in the state where contests are held is to enter the state fair competition and one of the fine things about it is that the State Fair management pays the transportation charges to and from the fair and cares for the pigs while on the grounds.

Another of the features is that to be put on by the corn club members. Every boy finishing in the "Acre Yield Corn Contest" is eligible to enter a 10-ear sample of his corn in this contest and try for a share of the $300 that will be distributed as prize money.

The boys who were winners in the pig, corn, or potato club contests have a chance to be included in the Farm Boys' Camp at the fair grounds where they will have an excellent opportunity to study the best and most recent products of scientific and practical achievement in agriculture in the state of Minnesota. It is expected that there will be 172 boys enrolled at camp this year. A similar camp will be established for the girls, winners in bread making contests in each county.

In addition there will be a chance for junior farmers to exhibit samples of vegetables, fruit, etc.

Mr. T. A. Erickson, University Farm, St. Paul, has charge of this work.

At the Iowa State Fair

Every branch of Iowa club work will be represented at the State Fair, August 21-30. Premiums amounting to $3,200 have been arranged for, so that there is an incentive for every junior farmer belonging to any of these clubs to exhibit at the fair.

This is the third year for the Iowa Beef Club exhibit at the State Fair. The first year, 1916, opened with thirteen entries and last year fifty-nine calves entered by fifty-two club members from twenty-four different counties competed for the $450 offered in prizes. This year there will undoubtedly be at least 150 calves entered in this contest for which a total of $630 in prize money is offered.

The pig exhibit planned for this fair is the first that has been conducted under the direction of the state club department. There are two classes in this pig contest, both of them open to all Iowa boys and girls enrolled in the pig club work. In the first class only pure-bred pigs, Poland-Chinas, Duroc-Jerseys, Chester Whites, or Hampshires, can be entered. The second is open to pure-bred or grade pigs of any breed. One thousand dollars in prizes is offered to the winners in these classes.

In addition to these special classes for stock entered by the boys and girls of Iowa, these junior farmers, can enter their calves or pigs in the regular open classes in direct competition with other breeders. Last year some of the beef club members did this and succeeded in carrying off $180 of the prize money.

At the close of the Fair a public auction sale is to be held for the benefit of those club members who may wish to dispose of their calves or pigs. Last year this feature of the exhibit proved to be very satisfactory, forty-five of the fifty-nine calves being sold for an average of $14.63, considerably above the market price.



A. J. HESLER, SUPERVISOR, AND GLEN REED OF INDIANA, A PIG CLUB MEMBER, REMOVING THE SHARP TUSKS FROM THE MOUTH OF A PIG.

A new feature of the State Fair work this year will be the judging contest of five club members from each county. From these contestants a champion team will be selected to represent Iowa in the Interstate Fair at Sioux City to compete with teams from other states.

Nor is that all. There are classes for canned products put up by members of canning and garden clubs for exhibits of handicraft work, and exhibits from the poultry, corn, cooking and sewing clubs. In short, there is a chance for every Iowa boy or girl club member.

Special privileges and arrangements are made for those exhibiting at the Fair. Camping accommodations are furnished by the Fair Association under the supervision of a representative from the Agricultural Extension Department.

Prof. E. C. Bishop at the State Agricultural College, Ames, Ia., has charge of this work.

Boys' and Girls' Clubs at the Kansas Fair

Boys' and Girls' club exhibits this fall will stand forth as true patriotic emblems for Kansas. At both of the state fairs and also at the International Wheat Show at Wichita, conservation and production in nearly every form will be exhibited.

The pig, poultry, garden, bee, sorghum, baby beef, and corn clubs will show their very best results for Uncle Sam. Garden parades with hoes and rakes will help to express the true spirits of the "Garden Guards".

The mother-daughter canning clubs will combine their efforts and send "100-quart" exhibits of fruits and vegetables, emphasizing co-operation and conservation rather than a tendency toward individual work and novelties. This blue ribbon exhibit in canning will carry home $50 for its club.

A most economical and practical exhibit of war breads will be prepared by the bread club girls and boys, thus showing what they can do with wheat substitutes.

The garment making girls have spent much of their time on Junior



MILK CARRIERS IN MEXICO

Use Your Ford!

to FILL YOUR SILO

Pump Your Water, Grind Your Feed, Saw Your Wood

—and for all other farm work.

12



Ward Work-a-Ford

Gives you a 12 horsepower engine for less than the cost of a 2 horsepower. The Ford car has a powerful engine—it will outlast the car—and you might as well save your money and use it to do all your farm work. **No wear on tires or transmission.** Hooks up in 3 minutes. No permanent attachment to car. Cannot injure car or engine.

Friction Clutch Pulley on end of shaft. Ward Governor, run by fan belt, gives perfect control. **Money back if not satisfied.** Ask for circular and special price.

THE WARD CO., 2012 N St., Lincoln, Neb.



SUMMER PLANTING RECOMMENDED FOR LYMAN'S GUARANTEED GENUINE GRIMM ALFALFA

Its superiority proven by agricultural college tests and by actual field tests all over the country. Does not winterkill like other varieties. Heaviest yields. Highest in feeding value. Be sure to plant genuine Grimm. Certificate of genuiness furnished with each lot of my seed. Book "How I discovered the Grimm Alfalfa" and seed sample free.

A. B. LYMAN, Grimm Alfalfa Introducer
Alfalfadale Farm, Excelsior, Minn.

Get Cash

For Your Empty Bags

Don't throw away a single bag—they're worth money to you. Prices are way up now. C'sh in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write quick, stating what you have. Address

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57 Dock St. St. Louis, Mo.

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TIRES 1/4 LESS

There's a way to obtain high-grade tires at manufacturers' prices. Write and we'll tell you. Freshly made tires, every one

GUARANTEED 6000 MILES

(No seconds.) All sizes, non-skid or plain. Shipped prepaid on approval. This saving on guaranteed quality will open your eyes. State size tires used.

SERVICE AUTO EQUIPMENT CO.
964 Traders Bldg., Kansas City, Mo.

CORN HARVESTER Self Gathering for cutting Corn, Cane and Kaffir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Sold in every state. Price only $25 with fodder binder. The only self gathering corn harvester on the market, that is giving universal satisfaction.—Dexter L. Woodward, Sandy Creek, N. Y., writes: "3 years ago I purchased your Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Huggins, Speermore, Okla.: "Works 5 times better than I expected. Saved $40 in labor this fall." Roy Apple, Farmersville, Ohio: "I have used a corn shocker, corn binder and 2 rowed machines, but your machine beats them all and takes less twine of any machine I have ever used." John F. Haag, Mayfield, Oklahoma: "Your harvester gave good satisfaction while using filling our Silo." K. F. Ruegnitz, Otis, Colo.: "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.

PROCESS MFG. CO., Salina, Kansas.

WITTE Kero-Oil Engines



Twice the Power at Half the Cost

Sizes 2 to 30 H-P.—Select Your Own Terms—Direct-from-Factory prices. Write your own order—**Save $15 to $200.** Prompt Shipment. For new catalog, "How to Judge Engines" FREE—by return mail, Postpaid.

Money Back if not satisfied on my New 90 Day Engine Offer

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1640 Oakland Ave., Kansas City, Mo.
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Kill All Flies! They Spread Disease

Placed anywhere, **Daisy Fly Killer** attracts and kills all flies. Neat, clean, ornamental, convenient, and cheap. Lasts all season. Made of metal, can't spill or tip over; will not soil or injure anything. Guaranteed effective. Ask for



Daisy Fly Killer

Sold by dealers, or 6 sent by express, prepaid, $1.00.

HAROLD SOMERS, 150 DeKalb Ave., Brooklyn, N. Y.

Red Cross work as well as club work and will undoubtedly have an unusually good display this season.

Besides the regular exhibits, the Wichita International Wheat Show will offer a special attraction in the way of demonstration contests. This is chiefly a war time measure. Twelve winning teams, six canning and six bread, will meet at this fair to determine the victors. Baby Bonds will form the prizes and the enthusiasm and interest thus aroused will certainly make boys' and girls' club work a never-to-be-forgotten feature of the fair.

The dates for the Kansas fairs are as follows: International Wheat Show—Wichita Fair, Wichita, Sept. 30 to Oct. 12; Kansas Free Fair, Topeka, Sept. 9 to 14; Kansas State Fair, Hutchinson, Sept. 14 to 21.

R. M. MATEER,
Emergency Assistant State Club Leader, Kansas.

Junior Letters

Hoard's Dairyman Juniors:—Please excuse me for not answering your letter before this but I have had to do a good bit of work. I sold my Angora goat and got $11.50 for her, but I still have my rabbit, pig, and guinea pig. My guinea pig had 4 little ones yesterday and they look as if they were a month old. I feed them a little green alfalfa, some hay, and a pan of milk each day. My pigs are also doing fine. I never saw pigs eat so much. In the morning I feed them 2 quarts of bran, 1 quart of chop mixed with 2 gallons of milk and 3 quarts of water, and a wheel-barrow full of green alfalfa. At noon I give them a bucketful of slop and at night the same as in the morning. I do not take much interest in my rabbits but all I feed them is some green alfalfa. Wish that some of the juniors would write to me. My address is Rocky Ford, Colorado, R. R. No. 2, Box. 100.

Gilbert J. Miller.

Hoard's Dairyman Juniors:—It has been a very long time since I wrote you. Last year it was so wet that we did not get any corn planted till the 16th of June, then it all got frozen last fall and wouldn't grow or keep for this summer. Good seed corn shelled and graded was worth $8 a bushel.

I passed the seventh grade last year and this year I passed the eighth grade and received my certificate the 22nd of May at the county superintendent's office. There were 74 eighth year graduates in my county. I want to go to high school next year.

We have 30 acres of corn planted and we want to plant about five acres of cowpeas. I helped papa haul alfalfa hay yesterday. We got one load apiece from our bottom about 12 miles away and we want to get another load apiece tomorrow. Then we will have to cultivate some corn because the ground is very dry. We have not had any rain for some time. It is very hot today.

I read some of the letters of the juniors this morning. As a junior asked us to tell him what to do for chickens that eat eggs I will say we feed our chickens pearl grit or ground mussel shells and as food we feed them chowder and scratch feed.

I have one cow and papa has twelve cows and eight heifers. We also have three male calves for sale.

As my letter is getting long I will close. My address is R. F. D. 2, Box 12, Effingham, Ill.

Samuel D. Ramsey.

Hoard's Dairyman Juniors:—I hail from the most northern state in the Union, a state that is famous for bears. In your letter you asked me if all the grade calves were being vealed? Men are raising their calves here this summer so if there is a light hay crop calves will be cheaper. I live on a 400-acre farm. We have two farms, one is rented for three years.

Papa gave me a calf this morning and I am going to work on the farm to pay for it. It is a heifer and I am going to raise it for a cow. Her name is Lucy. She is not quite six weeks old now and quite large.

We have four heifer calves we're going to raise. Now, for stock we have eight cows, four calves, one pig, and three horses. The pig is a month old. We have taken in three horses to pasture and turned out one of ours.

I am going to have a garden this year. Last year I got a prize of 50 cents for my garden.

Maine. C. A. Woodrow.

Hoard's Dairyman Juniors:—I received your letter and will be glad to answer it.

We have a pure-bred Jersey bull. He is about 2 years old now. My father thinks the Jerseys are good milk cows so he expects to get all Jerseys. I bought a pig from my father for $6. I have built a house and a pen. I feed him three times a day. He gets milk, feed, and water. I am going to sell him.

I joined the potato club. My plot of land is 27 ft. by 95 ft. Yesterday I hoed my patatoes. We have hoed our corn once but expect to hoe it again. In my garden I have carrots and peas. All is growing nice.

Wisconsin. Mandly Hendrickson.

Specifications

Rating—Draw-bar H.P. 15 Belt H. P. 25.
Engine—Lauson-Beaver, 4 1-2 bore, 6 in. stroke.
Normal speed—950 R.P.M
Belt Pulley 12 in. by 8 in. 475 R. P. M.
Ignition—Dixie Magneto.
Carburetor and Fuel system—Kingston Gravity feed.
Cooling system—Perfex Radiator.
Speed, M.P.H.—low 1 3-4; plowing 2 1-2; high 2 1-2
Wheelbase—86 inch.
Total weight, less fuel, water oil and lugs 6000.

The LAUSON 15-25

DUST PROOF-ALL GEARS ENCLOSED

At a recent demonstration out West only two, wheel type tractors went up a 33% grade with all plows in the ground. One of these was the Lauson 15-25. All the leading makes were represented.



For twenty-three years the John Lauson Manufacturing Co., has been making farm engines and has been making them so well that their reputation is second to none.

This experience has enabled them to build the Lauson 15-25 Kerosene Tractor so that it is years ahead of its competitors.

It has all the mechanical refinements of the best engineering practice combined with a ruggedness that makes it stand up under the hardest kind of service without annoyance of expensive breakdowns. **Durability** is built into the Lauson.

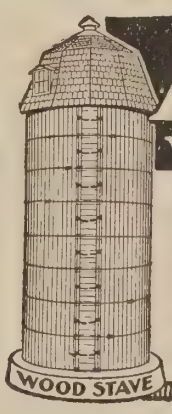
The frame is mounted on four wheels on the three point suspension principle. This gives flexibility without the danger of tipping on hillside work. The entire weight of the machine is sufficient to give good traction, without slipping and not so heavy as to cause packing of the soil. The front wheel crowds the furrow and requires no steering. The Lauson 15-25 will travel the entire length of the field without the operator touching the steering wheel.

Twenty-four Hyatt and Timken roller and ball bearings on the Lauson give it the name of the "full jewelled" tractor. **All gears**—including the bull gears are enclosed in a dust proof casing and run in oil. This reduces friction and wear to the minimum, saves fuel and increases draw bar pull.

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For 23 years Lauson Frost King engines have been the standard of farm engine excellence—built in 2½ to 50 H. P. sizes.

THE JOHN LAUSON MFG. CO., 528 Monroe St., New Holstein, Wis.



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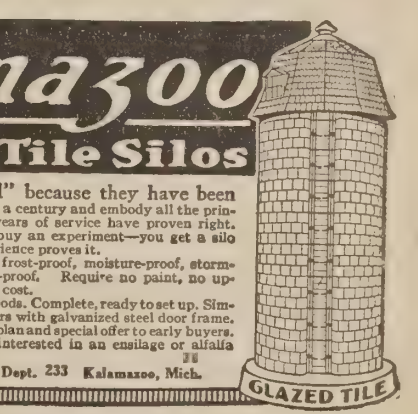
known as "the world's standard" because they have been in constant use for more than a quarter of a century and embody all the principles of construction that these many years of service have proven right. When you buy a Kalamazoo you do not buy an experiment—you get a silo that you know will serve you well. Experience proves it.

Glazed Tile Silos that are fire-proof, frost-proof, moisture-proof, storm-proof, acid-proof, decay-proof and vermin-proof. Require no paint, no upkeep expense or repairs. First cost is last cost.

Wood Stave Silos—choice of four best woods. Complete, ready to set up. Simple, safe anchor system and continuous doors with galvanized steel door frame.

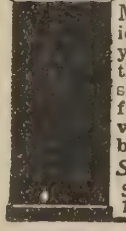
Write today for catalog, easy payment plan and special offer to early buyers. Buy now and avoid disappointment. If interested in an ensilage or alfalfa cutter, ask for circular.

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WOOD STAVE GLAZED TILE

Winner Opening Silo Roof



Fits any silo—wood, cement, tile, or iron. Makes silo filling convenient and easy. Increases your silo capacity eighteen to thirty-five tons. Easy to install. Write for prices and full particulars. **Agents wanted for this profitable line.**

Satisfaction Guaranteed.

SILO SPECIALTY MFG. CO.
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B-V-T-Silo

Built of everlasting Brazil Vitrified Fire Clay. Reinforced with steel ribs bedded in cement. You'll never have to rebuild it. Your neighbor has one. Ask him. Send for Booklet G.



Brazil Hollow Brick & Tile Co.
Brazil, Indiana

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Seeing your friends and having them join in for a club of subscribers.

TABER LINED SILO

"LINED" (Pat. App. for) Acid-Proof Lining keeps air out—and moisture and juices of corn away from staves. Prevents rot—freezing and spoilage.

Shipped in 24 Hours

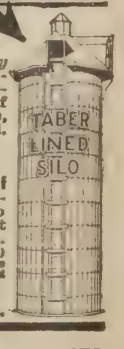
Made of *absolutely clear* Long Leaf Yellow Pine boiled in Creosote. Acid-Proof Lined, Painted outside, Double Anchored. Won't blow down.

Non-Shrinkable

Rot-Proof Acid-Proof

No shrinking or swelling of staves. No frozen silage. Finest circle doors and frame.





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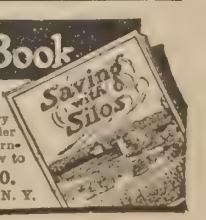
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STOCK FOR SALE

For Sale—Fifty registered Holstein cows and heifers. Forty registered bulls two to eighteen months old. Two hundred fifty head of choice grade cows and heifers. GIROD & ROBISON, Towanda, Kans. 25-tf

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

Registered Holstein bulls for sale. Write WM. ELLIS, Noxon, Mont. 26-4

For Sale—Fifty high grade Holstein heifers, well marked, ages from one to two years old. Will tuberculin test. BLOTT BROS., Mukwonago, Wis. 1-3

Twenty-six high grade Holsteins for sale consisting of 15 fresh cows, 10 heifers and registered sire. LLOYD & TRACY, Brighton, Ia. 2-2

For Sale—Registered bull calves five weeks to four months old. $50 to $100. MAPLE LANE FARMS, Cassadaga, N. Y. 2-tf

For Sale—One hundred high grade heavy springing Holstein cows and heifers, quality good. Also 18 registered heifers. Bred to son of Tidy Abbekerk Prince. J. A. KNORR, Blanchardville, Wis. 3-5

25 2-year-old high grade Holstein springers; 15 cows, 15 registered yearlings, 10 calves. WALTER KNILANDS, Delavan, Wis. 3-2

Wanted—To purchase for resale, every month, small carload of young, fresh, grade Holstein cows with first calf. WILLARD DITCH, Morgan City, La. 3-21

9 registered Guernsey heifers, 9 months old, 4 were imported in dam, Governor of the Chene and May Rose breeding. $1,200 for the nine. PINE HILL FARM, R. 3, Howard City, Mich. 2-3

Two choice Guernsey heifers. Bred to son of World's Champion Long Distance cow. RICHARD F. KLEMM, Baraboo, Wis. 1-3

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Choice bulls, service age; Golden Noble II and Chene breeding. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 17-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Hoard's Dairyman Farm offers three splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Guernsey bulls ready for service. One by grandson of May Rilma 1073 lbs. fat out of A. R. cow. Two by Glenwood Champion, 22 A. R. daughters, one over 800 lbs. fat. One of these is grandson of Beauty Eagle, 846 lbs. fat. Other out of A. R. cow. All splendid individuals. LaBELLE KNOLL FARM, Oconomowoc, Wis. 23-tf

Am short of feed. Will sell four registered Guernsey cows cheap. Good foundation stock. FRANK PLUMB, Saginaw, Mich.

STOCK FOR SALE

For Sale—Guernsey bull calves sired by May Rose bull from a dam with 871 lbs. fat official record. Dams, granddaughters of Glenwood Boy of Haddon. F. W. KIMBALL, Waltham, Minn. 3-2

Grade Guernseys for sale. LOUIS CLAUSING, Mequon Station, P. O. Thiensville, Wis. 3-4

Jerseys—Choice bulls, priced right. CLOVER VALLEY FARM, Medford, Wis. 1-3

For Sale—Registered Jerseys. One fine male two months old, two yearling heifers, two cows three years old at bargain prices. Let me describe and price them. GEO. S. WEIMER, Augusta, Ky.

Two registered Ayrshire heifers for sale. J. T. HAIGHT, Koshkonong, Wis.

Ayrshires—Young stock for sale, both sexes of the right kind. SPRINGCASTLE FARM, Charlestown, Ind. 3-2

STOCK WANTED

Wanted—Grade Guernsey or Holstein springer cows or heifers. Can use any number at a moderate price. Write me. State prices. EDW. M. NEWCOMER, Grinnell, Iowa. 1-3

Wanted—To purchase ten or twenty registered Holstein heifers or cows that will freshen this fall. H. STIYER, Box 697, Nampa, Idaho. 3-2

Wanted—Some registered Guernsey heifer calves or yearlings. F. W. MEYER, Barron, Wis. 3-spl

Holsteins Wanted—2 A. R. O. bullocks, 30 lbs. 4% or over; 40 fancy high grade yearling heifers; 25 large heifers due to freshen this fall; 4 registered yearlings. State price and full particulars. BOX 160, care Hoard's Dairyman. 3-2

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

David W. Williams, Lake Forest, Ill., can buy you grades or pure-breds, any breed. 2-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

SWINE

Registered, big type Chester White boar pigs. Also bred, fall gilts. B. H. FUITEN, New Richmond, Wis. 24-6

Fine strain pure-bred, Improved Chesters. LLOYD NESBIT, Barron, Wis. 3-4

Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Registered Duroc boar pigs. Six weeks old. Grandsons of King of the Col. Good color, big boned and growthy. $25 each. HAROLD HUFF, Salem, Illinois.

Will sell my pure-bred, registered Duroc-Jersey stock of one two-year-old sow, one one-year-old sow, one two-year-old boar, three four-month-old boars and four four-month-old sows. Am selling to stick to sheep exclusively. J. C. BURKE, Bemidji, Minn.

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Large Yorkshires, April boars at farmer prices. Pairs and trio not related. M. O. LARSEN & SON, Colfax, Wis. 3-2

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

EXCHANGE

I exchange at least 4 farms monthly. This means I am in touch with people who want farms. None too large. City property must be taken as part payment. WALTER MILLER, 320 Brumder Bldg., Milwaukee, Wis.

Wanted—Farm with crops and stock in exchange for grain elevator and feed mill in York State town. J. W. WOODRUFF, Lackawanna, N. Y.

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Seed—Wisconsin Pedigree rye. A fine plump 1918 seed. Pure and a great yielder. $2.75 per bushel. S. S. BUDLONG, Rockford Ill. 3-2

FARMS FOR SALE

Secure War Prices for farm products; buy a farm; 40-acre farm $750; 80, $2,400; 120, $2,500; 160, $3,700; choice cutover land $15 to $20 per acre; write for particulars to THE E. L. C. CO., M-A, Dept. 31, Merrill, Wis. 24-tf

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $30 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Improved 80 acres, half in cultivation, balance pasture, black soil, no stones, near town, $4,500. Also consider trade. TOM WILLIAMS, Granton, Wis. 26-4

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale or Rent—One of the oldest and best equipped dairy farms in Michigan on shore of Gull Lake, Kalamazoo Co. 2 good houses, dairy barn 30x80, calf barn 20x100, 2 large silos, all cement blocks; 260 acres, 70 grain (seeded), 15 corn, 20 alfalfa, 12 apples. LONG BEACH FARM, Augusta, Mich. 2-2

For Sale—Ideal Dairy farm. To close estate of E. A. Webb, deceased, 220 acres situated 2½ miles from Farmington, 25 miles south of St. Paul and Minneapolis are offered. Good barn, hog house, tile silo, granary, small house, fine creek. 70 acres pasture, balance in crop or meadow. Reasonable terms. Write EXECUTORS, 803 Commerce Bldg., St. Paul, Minn. 19-spl

For Sale—Dairy and Stock Farm. 300 acres near Mountain, Oconto county, Wisconsin, 1½ miles from C. & N. W. Ry. Station and graded high school. 100 acres cleared, 100 acres pasture, 100 acres timber. Well watered by trout streams. 9-room house, basement barn 42x105; concrete silo 16x40 feet; machinery sheds and stock sheds. Well equipped with farm and power machinery. Stone milk house with power and De Laval separator. Price $13,500; ¼ down, balance on time at 6%. Write THE ANSON ELDRED COMPANY, Stiles, Wis. 22-spl

For Sale—375 acres in Douglas Co., Wis. 80 acres cleared, balance easily cleared and good pasture. 11 miles from street car line in the city of Superior on main auto road. R. R. station one block from house; school house the same. Good improvements. A splendid chance for a man with a family and some money. To such a man will give liberal terms. This is a splendid dairy and sheep farm in the best neighborhood in the N. W. Can sell off all the land not desired for a farm in 40- and 80-acre tracts, but should all be kept as it is a splendid farm. Reason for selling my wife is dead. Write N. C. NISSLY, Dallas Center, Iowa, for particulars. Will meet buyer at Wentworth, Wis., if desired.

Just out—The finest and most complete list of improved farm bargains ever offered in central Wisconsin. Pictures of most all our farms. Write today for this free list. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin.

Wanted—Your name and address so I can send you the facts regarding Aitkin County, greatest dairying county of this prosperous dairy state. I will not urge you to buy. You will settle that question for yourself when you see the chances there are for you and the little money required. Our illustrated folders show it all so well. Why not send for them? They are free. No obligation incurred by writing ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

Improved Farms—In Barron, Polk, and St. Croix counties. Near Twin Cities. For particulars address JOHN McCOY, Owner, New Richmond, Wisconsin. 3-4

For Sale or Rent—One of the choicest farms, equipped with one of the best dairy or breeding stables, in Michigan. Located 30 miles from Detroit on electric railroad. If to be rented, tenant must have sufficient means to own at least one-half of the personal property necessary for properly working the farm. Address N. A. COLE, 39 Westminster Ave., Detroit, Mich.

War Sacrifice Sale—240 acres of Stevens Co. Washington land. 15 acres in cultivation, 45 acres timber, balance cut over. Good level land, no stones. Paved road, electric lights, telephone, school. Small improvements. Average rainfall 20 inches. Three miles from town of Deer Park. Excellent location for one wishing to develop a dairy. Price $35 per acre. Price includes live stock, feed and machinery value $1,400. For further information address W. J. ALDRICH, Clayton, Wash.

100 acres, with crops, horses, cows and tools, $2,500. 50 acres dark loam tillage producing 400 bushels potatoes per acre, 50 acres spring watered, wire fenced, 20-cow pasture and woodland. 50 fruit trees, grapes, berries, good 6-room house, 2 good barns, granary, tool, poultry houses. Located near school, neighbors, lake; convenient to town. Aged owner includes pair good horses, 2 cows, heifer, wagons, mowing machine, plow, harrow, tools, also hay, potatoes, oats, garden, etc. $2,500 takes all, easy terms. Details page 5 Strout's Catalogue of this and other farm bargains, many with stock, tools, crops; copy free. E. A. STROUT FARM AGENCY, Dept. 3001, 150 Nassau St., New York, N. Y.

148 acres, beautiful home, good land, money maker, bargain. ERNEST LA FLEUR, Vermontville, Mich.

FARMS FOR SALE

640-acre highly improved alfalfa and dairy farm, produces immense amount of feed. Fine herd of registered and high grade Holsteins, fully equipped with other stock and farm machinery. Ideal location near town school and churches, dry healthy climate. Must be sold soon. Sell with or without stock and equipment. Reasonable payment down and easy terms to parties who can establish a good reputation for ability and industry. This is extra good and will pay for itself in very few years. Half under irrigation, come and see what it produces. Direct from owner, Address LOCK BOX 45, Haigler, Neb.

Farm Bargain—120 acres, clay loam soil. Basement barn, modern house, 25 head high grade Holsteins. 18 pigs, 3 horses, 400 chickens, 1,200 bushels oats, 500 bushels wheat, 300 bushels rye, 500 bushels potatoes, 20 acres corn, 75 tons hay. Will sell on payment $8,000 and give bill sale personal free and clear. Address BOX 162, care Hoard's Dairyman.

Auction Sale—Entire farm, stock crops and machinery of the well known C. Moore farm located ½ mile north of Little Suamico, Oconto County. High grade Guernsey and Jersey milking cows; two year old heifers, yearling calves, bull, very good farm horses, pigs. Complete set farm machinery including mower, seeder, hay loader, rakes, discs, harrows, silo filler, cutter, cultivators, wagons, sleighs, gas engine, cream separator, etc. Excellent growing crops of oats, corn, rye, hay, potatoes, etc., all to be knocked down under the hammer in parcels to the highest bidders. Terms, under $10 cash; larger amounts, bankable papers. 160 acres of rich clay loam soil, good level land; 120 acres under plow. Very fine basement barn 40x100, large silo, granary, piggery, chicken coop and 8-room house. Owner forced to sell. Terms on land and buildings small amount cash down, balance easy payments to satisfactory purchaser. Sale will positively take place rain or shine Thursday, August 15, on premises ½ mile north of Little Suamico, Oconto County. Free lunch served 10:30 a. m.; sale at 11:30 a. m.

For Sale—125-acre dairy farm doing a $30 per day retail business in a town of 4,000 located in northwestern Ohio. Will sell herd and all equipment. Write for particulars to owner. BOX 164, care Hoard's Dairyman. 3-2

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

FOR RENT

Dairymen attention! For lease 750 acres school land near Jackson, Mississippi. M. LATIMER, Clinton, Miss. 2-3

For Rent—Fully equipped five-acre chicken farm, on edge of town on C. M. & St. P. R. R. Capacity 1,250 laying hens. Brooder house for three thousand chicks. Present stock five hundred S. C. W. Leghorn hens and pullets. Fifty Barred Rock hens and pullets. 4-room dwelling in connection. Manager leaving August first for war service. Easy terms. Apply to C. B. RAYMOND, Wawbeek Poultry Farm, Kilbourn, Wisconsin.

Help win the war. Lease 240-acre farm in Illinois on shares. Produce wheat, meat, milk and navy beans. BOX 165, care Hoard's Dairyman.

WANTED TO RENT

Wanted—Fully equipped, medium sized, dairy farm to work on shares by Wisconsin farmer. Address BOX 155, care Hoard's Dairyman.

Wanted to Rent—By two experienced, reliable, married men, equipped dairy farm, shares. Salary considered. BOX 154, care Hoard's Dairyman.

Experienced farmer wants to rent dairy farm. Will work for salary or shares. Address BOX 167, care Hoard's Dairyman. 3-2

MACHINERY

For Sale—Calf-Way Milker in good running order, almost new. Cost $726. 6 single units, 2 extra pails and large vacuum pump. We are selling our herd and have no use for milker. RYDERDALE FARMS CO., Black Creek, N. Y. 1-3

Moline Universal Tractor with two 14-inch plows. Almost new, only used to plow 30 acres and 35 hours on belt. Guaranteed in perfect condition. $900.00. W. H. WHITACRE, R. F. D., Limaville, Ohio. 22-tf

For Sale—Hinman Milker outfit, complete for thirty cows, subject to inspection, price $100. In perfect condition. MONROE & MONROE, Alexandria, Va. 25-tf

For Sale—30-60 Fairbanks-Morse tractor with six John Deere bottom plows. Has been run fifty days and is in perfect working order. Priced for quick sale. For price and particulars write NEAL HOUSLET, Oxford, Wis. 26-4

For Sale—2-unit Sharples Milker in good condition. $100 cash or Liberty Bond. E. R. KEENEY, R. 1, Rockton, Ill. 3-2

For Sale—Emerson 12-20 tractor, run only ten days, good as new. One Sattley engine gang, four bottoms. Hart-Parr tractor, used 18 months. Sharples four-unit milking machine used but nine months. Farm electric lighting plant in A-1 condition. All this machinery in good shape and bargains for cash. HURDCROFT FARM, Monticello, Minn. 3-2

Wanted—Several large, hand, straw balers. Will pay reward of $5.00 for information leading to purchase. In writing give name of baler as well as size and condition. LARIMER BAG COMPANY, Washington, D. C. 3-2

For Sale—12 H. P. John Lawson engine in good condition. Price $225. ALVIN EBERSOHL, Fort Atkinson, Wis.

For Sale—Double-unit Empire Milker, pump and tank $100. No. 2 Minnetonna Churn, $15. W. H. IRVINE, Barstow, Texas.

For Sale—Empire Milker complete for twenty cows. Pipes nearly new. Price $100. WALLER PHILLIPS, Newell, South Dakota.

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forrestville, Conn. 3-10

HAY

Alfalfa and Prairie Hay for Sale—Prompt ...ipment; good quality; thoroughly inspected ...ars. Reference, First National Bank, Lexing...on, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for ...elivered prices. ALBERT MILLER & COM...ANY, 192 North Clark Street, Chicago, Ill. 26-tf

DOGS

Airedale Collies and Old English Shepherds. ...ups, trained dogs and brood matrons. Large ...structive list 6c. W. R. WATSON, Box 520, ...akland, Iowa. 5-tf

Scotch Collies, few females, three months ...ld, color sable and white, price $6.00. Pedi...rees furnished. ARTHUR MELLIN, Howard ...ake, Minn.

For Sale—Collie and part hound pups, three ...onths old. Males $5.00, females, $3.00. One ...lack and tan, coon hound, two years old, ...15. FRED HELVEY, Route 5, Bellevue, Iowa.

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. ...We pay the freight or half the express. LARI...IER BAG COMPANY, Washington, D. C. 17-tf

PRINTING

Hoard's Dairyman Art Dept. designs your ...etter head free. Just tell us your breeds of ...tock. Book of 5,000 Farm, Ranch and Cottage ...ames 25 cts. Ask for samples of letter heads, ...nvelopes, shipping tags, cards, milk tickets, ...tc. Poor stationery is more of a damage ...an a help. Address HOARD'S DAIRYMAN, ...rt Dept., Fort Atkinson, Wis. 8-tf

FEEDS

Feeders—When in the market for car of feed ...r wheat screenings write for prices to SIEG...UCZYNSKI, Milwaukee, Wis. 24-13

Velvet Bean Meal feed; Peanut meal; Old ...rocess cocoanut oil cane meal; ton lots or ...ar lots. NEUSTADT & CO., 294-Ninth Ave., ...lew York City. 2-4

LIGHTNING RODS

Diddie-Blitzen Rods—Quick sales; guaranteed ...ghtning protection. $250 if they fail. Agents ...anted. L. F. DIDDIE CO., Marshfield, Wis. 9-tf

PATENTS

Your idea wanted—Patent your invention. ...ll help you market it. Send for 4 free books, ...st of patent buyers, hundreds of ideas wanted, ...c. Advice free. Highest references. Pat...nts advertised free. RICHARD B. OWEN, ...atent Lawyer, 86 Owen Bldg., Washington, ...D. C. 2-5

MISCELLANEOUS

Yes Sir, we have a special opportunity for ...ou during spare time, an opportunity to do ...me good work in your neighborhood, for ...he betterment of dairy farming, that will pay ...ou in cash for the effort you put forth. Write ...or our "Special Opportunity Getting To...ether" folder. Address HOARD'S DAIRY...IAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Position open—We want a good steady re...able man in our new test barn. Must take ...nterest in the work and come with the idea ...f staying permanently and help improving ...he herd. Good wages and board with chance ...f steady increase if satisfactory. No previ...us knowledge of feeding necessary but must ...e observant and willing to follow instructions ...nd must have references. All inquiries will ...e answered. Address BOX 143, care Hoard's ...Dairyman. 2-2

HELP WANTED

Wanted—Experienced herdsman to take entire charge of growing herd of Guernseys. Milking about fifteen head. Apply by wire at our expense, FLETCHER PAPER COMPANY, Alpena, Michigan. 25-tf

Married man wanted for general work on dairy farm. Must be thoroughly reliable, competent, good milker, like Guernseys, be a good caretaker, also have the interest of his employer at heart. House, fuel, vegetables, milk, eggs and good wages. Give full particulars and references in first letter. MARIONDALE FARM, Genoa Jct., Wis. 26-tf

Wanted—For fine country estate where the best of accommodations and wages are provided for, one orchard man, one gardener, two teamsters, two milkers and two laborers. Only reliable, experienced men need apply. Send your application to "THE ELMS," 710 Chamber of Commerce, Buffalo, N. Y. 1-3

Farm Help Wanted—Teamsters and farm hands. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Wanted—September 1, herdsman with experience, to care for large registered Guernsey herd, cows in A. R. test. Good habits and not in draft. $60 and board, chance for advancement. Give age and reference first letter. HOMER F. RUNDELL, Livingston, Wis. 1-5

Wanted—A man to strip cows after milking machine and do can house work. Wages $65 per month with board and room to start with. Address E. F. GENTRY, Wallace, Ida. 2-2

Wanted—Reliable men for dairy work, milking machine operators and strippers, also creamery men. Excellent conditions and salary. Prefer men not subject to draft. THE HARTMAN STOCK FARM, Columbus, Ohio. 2-3

Wanted—Married man to take charge herd of 50 registered Holstein cows. Would prefer man with son old enough to operate Hinman Milker. Must understand feeding and care of test cows, also a good calf raiser. Everything modern, good house. State wages expected. BELLEFONT FARMS, E. Dickinson, Mgr., Bellefontaine, Ohio. 2-2

Wanted—First class middle aged man as a working foreman on a 700-acre farm in Crow Wing County, Minn. Must have knowledge of stock raising of all kinds and be a general farmer. Address BOX 142, care Hoard's Dairyman. 2-9

Wanted—Experienced Advanced Registry herdsman, preferably married, over draft age, with first class testimonials, for New England Guernsey herd. State wages expected in first letter, when at liberty. House, fuel, milk furnished. Address BOX 141, care Hoard's Dairyman. 2-2

Milkers Wanted—For the great Anna Dean herd of Guernseys. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applicants applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Wanted—A dairy farm hand, a year round job, state wages. GEORGE SPIEGEL, Algona, Ia. 2-2

Married man wanted for dairy work. A good place to work. That's all. Address BOX 159, care Hoard's Dairyman.

Man and wife—Wife to help milk and wash utensils. Average 30 Holsteins. Separate with electricity. No farm work. House, milk, wood, garden, $90 per month. A fine opportunity for the right couple. Address BOX 158, care Hoard's Dairyman.

Wanted—A single dairyman, not in the draft. Must be willing to stay all winter. Good wages. A. EARL NEWCOMER, Bryan, Ohio. 3-2

Wanted—Man to help on dairy farm. Guernseys. Man taken in draft. Been here 3 years. $50 a month, board and washing to man of experience. ARTHUR A. COOPER, Elizabeth, Ill. 3-4

Wanted at Once—A first class all round man to take charge of certified barn, fifty pure-bred Holsteins. ARDEN FARMS, 404 Hackney Building, St. Paul, Minn. 3-2

Single man as herdsman for herd of registered Holsteins. MARINETTE COUNTY ASYLUM, Peshtigo, Wis.

HELP WANTED

Wanted at Once—Single herdsman, exempt from draft, 25 cows in milk. Selling whole milk. Good position for competent man, clean habits, who knows dairying. Liberal salary, board in family. No zero temperature, very little snow. P. M. PITTS, Sumter, S. C.

Single man to do bottle cooking and as assistant in bottling plant, on sanitary dairy farm located on electric line seven miles from Denver, Colorado. Modern equipment; opportunity for advancement; wages fifty dollars, board and room; man familiar with artificial refrigerator preferred; no cigarette fiends or booze fighters. BROOKRIDGE FARM, Littleton, Colorado.

Wanted—Assistant herdsman for first class pure-bred Holstein herd. Must be familiar with testing and a good milker. A good paying job to the right man. Please state nationality, wages and reference in first letter. Chances to advance to herdsman are good. T. H. SKREI, Glyndon, Minn.

Wanted—Men to milk and care for twenty cows in certified dairy. $60 per month and board. Also a few field hands, $45 per month. ARCADY FARMS, Lake Forest, Illinois.

Married man for general farm work on 160-acre farm about September 1st. Born and raised on farm, competent, reliable, sober, and industrious. New seven-room house, garden, milk, potatoes furnished. Near city and school. Preferably with wife to assist with milking or with boys old enough to work. Fine opportunity for right party. State fully experience and wages expected in first letter with references. S. A. BAIRD & SON, Waukesha, Wisconsin. 3-tf

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Married man, not in draft, for general farm work, on farm where beef cattle are raised, located in southeastern South Dakota adjoining good town, separate house. ALBERT HILL, Alexandria, South Dakota.

Wanted—Two dairymen for two small herds of Guernseys. One must be A-No. 1, with A. R. O. experience, good buttermaker, and calf raiser, neat, temperate, reliable, intelligent, capable of getting results. Other, must be neat, clean worker, good dry hand milker; be able to balance rations but no A. R. O. experience essential. Give full particulars first letter. Must not be in draft. BOX 156, care Hoard's Dairyman, Fort Atkinson, Wisconsin.

Wanted—Good woman for housekeeper and cook—dairy farm—4 to 5 men this winter. Place open Sept. 15. Gas, electric lights, running water in house, good wages. KEEWAYDIN FARMS, Gates Mills, Ohio, 15 miles from Cleveland. 3-2

Wanted—Two single men familiar with feeds and feed bags. Splendid opportunity for any one unable to stand dairy work on account of rheumatism or for other reasons. Wages high, room and board furnished. LARIMER BAG COMPANY, Washington, D. C. 3-2

Wanted at Once—Man (married, no objection to one child) for herdsman. Not in draft age, no boozer or cigarette fiend. Must be A-1 milker, (dry hand), good caretaker of calves. Now milking 12-14 cows, have 8-10 calves. Take care of cream and milk, make butter, 30-40 lbs. month. Barn up-to-date. Wages $1,200 per year, 5-room bungalow, some milk, also garden furnished. Address BOX 161, care Hoard's Dairyman.

Dairyman wanted for the Panama Canal. Must be experienced and competent to manage dairy of 320 cows, including selection for breeding and production, also management of pasture. Salary $150 a month with increase to $175 month after six months' satisfactory service. Free steamship transportation from New York or New Orleans, and free bachelor quarters on Isthmus of Panama. Must be American citizen under 50 years, physically sound. Write "CHIEF OF OFFICE," The Panama Canal, Washington, D. C. 3-3

Wanted—Dairyman to milk fifty cows with machine. Prefer man with help sufficient to handle the job. Good wages to right man. State salary wanted. BROAD ACRE FARM INC., Blackstone, Va. 3-2

Farm superintendent, married, must understand care of horses, cows, sheep and poultry; raising of crops and handling of men; wife to care for help; good living conditions near city; fifty acres in connection with suburban residence. State age, experience, salary desired and family in first letter. FIRESTONE FARM, Medina Road, Akron, Ohio. 3-2

POSITIONS WANTED

Manager, married, desires position. Expert developing land, stock raising. A. R. O. work, salary or shares. BOX 148, care Hoard's Dairyman. 2-3

Wanted—Employment by a Polish farm hand who can converse the English language sufficiently to make himself understood. He is a first class dairyman. Address and state wages to JOHN CHEMITZ, 186 Baden St., Rochester, N. Y. 2-2

Working farm manager and herdsman wishes to correspond with a party having such an opening Oct. 15 to Nov. 1st, 1918. Competent, married, no children, exempt from draft. Holsteins and the East preferred. For particulars. BOX 140, care Hoard's Dairyman. 2-2

Position wanted as herdsman—12 years' experience in dairy and show ring with some A. R. O. experience. Married, 3 children. Nothing but first class position. State wages and conditions in first letter. 507 S. 5th St., Oregon, Ill. 2-2

Wanted—By experienced dairyman over draft age, dairy in the south on salary and shares. Can make small investment. BOX 144, care Hoard's Dairyman. 2-4

Situation Wanted—Working foreman on a gentleman's private estate or farm. Protestant, married, no children; middle aged, thoroughly reliable, years of experience in this line of work, all round man; expert on vegetables, flowers; manage men and get results; wife expert buttermaker, willing to board help; cottage furnished; no farther than state of Ohio. Liberty Sept. 1st. Full particulars and wages in first letter. Best of reference. C. C. S., Greenwich, Conn.

Married man wants position as manager summer home or small farm November 1st. Understand gardening and anything pertaining to farming. Address BOX 169, care Hoard's Dairyman.

Position Wanted—By two men, one over draft age, one under. Prefer indoor work on modern dairy farm. Life experience on farm and handling cattle. Both want position on same farm. State full particulars of work and wages in first letter. Prefer central or southern Illinois. PAUL SCHAEFER, Jonesboro, Ill.

I want a job—not a position—as farm manager where judgment and experience required. Agricultural college graduate and raised in the dairy business. Understand distribution, linebreeding, record work and have judged at leading state fairs. At present manager of one the largest pure-bred farms in the country. It earned more than 100 per cent dividends last year. Can take entire charge and get results. Married. Address BOX 168, care Hoard's Dairyman.

Wanted—To manage on contract, first class farm and dairy near city. The establishment, cows, and business must all be in good order. Wish to buy stock and equipment and lease farm, for cash, for term of years beginning next spring. Write complete details and terms. BOX 163, care Hoard's Dairyman.

Married man wishes position as farm and dairy manager. Have held present position 7 years and given best of satisfaction. Can furnish finest of references. BOX 166, care Hoard's Dairyman. 3-4

Position wanted as manager or herdsman by married man, American, middle aged. Records, scientific feeding and calf-raising a specialty. Work for employer's interest. Help rightly managed. I lead the men which brings results. State wages and particulars first letter. References furnished. BOX 157, care Hoard's Dairyman.

Wanted—Position as farm manager. Thoroughly experienced in dairying, stock raising and general farming. Married. 37 years old. Small family. First class references. Board no help. BOX 153, care Hoard's Dairyman.

Married man wants position on dairy or stock farm after Oct. 1st. Lots of experience. Will go anywhere west of Mississippi River but must be near good school and Adventist church and where plenty fruit grown. Or will rent small place for cash. Must be near good market. RAY FLEMING, Moulton, Nebr.

Garget

I have a cow whose bag is very peculiarly ffected. In the morning one section may be readfully swollen and probably at night the welling has entirely disappeared. This swelling changes from one section to another for wo or three days after which time it disappeared for some three or four weeks.

Kingston, La. A. D. S.

In such cases it is always well to ...ave the tuberculin test applied as tu...erculosis sometimes is the cause of ...uch mysterious intermittent attacks ...f garget. Also try to prevent chill, ...ruising, changes of feed, or irregularity or roughness in milking.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10925.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

Registered Guernsey Bull For Sale

DROPPED JULY 21st, 1917.

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and prices write **Folly Farm, Libertyville, Ill.**

GOLDEN SUNSET JERSEYS

Would you pay $250.00 for a butter-bred show sire to head your herd if absolutely convinced he is worth the money? If so, write us.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Registered Jersey Heifers and Bulls

$75.00 to $100.00 Each

from dams now on test and from our great bull, Financial Dairy King 143623.
ELM-O FARM, AUSTIN, MINNESOTA.

Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes may be had from the

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Who Fills Your Silo?

THERE'S just one way of being sure of a full silo of clean cut ensilage. That is to fill with your own equipment. A farm gas or kerosene engine developing as little as 3 or 4 horse power will operate a small

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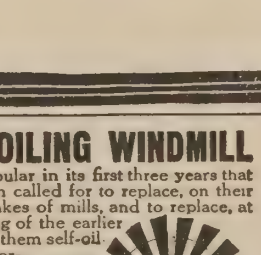
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There's a PAPEC dealer in your locality



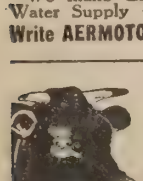
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has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load.

We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.

Write AERMOTOR CO., 2500 Twelfth St., Chicago



Safe and Sure

catches easily and locks firmly. Has straight pull—no twisting. Your bull will respect the

KEYSTONE BULL STAFF

Shepherd's crook, automatic latch, easy to release, taper socket riveted fast to 5-foot heavy ash handle.

Guaranteed.
Write for free circular.
M. T. PHILLIPS, BOX 106B, POMEROY, PA.

Get A Gehl Silo Now



Act quickly to save your corn crop—to save money—to back up your government. Councils of defense and other war winning organizations as well as agricultural authorities are urging farmers to build silos this year so as to increase and conserve food supplies.

We Can Ship Immediately

Special attention will be given to rush orders. We have the material in stock and can make prompt shipments.

Gehl Silos are made of the best ensilage-preserving wood in the world—clear, straight-grained Oregon Fir which is recognized as the best silo material, not only because it is very strong, lasting and durable, but because it keeps the air out and the moisture in, preserving the ensilage in perfect condition and retaining the appetizing flavor that makes the cows relish it.

Gehl Silo lumber is perfectly milled to standard silo pattern and is strictly clear and free from knots. One or two piece staves in any length up to 40 feet. As our contribution towards this silo campaign we will allow

A Special Discount on All Sizes

ordered during August and September. Write today for full information. State size of silo you want.
If interested in ensilage or alfalfa cutters ask for cutter catalog.

GEHL BROS. MFG. CO., Dept. 122 West Bend, Wisconsin

Price Fixing and Cost of Farm Products

(Continued from page 71)

main the same. Likewise the question of joint costs is avoided, for it is no longer a question of the cost of a specific product, but of comparing the total farm profits resulting from the various types of farming and from the different competing elements in each kind of farming. Furthermore, the question of charging feed at market price or cost of production would seem to pass with the effort to find specific costs.

However, something akin to the latter remains. The farmer may compare the profits he would make if he sold his corn, oats, and hay at present market prices instead of feeding them to cows and selling milk. In this he should not assume that if the community turned from milk selling to crop selling that the prices of all these crops would be what they were before the change; neither should he assume that his crops would yield the same if he changed to grain growing for the market. Oats and corn are used directly for human food and have many other uses and are so easily shipped that there would continue to be a market for them, if not used as cow feed; but clover hay is a stock food and it is not so easily marketed. The important alternative uses for clover if not used for cows are (1) to feed to beef cattle, (2) to sheep, or (3) to plow under as a fertilizer, any of which conserves its value as a land builder as a basis for grain growing. Where clover has entered into commerce it has usually been as a feed for dairy cows. When discarded for this use, therefore, the marketing of clover hay could not be counted upon. A farmer in the Chicago milk district insists at this moment that it pays better to sell grains and plow the clover under than to make clover hay and feed it to live stock. He is practicing this system now and is satisfied. In this and similar cases it is the alternative use value rather than cost or present market price which becomes the basis of comparing the profits of types of farming and hence the basis of choice.

This means that formerly assigned specific costs are of little use in the discussion of price fixing. It does not mean, however, that cost accounting is of no use in the study of this problem; in fact, accounts are very necessary, but in a different way from what has been supposed. Accounts are useful to the farmer in making choice of crops and live stock enterprises and his methods of production. Accounts are useful to the price commissioner in estimating the price necessary to call out continuously the desired supply of produce of a given kind and of suitable quality. For these purposes specific costs may not be needed. What are needed are figures comparing the profitableness of the different things to which the producer can turn his attention. The alert farmer is ever figuring on the combination of crop and live stock production which will pay him best with a given price schedule and with given costs for land, labor, and equipments.—H. C. TAYLOR in Bulletin 292 Wisconsin Experiment Station.

[To be continued].

Financial Statement of National Dairy Union

Receipts	
Balance on hand June 1, 1918	$5,451.5
Total receipts	38.0
	$5,489.5
Total disbursements	606.4
Balance on hand July 1, 1918	$4,883.1

SWINE

Cedar Crest Farm Berkshires
Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

GUERNSEYS

Lone Tree Farm
Green Lake, Wis.

Has in Its Herd 15 A. R. Guernseys and 11 R. of M. Jerseys and Carries About 16 Cows On Test.

To inquiries for BULL CALVES we give full, honest particulars and stand behind every animal sold.

Jersey Sire—A Son of Pogis 99th.
Guernsey Sire—Langwater Islander.

KOSHKONONG PLACE
GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS
GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.
Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

BIRCHWOOD GUERNSEYS

We are offering some well bred and nicely marked young bulls nearly ready for service out of A. R. dams and sired by good bulls. Also a few heifer calves. Eighty head in herd. Herd on the State Accredited list. Send for sale list.
M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.
W. G. Jamison & Sons, Appleton, Wis.

Elderwood Farm

Offers for sale the Guernsey Bull, Princelings Son of Elderwood, born Jan. 4, 1915, sired by Langwater Princeling A. R. out of an Imp. cow, Violet of St. Croix, who gave 10,000 lbs. milk and 465 lbs. fat as a two-year-old. Write for price and description.
ROY BURTON, EAGLE, WISCONSIN.

Young Guernsey Bulls
Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding*. Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

GUERNSEY - BULLS - CALVES
PRICES THAT WILL INTEREST YOU.
"McLERAN OF MINN. WRENSHALL"

JERSEYS

Jersey Crest Farms
are offering

Bulls and Bull Calves

which are a credit to the breed. Bred for type and production. Let us send you pedigrees and description. **Jersey Crest Farms, Oconto Falls, Wis.**

Jersey Bulls
FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys
Every bull over 8 mos. old is sold, but we have some fancy calves

from Register of Merit dams sired by Ibsen's Chief who won the A. J. C. C. gold medal for Grand Champion at the Wisconsin State Fair, '17.
CHAS. A. PETERSON, Rosendale, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARRINGTON, Honey Creek, Wis.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

The Blood and the Bull
You should head your herd with a grandson of

Gamboga Knight,

His dam, granddaughter of Oxford You'll Do. She is faultless in conformation, solid golden fawn heifer giving 38 lbs. 5.4 milk as two-year-old on herd feed. This calf is right in every way, was dropped Mar. 26, 1918, will be solid dark golden fawn, has the production, size and type. He is an exceptional calf and one that you will be proud to own. First check for $150 gets him, with all papers, crated and loaded. Act now.
MEADSIDE FARMS, - Meadville, Pa.

Wineland Farm Jerseys
Big Milkers—Prize Winners.
100 Head - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

ENTIRE HERD

60 Registered Jersey Cows and Calves 60

For Private Sale

Having recently been elected Secretary and Treasurer of the White Eagle Dairy Company, I will not have the time to give the close attention to breeding and the production of milk which I have in the past and am offering the public a rare opportunity to buy some choice foundation stock, both cows and calves. I have been engaged in the breeding of Jerseys for nearly ten years, and have never had a public sale and will depend largely on my many satisfied customers to buy this stock and will give them the same fair treatment which has characterized my business from the start.

Write me for list of the stock, the milk and fat records, the breeding and prices. This will be your best opportunity this year to select some choice foundation stock, rich in the blood of Noble Oaklands and Oonan of Riverside.

Unprofitable cows have always been culled from my herd. Nothing but good paying cows in this offering.

Five tests of my herd and never a case of tuberculosis.

D. V. VANDIVER, Columbia, Mo.

OWL-INTEREST

Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.

His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.

His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on retest has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address
MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

The Fairview Farm Company
Sophie's Tormentor Jerseys

"Production" Our Watchword

FOR SALE—Bull Calf No. 244, dropped March 21st, 1918; solid color, black tongue and switch; an extremely good individual.

SIRE—Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85% butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.

DAM:—Tweedledum's Emma of H. S. F. 291389, on Register of Merit test and in 2 months has made 164.84 lbs. 85% butter from 3,151.1 lbs. milk. An exceptionally good dairy cow in every respect.
R. L. PIKE, President, - Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

GRANDDAUGHTER OF NOBLE OF OAKLANDS



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

HILLCREST JERSEYS

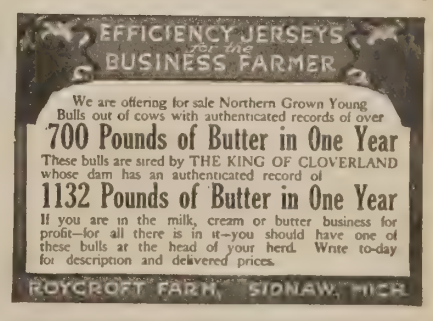
Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis

Lookout Farm Jerseys
A Rare Opportunity Is Offered

to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.

SIRE. Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.

DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.
Henry S. Redfield, 1925 Seventh Ave., New York City.



POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.

14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow. Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio.

CLOSING-OUT SALE OF THE GUERNSEY HERDS

of the late T. D. McChesney, Esq., Columbia Mills, Inc., Minetto, N. Y., and of Winthrop Cowdin, Esq., New Castle Farm, Mt. Kisco, N. Y. at

NEW CASTLE FARM, MT. KISCO, NEW YORK ON

Tuesday, Aug. 27, 1918, at 12 o'clock noon

The animals comprising these herds are of the best lines of breeding—sons and daughters of such famous animals as **Barrington May King 19312.**

Justinee's Sequel of the Preel
Imp. Governor of le Briquet
Fashion Plate's May King of Linda Vista
Imp. Nellie of the Mont Marche
Dorothy of Oakhurst
Imp. Governor of the Vauquiedor
Imp. Raymond of the Preel IV
Gay Lad du Braye
Ne Plus Ultra 4th
Imp. Fanny's Sequel
Polly's Pride
Imp. Red Rose Queen
Janet of Oakhurst

For Catalogue Address Leander F. Herrick, Auctioneer, Worcester, Mass.

Guernseys and Clydesdales

AT AUCTION

The undersigned announces a sale for H. A. C. Taylor, Esq., Newport, R. I. of

GUERNSEY CATTLE

Clydesdales and Half-bred Hackneys

To be held at Glen Farm, Newport, (So. Portsmouth) R. I.

TUESDAY, AUGUST 20th, 1918

The Guernseys comprise the increase of the herd, some Advanced Register cows and daughters of some of the great producing animals of the breed.

Ten registered Clydesdales including some exceptionally well bred mares and stallions. An excellent offering of half-bred hackney horses. For catalog address

LEANDER F. HERRICK, Auctioneer, Worcester, Mass.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughter. Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of the Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows with records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSIN.**

A few well bred young

Guernsey Cows and Heifers

Also a couple of bull calves from cows with splendid records.

W. R. DUNLOP, FAYETTEVILLE, N. Y.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.

Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

Harbor Hill Offers

Linden Lad of Harbor Hill 7th. Dropped June 15th, 1917. A good individual, nicely marked.

SIRE:—A son of Linden Girl A. R. 3607 with three A. R. records averaging 14,149.8 lbs. milk, 708.85 lbs. butterfat.

DAM:—A daughter of Brilliant of the Gree. Her herd work at 2 and 3 years exceeded A. R. requirements by a good margin. Price $150.00. Write for photograph and pedigree.

C. H. Hechler Supt., Box 50, Roslyn, N. Y.

FOR SALE

Sixty Imported

Guernsey Heifers

About forty head now in calf, a few three-year-olds milking with their first calves and the balance yearlings ready to breed.

I spent several months on Guernsey last Autumn and early Winter during which time these heifers were selected. I personally inspect every animal imported and in this way am assured of only high class individuals.

Send for catalog and price list. Every animal for sale.

Frank S. Peer, Osceola Farms, Cranford, N. J.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

"OAKS FARM GUERNSEYS"

C. W. BARRON, Prop.

FOR SALE

Young bulls from two to ten months old, from dams which have or are now making credible Advanced Registry records. Write us before buying your next bull.

W. S. KERR, Mgr., Cohasset, Mass.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

$75.00

takes the choice young bull calf R23, dropped Nov. 11, 1918.

Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.

Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.

The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from

Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.

Louis McL. Merryman, Cockeysville, Md.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Jean Du Luth Farm

A. R. May Rose Starlight Guernseys
A. R. Wild Rose Beauty Red Polls

Guernseys line bred to the blood of May King of Linda Vista. Red Polls strong in the blood of Wild Rose of Kilbourn or her sister, Floss II. which were "in and in" bred Beauty W-2 cows.

JEAN DU LUTH FARMS,
Nickerson, Minnesota and Duluth, Minnesota.

REGISTERED

Guernsey Bulls

For $75.00 Each

EXCEPTIONAL OFFER

Lady Helen's Mayfield Lad No. 50636
Born April 2nd, 1918.
Winona Girl's Mayfield Boy No. 50635
Born March 27th, 1918.
WRITE FOR PEDIGREES.
Mayfield Stock Farm, South Euclid, Ohio.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, - - Perry, Ohio.**

Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

FOR SALE

One Registered Guernsey Bull

19 months old. A grandson of Imp. May King of Frie Boston. Dam, a great granddaughter of Imp. Spotswood Golden Jewel. Price $250.00.

South Hill and Valley Farms, George Thomas 3rd. Whitford, Pa.

BELLWOOD FARM

One exceptionally fine bull calf, a grandson of Masher Sequel and Jethro Bass. Pink nose, nicely marked and straight and alright. Price $150 for quick sale. Another bull calf two months old, sired by a great son of Jethro Bass and a great granddaughter of May Rose King. Price $125. Dark nose. Here are two calves that their breeding cannot be excelled. Will guarantee them alright in every respect.

1003 Empire Bldg., - Pittsburgh, Pa.

FOR SALE

My Entire Herd of

30 Registered Guernseys

including herd bull Lohier's Raider of Waddington. Several cows of good A. R. Records.

Joe Speidel, Jr., Jobetty Farm, Elm Grove, W. Va.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

BROWN SWISS

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

BROWN SWISS
BULLS FOR SALE

Two Registered—one two-year-old, one yearling—both of good breeding and choice animals.
Orchard Knob Farm, Harvard, Illinois.
P. Whitcher, Manager.

AYRSHIRES



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES
AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Orchard Hill Farms
AYRSHIRES

Young stock of select imported breeding for sale.
W. S. MacDONALD, Manager
Chappaqua, - - - - New York

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

World's Champion AYRSHIRES

If you want the blood of the champion cows of the breed write us. We offer a few cows, heifers or young bulls.
PENSHURST FARM, NARBERTH, PA.

Crestmont Farm
AYRSHIRES

Few Choice Bull Calves

BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.

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WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
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FAYRE FARM
AYRSHIRES

ST. ALBANS, VERMONT.
Advanced Register and Show Ring Records.
Tuberculin Tested by U. S. Dept. of Agriculture.
Calves only for sale.
Geo. H. Dunsmore, R. D. 1, Swanton, Vt.

Van Etta's Ayrshires

10 HEIFERS FOR SALE

I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

HOLSTEINS

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

HOLSTEINS

Carload Registered Springers.
Carload Registered Fall Cows.
Carload Registered Heifers Unbred.
Two Carloads Grade Springers.
Write your wants. Come and see us. Prices right. J. A. LEACH, Cortland, New York.

LAKESIDE HERD

For forty years this herd has taken the lead in breeding for the highest individuality, largest average production, 4% butterfat, greatest uniformity and prepotency, with the result that over four-fifths of all the cows which have made A. R. O. records of 30 lbs. or more, trace their pedigrees to the Lakeside Herd.
Breed this kind and get same results.
E. A. POWELL, SYRACUSE, NEW YORK.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

Your Last Chance! To Get a Son of The World's Greatest Sire
KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.
Geoffrey Burlingame, Cazenovia, N. Y.

Hazelhurst Stock Farms

Offer a Yearling Son of King Segis Pontiac Canary who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.
H. H. Wickwire & Son, Hubbardsville, N. Y.

U. S. Soldiers' Home

FOR SALE—A number of young Holstein-Friesian Bulls from a clean herd, tuberculin tested, no re-actors in last four years. All from A. R. O. sires and dams. Full information and description with prices, on request.
ADDRESS SECRETARY - TREASURER.
U. S. Soldiers' Home, Washington, D. C.

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Registered Holsteins For Sale

9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*
5 Extra good Granddaughters of King of the Pontiacs, from 9 to 14 months old.....*$800 for all*
1 Daughter of Spring Farm King Pontiac 6th. Four months old....*$150*
3 Two-year-old Granddaughters of Spring Farm King Pontiac 6th .....*From $150 to $200*
1 Extra Fine 3-year-old son of King of the Pontiacs; 27-lb. Dam; 29-lb. Grandam *$800*
1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

GEO. S. BIGELOW, BREEDSVILLE, MICHIGAN.

Beaumont Farm Has a Young Bull Sired by King Colantha Rag Apple

positively one of the best sons of RAG APPLE KORNDYKE 8th. Remember that KING COLANTHA RAG APPLE is a brother to the $53,200 bull. Dam a 32½-lb. granddaughter of the KING OF THE PONTIACS. *You cannot get anything better than this.* Another young bull, out of one of the finest daughters of JUDGE SEGIS, which recently sold for $10,000.
BEAUMONT FARM, MT. SAVAGE, ALLEGHANY CO., MARYLAND.

Ready For Service

For Sale—Two Splendid Registered Holstein Bulls Ready For Service

one ½ white, out of 100-lb. cow, only $300; other 4-5 white, out of splendid young cow, only $200. Both sired by COWDENSIDE SARCASTIC LAD whose dam is daughter of Grand Champion Bull of the St. Louis World's Fair and whose sire is brother of World's Record Cow. Ten of his sisters as 2-year-olds with first calf showed improvement of nearly 4,000 lbs. milk and over 200 lbs. butter in a year by actual test more than their dams at same age with same feed and care. He is closely related to 5 of the only 9 'century sires' in the world, and to 15 different cows that hold or have held world's records for production. One of these calves would make you a sire worth while. First checks take them. Satisfaction guaranteed. COWDENSIDE FARMS, R. N. Thompson, Cowden, Ill.

Illiona Holsteins
3 Service Bulls

44-lb. Breeding
Excellent Individuality
Reasonable Prices

Phone Elmhurst 63, R. 1 or write
A. W. FISCHER, Bensonville, Ill.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a ⅔d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.
ARLINGTON HEIGHTS, ILLINOIS.

START

Or increase your herd of Holsteins while they are on the bargain counter. Send for our free price list of 100 head of choice females that will double and treble in value in the next few years over the prices we are asking. If you need a bull send for our bull list.
WOODLAWN FARM, Sterling, Illinois.

LISLE FARMS COMPANY HOLSTEINS
For Sale Bull Calf. Born March 26, 1918, almost White, a good individual. Is sired by a 24-lb. bull and his dam is a granddaughter of Hengerveld De Kol and out of a 27-lb. daughter of Lilith's Pauline De Kol's Count. Priced right. Write for chart pedigree.
H. BARKER, Herd Manager, Lisle, Illinois.

5 Holstein Bulls
Ready for Business At ½ Real Value

They are from world record sire and A. R. O. dams. We are selling farm.
LONG BEACH FARM, AUGUSTA, MICH.

Registered Holsteins

Must sell my selected foundation herd. 4 Heifers—age 20 to 27 mos. Sire has 28.44-lb. dam and sire with 57 A. R. O. daughters. Price $950. 4 Heifers—age 2 to 18 mos. 30-lb. Sire. Price $600. All bulls sold. Let me tell you why you should buy these now. Breeding and photo on request, they are worth it.
C. A. CLARK, TRENARY, MICHIGAN.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.
Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.
This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.
EMBLAGAARD DAIRY, Marquette, Michigan.

The Traverse Herd
Great Values In Bulls

from A. R. O. Cows with records up to 30 lbs. Let us know your wants. We will send extended pedigrees and prices.
TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

The Pontiac Herd
"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*
Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.
50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.
35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms
Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

HERD REGISTERS Two Sizes. New, Low Price Covers.
HOLSTEIN PEDIGREES COMPILED.
Stationery, Catalogs, Circulars Printed. Send for Samples and Price List. LIVE STOCK PRINTING CO., La Grange, Illinois.



Ollie Johanna Sir Fayne 59096. Sire: Sir Johanna Fayne, 44 A. R. O. daughters. Dam: Ollie atson Prima Donna, 31.10 lbs butter. Owned by Masonic Home Farm.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin testèd* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to

W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write **MASONIC HOME FARM**
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A $7.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A.R.O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Bonair Farm Holsteins

Sir Korndyke Fytje Pietertje 132719

The Only Bull whose sire, dam and full brother have all been first prize winners at any National Dairy Show heads our herd. His sons up to 6 mos. out of cows up to 26.76 lbs. for sale.
C. J. Will, Prop. Menomonee Falls, Wis.

Ready For Light Service

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

For Sale—Several Young Bulls

5 to 8 months old. Sired by a 30-lb. son of Rag Apple Korndyke, some are from A. R. O. dams and priced very reasonable. Wm. F. Mielenz, 312 First National Bank Bldg., Milwaukee, Wis.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

CHAS. BURBACH,
Waukesha, Wis.

MEADOW LANE HOLSTEINS

Get your next herd sire here from cows with 7-day and yearly records by our bull whose seven nearest dams average 33.77 in 7 days and over 1000 lbs. in a year.
AITKEN BROS., WAUKESHA, WIS.

SIR PIETERTJE ORMSBY MERCEDES 43rd

heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull **Maplecrest King DeKol 2nd.** A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos., to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

3 Serviceable Bulls For Sale

Out of A. R. O. daughters of Sir Urmagel Burke a 31-lb. sire with a 35-lb. sister, and from our senior herd sire, Bairdland Segis Sir Prize.

Youngsters from our junior herd sire, King Superba, whose dam has a yearly record of 1231 lbs. of butter as a 4-year-old are just arriving. Get one and raise him. It will pay you. Wisconsin accredited herd.
BAIRD BROTHERS, Waukesha, Wis.

FINE BULL CALF

We offer a bull calf born Nov. 19th, 1917. A very fine, straight, growthy individual ¼ white; dam has 7-day A. R. O. of 24.6 lbs. butter and 567 lbs. milk. He is by a sire whose two nearest dams average 22.3 lbs. butter and 520 lbs. milk at 3 years. Price $125.00 if taken at once.
Miller Bros., R. No. 25, Oconomowoc, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

All Bulls Advertised Sold

We have calves up to six months old from A. R. O. dams and King Superba, whose dam on strictly official test, as a 4-year-old averaged over a ton of milk a month and over 100 lbs. of butter a month for 12 months, at farmers' prices.
W. J. Mann & Sons, R. 2, B. 16, Waukesha, Wis.

MORE MILK—MORE MONEY

Get a grandson of this great cow, Milanhurst America DeKol, 143441, that produced an 8-gallon can and a ½ of milk per day equal to 13 tons, or more than her own weight each month for a whole year. If her milk was sold at 10c a quart her years production would amount to $1,300. A few choice bulls for sale, some of breeding age. Dr. David Roberts Stock Farm, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
613-14-15-16 Pioneer Bldg., Madison, Wis.

Pabst Stock Farm

6th in Prize Money Last Year

King Pontiac Champion is Third

He is only led in this one particular of prize money by King Segis Pontiac Count and Sir Pietertje Ormsby Mercedes. Here is additional proof that the Pabst Stock Farm is one of the foremost Holstein Breeding establishments in America and that King Pontiac Champion is the greatest living bull of the breed as no other sire's record can compare to his in 30-lb. and semi-official yearly daughters. He now has 80 A. R. O. daughters and will soon be a century sire. Look over our sale list before selecting a sire.

PABST STOCK FARM,
Dept. B, Oconomowoc, Wis.

Save Money On Your Herd Sire

I am now offering several fine bull calves 3 to 6 months old; all of them from dams with good A. R. O. records and sired by a grandson of Sir Pietertje Ormsby Mercedes, whose 3 nearest dams average 31 lbs. in 7 days. You can raise them as cheaply as I can and my price on these youngsters makes it a paying proposition for you to buy your herd sire now and raise him yourself. Write **W. P. Kissinger, Waupaca, Wis.**

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.
Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM,**
W. G. Marshall, Prop., Whitewater, Wis.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

BULL CALF—Roseclif King Segis Johanna, born June 26th, '17, well built, nicely marked. Sire: King Segis DeKol Fayne 8th, whose dam has 25.63 lbs. butter in 7 days. His grandsire is the sire of Segis Fayne Johanna the World's record butter cow for 7 days. Dam: Johanna Alicine made 14 lbs. in 7 days as a 2-yr.-old. Record made in warm weather. C. I. Reamer, North Liberty, Ind.

Bull Calves For Sale

AT REASONABLE PRICES

Sired by Sir Johanna Piebe White, whose first 3 daughters to freshen, average 22 lbs. butter 7 days at the average age of 2 years, 3 months. His dam and full sister have yearly records averaging 1030 lbs. butter for 1 year. Dams of calves have good yearly and 7-day records. Herd on federal accredited list.
RAY MEEKER, - - MUNCIE, IND.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the **World's Record** senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.
GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

Milford Meadows Stock Farm

Now Offers For Sale

M. M. Rag Apple Oak Denver

A most promising young sire, born June 4, '17. Nearly half white and an exceptionally good individual.

His sire is Dutchland Creamelle Denver Prince, a 36.25-lb. grandson of Colantha Johanna Lad.

His dam, Milford Josephine Oak DeKol, made 22.82 lbs. butter as a junior 2-year-old in June. Her sire is a son of Canary Paul Fobes Homestead and from a 29.55-lb. daughter of Homestead Junior DeKol. Her dam, 31.77 lbs. butter, 616.2 lbs. milk, is a granddaughter of Dutchland Sir Pontiac Rag Apple.

The three nearest dams of this young sire average over 30 lbs., one a junior 2-year-old. His dam is one of our good prospects and is to be retested this winter.

Milford Meadows Stock Farm, - Lake Mills, Wisconsin.

RICHLY BRED HOLSTEIN BULLS

from 5 to 16 months of age and sired by King Korndyke Veeman, the bull with 40-lb. breeding, whose two nearest dams average over 37 lbs. butter in seven days. These bulls are out of cows with large A. R. O. milk and butter records. Write us for full particulars.

Wisconsin Star Stock Farms, Ed. M. Schultz, Hartford, Wis.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.
J. D. McDONALD, WEST SALEM, WISCONSIN.

Must Reduce My Herd

Because of lack of barn room. I am now offering for sale some excellent yearling and 2-year-old heifers and a few young bulls. Sired by King Segis Pontiac Polkadot 8th, a grandson of King Segis Pontiac and Johanna McKinley Segis. Some of the heifers bred to Rag Apple Pontiac, a 30-lb. brother to Rag Apple Korndyke 8th. A few of the young bulls sired by him. Write for full information.
W. W. QUACKENBUSH, WEST SALEM, WIS.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.
DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.
L. K. LUSE, SUPERIOR, WISCONSIN.

CEDAR LAWN FARMS

A bull of rare individuality and size—¾ white. Six months son of Cedar Lawn Champion, No. 107976. Dam 14.07-lb. senior two-year-old, granddaughter of Sir Johanna DeKol. Price right. **C. A. Schroeder & Sons, West Bend, Wis.**

The Only First Prize Winner at the National Dairy Show Having a First Prize Dam and Sire



Sir Korndyke Fytje

We Offer One of His A. R. O. Daughters For Sale

SIR KORNDYKE FYTJE is the best show bred bull in the world—a positive guarantee of type in his offspring.

BOTH HIS DAM AND SIRE won first at the National Dairy Show besides being first prize winners at several state fairs.

THE DAM OF SIR KORNDYKE Fytje made 23.15 lbs. butter at 24 months of age and in a year made 783 lbs. from 18,431 lbs. milk. This was six years ago.

SHE IS A DAUGHTER OF Sir Pietertje Ormsby Mercedes, the greatest yearly record sire in the world, and from

MINNESOTA'S FIRST 1000-lb. cow, Riverview Fytje DeKol Ormsby.

THE YOUNG DAUGHTER of Sir Korndyke Fytje that we are offering made 16.66 lbs. butter in 7 days at 24 months of age.

SHE WILL FRESHEN early in November to the service of King Piebe Ormsby Mercedes, a young bull whose dam made 35 lbs. in 7 days and 1,136 lbs. in a year at 4 years.

HIS THREE NEAREST DAMS average 32 lbs. butter in 7 days and 1,040 lbs. in a year at an average age of 4 years.

SHE IS A SPLENDID heifer for type and size and will make someone a great foundation cow.

THE DAM OF THIS HEIFER made 26 lbs. in 7 days as a junior four-year-old and has a full sister with 26 lbs.

SHE IS SIRED BY Changeling Butter Boy 7th and from a 24-lb. daughter of Queen Piebe of Fairview, one of our greatest foundation cows.

QUEEN PIEBE OF FAIRVIEW made 22 lbs. in 7 days several years ago.

AMONG HER GREAT DAUGHTERS is Queen Piebe Mercedes, 1,389 lbs. butter and 30,230 lbs. milk in a year as a junior four.

THESE ARE BOTH WORLD'S records for her age and no cow, regardless of age or breed, can equal both her milk and butter production.

IF YOU ARE IN THE MARKET for females you want the blood that has produced winners. The pedigree of this heifer contains some of the greatest producing dams and sires in the world.

$750.00 BUYS HER—GUARANTEED SOUND.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

Enlisted for Immediate Service

A Fine Young Holstein Bull

GOVERNMENT INSPECTED—PHYSICALLY FIT.
AGE 18 MONTHS—BRED FOR PRODUCTION.
BEST BLOOD LINES OF BREED.
SERVICE RECORD OF HERD UNBLEMISHED.

A. A. Busse SUNNY HILL STOCK FARM **Slayton, Minn.**

Unless You Want a Good One Don't Write

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

ne that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

ill exactly fill the requirements. We have a few excellent youngsters by this yally bred sire. Write today for full information.

OHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

ne 18 cows milking in my herd during April eraged 960 lbs. milk per day and 52 lbs. butrfat, each, for the month. This included ifers milking since last September, October id November. These dams represent the st blood lines of the Creamelle, Johanna, eets, and Ormsby families.

red by Aaggie Burke Cornucopia De Kol

29-lb. bull, who traces back directly to the vo greatest foundation cows of the breed, pring Brook Burke and Aaggie Cornucopia auline. He is also closely related to the two ampion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

inship Stock Farm, Owatonna, Minn.

When writing advertisers please mention oard's Dairyman.

Bull Calf Advertised in Last Issue Sold

Having purchased a son of Colantha Johanna Lad for my Junior herd bull I can now release and *offer for sale a two-year-old* that we have been using the past year. Fine individual, well-grown, more white than black. Sire, *Sir Korndyke Ormsby DeKol No. 89006.* Sired by a son of *Hengerveld DeKol* and grandson of *Pontiac Korndyke.* Dam 18.74-lb. 3-year-old, *King Walker breeding.* Price for immediate sale $250.00. A number of choice bull calves under six months at reasonable prices.

GEO. H. ELWELL, - MINNEAPOLIS, MINN.

3 BULLS — **HOLSTEINS** — **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-old junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A World Record BULL

From a sister to Duchess Skylark Ormsby sired by a brother to Pietertje Maid Ormsby. His dam has 25 lbs. in 7 days and 725 lbs. in 1 year made at 3 years and 5 days.

Dropped Nov. 1917. Well grown, ⅔ white. Buy him now and profit by the increase in his value that is sure to result when his dam increases her record at the next freshening.

V. S. CULVER, STILLWATER, MINN.

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address

W. J. BOYNTON, Mgr., Rochester, Minn.

A Few Holstein Bull Calves

From a sire whose dam was a former state champion yearly cow—

For Sale

R. B. GOODHUE, - DENNISON, MINN.

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Mankato Holstein Herd

Offers you this

WONDERFUL BARGAIN

BULL born February 9th, 1918. ¾ white. Large and straight—a beautiful show calf, from a 32-lb. sire and 20-lb. dam. 5 nearest dams average 25 lbs. butter in 7 days. Price $350. **Marlow and McCargar, Mankato, Minn.**

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Bloomingdale Herd ...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

A. A. Courtelyou, Somerville, New Jersey.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO.

SOUTHERN HOLSTEINS

YOUNG BULLS FOR SALE

I am offering a bull calf born April 15th. His sire a grandson of King Colantha Clothilde 28 A. R. O. daughters (2 above 30 lbs., 18 above 20 lbs). His dam a 24.78-lb. daughter of Tettje Janzen Soldene Master. Well marked and a good individual. Also several other young bulls from A. R. O. stock for sale. $150.00 each. Write

Herman Feldmann, Licking Pike Farm, Newport, Kentucky.

Holsteins At Auction



Send for information about the sales of healthy, reliable, registered cattle, held at *Brattleboro, Vermont, the First Tuesday and Wednesday of every other month. Come to Brattleboro, the Holstein-Friesian Capital of America.*

Address The Purebred Live Stock Sales Company.



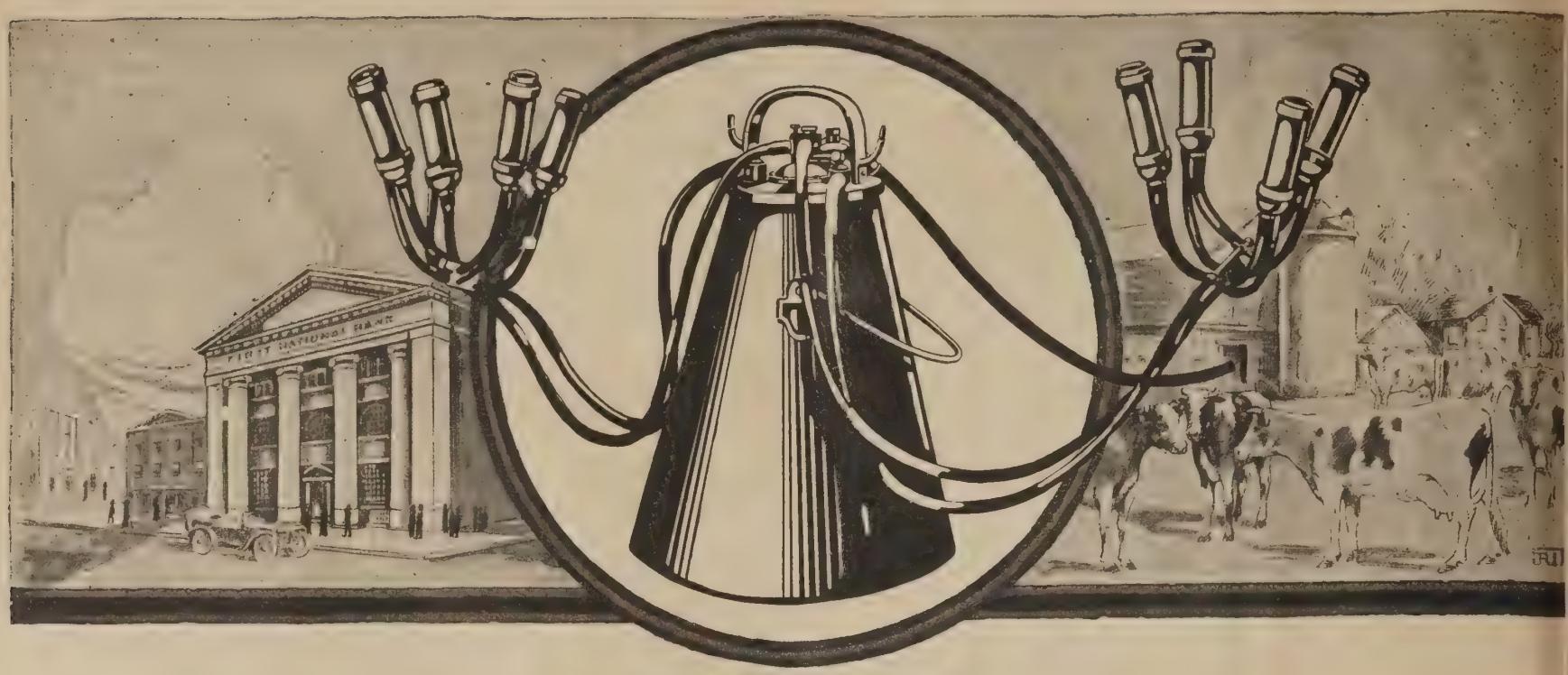
STUDY the profitable side of dairy farming—investigate the wonderful success others are achieving with

PUREBRED

HOLSTEIN CATTLE

In the records of the A. R. O. no less than 26 purebred Holstein cows have produced 40 lbs. of butter or over in seven days with a correspondingly large milk yield. Holsteins are the one breed that profitably produce the year round

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101 Brattleboro Vt



A National Asset

THE Banks of your town—and of every other farming community—are the greatest evidence of our National Assets. They *store* your money, the product of your labor, your live stock and your land.

But more important than mere money are the farms themselves and the modern equipment that makes it possible to produce more crops per acre, more dollars on less land. These are the Nation's *real assets.* These are the things that make ours the richest nation in the world.

The Empire Milking Machine is one of these National Assets. It enables the dairy farmer to harvest more milk at less cost. It conserves man power: one man with the Empire Milking Machine can do the work of three or four hand milkers—better and in the same time.

Empire Milking Machines produce cleaner milk (worth more money): for they take the milk from the cows as nature makes it, without an instant's contact with the stable air or other impurities. Their gentle, even, massaging action soothes the cows and makes them better producers —it usually lengthens the period of lactation.

The Empire is the Recognized Standard Milking Machine —ask any Empire user.

The Empire is a National Asset. *More* than that: it is what your banker would call a LIVE ASSET, an asset that produces additional wealth. Its value is not "what it costs" but "what it will earn for you". Considered that way its cost is too small to think of.

Let this National Asset add to your milk check—give the Empire a chance to increase the productivity of your dairy. Call on the Empire Dealer or write for Catalog 31 at once.

Empire Cream Separator Company

Bloomfield, New Jersey

Chicago, Ill. Denver, Colo. Montreal and Toronto, Canada.

Also Manufacturers of Empire Cream Separators—Empire Gasoline Engines—and Empire Farm Electric Plants.

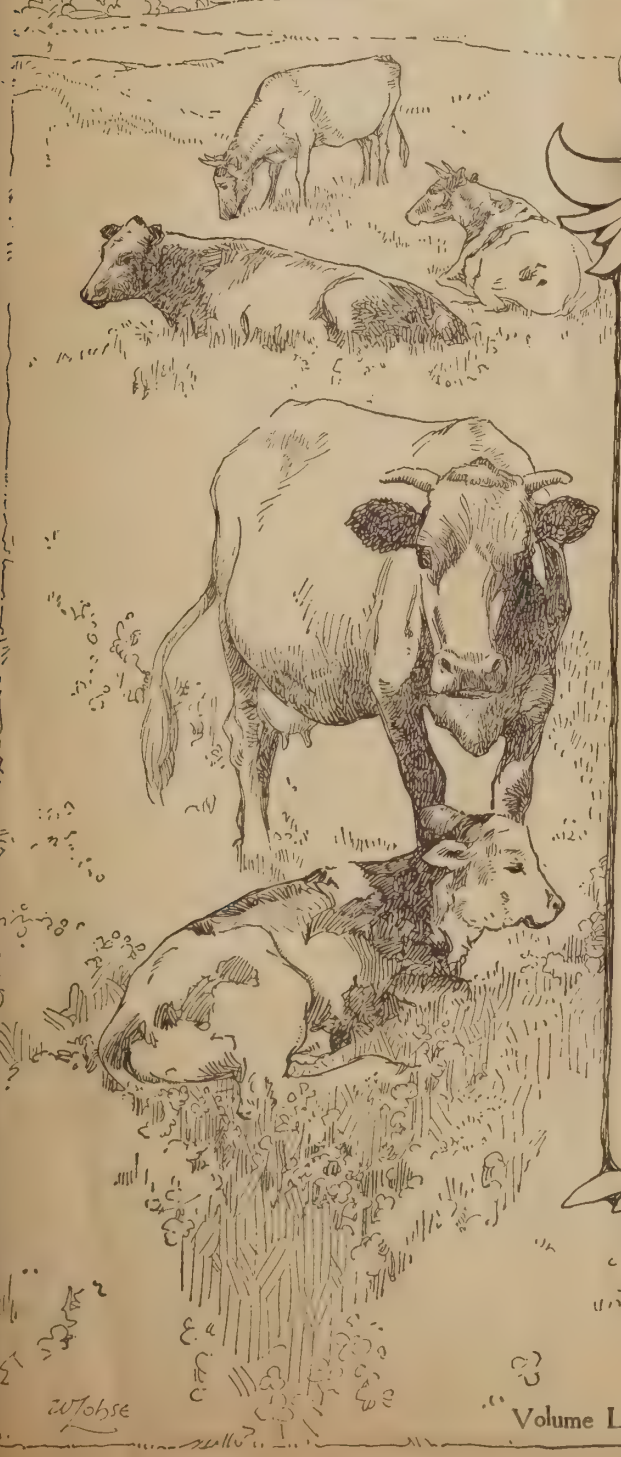
EMPIRE

MILKING MACHINES

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HOMER M. HARPER
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U. OF ILL. DAIRY
OFFICE
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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



The SIGNAL OF THE SILO

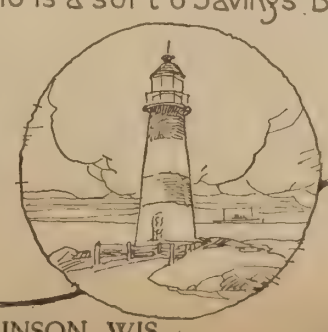
W. Livingston Larned

The Dutch are known for Windmills, grinding out their daily bread
Each white arms, like to feathers, on some giant Injun's head.
And--where you see them turning, it's a sign of happiness--
Of thrift and wealth and labor and th' swish of fortune's dress.
Here--in canals of clover and by dykes of golden grain,
We hear our own hearts bumping to the joy of toil, again,
And Silos, white and gleaming, silhouette against th' sky,
Chockfull of food fer cattle, they'll be munchin' bye and bye.

The sea boasts prim light-houses, perched along the stormy shore,
To guide th' wind-tossed sailor, when his own eyes see no more;
Whilst we--we of the inland, have our Silos standin' guard
Through snow and rain and winter, with its fists a-beating hard.
And, somehow, we compare 'em, in a tidy sort of way,
With them as stand out yonder, where th' ocean roars, today.
Th' treasure-trove of cattle that are hungry with the morn
A storm-bound Silo, standin' in a restless sea o' corn

And whether made of cement, or stave, or iron, or tile,
Or woods of all creation, from up Maine ways to th' Nile,
Or whether concrete fellers get th' local upper-hand,
God bless 'em--they're ALL Silos, for th' better of th' land
A munch of tasty silage, makes th' Dairy records grow:
Who gives a hang for feed-bills and a winter full of snow
Th' herd is plump as butter...and if folks have cause to thank
It's because each farmer's Silo is a sort o' Savings Bank!





Volume LVI Number 4 FORT ATKINSON, WIS. AUGUST 16, 1918

Hoard's Dairyman

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Subscription in United States and Mexico $1.00 per year; 6 months, 50 cents; 3 months, 25 cents. Canada, $1.50 per year.

FOREIGN SUBSCRIPTIONS may be sent through Wm. Dawson & Sons, Cannon House, Breams Building, London, S. C., Eng., or their agents, including the news dealers and book sellers in all foreign countries.

Subscription agents for New Zealand—Bray Bros., Agricultural Hall Building, Dunedin, New Zealand. Also—The New Zealand News Co., 150 Wakefield St., Wellington, N. Z.

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Butter and Cheese for the National Dairy Show

Now is the time to be making cheese to go into storage to be getting ready for entry in the exhibit of dairy products that is desired for this year's National Dairy Show.

The educational work of the Show this year is to be conducted by federal government experts along lines of production and consumption of milk and its manufactured products. The form of effort to be advanced is a showing of the vital need of milk for babe and infant as well as adult life, and to impress upon the consuming public how possible it is to completely sustain life and vigor on dairy products alone, also to impress upon the dairy people the absolute necessity of maintaining and building up the dairy industry to the fullest possible extent. It is thought this would be best emphasized by an exhibit of such magnitude that it would aid in crystallizing the thought of the immensity and value of this great industry. Every butter and cheesemaker who desires to aid in such a laudable effort and at the same time advertise his make should write the National Dairy Show, 130 No. Wells St., Chicago, for prize list and entry forms.

The state sending the largest number of exhibits will receive a silk and gold banner and a gold medal goes to exhibitor receiving the highest score.—Publicity Department.

"Putting shock corn in the silo," says Professor Eckles, "makes satisfactory silage, but not as good as silage from corn put in at the proper stage. It is not a practical thing to do except on farms where a water [illegible]m makes it possible to add the [illegible] amount of water and to do [illegible] the corn goes in. The [illegible] be added should be [illegible]und for pound



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Wanted:—Position on a dairy farm. By a young college man, who will work during the remainder of the summer. Am not afraid to get up at five and stick on the job until ten at night. Do not smoke, drink, or chew. Have no bad habits. Like cows and am a quick learner. Have no desire to spend my time in the village. Do not expect large wages to begin with. Content to sleep in garret or even in barn. Willing to learn. Anything that's grown about the place is good enough eating for me. Will pay my own expenses to place. K. B. R.

And nobody answered the advertisement—they thought it must be a joke.

Content on the Farm

Mother's more than happy at her farm chores, nowadays;
Goes about it singing while th' shiny motor plays.
Wired the whole place, Mister—brought it strictly up to date;
Press a button—Presto! Mr. Edison, you're great!

Mother does her washing by the motor-driven plan,
Mother sharpens scissors like th' city fellers can.
Mother does her churning with a lever and a spark!
Mother lights the dairy in a jiffy, when it's dark.

Say, it's fun for women! This electric-driven scheme!
Sweep with it and cook with it and freeze a quart of cream!
Home is filled with singing and th' grub is never late.
Press a button—Presto! Mr. Edison, you're great!

At the Cantonment

Camp Cook:—"How is that for milk, eh?"

Private Snuggins:—Raised on a dairy farm—"All I can say is that the cow that gave it was sired by a pump."

Joy on the Ear

The time is almost here,
When a feller can get
His corn on the cob,
And can dab it all over with butter
And dive into it,
Until his ears are as slick
As a new milk tin.
Of course,
You know and I know
That more than likely
They serve us up common
Field corn
Meant for cattle,
And it's tough, and mealy
And wasn't intended
To be eaten by humans
On the cob at all.
But when you get a real
Roasting ear, all plump
And mellow and sweet,
Isn't it the most heavenly taste
On earth?
Oh, those poor deluded mortals
In town,
Who cook up the field ears
Under the delusion that
It's Country Gentleman
Or Golden Bantam!
May they live to come out
To the farm
And have a real cob
Of real corn.

I know a farmer who had a prize hog and he built him a concrete pen and gave him patent back-scratchers, and scrubbed him twice a week, and mixed his diet scientifically, and planted sunflowers all around the pen, and combed his bristles out—but he was still a hawg!

"Oh, mother!" called little Ella, six years old, as she looked into a pan of milk that had been standing over night, "The marigolds that the bossy ate has all come to the top."



THE

NEW DE LAVAL

CREAM SEPARATOR

Will Give You

Greater Capacity, Longer Wear, Better Service, Bigger Value

THE bowl of the New De Laval has greater capacity for a given size and a given speed than any other. The experience of thousands and thousands of users has proved that a De Laval will outlast and outwear any other make.

Look well to service when you buy a cream separator. That means more than anything else. That should include not only a good working and reliable machine, but the right sort of attention and interest on the part of the seller, not only at the time the machine is set up but as long as you continue to use it. De Laval service is well known. You can depend upon it.

Value depends upon the amount and quality of service the separator gives you—what you get out of it. You get more value for your money when you buy a De Laval, because it will give you more and better service than any other separator.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Co.

165 Broadway, New York 29 E. Madison St., Chicago

Resolve to Build a Silo

ALTHOUGH the silo propaganda has been continued for more than a quarter of a century and although the merits of silage as a feed for dairy cows has been fully demonstrated for these many years, yet there are many farmers who at the present time are soliloquizing as to whether "to build or not to build a silo this year". All the force of argument would seem to indicate favorable action, yet amidst it all there is confusion as to whether it will really prove profitable and more confusion as to the particular type of silo. Decision is the trait of the good business man, and for the farmer the decision to build or buy a silo is more important than decision as to the kind of silo.

Will it Pay?

Will it pay? It is generally recognized and accepted that silage is a good feed for dairy cattle; it is palatable and succulent; it has an excellent effect on the digestive tract; and it supplements legume hay in such manner as to make it an ideal ration and one with which almost any combination of available grain feeds may be used. But, will it pay? Does its cost overbalance its benefits?

There is much that can be said on this subject, but probably the best argument is that practically every successful and prosperous dairyman has one or more silos. It is safe to say that there are over 400,000 silos that proved their worth last winter in reducing feed bills and increasing milk yields. Figures of profit could be quoted, but after all the general adoption of the silo by the best farmers after 40 years of experience is most convincing proof that it is a profitable investment. However, it might be well to cite a few of these reasons.

The silo is the best and cheapest form of providing succulent winter feed. It is the cheapest farm building we can erect. It will house feed nutrients at a lower cost per ton than the hay mow in the barn will protect like feeding value in the form of hay or other roughage from the weather. It increases the producing capacity of the farm at least 10 per cent, and will often increase its stock carrying capacity 25 per cent. It is the cheapest place to store the corn crop, for an acre of corn can be placed in the silo at a cost not exceeding that of shocking, husking, grinding, and shredding, and it will preserve more feed nutrients and produce more milk per acre than any other system of handling. It saves a third of the value of the corn crop that is otherwise largely wasted. It requires less labor to feed silage and there is less waste of fodder by the cows. It is the cheapest and most convenient method of soiling.

The Kind of Material to Use

Having decided that we shall erect a silo, the next question is the kind of material to use. The writer could state his own personal preferences, but he finds that the man next to him has as other preferences. Both realize that with silos, as with machinery, only general principles may be laid down. If the manufacturer has followed these, then the decision is up to the farmer. In the building of a silo there is a choice of materials, different methods of erection, various types of doors, different forms of roofs, etc. However, there are certain fundamentals that should be considered.

Experience has determined that to be a good storage for feed a silo must be an air tight, water tight tank reinforced sufficiently to prevent its spreading, and with smooth, plumb walls; that the circular form or a near approach to it is the best; that it must be of the right diameter to provide the daily feed without spoilage and that it must be of sufficient depth, say two to three times its diameter, to secure economy in capacity, a good quality of silage, and a sufficiency of feed for the year. These are fundamental requirements, all other matters are of relatively minor importance.

There are instances where it will be better and cheaper for the farmer to construct his own silo, but in the well established dairy sections the time is past for cheap construction and temporary buildings. The log cabin, the small frame house, and the old type of barn all have their time and their place, but the area has come, or is coming, in the prosperous dairy communities when we must have some regard for asthetics and the amenities of life on the farm. Makeshift buildings do not satisfy. We should provide for permanency and buildings that beautify our farmsteads. This applies to the silo, as it does to the farm home, the barn, and the farmstead as a whole.

Size of the Silo

Having decided to build a silo and having determined the kind to build, the next question of importance is the size of the silo. The first consideration is to know the minimum daily consumption of the live stock to be fed, and this can be readily computed with the aid of the following table:

Table I. Showing the amount of silage usually fed to different kinds of stock on full feed.

	Lbs.
Dairy cattle per 1,000 lbs. live weight	30
Beef cattle per 1,000 lbs. live weight	30
Horses per 1,000 lbs. live weight	20
Dairy cattle, supplementary to pasture	15
Sheep, per head	2

Silage is more compact in the bottom of the silo than in top, and the weight per cubic foot increases with the depth. In a silo containing thirty feet of silage the weight per cubic foot will vary from about 18 lbs. at the top to 56 lbs. at the bottom, but the average will approximate 40 lbs. Table II is based on this average, and this fact should be taken into consideration in using the table to determine the diameter of silo:

Table II. Showing Relation Between Size of Herd and Diameter of Silo

Diameter of silo Feet	Weight of layer 2 inches deep Lbs.	Number of stock this layer will feed, allowing per head: 40 lbs.	30 lbs.	20 lbs.	15 lbs.
10	523	13	17	26	35
11	633	16	21	32	42
12	754	19	25	37	50
13	885	22	29	44	59
14	1,030	25	34	51	69
15	1,178	29	39	59	79
16	1,340	33	44	67	89
17	1,513	38	50	75	101
18	1,685	42	56	84	112

The diameter of a silo is determined by the size of the herd or the daily requirements. Too large a diameter for the stock to be fed means waste and spoilage of silage.

The height of the silo is determined by the length of the feeding period or the annual requirement and may be computed by the use of Table III. A high silo gives greater compression, which means that the air is more thoroughly excluded with a resulting better quality of silage; it also means the storage of more silage in a given space. The height should be from two and one-half to three times the diameter for best results, and it is well to set the minimum at 28 or 30 feet.

The Machinery to Use

Having decided to build and having built the silo, the next question of importance to consider is the machinery with which to fill. We are already provided with the corn harvester, but unless there is a silo filler and engine in the neighborhood we will have to buy one. The present tendency is away from the larger outfit, and possibly the most economical method, for the man with 20 to 30 cows or less, is to join with three or four neighbors in the purchase of the necessary equipment and in exchanging work at silo filling time. Write the manufacturers of these supplies who advertise, give them the number of silos to be filled and their size, ask them as to their recommendations as to the best outfit to meet your particular need, and then make a decision giving due regard to quality as well as to price.

The Kind of Crop to Ensile

We are now fully prepared as to facilities for storage, and all that remains is to supply the silage crop. In those sections where corn will make a good crop, it is to be preferred for silage.

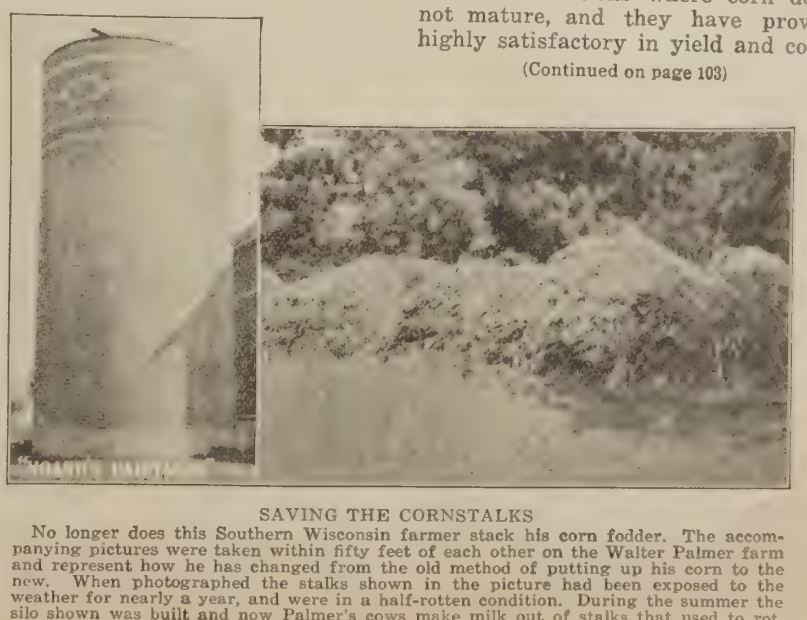
Next in importance as silage crops are the sorghums, both the sweet and the grain sorghums, which are particularly adapted to some of the southern states and to certain other sections of the semi-arid Southwest. North of the corn belt the grains and some of the legumes are much used for silage, as they are also used as substitute crops when corn fails or when additional feed is needed. In a recent survey we found oats and peas were used in practically every state as a substitute crop, but we apprehend that wheat or other grains, either combined with legumes or alone, are in greater use where corn or the sorghum cannot be relied upon. However, alfalfa, sweet clover, and common clover are largely used, and as more knowledge is gathered concerning correct methods there will be an increase in their use.

Sunflowers have been ensiled alone in certain sections where corn does not mature, and they have proven highly satisfactory in yield and com-

(Continued on page 103)



MEN AND TEAMS ARE KEPT BUSY ON THE FARM OF J. A. BOYD, INDIANA, WHEN FALL COMES AND THE CORN CROP MUST BE PLACED IN THE 18'x40' TILE SILO



SAVING THE CORNSTALKS

No longer does this Southern Wisconsin farmer stack his corn fodder. The accompanying pictures were taken within fifty feet of each other on the Walter Palmer farm and represent how he has changed from the old method of putting up his corn to the new. When photographed the stalks shown in the picture had been exposed to the weather for nearly a year, and were in a half-rotten condition. During the summer the silo shown was built and now Palmer's cows make milk out of stalks that used to rot.

Dairy Feeding to Meet Present Conditions

B. G. SOUTHWICK, Massachusetts

PROFITABLE feeding of the dairy cow should always be based upon a proper adjustment of feed cost, in labor and money, to production and the value received. All concentrates are much higher now than in 1916, while labor is not only higher but more scarce. With these facts confronting the eastern dairyman, what has he done to adapt his feeding practice to present conditions?

In the spring of 1917 a study was made through all New England for the purpose of learning what it had cost the previous year to produce milk. This study included the twelve months from May 1, 1916, to April 30, 1917. Needless to say, results in the different states varied and the values or money costs mean little now because prices have risen. However, the amounts, or quantity figures of milk produced, grain, succulents, and roughage fed are still valuable, unless existing conditions have changed the feeding practice.

Feeling that some verification of the previous study was desirable, a small number of Massachusetts dairymen were visited in May, 1918, and records of their cost of milk production secured. A comparison between the two years indicates the trend of feeding practice, and is more valuable than the cost in dollars.

The following table shows the results on the same Massachusetts farms from May to May in each case:

Same Group of Massachusetts Farms	Feed Used per 100 Lbs. Milk: Grain	Silage and Green Crops	Dry Roughage
May 1916-1917	48.5 lbs.	110 lbs.	97 lbs.
May 1917-1918	46.7 lbs.	104.1 lbs.	111.7 lbs.

	Feed per Cow 1916-1917	1917-1918	Increase	Decrease
Grain	2,430 lbs.	2,213 lbs.		217 lbs.
Hay	4,379 "	4,774 "	395 lbs.	
Corn stover	478 "	520 "	42 "	
Silage	4,098 "	3,673 "		425 lbs.
Green crops	1,408 "	1,260 "		148 "
Milk produced per cow	5,005 "	4,736 "		268 "

These are figures from only a small number of dairies and all the herds averaged in 1917 to produce less than 5,500 lbs. of milk per cow. They, nevertheless, represent cows of about average production.

The following conclusions seem justified: Dairymen have in the past year reduced those feeds costing the most money to buy and labor to produce. In proportion to the milk produced, grain is still fed rather liberally on these farms, but not as much as last year.

Hay Cheaper Than Silage

The reduction in silage fed was probably influenced somewhat by the early frost last fall, but, coupled with an increase in hay used, it points to a realization of labor conditions and feed values. It requires 3 tons of silage to furnish the same digestible nutrients to a cow that one ton of hay will furnish. Hence the question of farm labor to produce it is involved. Silage corn requires about six times the labor needed for an acre of hay and a comparison of the two is approximated by the accompanying table.

	Yield per Acre	Labor per Acre	Acres to Produce Equal Nutrients
Hay	2 tons	1 unit	2
Silage corn	12 tons	6 units	1

As six times the labor is needed for silage corn, any farmer who is not short of land, but is short of labor, can raise more nutrients with that labor in hay,—though he must harvest even four acres to equal the yield of nutrients from one acre of silage corn.

It is not the best feeding practice to use no silage but there seems to be no good reason, except shortage of land, for feeding more silage than hay. Apparently, dairymen are realizing this under present labor scarcity and adjusting their feeding practice to fit. At least the following measure of feeding efficiency indicates this conclusion:

Make Milk From Home Grown Feeds

Present conditions and costs of both grain and labor ought to convince the eastern dairyman that milk can be most economically made from home grown feeds. The practice of one Massachusetts dairyman, who made a profit last year of $55 a cow, illustrates this fact when compared with another man's practice who lost money on his cows:

Two Types of Dairy Feeding	Jones (He made money)	Smith (He lost money)
Grain (total)	1,642 lbs.	2,415 lbs.
Hay and stover	5,369 lbs.	4,000 lbs.
Silage and green crops	6,526 lbs.	5,434 lbs.
Milk per cow	5,435 lbs.	4,127 lbs.

The cows of these two men were probably not equal in producing capacity, but this emphasizes more strongly the necessity of feeding in proportion to production. Heavy grain feeding will not take the place of good cows.

Jones made money but he can improve his farm management. Last year he had practically no clover hay. He picked the ripe ears off the silage corn, and his only home grown grain was corn. With clover hay and oats to grind with the corn, he probably could have reduced the grain purchased. He robbed the silage of its mature ears in order to get the sensation of feeding the grain.

Economical feeding of the dairy herd in the eastern states ought to be based on: first, as much clover hay as can be grown and a liberal use of hay, whether clover or not; second, the use of silage from mature corn to supplement the hay, but not to replace it; third, all the home grown grain that can be raised including corn, oats, and barley; fourth, the use of purchased concentrates only to supplement the ration; and, fifth, feeding according to production secured.

The dairyman whose system of farming fits these first three requirements has a strategic advantage over the man who is largely "manufacturing" milk from purchased grain. Moreover, present conditions are forcing dairymen to this system of farm management, or forcing them to the wall.

Washington County, Minn., Guernsey Club

The annual picnic of the Washington County (Minnesota) Guernsey Club took place on June 12, at Lake Elmo, on the farm of Ed. Wiers.

The weather conditions were ideal and a large crowd of Guernsey breeders attended. R. A. Wilkinson of Lake Elmo was the first speaker of the afternoon. His talk sure was instructive as he touched upon numerous things that every one appreciated, including the Red Cross work throughout the country.

He was followed by Professor W. A. McKerrow of the University Farm and, as usual, his talk was featured by the strong interest the people took in it.

Professor Weaver, also of the University Farm, gave a splendid talk on feeding during war time when feed is so high and some of it scarce.

Mr. E. A. Onsrud, fieldman of the American Guernsey Cattle Club, then spoke and his talk was inspiring, as everyone rejoiced over the big advancement the club's business has made the past year. His talk put determination into the people that this year will again be a banner year for the Guernseys.

H. R. Leonard, assistant state leader of county agents, spoke next and surely made a hit, as the people all remember the good work he accomplished in this county when he was county agent.

Mr. A. G. McCormick, the present county agent, finished the very successful program by encouraging everyone to work all the harder as this war should not stop the Guernsey cow from staying on top. He made many new friends by his inspiring and encouraging talk.

The feature of the day was the sale of a beautiful yearling grade Guernsey heifer donated by L. E. Hageman & Sons for the Red Cross. H. R. Leonard wielded the hammer and after some very spirited bidding the heifer was finally sold to Professor W. A. McKerrow for the neat sum of $90. Master Herbert Hageman, dressed as Uncle Sam, held the heifer as she was auctioned.

Minnesota. L. G. HAGEMAN.



MASTER HERBERT HAGEMAN AND THE RED CROSS HEIFER SOLD AT THE WASHINGTON CO., MINN., GUERNSEY PICNIC TO W. A. McKERROW, UNIVERSITY FARM, MINNESOTA

Progress of a Pennsylvania Breeders' Association

HOARD'S DAIRYMAN:—On March 3, 1917, when the Grove City, (Pa.) Guernsey Breeders' Association first organized, there were only twenty-two pure-bred Guernseys belonging to the eighteen charter members of the association. Part of the members had no pure-bred Guernseys at all and all that induced them to belong to the organization at all was their interest in the breed and the hope that some day they would have one or more.

Today, less than eighteen months after the organization of this association, due to several influences, chief among which have been the activities of R. R. Welsh, extension representative of the U. S. Dairy Division, and to the financial and other encouragement of the Grove City National Bank, this young association has grown to a remarkable strength and activity.

Today, instead of the original 22 pure-bred Guernseys of rather nondescript breeding as far as Guernseys go, this number through births and purchases has mounted until today one member alone has eighteen head of females. So great has been the interest in the breed that another of the charter members sold all his grade stock and used the money to buy a son of Galaxy's Sequel out of a dam with a record of over 500 pounds of fat. To go with this bull for a foundation of females he bought an imported cow and her daughter, both with good Advanced Register records. Still another member was very fortunate in buying a son of Molly Rose O. D. (leader in Class EE at the time her record was made) and sired by Anton's May King, the $7,000 bull. Another young breeder has a son of Anton's May King and out of a 500-lb. daughter of Begalore.

In regard to Advanced Register work one member has made application for this work to start with his herd in September and several others are trying their cows out in the local cow testing association preparatory to this work.

However, a far more important step has just been taken by the members of this young organization, probably the first of its kind in this country to adopt such a rule. At a recent meeting it was voted that a member either to become or to remain a member of the organization must sign up to have his herd tested for tuberculosis under the new "accredited herd" plan of the U. S. Bureau of Animal Industry. At the same meeting a uniform cash bull service fee was suggested and with it the suggestion was made that after each service the bull be flushed out to prevent the spread of contagious abortion.

With these two important measures and the good blood lines it is to be hoped that in two or three years when the members begin to have surplus stock for sale that the New England Guernsey buyers on their trips to buy Guernseys will at least stop among the members of this young organization.

Pennsylvania. HUGH FERGUS.

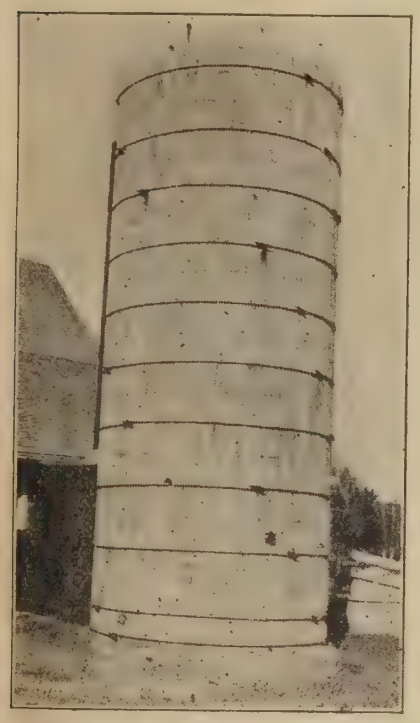
Which is the Best Silo?

JOHN BOWER, Minnesota

OF all the questions that are asked today of agricultural college, press, or lecturer, the question, "Which is the best silo", is one that is heard most often; in fact it is a vital one. The farmer who is going to build a silo, and no progressive farmer, or any farmer for that matter, can afford to farm without one, is confused by the kinds and conflicting statements of different silo agents. Tile, solid cement, hollow block, stave, cement stave, steel, one-piece or two-piece, fir, redwood, or cypress, single wall or double wall, ground silos, shiplap, and home-made,—it is enough to drive any man crazy. Indecision as to kind means lack of action and that means no silo, and the wonderful beneficial effects of the silo as a factor in feeding are lost.

Experiment Stations Add to the Confusion

Not only silo agents but even our colleges seem to stand sponsor for the different types. When we think of Wisconsin we think of the Gurler silo



THE CEMENT STAVE SILO WHICH PAID FOR ITSELF IN TWO SEASONS
OWNED BY W. J. TEMPLE, NEBRASKA

with its 2-inch by 4-inch studding and shiplap inside and outside. When we think of Indiana, we see the solid cement wall reinforced with steel and forms for building same. Come over to Iowa and the hollow clay tile and Iowa station seem closely associated. When you go down to Kansas the station there advocates and aids in the construction of the plastered steel silo. Steel frames were erected and heavy steel woven wire interposed and plastered two inches outside and inside with cement plaster. No wonder the farmer is confused.

Even he has not been idle and we find 2-inch by 4-inch studding nailed upright with heavy tar cord between. We find the hole in the ground, we find a modification of the Gurler silo, and a few other types. Usually such a builder is conscious of the great merits of his silo, and it gets quite a publicity beyond his own community. Bankers, merchants, travelling men, and others realizing in a vague way that here is something of merit, urge the building of silos, but confuse the farmer with a lot of advice often as wordy as useless.

What Constitutes a Good Silo?

Now let's sift some of the main facts of silo construction out of the mass of unimportant matter. What do we want? What are the essential needs? What shape? What height? We want a building that is air-tight and will remain air-tight; we want one as cheap as we can get it if it is right; we want a silo to last at least our lifetime; we want one that will give us as little care as possible or low maintenance; we want a continuous door; we want those doors, like any other doors, on hinges; we want a good ladder; we want smooth walls and at least height enough to lessen percentage of waste on surface to the smallest per cent practically possible.

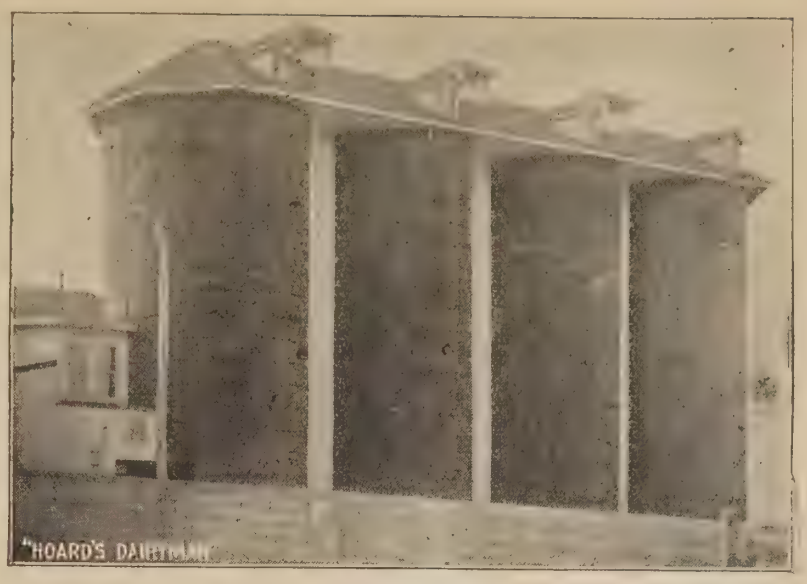
The Home-made Silo

Of all silos that have given the least satisfaction, the home-made silo and the hole in the ground are the poorest. The only other silos, perhaps, were the square or rectangular silos which were first built. There is no question but that the round silo is the best silo shape and no other shape should be built. There was too much waste in the square silo and it was too expensive per unit space, and generally unsatisfactory, with bulging walls and spoiled ensilage. Of the home-made types, some are fairly satisfactory but too often they were not well constructed, and as a general proposition it does not pay a farmer to erect his own silo either of wood or cement. The main objection to the underground silo is that it is more costly to build. In many cases they are faulty in construction. The chief objection is the added cost in labor, with engine or horselift to daily get the ensilage out of the silo. It might be all right for the day, but it becomes a real burden as the days and years come and go.

[Mr. Bower's statement relative to the value of pit silos applies in those sections where there is a great deal of water in the soil. Where soil conditions approach those of Western Nebraska and Kansas, for example, the underground silo is being used to advantage. A number of simple mechanical hoisting schemes have been used so successfully as to greatly lessen the objection to lifting the silage out. Some of the advantages claimed for pit silos by those who use them in sections in which the soil is adapted to them are: (1) They cost very little, enabling men to own a silo who have not the necessary capital for an above-ground silo, (2) less power and less equipment is needed at filling time as no blower or carrier is used, (3) no trouble is experienced with frozen silage, and (4) pit silos do not blow over.—EDITORS.]



DIGGING A PIT SILO
The simple hoisting derrick shown here can be used for elevating the silage after it has served its purpose in the construction of the pit silo.



BATTERY OF FOUR STAVE SILOS USED ON THE FARM OF JAS. HEACOCK & CO., PENNSYLVANIA

Objections Raised to Stave or Wooden Silo

Talk to a cement, tile, or any mason constructed silo salesman and one would think that all you have to do is blow good and hard and the modern knock-down stave silo would tumble down in a million broken pieces and that the farmer who owns one spends two-thirds of his time tightening hoops. Nothing could be further from the truth. The writer has traveled over four states, has seen numbers of silos, and so far has seen but three silos on the ground. Two of them were eighteen feet in diameter, and in the other case the storm was of such violence as to damage other farm buildings. The staves did not seem to be at all damaged but the hoops were badly twisted. The modern stave silo, painted and properly anchored, is just as permanent a structure as any other farm building, the tightening of the hoops is no burden and its life is much greater than the life of the average farmer on the farm. Any farmer who erects such a silo can be assured that he has something which is absolutely right.

The Mason Constructed Types

Of these the most common are the clay block or tile silo, the cement block, the solid wall cement, and the brick. Occasionally we find one of stone. To listen to some of the stave silo agents there really is no real good in any of the types. They crack open so that one can "throw a cat through"; if cement, the cement peels off, the silage doesn't cure, and when the silage freezes it never thaws out till the middle of June. Don't believe it. When built right, they are right. Some few do crack, some cement ones crumble, and one finds frozen and poorly cured ensilage in some, as in the stave. Erect them properly, absolutely air-tight with smooth walls, and as good ensilage can be made and is made as in the best of the wooden types.

At the same time there is not the weight of argument for them as would appear on the surface. Permanency will have to be conceded. For the same reason we should build all farm buildings by mason construction and the silo does not lend itself any better or as well to mason construction as does a barn. A silo 14 feet by 34 feet, a common size, means building a wall nearly fifty feet long and thirty feet high with lateral pressure of quite large proportions to be considered. There is not one country mason in ten who thoroughly comprehends the need of such a structure, either as to foundation requirements or pressure effects. The writer would prefer to contract the erection of such silos to responsible firms who made a business of such erection, inserting in the contract a clause whereby the owner would be recompensed should cracks appear or cement scale off on account of poor workmanship or material.

Shall We Build Silos Frost Proof?

So much rubbish and misinformation has been talked about frost that certain farmers favor certain silos and even would build special types to prevent freezing. These are usually built at an extra cost. They might as well save their money. Have doors on hinges, keep them shut, put on a roof, feed a little lower near the wall, put silo on protected side of barn and you will have no frozen ensilage. A silo wall does not have to be thick to be good. A two-inch wood stave is as satisfactory as one ten times as thick. The more important point is to have air-tight walls.

In regard to height, while height is desirable from most every viewpoint, it is not as essential as is so much advocated. As good ensilage is found within two feet of the surface as further down. No matter how high, there will always be some silage one, two, three, and more feet below surface. The higher the silo the greater the tonnage that can be compressed into the lower part of the silo. A silo should be at least thirty feet high. Thirty-five or forty would be better. The per cent of waste on top is smaller in the higher silo. In width, sixteen feet is the maximum. Any greater width means double handling of silage to get it to the chute and in stave silos makes the circumference so great as to lose its strength or soli-

(Continued on page 110)



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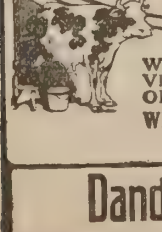
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Idaho Alfalfa Notes

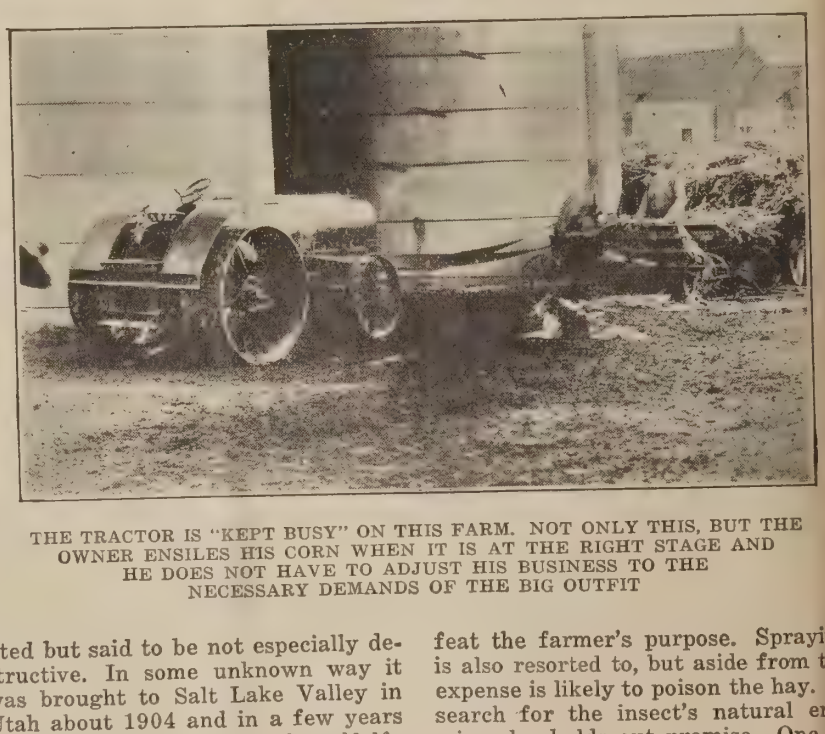
J. F. BRUINS, IDAHO

THE worst news that dairymen of this section have heard for some time is that the alfalfa weevil had become established in our neighborhood. This insect has a record of destructiveness in the Utah meadows that the German army might regard with professional envy but we had not given it much attention, believing it was several hundred miles away and for an indefinite time to come the other fellow's problem. Now, however, it has turned up securely established in the Payette Valley of Southwestern Idaho, a jump of almost the entire width of the state. Further, the government entomologists give us the not very cheering assurance that it may very likely be present in other localities where it is not yet noticed.

The Weevil Advances

This pest is one of the worst with which western agriculture has had to contend and as it gives no signs of halting its steady march into new fields its final result will probably be to raise the cost of producing dairy products everywhere. It is a native of Europe where it is widely distributed but said to be not especially destructive. In some unknown way it was brought to Salt Lake Valley in Utah about 1904 and in a few years wrought such havoc in the alfalfa fields that the culture of this plant was practically abandoned and hay became almost double its former price. The insect is small and inconspicuous so that it generally escapes notice until it is well established, after which it operates with thoroughness and completeness. The weevil itself is a bug about ⅛ inch long. During the first warm days of spring it sets to work in the alfalfa fields and as the shoots appear the female lays eggs in punctures in the young plant, generally several hundred altogether. After a short period of incubation these hatch and the larvae come out to feed on the growing plant. Mostly they attack the upper part of the shoot and when numerous enough cause it to wither and stop growth. A bady infested field at this stage looks as though frosted and may as well be cut at once as no further growth will take place. After the first cutting is removed the worms drop to the ground and feed on the young shoots as fast as they appear. This continues for several weeks while the field remains bare and brown. Then they spin cocoons and pupate, giving the plant a chance to make a growth for the usual third cutting. In about ten days the adult bettle emerges and either feeds there for the remainder of the season or makes a flight to new fields. The alfalfa plant is not killed but if no remedial measures are taken it becomes unprofitable to raise alfalfa at all.

The remedies at hand are so far inadequate but at any rate hold out some hope for our favorite forage. They are of course based largely on the insect's habits. One is to stimulate the spring growth of the alfalfa by early cultivation with a spring tooth or disc harrow or by topdressing with manure. This will hasten growth and give the plants a chance to form a first crop before the damage becomes too severe. Then when the first crop has been removed the ground is allowed to become dry and the field is thoroughly dragged with a brush drag. This brushes the insects off the plants and if the weather is hot and dry most of them will die in the hot dust. Then the water is turned on the field again and the second crop is brought on in comparative freedom. Obviously this remedy will not be so applicable to humid sections and cool and wet weather at this stage will defeat the farmer's purpose. Spraying is also resorted to, but aside from the expense is likely to poison the hay. A search for the insect's natural enemies also holds out promise. One of these is an Italian wasp which is said to be very destructive to the larvae of the weevil and is said to increase fast enough itself to be of real help. Toads, frogs, and birds are also helpful but are generally not equal to the size of the task.



THE TRACTOR IS "KEPT BUSY" ON THIS FARM. NOT ONLY THIS, BUT THE OWNER ENSILES HIS CORN WHEN IT IS AT THE RIGHT STAGE AND HE DOES NOT HAVE TO ADJUST HIS BUSINESS TO THE NECESSARY DEMANDS OF THE BIG OUTFIT

Up to recent years the insect had not traveled at a very rapid rate. Generally it had spread out at the rate of about 10 miles a year and had apparently made little use of artificial means of transportation though it traveled fastest along main wagon roads. It is not known by what means it made this long jump. It has made another, however almost as long from Utah to Delta County, Colorado, so that its extreme range is now almost 800 miles. Government entomologists say there is no reason to believe it will not eventually be distributed over the entire country. Unfortunately it is not known just how it travels so that although there are various quarantines in force against the regions of known infestations there is no real assurance that they will prove effective. It is, of course, hardly necessary to point out the moral of the old danger of heavy reliance on one crop. In this case the weevil attacks seriously only the alfalfa plant. We have left the clover

peas, and vetches among legumes and the silo as our ever present help. We will mourn our loss but may thriftily lay by a bit of insurance.

Hay growers, meaning thereby alfalfa farmers of this section, gathered in convention to the number of almost 1,000 lately to discuss the price of their product to consumers, mostly wool growers and dairymen. As this is a leading exporting section for hay their deliberations should have an outside interest as well. The price arrived at, $17 per ton in the stack, was determined on by comparing the average cost of hay during recent years with the value of product of consuming industries during the same years and then applying the same ratio between the present price of such commodities and that of hay. According to the figures of the state farm markets director, the selling price of mutton has increased 292% since 1914, wool 177%, dairy products 65%, and beef 33½%, while hay during the war period had risen about 115%, being generally valued before the war at about $7 per ton in the stack. The price of $17 seems to be generally satisfactory to all except the sheep men who protest violently that all other expenses have risen in cost even more than the value of their product. Hay growers have, however, led a rather precarious business existence. In this country one will find wealthy sheepmen, cattlemen, and even general farmers but the opulent hay grower has not yet become numerous. In some years, notably in the Twin Falls section of Southern Idaho, prime alfalfa has sold at $3 per ton in the stack and it has rarely gone above $7 or $8 in normal times. In 1916-1917 a severe winter and a short crop sent prices to unheard of levels in the spring, $20 to $30 per ton being common; but hay was not to be had at any figure and as farmers had generally sold out earlier few profited by the abnormal prices. The next year, however, the growers whetted their knives and went out to skin the sheepman, with the result that the latter imported thousands of dollars' worth of cottonseed cake, added to which the exceptionally open winter required only light feeding and a large proportion of last year's crops is still in the hands of the growers after much of it was sold at $8 to $10 instead of the $18 to $20 they had expected. The same old moral applies of course. If these growers had had dairy cows they could not only have marketed that hay at a handsome profit without worry as to cars or markets but would have greatly enriched their lands besides. It is experiences of this sort that will bring the cow more and more into favor.

Setting a Price



FREDRICKA DEKOL 75848, A RECORD PRODUCER AMONG AGED COWS
As a 14-year-old, she produced 24.72 lbs. fat (30.9 lbs. butter, 80% fat) in 7 days.
OWNED BY THE MAXWELL FARMS, IOWA

Dairymen of this section are somewhat puzzled as to what their grain ration will be the coming winter. During previous years it has been mostly rolled barley and "mill feed," the latter containing a large proportion of middlings or sometimes the thrifty miller ground bran fine to resemble shorts. At present both these feeds are almost unobtainable and it is not likely that even with the resumption of milling with the new harvest the wheat by-products will supply the demand. The most hopeful substitute is dried beet pulp which is in great favor and with the rapid extension of the western sugar beet industry should greatly assist the dairyman's need for a grain ration to supplement a leguminous hay. Unfortunately for dairymen beef cattle interests have instituted large feeding plants at most of the factories and the sugar manufacturers have little incentive to seek outside markets for their by-products. As matters stand almost the only dairy feed on this market is largely a beet by-product. The analysis shows a high starch content and low percentage of crude fiber, but as dairymen generally express doubt as to the feeding value of this mixture one is led to suspect that the analysis favors the feed somewhat and that the cows are too unlettered to produce according to its alleged value.

Grain Feeds Scarce

In conversation recently with Mr. McNair, county agent for Twin Falls County, Idaho, he related some of the results of sales of cows in his territory. This contains the only active cow testing association in Idaho, the Buhl Pioneer. Mr. McNair states that grade cows sold at these auctions as high as $600; that buyers came in from other states and made such bids hardly looking at the cows but depending solely on their association records. Also that the average sale price of cows in the association was from 50% to 100% over that of cows owned outside, similar but untested.

Tested Cows Sell High

Get 120 Eggs a Year

The average novice can reasonably expect to get an average of at least 10 dozen eggs per hen per year from his small flock in the back yard. There is nothing difficult in the care of the small flock if the important things are done at the right time and in the right way, and the system involves nothing too hard for a child given proper directions.

The ordinary material used on the inside of concrete silos is a mixture of cement and water. This mixture is made about the consistency of thick cream. When this is put on the inside surface, the concrete walls take up but very little, if any, moisture from the silage.



SHARPLES

For the thrifty dairy farmer

The Sharples Separator Co., West Chester, Pa.

Sharples Milkers—used on over half a million cows daily.

Branches: Chicago San Francisco Toronto

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TIME

The value of time has increased so greatly in recent years that those engaged in the business of producing milk or its products are no longer content to do slowly what can be done quickly.

In many ways they demonstrate this fact, but no where is it more plainly evident than in the cleaning of their utensils and equipment where an effort to save all the time possible, invariably results in their selection and continued use of

Wyandotte Dairyman's Cleaner and Cleanser

But the saving of enough time to amount to an additional profit that many times repays them for having selected this cleaner is only one of the many economies that soon result from its use.

To know how positively clean and sanitary it makes the surface washed, and how greatly it decreases the amount of cleaning material ordinarily required is to appreciate that this cleaner is not only different from all others, but also the one that proves in every detail the most profitable to use.

Order from your supply house. It Cleans Clean.

Indian in circle



in every package

The J. B. Ford Co., Sole Mnfrs., Wyandotte, Michigan.

WE FED YOUR COWS

TRADE UNICORN MARK

¶ Almost every high American record for fourteen years with any breed was made with our Ajax Flakes as an important base of the grain ration.

¶ Unicorn Dairy Ration is the only feed that contains Ajax Flakes.

¶ You can hardly find a pure blood whose maternal ancestors were not fed on Ajax Flakes or Unicorn Dairy Ration.

¶ Unicorn is recognized as a safe, efficient and economical dairy feed.

¶ Unicorn during the past year made more high records than any other brand of feed.

¶ Unicorn really costs less per pound of milk or fat produced than other feeds.

Chapin & Co., Dept. Z, Chicago



More Water?

Chippewa Steady Stream Pump

Will Produce More Water with less Power than any other Pump. For Farms, Ranches, Pressure Systems and all other purposes.

Write for information.

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Chippewa Falls, Wis.

Grow Registered Seed

Of the following pedigreed varieties developed at the Michigan Agricultural College and Inspected, Approved and Registered by the Michigan Crop Improvement Association.

RED ROCK WHEAT
A pure, winter hardy, excellent milling, high yielding wheat.

MICHIGAN WINTER BARLEY
The best northern grown Winter Barley.

ROSEN RYE
The rye that has nearly doubled Michigan's acre yields and is giving exceptionally good results in many other states. Remember rye cross fertilizes so get pure seed from farmers who have produced it under inspection. For list of those having it for sale write the

Secretary of the Michigan Crop Improvement Ass'n.,
J. W. Nicolson, East Lansing, Michigan.

Low-Wheeled Silage Wagons

HOARD'S DAIRYMAN:—Most of the farmers in this community are using low wagons of some sort in hauling corn from the field to the silage cutter, finding them a great deal more convenient and time and labor saving than high wagons. Some have built low beds between the high wheels, but our ring has used the regular low wheeled truck, one of which is shown in the accompanying illustration.

These low-wheeled trucks bring the bed on a level with the cutter table which is more convenient for the man pitching off and the man feeding than where the bed is below the cutter table and the corn must be lifted up into the cutter. The man pitching off simply throws the bundle of corn onto the table, letting the tops rest on the wagon, and is able to get another bundle up by the time the tops are passing off the wagon bed, thereby keeping a continuous stream of corn on the cutter table. The overlapping keeps the corn moving and helps the feeder, preventing the butts from spreading much over the edges of the table.

As young boys formed most of our hauling crew last year, it being difficult to hire extra men except for field work, it made it much easier on the boys. It would be too heavy work for these lads to load the corn in the fields on lower swung wagons by themselves, so that by using the low-wheeled wagons instead and having three or four field men to hand up the bundles the work went along smoothly without a great burden on the boys.

We have found the low-wheeled wagon useful in many other ways on the farm, in hulling clover, threshing soy beans, and shredding fodder. They are not so well adapted to hauling produce on the road, but on the farm they can be used any place a high-wheeled wagon can with the added advantage of a low bed, but a little heavier draft in muddy ground.

Indiana. J. L. JUSTICE.



LOW-WHEELED SILAGE WAGON

Waukesha County Guernsey Breeders Meet

When 250 to 300 people, Guernsey breeders and their families, will leave their farms and farm work in the midst of the busy season with the labor supply short to attend an all day meeting of their breed association, it is conclusive proof of the value of that association to them and that they are strong supporters of it. Appproximately that number attended the recent summer meeting of the Waukesha County Guernsey Breeders' Association, held Aug. 1, at the Wendt farm near Waukesha.

There were fewer young men in attendance this year than previously, and could you have visited the farms from which these people came, you would have found a greater number missing. But there was little complaint because of it. There was no talk of going out of business but rather how to best manage herds and farms under these changed conditions.

After a short business meeting and a generous banquet, Rev. H. C. Logan of Waukesha delivered a patriotic address, taking as his theme "The Soldier Farmer". He was followed by Prof. W. A. McKerrow of Minnesota who spoke of the work of the National Dairy Council. After sketching existing conditions with respect to the dairy business he called attention to the necessity of increasing our home markets for dairy products.

During the past year there has been in the state of Minnesota a decrease in the use of milk, butter, and cheese of well over 20 per cent and at the same time a very great increase in the use of substitutes, particularly butter substitutes. Professor McKerrow ascribed this change in part to the vigorous, well planned advertising done by manufacturers of these substitute products. Recently the producers of dairy products have started to advertise the food value of their products through the newspapers in various sections of the state, and already an increased demand is resulting. "Show the consuming public that dairy products are not only valuable but essential foods and they will demand them," the speaker declared.

Prof. Geo. C. Humphrey of Wisconsin, in speaking of the dairy business now and after the war, urged every one present to stand by his business because, in spite of present discouragements, the future promises well. He said that there is not nor never has been a surplus of dairy products although traffic congestion is just now making it appear so. He called attention to the export demand for dairy cows that is bound to come immediately after the war and urged breeders to prepare for it. Even now the demand from other states for dairy stock is large enough to take much of Wisconsin surplus. In 1914, 14,000 dairy cows were shipped from Wisconsin to other states. Last year over 35,000 were sent. Certainly there is every promise of a good future in store for the dairyman and breeder who holds on during the present crisis.

Selected Silo-grams

Corn has the greatest feeding value when mature, and if for any reason it is placed in a silo before it reaches this stage the silage is not as valuable a feed as it would have been had the corn been mature when placed in the silo. This is one reason why corn that has been frosted does not make as good silage, because usually it has not reached the stage of maturity that makes the best silage when struck by the frost. Frosted corn also loses many of its blades, and unless put in a silo within a few days of its being frosted there is a considerable loss in moisture, which—if not supplied by running water into the silage at the time of filling—will result in silage of a poor quality, owing to the fact that it does not pack so well and consequently is more liable to permit the growth of mold, etc.,



SILOS for This Year's Crop

Erected without Delay. Ready for Silage Immediately.

THIS year, of all years, you owe it to your country and to yourself to turn your corn crop into silage. Don't think it's too late to get a silo. You can have the kind of silo which 60,000 successful farmers consider the best and have it ready for your present crop. Being the largest silo manufacturers, we have your

INDIANA SILO

on hand ready to ship. You are assured of quick transportation. The silo will reach you promptly. You'll find it easy to erect. You'll have your silo up and ready in ample time.

The Indiana Silo is built of materials which are free from defects, and which do not cause or permit the ensilage to become moldy at the walls of the silo. Staves have tight mortised joints and are interchangeable, making the silo easy to erect. There is no metal spline at the joints to rust out or complicate erecting.

It doubles the feeding value of your corn crop, enables you to keep 50% more cattle on your farm, and get an increased milk flow during the feeding season.

Write to nearest address at once for catalog and full particulars showing how easily you can pay for and make money on an Indiana Silo *this* year.



The Indiana Silo Company

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501 Silo Building, Kansas City, Mo.
501 Indiana Bldg., Des Moines, Ia.
501 Live Stock Exchange Bldg., Fort Worth, Texas

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C. K. Spaulding Logging and Lumber Co. . Portland, Oregon

FACTS ABOUT SILO FILLING

With the introduction of the Ann Arbor Disc Thrower Silo Filler we have placed within the reach of the individual farmer a Silo filler which he can afford to own. The Disc Thrower No. 78, with 78 inches of feed opening, is the right size for the average farm; the larger size Disc Thrower has 112 inches of feed opening. Both of the Disc Thrower Silo Fillers have all the patented Ann Arbor Disc Thrower features which make these silo fillers the best machines available.

We have an informative little book entitled "Filling the Silo" which tells you all about the Disc Thrower Wheel, the simple knife adjustment, the Triangular shear bar and all the other features which make the Disc Thrower such an effective machine. Write for it to



THE ANN ARBOR MACHINE CO.
201 Main Street
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SILO STAVES, HOG & STABLE FLOORS, SCALES and all other woodwork on the farm will not Rot or Shrink if painted with "CARBOLINEUM" (Made in U.S.A.) Results guaranteed. Write Carbolineum Wood Preserving Co. Dept. 137 Milwaukee, Wis.



than would be the case if wet down thoroughly. When corn is frosted and allowed to stand in the field for a time, before being put into the silo, there is considerable loss of moisture, which, if not supplied at time of filling, reduces the value of the silage in that it is not palatable, and it may also spoil because of not being as thoroughly packed as silage made containing more moisture. After the corn is in the silo it is very difficult, if not impossible, to improve it. It might be possible to encourage stock to eat the silage by adding a little salt to it, either in the form of a light brine or by mixing the dry salt with the silage.

Under average conditions we consider it a good practice to extend the foundation of the silo from 4 to 6 feet below the stable floor. This gives additional silo capacity, and does not make it necessary to build the silo quite so high above the ground.

A silo 16x30 feet filled to a settled depth of 25 feet would contain about 92 tons of silage, and the bottom 10 feet, being more closely packed, would contain over one-half of the total, or about 47 tons.

Where there is plenty of corn it is better to put it into the silo and make hay of the alfalfa, but where there is not sufficient corn or not enough to make the necessary amount of silage, then we believe alfalfa can be easily ensiled to advantage.

It is a practice on the Hoard's Dairyman Farm to feed about 30 lbs. of silage and about 10 lbs. of alfalfa hay daily, and in connection with this about 1 lb. of grain to every 4 or 5 lbs. of milk produced.

There is nothing about concrete that produces mold in silage. If a concrete silo is properly made it will preserve silage well, whether it be built above or below the ground.

In recommending the summer silo, the Indiana Station tells farmers that too much dependence is placed on pastures. That fact was burned into the conviction of farmers last summer. Hundreds of silos are being built by farmers who could not be convinced in any other way. But few, however, are making provision for silage enough to feed in the summer when drouth prevails. That will have to come by additional tough experience.—Culled from previous issues of Hoard's Dairyman.

Campaigns for More Hogs Successful

Although definite figures are not yet obtainable, the Animal Husbandry Division of the Bureau of Animal Industry is assured that the campaign to increase pork production at least 15 per cent over last year has been successful. According to reports, practically every state has done its part in obtaining this increase, and some have more than made up their quota. Data gathered by the United States Department of Agriculture show that on April 1 brood sows on the farms in the United States had increased nine and one-half per cent over the number on the same date the previous year. Weather conditions during March and April were very favorable over almost the entire hog-producing country, with the result that there was a larger percentage of pigs raised than has been the case for many years.

Cut Your Ensilage When The Corn Is Right

It is good business to have your cutter right on the job when your corn is ready for the silo. It pays to cut it at just the right time. Even one week's delay in cutting means a big loss in feeding value. Don't wait till the last minute to order your cutter and don't depend upon someone else to do your cutting, for every cutter in the country will work overtime this year and those who wait will regret. Order a Kalamazoo Cutter now and be sure of getting your ensilage in the silo at just the right time.

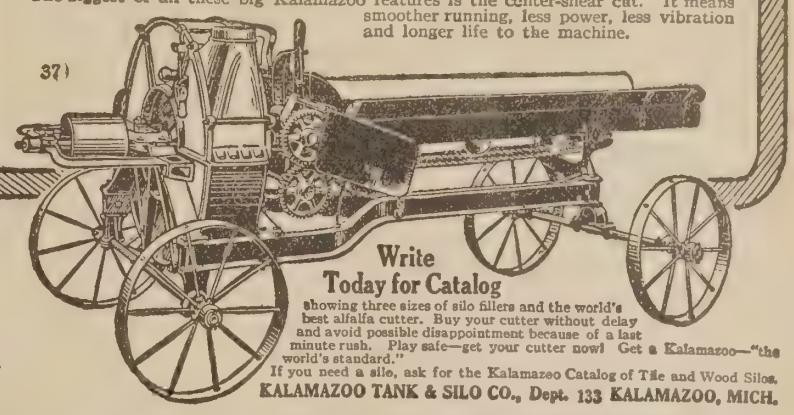
Kalamazoo ENSILAGE CUTTERS

Men who study and investigate silo fillers carefully before buying, select Kalamazoo cutters because of these

10 Big Features

1—Malleable, unbreakable knife wheel.
2—All working parts covered to prevent accidents.
3—Center-shear cut gives even flow of ensilage.
4—Absence of vibration lengthens life of machine.
5—Less power required because of center-shear and no vibration.
6—Triple feed rollers insure steady feeding.
7—Strong, sturdy, life-time frame of channel steel.
8—Reversible shear bar gives four cutting edges.
9—Hard oil cups provide ample lubrication for every part.
10—Guard to prevent accident in case belt slips.

The biggest of all these big Kalamazoo features is the center-shear cut. It means smoother running, less power, less vibration and longer life to the machine.



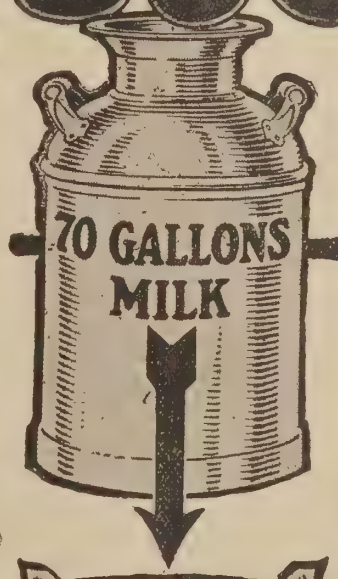
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showing three sizes of silo fillers and the world's best alfalfa cutter. Buy your cutter without delay and avoid possible disappointment because of a last minute rush. Play safe—get your cutter now! Get a Kalamazoo—"the world's standard."

If you need a silo, ask for the Kalamazoo Catalog of Tile and Wood Silos.

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All Nutrients of 70 Gallons Milk in Every Sack of SUCRENE DAIRY FEED





Every 100-pound sack of Sucrene Dairy Feed supplies your cow with 16½ pounds of protein and 49½ pounds of fat and carbohydrates—equal to the protein, fat and carbohydrates contained in nearly 600 pounds of whole milk. This

High Nutritive Quality of SUCRENE DAIRY FEED

is secured and always maintained by a scientifically correct combination of materials whose high feeding value is proven beyond question and universally recognized—Cottonseed Meal, Corn Gluten Feed, Corn Distillers' Dried Grains, Palm Kernel Meal, Ground and Bolted Grain Screenings, Clipped Oat By-Product for necessary bulk; Pure Cane Molasses for palatability, aiding digestion and promoting health.

Sucrene Dairy Feed is a complete milk making and body maintaining ration—no other grain or concentrates needed to increase milk yield. Relished by all cows; cuts cost of milk production; saves grain.

Order a ton from your dealer. If he does not handle it write us his name and we will see that you are supplied. Fill out and mail us the coupon for valuable literature on care and feeding of farm animals.

American Milling Co., Dept. 4, Peoria, Ill.
Sucrene Feeds for All Farm Animals—18 Years the Standard

Ohio's Highest Yielding Herd Fed for Years on SUCRENE

My herd of 155 registered Jerseys and same number of calves have been fed Sucrene all their lives. They are said to be the heaviest milking herd in Ohio.

JACOB L. WHITE, Proprietor Spring Grove Jersey Farm, Greenfield, Ohio.

Please send me illustrated literature on feeds checked below: 4

- ☐ Sucrene Dairy Feed
- ☐ Sucrene Calf Meal
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- ☐ Amco Fat Maker for steers
- ☐ Amco Dairy Feed (25% Protein)

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A Message from the Secretary of Agriculture To American Farmers

To the Patriots on the Farms:

You are asked to undertake another offensive—to go "over the top" this fall for a great harvest of wheat in 1919. I need give only a few figures and facts to impress you with the increasing and urgent need of our people, our armies, the allied peoples and their armies for large supplies of American wheat.

Our reserve supply or carry-over from the 1917 crop is practically exhausted and is the smallest on record. The need of building up reserves of wheat is evident. Although this country produced a small crop of this grain in 1917, the total exports of wheat in excess of imports, including flour in terms of wheat, amounted to approximately 100,000,000 bushels for the year ending June 30, 1918. This is in comparison with 178,000,000 bushels exported in 1917, 236,000,000 bushels in 1916, and 331,000,000 bushels in 1915. It was possible for the United States to export wheat in large quantities in 1915 and 1916 only because of the large wheat crops of 1912-13-14-15, which gave this country an accumulation of stocks of this grain. Both the 1916 and 1917 crops were smaller than any crops since 1911 and besides this there was a greater demand for seed wheat and an increased population to be fed.

Moreover, it must be borne in mind that the carry-over in all the ten importing countries in Europe was practically exhausted this year before the new harvest; that the normal requirements of the exporting countries are increasing instead of diminishing; that some losses in storage and transit may be expected to continue; and that it is highly desirable that a surplus should be accumulated as insurance against partial crop failure next year.

You have been asked to sow to winter wheat this fall not less than 45,000,000 acres—an increase of 7 per cent over last year's sowing—and the Department has suggested that an even greater area, 47,500,000 acres, is desirable. The increased planting asked of each State has been carefully determined with regard to its local conditions and its reasonable capabilities. Your county agent can tell you the quota assigned to your State and you can apply the responsibility to your case.

You have occupied and do occupy the first line trenches of the food army. You have to fight difficulties too. I am not unmindful of these. In the Department of Agriculture we consider them daily, and daily we give our best efforts to help you meet them. You know of the difficulties in your community, but I know of them in many communities of many States, and so seriously do they impress me that I might almost consider them insurmountable had not American farmers last year, and again this year, revealed the true American fighting spirit and ability to meet serious situations. They will not let the war fail because of deficient food production.

Let us sow liberally for a big harvest in 1919. It has been called the Liberty Wheat Harvest. We all hope it will be. But let us undertake the task with the determination that we will sweat our blood for many more if need be before we yield one measure of our freedom to a Prussian domination. Let us fight in the furrows.

D. F. Houston,
Secretary of Agriculture.

Contributed through Division of Advertising

United States Govt. Comm. on Public Information

This space contributed for the Winning of the War by

HOARD'S DAIRYMAN

New Record in Tick Eradication

Records made last year in eradication of the cattle fever tick and the release of territory from Federal quarantine will soon be eclipsed. The Bureau of Animal Industry of the United States Department of Agriculture expects to win more ground from the parasite this year than in any previous equal period since the co-operative federal and state campaign was started in 1906. The 1917 mark of 70,749 square miles released from quarantine is expected to be considerably bettered in 1918.

Further than that, the tick fighters are going to smash through to the ocean. It is practically certain that all of South Carolina will be released from quarantine next December 1, the department specialists say. South Carolina will be the first state on the Atlantic coast to be entirely freed. Last year the anti-tick forces drove a wedge through Mississippi to the Gulf. This year they hope to widen the wedge to the Gulf by including Louisiana in the tick-free area. With the wedge to the Gulf and the wedge to the Atlantic, the cattle fever tick will be the victim of an encircling movement. His days are numbered. By 1921 the tick fighters hope to have driven the parasite permanently from American territory.

Progress in South Carolina

South Carolina progress has been rapid. Eradication of the tick was taken up actively in that state only in April, 1914, when the legislature provided funds for co-operation with the Department of Agriculture. Fourteen counties had been released at that time, but the great body of the state was still tick infested. The work had been carried on steadily and systematically and has been free of disturbance and hostile agitation.

With the eradication of the tick in South Carolina a new era for live stock raising is expected to open. South Carolina, like other southern states, has excellent soil and climatic conditions for pasturing. Cultivation of both plant and animal life will go hand in hand. One of the great obstacles which has prevented the South from feeding itself will have been removed from South Carolina, as it will eventually from all the southern states.

Benefits in Mississippi

Benefits of tick eradication are indicated in reports that are coming to the Department of Agriculture from Mississippi. Since the quarantine was raised in December, 1917, there is said to have been an unprecedented influx of capital and pure-bred live stock to that state. Thousands of pure-bred cattle and hogs have been taken there, and large numbers of people have gone from corn-growing states to buy land and establish breeding farms to take advantage of the favorable conditions for stock raising. The same reports always have followed wherever the tick has been driven out.—U. S. Dept. of Agriculture.

Silage made from corn that has an opportunity to fully mature, but which has been planted in such a way that the ears have not fully developed, has practically the same composition and the same feeding value as silage made from corn equally well matured but which will yield a fair crop of ear corn to the acre. This is supposed to be due to the fact that in the production of the ears there is merely a transfer of the nutrients from the stalk and leaves to the ear. There is a slight decrease in the feeding value of corn when placed in a silo, but this should not exceed 10 per cent, and the loss is less from this method of preserving than in any other.

How about the Corn? A silo means that you are sure of the crop. Order your silo—have it ready. Early order means early shipment—freight cars will be scarce this fall. Write for information about Saginaw and Liberty silos.

The McClure Co.
Saginaw, Mich. 12 Cairo, Ill.

Beauty



In Your Silo
Life-time use, first cost only cost, no repair expense—no painting—no hoops to tighten, fire-proof, that's the
Lansing Vitrified Tile Silo
The quality construction
"Ship-lap" Jointed Blocks—twisted steel reinforcing—blocks uniform in color—continuous doorway. Steel hip roof—steel chute—fire-proof.
J. M. PRESTON COMPANY
Dept. 302 Lansing, Mich.
Get offer on Climax Silage Cutters and Bidwell Threshers

Silver's "Ohio"
2 or 3 Man Machines
Produce your own cheap feed—Silverized Silage—fine, even cut, mold-proof silage. Get an "Ohio" for your own work—variety of sizes from 4 h.p. up—40 to 300 tons daily capacity. Big features—beater feed—spring-proof knives, friction reverse, direct drive. 64 years' leadership.
Write for Catalog
Silver Mfg. Co.
Box 303
Salem, Ohio
"Modern Silage Methods," 264 pages, 25 cents.



EVERLASTING SILO
Ironstone Blocks
Under our special proposition, you can save $25 to $50 on an EVERLASTING SILO, guaranteed for the life of the purchaser. Blocks of ironstone, vitrified glazed tile, triple wall design, self reinforced and interlocking, with double lock cement mortar joints. Extra steel reinforcing. Built for service.
Write for complete information and prices.
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FREE CATALOG!
This Book explains why the thin, straight knives with the famous *inward shear* cut faster and save time and labor.
CLIMAX ENSILAGE CUTTER
has many other exclusive features; closed elbow pipe and safety feed. Get catalog today.
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Some territory still open for live dealers.



Cow Waters Herself



You must read about the new LIBBEY AUTOMATIC WATER BOWL for cows and horses—a wonderful improvement in barn watering. No float tank needed. Every bowl is automatic—controls its own water supply; can be placed any height and in any stall or pen. Most sanitary bowl sold. PREVENTS SPREAD OF CONTAGIOUS DISEASES. Increased milk yield quickly pays cost. Saves labor, saves feed. Write today. Also for Catalogue No. 9, if interested in stanchions, stalls, carriers, etc. Sent free.
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Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
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Resolve to Build a Silo

(Continued from page 95)

parative feeding value. In Canada a mixture of peas, oats, and vetch has produced heavier yields per acre than corn, and the silage has been found superior, if anything, to that made from corn in those sections. In Northern Wisconsin clover and timothy is coming into high favor as a regular silage crop, and in other sections sundry and various other crops have proven their value and have their particular supporters. Indeed, the silo has come to be the means of caring for almost any crop and holding it for winter feed or as insurance against brown and dry summer pastures. But where corn will make a good crop, Corn is King.

Filling the Silo

Time may be well spent in studying the process of filling the silo and talking it over with neighbors. Ask the neighbors when they cut their

Table III.—Capacities of Silos

Height of silage* Feet	Inside diameter of silo in feet								
	10 Tons	11 Tons	12 Tons	13 Tons	14 Tons	15 Tons	16 Tons	17 Tons	18 Tons
28	42	51	61	71	83				
30	47	56	67	79	91	105			
32	51	62	74	86	101	115	131		
34	56	68	80	94	109	126	143	162	
36	61	73	87	102	118	136	155	176	196
38	66	79	94	110	128	148	167	191	212
40	70	85	101	119	138	160	180	205	229
42		91	109	128	148	172	193	218	244
44			117	137	159	184	207	233	261
46					170	197	222	247	277
48							236	261	293
50									310

*The height of the silo itself should be from one-fifth to one-sixth greater than given in the table in order to hold the quantity of silage noted.

corn or other material for the silo and in what lengths they cut it. Was it dry? Did they add water? Did they use a distributor, and, if so, how did they handle it? Did they tramp the cut material in the silo? Or, what means did they adopt to get it to pack well? Ask all of these questions and then look into their silos, observe the quality of the silage, find out if possible why they were not more successful. Visits to several farms and observation of methods and results will be time well spent and will bring money to the pockets of the man, whether an old silo owner or a prospective owner, who thus shows a realization of the value of a proper understanding.

Preceding or going with this personal examination of results, there should be a study of what the colleges and what practical farmers have had to say on the subject. For this purpose we know of no better literature than bulletins from the experiment stations and the experiences of dairymen as given by them in past issues of Hoard's Dairyman.

The Summer Silo

Experiments at agricultural colleges and practical experience of many farmers prove conclusively that soiling through the silo is insurance against scanty summer pastures and it is the cheapest, easiest, and best method of soiling. In case the expected emergency does not arise the feed is not wasted but can be held for winter's use when too often the silage runs low and the need is great. The summer silo is coming into a deserved place of esteem in the minds of the dairy farmer, and it is establishing itself as a part of the system for the more economical production of dairy products.

Silage and legume hay go a long way toward solving the disconcerting question of rising grain prices, for it would be difficult not to formulate a good ration with them even with the cheapest available grain or mill feeds; in fact, many are finding that silage and alfalfa may be used alone to advantage if cows have been properly adjusted to this system of feeding.

Vermont Butter Scoring

The seventh monthly Vermont Educational Butter Scoring was held July 15. The judges were V. R. Jones, H. B. Ellenberger, M. R. Tolstrup, and O. M. Camburn. Thirty-two creamery samples and 4 dairy samples were entered and they proved to be the best and most uniform lot yet assembled at any of the monthly scorings. Eight boxes scored 94 or over and the average of all creamery samples was 92.55, while the dairy samples averaged 91.5. The buttermakers are to be congratulated on doing so well with their July butter. There was, however, a great variation in moisture content the average being low, only 13.57.

A few samples were a little gritty, two or three were somewhat mottled and several were inclined to be leaky. During the past seven months not more than two or three of the samples have shown evidence of overworking which each month has brought a number which could be improved by a little more working. The tendency seems to be to underwork, which accounts for most of the above mentioned defects. The most prominent defects in flavor were old and stale cream flavors, again emphasizing the importance of care of cream on the farm and frequent delivery to the creamery. Creameries where cream was delivered promptly averaged higher in score than others with more infrequent deliveries and those using starter scored higher than those which did not.

Since making butter from whey cream is quite new in Vermont, it is interesting to note that the only sample of such butter entered scored 92.5 and none of the judges were able to detect that it was made from whey cream.

The following is a list of those receiving a score of 90 or over and who have given permission to have their names published:

Creamery samples: R. H. Lawson, 90; C. M. Lilley, 93; L. A. King, 94.5; Hanna Halonen, 94; H. C. D. Smith, 90.5; L. R. Brown, 90; F. A. Rist, 93; V. A. Vancour, 95; O. E. King, 92.5; L. S. Flint, 94; W. E. Hood, 90.5; E. Trohan, 94; C. W. Dodge, 92.5; C. M. Story, 94; T. S. Morse, 93.5; H. N. Paquette, 91; E. Beaudet, 92.5; John Bond, 92; E. C. Hilles, 92.5; and R. H. Metcalf, 93.5.

Dairy samples: C. E. Tenney, 92; T. W. Kingsbury, 92.5; and M. G. Eastman, 90.5.

Vermont. H. B. ELLENBERGER.

A herd of thirty cows will require about 160 to 170 tons of silage if fed upon it throughout the entire year. A silo 12 feet in diameter and 30 feet high will hold 68 tons when full; a silo 14 feet in diameter and 35 feet deep will hold 117 tons, making the two silos with a capacity of about 180 tons, which would be about right to supply a herd of thirty cows for 365 days. We believe it would be well to build the silo used in the summer 12 feet in diameter and the other 14 feet. It will require approximately 18 to 22 acres of average yielding corn to fill the two.

Many of the larger hotels of the country are using no cane sugar in pastries and desserts.



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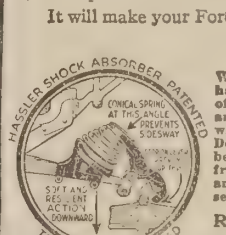
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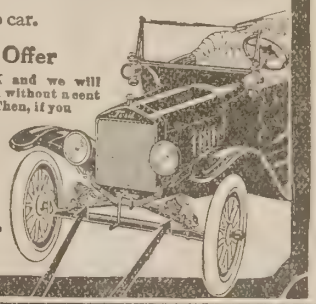
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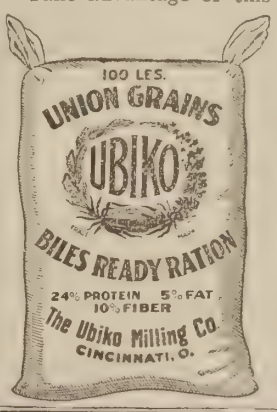
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Coming Events

August 30 to Sept. 8, Michigan State Fair, Detroit, Michigan. Secretary, G. W. Dickinson.

September 1 to 6, Nebraska State Fair, Lincoln, Nebraska. Secretary, E. R. Danielson.

September 2 to 6, Connecticut Fair, Hartford, Connecticut. Secretary, H. C. Parsons.

September 2 to 7, Indiana State Fair, Indianapolis, Indiana. Secretary, Chas. Kennedy.

September 2 to 7, Spokane Interstate Fair and Live Stock Show. Acting Secretary, W. L. Tennant.

Iowa State Fair and Exposition, Des Moines, Iowa, August 21 to 30. Secretary, A. R. Corey.

California State Fair, Sacramento, California, August 31 to Sept. 8. Secretary, Chas. W. Paine.

Kankakee Interstate Fair, Kankakee, Illinois, August 26 to 31. Secretary, Len Small.

Ohio State Fair, Columbus, Ohio, August 26 to 31. Secretary, E. V. Walborn.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

September 2-7. Minnesota State Fair, St. Paul. Thos. H. Canfield, Secretary.

August 30. Field Day of the New England Guernsey Breeders at Albamont Farms, Campton, New Hampshire.

Wisconsin Dairy Council Organized

On August the 7th representatives of the various dairy and agricultural organizations of the state of Wisconsin met in Milwaukee, at the call of A. J. Glover, Associate Editor of Hoard's Dairyman, authorized by the Wisconsin State Council of Defense. This meeting was called for the purpose of uniting the efforts of all the state dairy and agricultural organizations and allied industries for the purpose of promoting the dairy industry of Wisconsin. A corporation was formed and it is called the Wisconsin Dairy Council.

In the articles of organization the object of the Wisconsin Dairy Council is stated as follows: The purpose of this corporation shall be to promote the dairy industry of the state of Wisconsin, to further educate the public regarding the necessity of dairy products to the welfare of the human race, to encourage adequate production of high quality dairy products, and to improve marketing methods and conditions.

We shall give a more complete report of this meeting and the purpose of the Wisconsin Dairy Council in the next week's issue of Hoard's Dairyman.

Waukesha Holstein Breeders Hold Picnic

The members of the Waukesha County, Wis., Holstein-Friesian Breeders' Association held their picnic on Riverview Farm, owned by Geo. J. Schuster, near Mukwonago, August 8. The meeting was held in a pasture, bordering upon Fox River, and it was a most beautiful spot for such an occasion. Mr. Schuster enjoys co-operating with the Holstein breeders of Waukesha County, and is doing his full share in helping to advance the interests of Holstein cattle. The chairman of the meeting, Mr. C. J. Will, complimented him on the good work he is doing and assured him that the breeders of the Black and Whites in Waukesha County appreciated his generosity and the good work he is doing.

The program of the occasion was as follows: In the forenoon the barns and cattle were inspected. At noon lunch was served by women working for the Red Cross society. The first speaker in the afternoon was J. E. Stallard, county agent of Waukesha County, and he demonstrated how the soil could be tested to determine whether it was acid or not. He spoke of the benefits of lime and stated that alfalfa would not grow well on an acid soil.

A brief statement was made regarding the live stock sales pavilion which is being constructed by the breeders of Waukesha County. The building will cost about $17,000 when completed and it will provide every convenience for holding sales. The sum of $15,000 has already been raised, which would have been enough under normal conditions.

Governor Philipp discussed agricultural problems from the standpoint of the state. He referred to the proceedings started by the attorney general of the state against some of the milk shippers near Racine, because they discussed with milk dealers the price which they should have been paid for milk last fall, thus violating the anti-trust law. When the Governor was asked to give his approval for continuing the case he refused, because he did not believe dairymen should be put in jail for this offense. We wish he had advocated that the anti-trust law be amended so that it would be legal for co-operative associations to meet and discuss prices without violating any law. Such a law should be passed by the legislature next winter.

Professor Kildee of Minnesota discussed the future of the dairy industry. He held that everything points to a bright future for the dairy interests. The dairy cattle of Europe have been materially reduced and the United States is the only country in position to help replenish its cattle and supply its population with dairy products till the cattle are again replaced. Professor Kildee also gave a cow demonstration which followed the regular program.

A. J. Glover, Associate Editor Hoard's Dairyman, spoke upon the marketing of dairy products. He declared dairy products are selling too cheaply and that their prices are not in keeping with the prices of other farm products. This condition may be attributed in part to the fact that the consumer does not appreciate the necessity and food value of milk and its products. He urged that dairymen should unite in educating the consumer regarding the value of their products. He referred to the Wisconsin Dairy Council which was organized the day before in Milwaukee for the purpose of uniting the efforts of every dairy and agricultural organization in the state to advertise dairy products and to educate the consumer as to their food value.

Mrs. Laura Ely, Waukesha County Food Demonstrator, gave a talk on the relative value of foods, the importance of milk, and the various methods of preserving foods.

New York Butter Market

New York City, August 6th:—The receipts of butter are light at present and the quality is the poorest of the season to date. Practically none is arriving in market in good condition. Either it is heated or it shows oily or seasonal defects. In any event it is almost certain to be more or less moldy. The extreme heat which is the cause of so much poor butter seems to prevail throughout the butter producing sections of the country at present.

Dealers are having serious difficulty to supply the demands on them for extras and even firsts are not present in great quantities. There is, however, an abundance of under-grades which are moving very slowly. As a whole, outside the demand for high-grade butter, the market is very quiet. The accumulations of butter which have been in evidence for about two weeks have gradually diminished through the agencies of governmental demand, out-of-town buyers, and local consumption. Even though active buying has been absent for some time it seems that under present conditions there will be no decline in price. On the contrary there is a feeling that in the near future prices will advance because of lessened output and the approach of fall.

There has been no marked change in quotations since last week. On one day there was a decline of a quarter cent but on the following day a recovery was made and the old quotation prevailed. Today there was an advance of a quarter cent and the quotations at the close were as follows: extras (92 score), 45@45¼c; higher scoring than extras, (93 score or higher), 45½@46¼c; firsts (87 to 91 score), 43½@44¾c; and seconds (83 to 87 score), 41@43c.

W. B. LIVERANCE.

Boston Milk Prices

The Regional Milk Commission for New England announced last week an increase in the price for milk, in Boston and vicinity, of ½ cent per quart for August and September. The prices announced are 15c per quart delivered at homes and 14c per quart at stores. These are the highest prices ever paid for milk in New England. Other cities are falling in line with the Boston advance, several of them going to 15c per quart to family trade.

Richard Pattee, manager of the New England Milk Producers' Association, in commenting upon the recent advance, stated that this and the advance made in July were the first and only instances in New England when an increase in price was wholly paid over to milk producers. Previously the dealers have absorbed at least 50 per cent of any advance in the selling price of milk.

In July the Commission advanced the price to consumers from 14c to 14½c per quart and gave the producers an advance of ⅝ of a cent over the June price of 7½ cents per quart. All of the August and September advance will go to the farmers, making a return to them of 8⅝ cents per quart. The price is subject to a surplus arrangement which will have slight effect, as there will be very little surplus the remainder of the year.

Subject to the surplus plan the producers are now getting more than they ever got before and ⅛ cent per quart more than they got last winter. A part of this increased price is absorbed in higher freight rates and war taxes.

The added cost of labor and grain have so affected production that the farmer finds himself but slightly better off than a year ago when he got practically 1½c per quart less for milk.—N. E. MILK PRODUCERS' ASSOCIATION.

Imported Guernseys Sell Well

The picnic and sale of imported Guernsey heifers by the Barron County (Wis.) Guernsey Breeders' Association was successful beyond the expectations of the officers of the association. The heifers were a fine lot and many from different parts of the county gathered early in the day to look them over. When the time for the sale arrived the entire lot sold readily, the average price for 44 head being $219.29. All of them, except one, will remain in Barron county.

The value of the sale to the dairy interests of Barron county will be more fully appreciated in five or ten years from now. The grading up and improving of the herds of the county in the last fifteen years has caused the Barron creamery to grow from $25,000 to $500,000 in volume of business, and no one will dispute the statement that the dairy products of the county can easily be doubled in another ten years with the same improvement.

Much credit is due to F. W. Meyer, secretary of the Guernsey Breeders' Association, who, we believe, was one of the prime movers in bringing this importation of stock to the county.

Wisconsin. WM. BARTELT.

Save manure. The necessity for this is sometimes forgotten by the small farmer who is just starting in the business of live stock production. Fertilizer is scarce, high in price, and hard to get for many reasons. Therefore, the more manure saved to apply to the land the less need for fertilizer.

Sale Announcements

Aug. 20—Guernseys and Clydesdales. Glen Farm Sale. Newport, R. I. Leander F. Herrick, Worcester, Mass., Mgr.

Aug. 27—Guernseys, Dispersions of the T. D. McChesney, Minette, N. Y., and Winthrop Condin, Mt. Kisco, N. Y., herds at New Castle Farm, Mt. Kisco, N. Y. Leander F. Herrick, Worcester, Mass., Manager.

Sept. 4—Holsteins, Sauk Valley Dairy Farm, Holsteins. O. S. Cass, Sauk Center, Minn.

Sept. 11—Holsteins. Consignment Sate at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 11—Holstein Dispersal Sale. Springdale Farms, Fishers, Ind., Dr. S. P. Scherer, Owner.

Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 17—Holsteins. Centralia Calf Farm, Centralia, Ill.

Sept. 18—Holsteins. W. F. Phelp's Holstein Sale, Joplin, Mo.

Sept. 25-26—Holsteins. Absolute Disperison of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.

Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.

Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.

Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.

Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.

Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.

Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.

Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.

Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.

Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

Wholesale Butter Prices

In a bulletin issued under date of July 30th, the Chicago branch of the U. S. Bureau of Markets gives the following survey of the butter market:

The wholesale prices below are determined from reports of actual sales made by wholesalers to jobbers and chain store operators, either for cash or ten days' credit.

Wholesale Prices—Fresh Creamery Butter

Score	Chicago Whole milk	Chicago Centralized	New York	Boston	Philadelphia
94	44¼		46		46
93	44		45½	45½	45½
92	43¾		45	45	45
91	43		44¾	44¾	44½
90	42½	44	44½	44½	44½
89	42	43½	44	44	44
88	41¾	43	43½	43½	43½
87	41½		43	43	43
86	41		42	42½	43
85					42½

Jobbing Prices (Price to Retailer) Fresh Creamery Butter

Score		Chicago	New York	Boston	Philadelphia
Best, 92–94	Tubs or cubes	46	47½–48	47 –48½	46½–48
	Plain prints	47	48½–49	48 –49½	48 –50
	Prints in cartons	47½	49 –49½	49 –51	
Good, 89–91	Tubs or cubes	45½–46	44½–47	45½–47	44 –46
	Plain prints	46 –46½	45½–48	47 –48½	46 –48
	Prints in cartons	46½–47	46½–48½	48 –49½	
Fair, 85–88	Tubs or cubes	42½–44½	42½–43½	44 –45½	43 –43½
	Plain prints				

Chicago Market

The market was unchanged today, but an easier undertone was evident and trading was light. Fancy makes of "whole milks" were not so plentiful and practically all shipments show the effects of heat. Cars of "centralized" scoring full 90 points were firm and active at 44 cents although several cars of "centralized" showing various defects were sold at 43 to 43½ cents. Receipts yesterday of 12,349 tubs were 6,767 tubs less than the corresponding day last week and storage accumulations were normal.

New York Market

The market was quiet and an uncertain feeling existed. There seemed to be a tendency for buyers to purchase in small lots for immediate needs. The receipts yesterday were moderate and the street stocks today increase over 5,000 tubs. The storage holdings increased more than 175,000 pounds.

Boston Market

A general quiet prevailed on the market today and trading was limited to small lots of the medium grades. There were no car lot transactions although there was a little more inquiry and dealers are expecting a more active demand. Butter from nearby points is not arriving in good shape due to being heated. Receipts were normal yesterday, but the street stocks showed a marked decrease this morning.

Philadelphia Market

Trading today, while not brisk, was more active than Monday. More sales of undergrades were reported today which were generally at yesterday's prices. The market continued steady with receipts moderate and a fair demand. Receipts yesterday amounted to 2,986 tubs. Storage holdings showed very little increase while supplies were about the same.

Jerseys Bid for Sophie 19th's Crown

A baker's dozen of Jersey cows have made records ranging from 900 to 999.1 lbs. of butterfat in 365 days, but the coveted 1,000-lb. mark has not yet been reached—not by nine-tenths of a pound.

A number of Jerseys are now stepping along so briskly that their owners fully expect them to pass, by several pounds, the half-ton objective which Sophie 19th, the present record holder of the breed, missed only by a fraction. Three cows have just made more than 100 lbs. of butterfat in the same month and another one made 98 lbs.

The foremost contender is Rochett's Princess, an eight-year-old cow owned by Meldrum Gray of New Mexico. She made 108.58 lbs. of butterfat in thirty-one days and already had 296 lbs. to her credit for ninety-six days. She is a cow of great constitution and capacity, and is working under a southern sun which has undoubtedly made her prove her mettle. Rochett's Princess has qualified for Register of Merit on two previous occasions, having a four-year-old record of 452 lbs. of fat and a five-year-old record of 713 lbs. of fat.

Vive La France and Old Man's Darling 2d, both in the herd of Pickard Bros., Oregon, also have a great chance to become champions in the aged cow class. Vive La France already holds a title as senior three-year-old champion of the Jersey breed, with a record of 892 lbs. of butterfat to her credit. She was only four years and six months of age at the start of her present lactation. She has made 208 lbs. of fat in sixty-eight days and in one month has made 108 lbs. of butterfat.

Old Man's Darling 2d is the cow that created quite a sensation in the 1916 show ring. She had just completed a senior two-year-old record of 694 lbs. butterfat and was taken to the fairs in dry condition. She nevertheless finished her tour of the fairs and was undefeated in her class. She is a splendid example of beauty and ability combined. Her dam is the great cow, Old Man's Darling, with an official record of 14,130 lbs. milk and 817 lbs. fat at five years of age. Old Man's Darling 2d has made 106 lbs. fat in the second month of her present lactation.



Rochette's Princess, an eight-year-old Jersey cow owned by Meldrum Gray, New Mexico. She made 108 lbs. butterfat in 31 days and already has 296 lbs. to her credit for 96 days.

Another western cow that is doing wonderful work is Goldie's Nehalem Beauty, owned by Clifford Reid of Oregon. This cow first attracted attention by making a junior three-year-old record of 750 lbs. of fat, which was followed immediately by a period proof of 904 lbs. of butterfat as a four-year-old. "Goldie" is now six years old, and has just finished a month's record of 98 lbs. of butterfat, giving her a total of 255 lbs. of fat for eighty days.

Sophie's Agnes, owned by Ayredale Farms, Maine, is half finished with her year's work, which may transplant the blue ribbon from Sophie 19th's stall at Hood Farm, where Sophie's Agnes was formerly owned, to the Ayredale barns. At six years of age this cow has made 545 lbs. of butterfat in 186 days.

There has never been a time when so many great records were in the making, and the Jersey breeders who are carrying on this work are entitled to great credit for their confidence in the dairy industry. Animals from the greatest herds will undoubtedly command the best market, and the official year's test will be the instrument by which "greatness" will be measured. —AMERICAN JERSEY CATTLE CLUB.

Legal Control of Oleomargarine

In his book entitled "Food Products" Dr. Henry C. Sherman of Columbia University discusses as follows the legal status of oleomargarine:

In the United States the oleomargarine industry has been regulated by the Federal Laws of August 2, 1886, and May 9, 1902. The latter law taxes uncolored oleomargarine 0.25 cents and colored oleomargarine 10 cents per pound. This prevents the use of artificial coloring matter in oleomargarine made and used in this country. For this reason preference is now given to fats having naturally a yellow color. Government officials have objected to the use of yellow fats in making oleomargarine, but have not been able to stop the practice. The oleomargarine now commonly sold is distinctly yellowish, though not nearly so yellow as is ordinary butter.

The United States law does not specify the fats to be used in making oleomargarine, but all mixtures of butter with other fats must be sold as oleomargarine and practically must be uncolored, since the tax of 10 cents a pound on colored oleomargarine is prohibitive. Factories must register with the Bureau of Internal Revenue and furnish the government with detailed reports of their operations. They are always open to federal inspection.

In Great Britain since 1899 the maximum proportion of butterfat in oleomargarine is limited to 10 per cent. Since 1907 the water content is limited to 16 per cent and the factories are subject to inspection.

In France up to 1897 butter and oleomargarine could be mixed in any proportions provided the mixture was sold for what it was. But, by law of April 16, 1897, the amount of butter which may be admixed with oleomargarine is limited to 10 per cent.

Germany and Austria forbid the direct mixing of butter and oleomargarine either during or after manufacture, and restrict the amount of milk which may be used in making the oleomargarine to 100 parts of milk or an equivalent amount of cream to each 100 parts of fat. In effect, this limits the butter or milkfat content of the finished product to about 3.5 per cent. These countries also require the use of 10 per cent of sesame oil in oleomargarine to permit its more ready detection.

In Denmark under the law of Jan. 1, 1906, the proportion of butter in oleomargarine is limited to a maximum of 15 per cent, the color is restricted, and the product must contain 10 per cent of sesame oil.

In Belgium under law of May 4, 1900, it is required that oleomargarine contain at least 5 parts of sesame oil per 100 parts of fatty matter and that it be further "earmarked" by the addition of 0.2 per cent of dry potato starch, which may readily be detected by the iodine reaction.

The Importance of Water

HOARD'S DAIRYMAN:—Without any question, young animals must have constant and abundant nourishment to induce growth, and most important as a portion of this sustenance is plenty of clean water every day. Most of us like to chronicle our successes, but our failures oftenest teach us lessons that are remembered. I shall never forget the mistake I made with a fine bunch of calves the first year I was on the farm. It was my ambition to raise a dozen heifers and I began selling cream only that I might have a supply of skimmilk, feeling sure that it would guarantee lusty growth in calves if well balanced with meal.

The milk was fed warm from the separator and regularly. The calves were fed well and given good care otherwise, but for some reason did not thrive. They had good enough appetites and were fairly playful. Early in the summer they began to cough. Later one of them died. Someone intimated tuberculosis. In September we lost another. About this time my wife visited the farm and we took her out to look at the stock. Upon viewing the calves her first remark was: "Do these calves get all the water they need? They look as if they wanted something." I replied that they got all the milk they would drink and did not need water. But at the same time I was conscious that I was in error. Immediately after the good woman's department was made, we began to water the calves.

Most men think themselves bright enough to take care of things without having a woman about to tell them how. I was in that class. But I have learned that for intuition and honest, common sense one woman is worth more in a minute than sixteen men for a whole week, when caring for young animals, if she is anything like my wife.

But to return to the calves. With water added to the ration they began to show rapid gains, stopped coughing, and made no further demands for the tuberculin test. They all grew up and some of them have made good cows, though none of them have become large cows. They were all slow in maturing, so slow in truth that an expert who was brought to examine them just before they were three years old pronounced them "coming two," basing his decision upon their teeth, which were very late in changing to the usual three-year form.

Any person buying a farm cannot be too careful to see that it is well watered with a supply that cannot fail. Sometimes the purchaser of a sheep farm will be told that sheep are an exception. "They do not need water. They never drink." This is a serious error as any person may discover by furnishing sheep some pails of water in winter or any other time when they are kept from the brook. They will drink feverishly. Furthermore, if sheep are kept from water for any length of time they will register a distinct marking in the fibre of the fleece from one-sixteenth to one quarter of an inch long. Undoubtedly short and light weight fleece are due ofttimes to a lack of water as well as feed.

Connecticut. HOLLISTER SAGE.

EDITORIAL COMMENT

It is generally considered that a cow produces a calf each year. Professor Oscar Erf calculates from data that he has obtained from cow testing associations that a cow produces one living calf every 17 months. Failure to breed, abortions, and calves that die produce a loss of 28 calves per 100 cows. In other words, a farmer owning 100 cows may reasonably expect to raise 72 calves a year.

We have a big crop—more than enough to feed ourselves, but this does not mean that we need not be saving. Our reserves of foods are low, for we have scraped the grain bins to their bottoms. It is not only necessary to build up our own food reserves, but we must still furnish our allies with food. No nation is safe from starvation unless it has a food reserve, and our present crop assures us of a reserve for next year, provided we do not waste and that we follow the instructions of the Food Administration.

The Signal of the Silo, which forms the cover page for this week's issue of Hoard's Dairyman, seems particularly appropriate to the time when a campaign is on for a silo on every farm. This poem was prepared for us by Mr. Larned, peculiarly the poet of the dairy farm, and made a striking appeal when used by us in a similar form some two years ago. Indeed, the demand for that issue was so great that, despite our placing in stock a heavy supply, our reserve has been completely exhausted. To meet this demand and to present it to our new friends and subscribers we are therefore reproducing—

"Th' treasure-trove of cattle that are hungry with the morn
A storm-bound silo, standin' in restless sea o' corn.
Th' herd is plump as butter—and if folks have cause to thank
It's because each farmer's silo is a sort o' savings bank."

The promise of a large corn crop lends encouragement that there will be an adequate supply of roughage for live stock this winter. Corn converted into silage forms a most excellent feed and may form all the roughage portion of the ration. A cow may be fed 60 lbs. of silage daily without danger of injury. It is better to feed some hay when it can be obtained for a price in keeping with the prices of dairy products. But should hay be too expensive to feed or to use the accustomed amount, silage may take its place provided it is supplemented with the proper concentrates.

More silo capacity will be required to supply the herd with silage when there is no hay, and now is the time to determine when enough silage can be ensiled to meet all requirements till grass comes in the spring.

It should be remembered that when there is no legume hay like clover, alfalfa, soy beans, etc., a feed mixture rich in protein is required. We believe the dairy farmer should give the feed question serious consideration and make preparations to lay in what is needed at an early date. Heavy freight traffic this winter is going to make prompt shipment of feed uncertain.

In the alfalfa section of the West, alfalfa hay is selling for about $10 a ton in the stack. It will cost from $3 to $5 to bale it and put it on the cars. Freight to eastern points will amount to $10 or $15 or more per ton. This will make alfalfa cost the dairy farmers in the East about $25 to $30 a ton. Some alfalfa hay has already been laid down in Southern Wisconsin for $26.50 a ton. Quotations are a little firmer of late because the farmers of the West are not marketing a great deal of hay at present.

The difference in prices between alfalfa hay in the West and in the East may be attributed to live stock and also to the fact that the West grows large amounts of alfalfa. There is no question but that live stock increases the prices of all farm crops. This fact should never be lost sight of by the dairy farmer. The other lesson in this situation is that where there is a large supply of any particular crop the prices are much cheaper. The hay crop throughout the Mississippi Valley and East is below normal and this has created a brisk demand for hay and made prices high.

THE COST OF MILK

Professor Pearson has worked out a formula concerning the feed cost of milk that seems to be fairly satisfactory. His rule is that the cost of 100 lbs. of milk is 20 lbs. of home grown grain, 24 lbs. of purchased mill feed, 110 lbs. of hay, and 3 hours of labor. These figures are modified by the varying values of feed in the different months in the year. The yearly average is given at $2.910, which is within a fraction of $3 a hundred. But in considering this question we should not lose sight of the important fact that the better the cow the less does the milk cost. At the bottom of that proposition stands the effort of the wise dairy farmer to increase the capacity of his cows by the use of more intense dairy quality in the sire and the keeping of a milk and butterfat record with every cow. Right here is a chance for every farmer to make a margin in his favor. Some see it, others do not.

MAN BACK OF COW

The man back of the cow has a larger responsibility in the future development of the dairy industry than is comprehended by him at the present time. We have always held that the man who milks the cow should have a large part in getting her product into the hands of the consumer. He should not be content to simply produce the milk and then depend entirely upon some one else to prepare and market his product. We know the producer will be better satisfied and take a deeper interest in his business when he places himself in position to prepare his milk for marketing. Farmers who have co-operated to manufacture butter, cheese, or cream or sell whole milk are doing better and are in closer touch with the market conditions than those who contract their milk for so much per hundred pounds. Those who control their products till ready for the consumer are in position to get full market price for their products.

FUTURE OF DAIRYING

Mr. E. S. Brigham, commissioner of agriculture of Vermont, writes us regarding the future of the dairy industry and its possibilities. He says: "I feel that no industry has a brighter outlook than the dairy industry, if those engaged in it will rise to the occasion and take charge of the advertising material which the investigations of Dr. McCollum and his associates have placed in their hands. We have always regarded the dairy cow as a wonderful animal and called her 'The Foster Mother of the Human Race'. In the light of recent investigations her value is now more apparent than ever. It is wonderful to think that this animal can take from the leaves of forage plants the vitamines essential in every diet, but especially necessary in in the diet of the young, and concentrate them in milk in a form readily digestible.

"If the dairymen of the country would produce a standard product, like the orange growers of California, and devote as much attention to advertising as they have, prosperity could not help but come to the dairy industry."

It is highly desirable for those who are engaged in the dairy industry to follow the suggestions made by Mr. Brigham. We must inform the consumer in regard to the nourishing properties of milk. We must also move to produce a more uniform quality of butter and cheese.

COW PHILOSOPHY

"A cow to do her best must be made to feel that she is the favored one of the herd. If a cow gets it into her head that she is not the leader it will decrease her flow of milk." These statements were made to us the other day by Carl Gockerel, who is one of the best cow men in the country. Mr. Gockerel has made world records with noted cows and through them he has earned for himself an enviable reputation.

The key to his success is being capable of understanding the cow. He studies her and learns what she likes and dislikes. He knows that if a cow's likes can always be satisfied that she will do her best work. "It is all right," remarked Mr. Gockerel, "to turn a cow, on official test, out with the rest of the herd, provided she is boss. If she is not and several other cows in the herd proceed to horn and drive her about she should be kept in a separate place. Otherwise it will materially decrease her production."

It is these small things which count in large proportions in caring for the ordinary herd as well as those making official records." "A cow," Mr. Gockerel continued, "should never be permitted to shrink in milk flow if good feeding and care can prevent it. I have had to steal feed on some farms to get just what a cow wanted. At one farm used to go out after midnight, when the forema was asleep, and cut enough green corn to last m test cows for a day. This was the only way I coul get it and I knew they wanted it. My experienc has been that all cows do not care particularly fo green corn but this lot did and I was bound to pro vide them with it. If a cow likes a feed she mus have it or she will not make her best record. A sudden change in feeding is a very bad practice If I find that there is going to be a shortage of particular kind of feed I like to take six weeks t make the change to the feed selected to take it place. This is the only way to sustain milk flo and get the cows to produce maximum flows o milk."

It is these things, considered not worth while a fairs by most people, that have made Mr. Gocker so highly successful with cows. His services are i demand by the best breeders in the country an at a remuneration far above that of the colleg professor. It is the little things that make for suc cess in dairying and build fine herds of large pro ducing cows.

AGAIN, THE SILO

Through the alchemy of the foster mother of th human race the roughages of the fields and the by products resulting from the manufacture of foo are transmuted into milk,—Heaven's true ambro sia, a gift of life to the growing child and the sus tenance of man in his hours of labor. By what pro cess of physiological chemistry the cow change feed into food we do not know, and we may neve know, but we do know that she has been endowe by the Creator with the ability to do this and do i more efficiently than any other animal. Not onl this, but she is the great conserver of human foo for she largely consumes inedible material tha without her would go to waste. For this she de serves the consideration of man.

Intelligence, thrift, and painstaking care are re quired of her owner if she is to do her work we and boost him up the ladder of success. He shoul see that the roughages which she is to consume ar suitable in order that she may be the more efficien One of these roughages is corn, and that she ma make the best use of this plant it requires a silo t best preserve all its value as a feed. The silo ha been placed in the balance, and it has not bee found wanting. It has stood the test of time, an is no new fledged idea or innovation. In practicall every community it stands a beacon light showin the way to more profitable milk production and th cows it feeds rise up and call it blessed.

In this day and age there are few men who dar to say the silo is not good. Indeed, most farme without a silo will assert that they intend to buil but for one reason or another they procrastinat What is needed is to put decision into action. Th man who waits is lost. Returns come to him wh does. We are charmed with the word, success. W all want it, but wanting is not enough. Invest gate, contemplate, then decide and act.

Yes, buy that silo now, tomorrow is too late.

ADVERTISING DAIRY PRODUCTS

A few people have always fully appreciated tha milk is an important part of the diet for human b ings. The rank and file have used milk and its pro ucts more as a relish than as a food. Milk, crea butter, and cheese have never been used liberal in the American homes. Even the producers these products have used them sparingly.

If twice as much milk were produced and co sumed, either directly or in some dairy produc our people would be better nourished and a stron er people. The main reason why dairy produc are not used more is that people do not know the food value. Recent experiments have shown co clusively that milk is a necessity. This fact mu be carried to the consumer. Further, he must lea that milk is one of the cheapest animal foods. quart of milk is equal to one-half pound of be and a pound of cheese is equal to one and one-ha pounds of beef.

When the consumers know how important m is to the growth of children and its real food val for themselves they will complain less when advances one cent a quart. The way to carry th important information to the consumer is throu the schools, doctors, health officers, public demo strations, and systematic advertising. The dai industry has a great future when people are fu advised regarding the importance and food val of dairy products.

Ensiling Corn Stover With Molasses

Would like to have your opinion as to our plan f filling our silo this fall. First, will husk our orn, except the nubbins and immature ears; sec- nd, will tie the fodder in bundles, stack it, and hen cut it into silo, with our own help, after the ll work is finished. Expect to use plenty of wa- r and molasses. Could you tell me the quantity molasses to use per ton? Could you inform me here I could purchase the molasses at a fair rice?

Bridgeport, W. Va. P. K. S.

I do not believe there would be very much gained y adding molasses to the corn fodder. In the rst place, it is not necessary to add molasses to ie feed in order to help preserve it; and in the econd place, if molasses is added there will be onsiderable fermentation and you will lose a good eal of the feeding value in this way. If you de- de to add molasses to the fodder, I would suggest at you do not add more than one part water to n parts of molasses, by weight. You should use ution in adding water—the molasses is very sol- ble in water and if too much is added the water ill carry the molasses down to the bottom of the lo.

Kansas Agricultural College. O. E. REED.

Partition in Silo

I have a reinforced concrete silo 10 by 45 feet. y herd is not large enough to keep the silage od in warm weather. What would you think of tting a partition in the middle, 15 or 20 feet gh? If any of your readers have written any- ing about it I have not noticed it.

Coldwater, Mich. W. E. B.

A partition such as suggested may be placed in silo and give fair to good satisfaction. However, ere is some danger that, in extending it only a rt of the height of the silo, it will cause the si- ge to settle unevenly and the air pockets that ay be formed will tend to make the silage some- at moldy.

Some men who have put a partition from the top the bottom of their silos report that it results in mparatively little additional spoiling of silage, ile others are quite as convinced that it has not oven practical, or, rather, that the expense was t warranted when other means could be adopted ere only a little more spoiling would follow. building such a partition, care should be exer- ed to round the corners where the partition ins the silo wall and extra care should be taken tramp the silage well on each side of the parti- n. It is possible that the two-by-four studs uld be omitted entirely where both sides are ed at the same time. This will help to obviate e difficulty of securing solid packing of the silage the side into which the two-by-fours project. cept as a provision against warping of the par- ion there will be no particular necessity of put- g in braces as the silage is removed, for as the age becomes thoroughly settled there is but very tle lateral pressure.

One of our New York subscribers wrote us about year ago that he adopted the following method overcome spoiling where the silo was too large r the number of cattle fed. He says:

"I feed silage nearly all summer and have very tle spoilt feed and I think if others follow my an they will find the same. When I turn cows to sture in spring I cover the silage with wet straw. it is not wet enough I soak it well with water, ing about eight inches of straw and tramp it ll. When the pasture gets short I uncover one- lf of the silo; then take an ordinary straw knife d cut across the center; feed down one-half out two feet; then throw down my wet straw d feed down the other half, which gives me a ange of the mulch or straw about every four et. The silage will not spoil in at the cut edge re than about three inches, which can be easily rown off onto the straw cover below."

A Michigan subscriber who at first followed the actice of cutting the silage in two and feeding m one-half the silo at a time, writes that he und this method unsatisfactory. He finally de- ed a new method that resulted in very little oilage when silage is fed slowly. He reports that has fed out as little as three feet in depth for days in summer, or an average of only 1.2 inch- per day. His method is as follows:

"In the afternoon when the silage is gotten out r the evening meal, fill up the car the second ne for the morning meal. In getting out this si- e at one time for the 24 hours' feed be sure and over the whole surface at just the proper depth u want to take out for both feeds and do not dig any below what is taken out so that the surface y be left as hard and firm as possible. The next morning take two pails of water and a sprinkling can, go into the silo and sprinkle the surface silage thoroughly, especially around the edge. Repeat this process every morning and ensilage will keep very nicely even when as little as an inch and a quarter is taken off each day."

Another Michigan subscriber reports that where he used to throw away about one-third of his silage, he now has a method whereby there is very little wastage. He uses band iron covered with canvas made in such form as to fit the inside of the silo, the canvas being treated to make it air tight. This form is raised and lowered by a pulley to allow for putting down the feed. He takes out enough silage at one time for two feedings. He states that he has fed as little as 24 inches from the top of the silo in 30 days and there was none that was spoiled or moldy. He also states that the silage covered with this protector always retains its moisture even at the surface. This is, of course, an adaptation or improvement of the older method of covering the silage with wet straw or gunny sacks and removing silage for a few days' feeding from one-half of the silo; then throwing the wet straw or gunny sacks on to this uncovered half and feeding from the other side.

Hot Iron Dehorning

I noticed in a recent issue of Hoard's Dairyman that J. V. M. of New Mexico uses a hot iron for dehorning in preference to a chemical dehorner. I would like to know at what age he does the dehorning and if an iron pipe could be used instead of an iron especially made for that purpose. As I have some dehorning to be done this fall, I am particularly interested in the best method to use.

Uniontown, Pa. W. L. S.

I have used my soldering iron (heated by a gasoline blow torch), the sharp or threaded end of a wagon box rod and a ring made from a ⅜" rod by simply turning the end into a tight ring to fit over the button. All have been successful. It is not so much what it is done with as how well it is done, as is the case with caustic. The soldering iron is good but slow as the end is pointed. I will tell you how I have planned to make my iron.

As copper is the best kind of branding iron I am going to use a soldering copper, good size so it will hold heat well. Will file the pointed end down to where it is all the same size. Then use a bit, for boring in steel, with a slight bevel so as to make this newly made surface slightly concave to fit over the button, then dress down the copper all around so it will have the form of a ring with the outside edge rounded. This will be an iron easily handled and easily applied; will hold heat the longest too.

I don't know how late in life it can be done successfully, but this I am sure of, i. e., it can be used as late in life as any of the horn stops. I burn them at from 3 to 10 days of age. In my opinion an iron pipe will not be a success as it will not burn all of the surface. Every particle of the button and around it must be seared.

I hope this will become a common method of dehorning calves and then we will not need to have the sticks of caustic for our little ones to come in contact with.

Elida, N. Mex. J. V. M.

Hay and Grain to Cows on Pasture

Will you kindly suggest a grain ration for grade Guernsey and Jersey cows on pasture? My pasture is getting very short and they need something more. I have corn, bran, 36% cottonseed meal, and a little corn distillers grains, and can get at market price any other feed needed.

Aberdeen, Md. F. H. B.

It is economical to give cows additional feed at this time of short pasturage. The mistake is all too commonly made on our farms of allowing cows to get into thin flesh at this time, when a relatively small investment in feed would keep them in good producing condition and would greatly increase their production both at this time and for the months which follow.

The most economical supplementary feed which can be supplied depends in part upon the prices of feeds at the local station. If a good quality legume hay can be secured, we would by all means advise feeding it liberally at this time. At usual market prices it will supply nutrients more cheaply than they can be purchased in concentrate feeds.

In addition to feeding such a hay, a grain mixture made up of 300 lbs. corn, 200 lbs. bran, 100 lbs. cottonseed meal, and 100 lbs. distillers grains will prove highly stimulating to milk production and will be a profitable investment if given to the heaviest producing cows. For cows producing as much as 20 to 25 lbs. of milk, we recommend that such a mixture should be fed at the rate of one pound for each three to four pounds of milk produced.

Dairy Production Statistics

A correspondent has asked for information concerning dairy statistics of the several leading dairy states. The following facts have been received in reply to inquiries to the Department of Agriculture of these several states:

Wisconsin

Wisconsin has 1,800,000 dairy cows and produced dairy products in 1917 with a total valuation of $190,235,914.72; 747,540,078 lbs. of milk were used by condenseries which paid the producers for this quantity of milk, $22,358,058.95. Cheese factories manufactured 277,267,444 lbs. of cheese with a total value of $63,470,882.69. The creameries manufactured 111,325,285 lbs. of butterfat with a total value of $39,583,037.96. Market milk was sold to the quantity of 99,792,538 lbs. with a total value of $2,678,963.44. The ice cream manufactured in the state was valued at $1,395,065.20. Whey cream was calculated to have a value of $1,294,522.25. It is estimated that $16,220,045.60 worth of skimmilk was fed to live stock. Also the whey produced from cheese factories was valued at $11,045,843.76. Farm made butter and cheese with the milk and cream shipped out of the state (not going to milk plants) was valued at $5,537,862.

Michigan

Michigan has approximately 843,000 cows with an average yearly production of 4,000 lbs. milk containing 160 lbs. fat each. The total annual milk production, therefore, is estimated to be 3,372,000,000 lbs. Of this, 255,000,000 are used to make 102,000,000 lbs. of condensed milk; 42,500,000 lbs. are used to make 2,900,000 lbs. of ice cream; 75,000,000 lbs. go to make 7,500,000 lbs. of cheese; 1,330,000,000 lbs. are sent to the creameries and are used in making 53,200,0000 lbs. creamery butter; 657,900,000 lbs. of milk are used in making 26,316,000 lbs. of dairy butter. It is estimated that 1,011,600,000 lbs. are used as whole milk for cooking purposes. The total valuation of the dairy products of the state of Michigan for 1917 is estimated to be $66,000,000.

New York

New York has 1,351,572 cows with a total value of $126,237,824.80. They produce annually a total of 6,757,860,000 lbs. of milk, that is an average of about 5,000 lbs. each; 812 cheese factories produced a total of 71,454,000 lbs. of cheese; 311 creameries manufactured a total of 72,690,000 lbs. of butter. It is estimated that there is used on the farms and as market milk in the state of New York 4,330,000,000 lbs. of whole milk. The farm value of all the dairy products of the state in 1917 is estimated at $190,000,000.

Iowa

Iowa has 710,714 dairy cows which produced dairy products in 1917 totaling a valuation of $85,000,000. Creamery butter was manufactured in 462 creameries with a total value of $25,127,228.49. The total of the ice cream manufactured in 1917 was 5,318,100 gallons with a total value of $4,000,000. The market milk sold was valued at $20,940,000. It is estimated that $150,000 worth of cheese was made from 681,315 lbs. of milk. The value of the farm butter made totaled $22,649,337. Condensed milk with a total value of $588,000 was made from 17,298,808 lbs. of milk. The skimmilk and buttermilk of the state was given a value of $10,050,000.

Minnesota

In 1917 the state of Minnesota produced a total of 99,672,135 lbs. of butterfat and manufactured 122,104,895 lbs. of butter. $44,160,847.75 were paid to patrons and $49,126,646.24 were received for the butter manufactured.

Indiana

Indiana last year produced about 35,171,283 lbs. of butter and manufactured 2,124,626 gallons of ice cream and 63,916 lbs. of cheese. Condensed milk was manufactured to the amount of 2,925,130 lbs. and evaporated milk to the amount of 120,851 cases. Plain bulk condensed milk was manufactured totaling 422,720 gallons and enough butterfat was shipped out of the state to total 7,136,622 lbs.

Ohio

The dairy cow population of Ohio is approximately 940,000. The average annual milk production of the cows in testing associations is 5,760 lbs. and of all cows in the state, 4,900 lbs. The total value of the 1917 production is about $100,000,000.

Making Silage

In order to make good silage the crop must have a water content between sixty and eighty per cent; about seventy per cent gives the best quality of silage. With a water content toward the upper limit given, the silage will be very high in acidity, while if much below seventy per cent of water is present there is great danger of spoiled silage and white or other molds appearing in the silo. Silage from such dry feed is moreover not as palatable as that containing a normal percentage of water. A limited amount of water added at the time of filling the silo will aid in making silage of good quality from a crop that has been allowed to dry considerably before cutting.

Indian corn is preferably cut for the silo by means of a corn binder, at a time of approaching maturity, when the kernels are beginning to harden. Legumes are cut at the beginning of bloom, and the cereals when the kernels are in the milky state; in case of barley, rather before then after this stage. Sweet sorghums and grain sorghums are cut when the seeds are hard and fully matured. This is of special importance in the case of sweet sorghum, which will make a very acid silage when cut at an earlier stage of development.

The Process of Filling the Silo

The silage crops are always run through a power feed cutter in filling the silo. This is not absolutely necessary, but makes it easier to both fill and empty the silo, and makes the fodder pack better than when siloed whole, thus increasing the capacity of the silo. A cutter of ample capacity (say five to ten tons per hour for a hundred-ton silo or less) should be provided, which will also elevate the cut mass into the silo by means of a blower operated by a high-speed rotating fan. It is advisable to shred or cut the feed fine,—in case of Indian corn and sorghum into half-inch pieces, and for cereals and other fine-stem forage into one-inch pieces.

During the filling of the silo one or two men must be kept in the silo distributing the cut mass and tramping it down carefully, especially along



THE KIND OF CORN THAT MAKES THE BEST SILAGE

the wall. A cement tamper may be used to advantage in this work which is of the greatest importance in securing good silage and minimum losses of feed materials in the siloing process. If need be, water can be added in the silo, during filling, by means of a garden sprinkler and the mass may be left to ferment and settle. Most farmers fill up the silo a second time after a few days to a week, as it will have settled four to six feet by this time in the case of tall silos that have been filled rapidly.

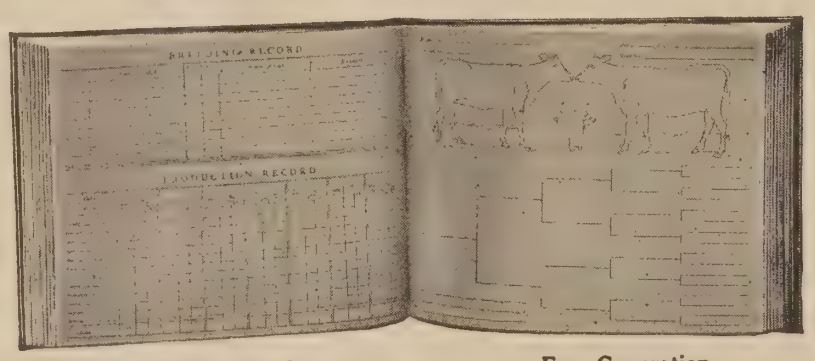
It is not necessary to put any cover on the siloed mass, but if desired a load of cut straw, marsh hay, chaff, etc., may be placed on top and thoroughly wetted, and oats then sown thereon; these will soon germinate and a heavy mat of roots and green stuff will form that will protect the underlying feed from decomposition.

The silage will be ready for feeding in two to three weeks after filling. In opening the silo the top six- to twelve-inch layer of spoiled silage is removed, below which a good quality of silage will be reached. The silage will improve in quality as the silo is being emptied until the last foot or two is reached, which will likely be

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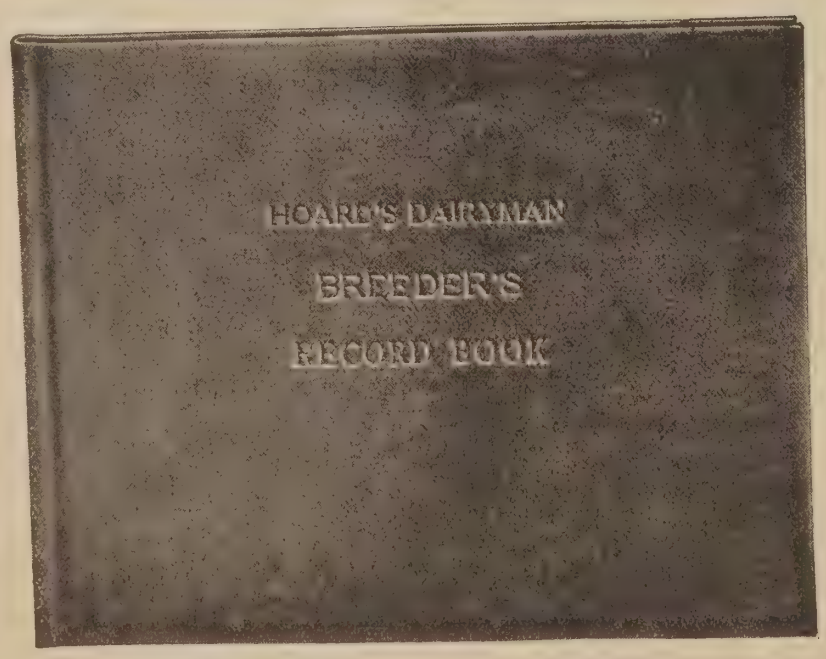
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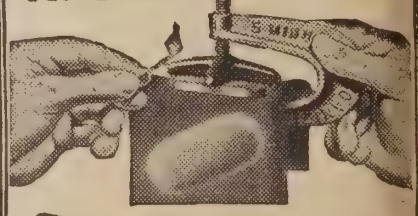
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rather acid if the siloed mass contained considerable water, or a good deal of water was added and the silo is not provided with a drain. If used for feeding, this sour silage should be fed to stock in only very small quantities.

Emptying the Silo

The silage is kept level in the silo all the time during emptying so that as little silage as possible is exposed to the air and secondary fermentations thus avoided. A sufficient amount of silage should be removed daily to keep the silage from spoiling, viz., one to two inches, according to the air temperature. The silage must be fed out more rapidly in warm than in cool weather. It is, therefore, important that the diameter of the silo be no greater than that the stock on hand will be able to eat a layer of silage daily of the thickness suggested.

Once sealed in the silo the silage will keep indefinitely without material changes after the first few weeks. Instances are on record of silage a dozen years old or more having been found of excellent quality and eaten by stock with great relish. If a silo is not completely emptied by next filling time the new crop may be placed directly on top of the old silage; if this is carefully leveled off immediately before filling there will be no spoiled silage at the juncture of the two crops.

In emptying the silo it is convenient, and in case of outside silos almost necessary, to provide a chute or conveyer through which the silage may be thrown directly into the feed truck or the wagon. The silage should be placed before the stock in one or two handlings and should not be allowed to dry out appreciably before being eaten by the animals, as it will otherwise lose some of its palatability. In the case of weedy alfalfa silage and barley silage the foxtail and barley heads, respectively, will soon dry out, if left exposed, at least in hot weather, and will be likely to injure the mouths of the animals, especially if siloed at a rather advanced stage of maturity.—DR. F. W. WOLL in California Circular 138.

More on O. P. V. Silage Mixtures

HOARD'S DAIRYMAN:—Corn in Northeastern Michigan has been a failure for several years and promises to be the same this year on account of cold weather and particularly cold nights. In a conversation with several farmers who have silos, practically all agreed that corn was a failure three out of five years. The writer suggested that Hoard's Dairyman recommended O. P. V. mixture. General interest was shown and questions asked which led to the writing of this letter.

Will you please state what quantity of oats, peas, and vetch you would advise planting on these sand lands of rather light character? Would you advise hairy vetch or some other vetch? Do you advise inoculation? As the entire mass will probably be a tangle, is it not difficult to harvest? Can it be harvested with a binder by first running a disk harrow over the field? In what stage must the oats be cut for most profitable harvest? Can the silage be fed to sheep as well as cattle?

A good substitute for silage corn would be a great blessing for the entire state of Michigan, with, perhaps, the exception of the southern tier of counties. You, or any of your readers, who can supply the above information would deserve our deepest gratitude.

Oscoda, Mich. C. E. S.

Your subscriber in Northeastern Michigan is evidently having the same difficulties with corn as a silage crop as were experienced by the farmers in the province of Nova Scotia on the Atlantic sea board of Canada when they first attempted to grow corn for the silo. Occasionally they would have a good crop, but more frequently, because of late and early frosts and the absence of hot, corn-growing weather, the corn crop would be a failure. A few years ago Professor J. M. Trueman, of the Nova Scotia Agricultural College, began experimenting with a mixture of oats, peas, and vetches for ensilage purposes. This mixture has now been tried out extensively, not only on the college farm but by numerous farmers over the province, and it has been proven that this crop will grow well and yield satisfactorily when many other crops are almost a failure. The crop was first grown on a commercial scale on the college farm in 1914 when 5.7 acres of land produced 65 tons of green feed, or at the rate of 11.4 tons per acre. The first three acres cut gave 45 tons, or at the rate of 15 tons per acre. The following year the average yield in the field crop was a little less than ten tons per acre and it has since been the general experience in Nova Scotia that on good land in proper condition they can easily raise twelve tons or more of O. P. V. ensilage per acre. This ensilage contains over eight per cent more dry matter than corn ensilage grown under the same conditions and in an average year the total amount of dry matter per acre will be more than the amount of dry matter per acre in corn.

The general run of soil in Nova Scotia tends to a light loam. There is very little heavy clay. On the college farm the soil is a gravelly loam, so I presume that the seeding mixture which has proven most satisfactory in Nova Scotia will be equally satisfactory for the light soils of Northern Michigan. It is two and one-half bushels of oats, three-quarters of a bushel of peas, and one-third of a bushel of vetch, making a total of a little more than three and one-half bushels per acre. The green material is cut just as the oats are about ready to enter the dough stage and before they begin to turn yellow. It is blown into the silo with the regular ensilage cutter. All kinds of stock eat this ensilage greedily and it is giving universal satisfaction. Common vetch is the kind usually used, but I see no reason why hairy vetch might not be substituted and perhaps it would make an even more satisfactory growth than common vetch on light, sandy land.

The mixture of peas, oats, and vetches is certainly a tangled mass, but this is one of the features which makes it easy to handle in harvest. Anyone who has forked green oats alone, knows how slippery and difficult they are to handle. The mixture of oats, peas, and vetches clings together and is handled as easily as it very well could be considering its weight. To run a disk harrow over the field would merely flatten the crop out and make it more difficult to handle. If the crop is very heavy it is most easily handled by forking direct from the swath to the rack. If light, it might be gathered in windrows with a hay rake. One farmer in Ontario who has experimented with a mixture similar to this for the silo, loads it directly from the swath with his hay leader, thus getting the crop into the silo with a minimum of hand labor.

This crop is at its best for silage when the land is given good preparation and manured just as heavily as it would be for corn. There is an opportunity to clean the land either by summer fallowing early in the season and then sowing the O. P. V.

(Continued on page 112)



Holding Up the Nation's Defense

The telephone played a tremendous part in this Nation's mobilization for war. It continues vital to the Government's program.

At the same time it has remained at the service of the whole people whose demands upon it grow apace with that of the Government.

The public is entitled to tne best service that it is possible to render. But the public has a partnership in the responsibility for good telephone service.

It takes three to make any telephone connection: the person calling, the company, and the person called. Without the co-operation of all three the service suffers.

The telephone company can make the connection, but no words can be heard at one end of the line which are not properly spoken into the transmitter at the other. The relation between the speaker and the hearer is the same as the relation between the orator and his audience. It cannot be maintained if the orator turns his back to the listeners or if the audience is inattentive.

Telephone traffic must be kept moving. Speak distinctly—answer promptly—and release the line as quickly as possible. Don't continue reading when the bell rings.

These seem little things to ask the individual telephone subscriber, but when the individual is multiplied by millions all over this country, it is easy to see how important it is that *all* should co-operate.

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For a Hoard's Dairyman Heavy, Serviceable Cloth Binder. Keep every issue, and USE the index. Price, $1.00 Postpaid.

Who Fills Your Silo?

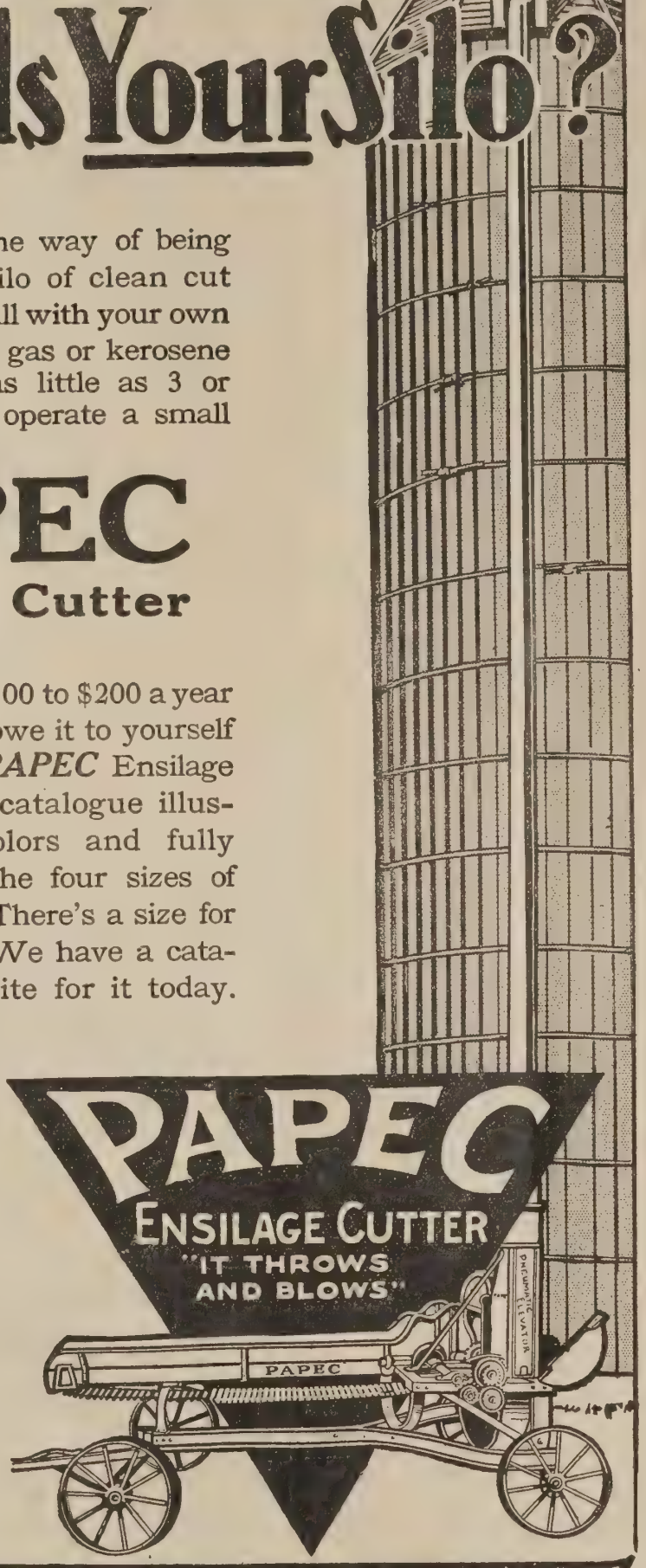
THERE'S just one way of being sure of a full silo of clean cut ensilage. That is to fill with your own equipment. A farm gas or kerosene engine developing as little as 3 or 4 horse power will operate a small

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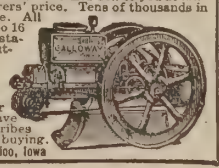
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Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. HOARD'S DAIRYMAN, Ft. Atkinson, Wis.

Which is the Best Silo?

(Continued from page 97)

darity because of its barrel-like structure.

The Silo That is no Good

Of all the silos the one that is absolutely no good is the one that you dream about. Action is what counts. Put it off this year and you will put it off next year. If you cannot get one any other way put yourself in the way of a good salesman and put your name over the dotted line. Then you will have one. Co-operate with your neighbors to make a car lot shipment to reduce freight and price. If you do not have the money see your banker. Borrow at seven or six per cent and make thirty per cent. The silo will pay for itself in three years, quite often in one.

Food Reserves and Fire Hazards

The United States Food Administration issues the following statement of fire hazards in rural districts and the importance of safeguarding the nation's food supplies against this danger:

The season is at hand when farmers are to fill their barns with hay and grain. This period, when barns, granaries, and storehouses contain the greatest amount of food supplies, is also the time when they are most liable to fire destruction.

Farmers are the only large handlers of food supplies upon whom the government depends, entirely without supervision by inspector, to guard their holdings against losses by fire; and in view of the supreme importance of guarding this season's stored crops, farmers are asked to consider destuction or spoilage of food through fire as a misfortune to the nation and the allies as a personal loss to the holder.

Prominent among the many sources of fire in rural districts are lightning, defective flues and stoves, spontaneous combustion, carelessness with matches, incendiarism, and sparks from chimneys and locomotives.

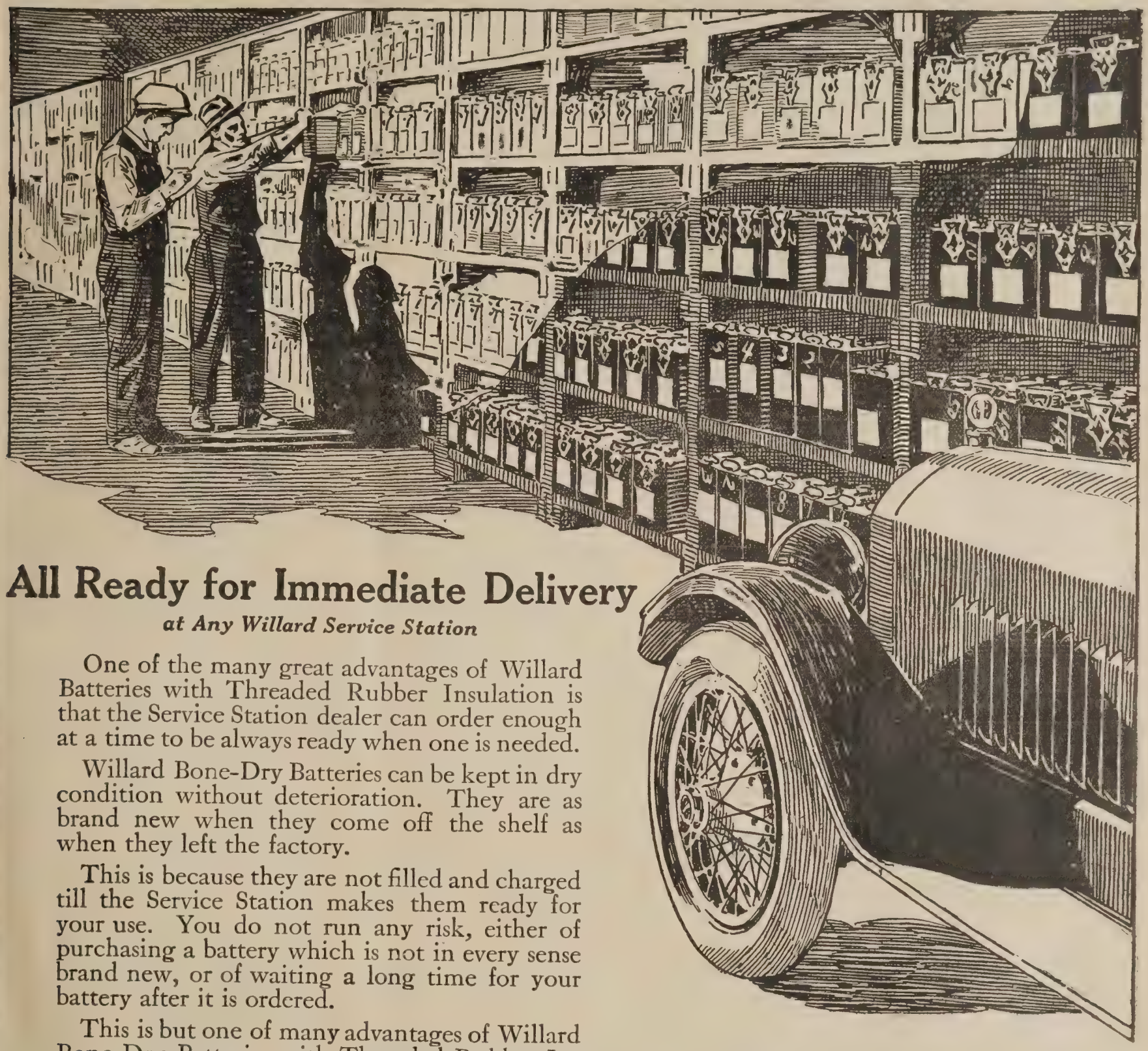
Effective means of fire prevention and control are understood by the majority of property owners, but particular attention is called to the importance of removing inflammable trash from the vicinity of buildings, and to adequate equipment in ladders and buckets when more modern equipment for extinguishing fires is lacking.

Properly installed systems of lightning rods and conductors are suggested as protections against lightning. The paramount thought is to save from loss not only farm buildings, but the food and feed they contain.

It will be remembered that famine in ancient Egypt was prevented by a little governmental foresight, and it does not require any illuminating dream to anticipate that so long as the war lasts, with its increasing drafts of soldiers or ammunition workers, the world will steadily produce less and less food. If this year's harvests prove abundant, it will be the first duty of the American people to place every grain they can save into storage for future need.

In 100 lbs. of timothy hay there are 48.8 lbs. of digestible nutrients, or nearly three times as much as there is in corn silage. Corn silage, being a succulent feed and more palatable is, on the whole, more easily digested. We have always calculated that one ton of timothy hay is equivalent to about two and a half tons of corn silage. Putting it in another way, when timothy hay is worth $10 a ton corn silage is worth $4.

Bone-Dry Batteries



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One of the many great advantages of Willard Batteries with Threaded Rubber Insulation is that the Service Station dealer can order enough at a time to be always ready when one is needed.

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This is because they are not filled and charged till the Service Station makes them ready for your use. You do not run any risk, either of purchasing a battery which is not in every sense brand new, or of waiting a long time for your battery after it is ordered.

This is but one of many advantages of Willard Bone-Dry Batteries with Threaded Rubber Insulation. Write for free booklet, "196,000 Little Threads."

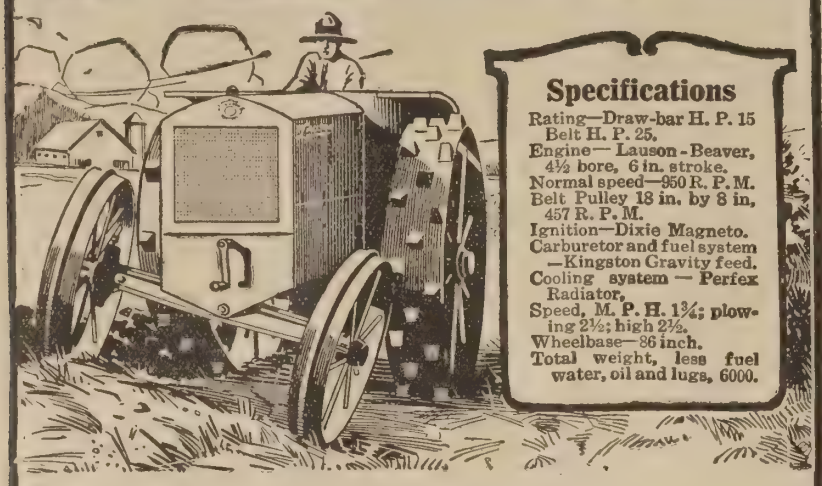
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Cleveland, Ohio

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New literature tells all about these remarkable construction and performance features. Send for it. You can arrange for a LAUSON demonstration on your farm through our nearest distributor or dealer.

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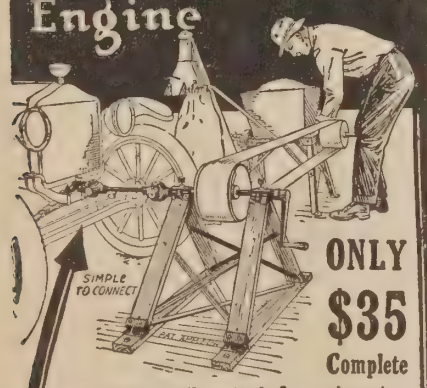
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At Half Price

Ware-house needed for pressing work. Am forced to close out my entire holdings of sixty-five silos of a well-known make which I will sell at pre-war prices. Silos all new and first-class. Advise size desired.

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More on O. P. V. Silage Mixtures

(Continued from page 109)

mixture, or by sowing early and following the crop with fall cultivation. Land may be seeded down to clover or grasses with this crop quite as well as with the grain.

Ontario. F. E. ELLIS.

A Suggested Abortion Remedy

HOARD'S DAIRYMAN:—Have just read your article on Infectious Abortion and will send you my cure for this disease. For each animal take one-half pint of hops, boil in one quart of water, and feed in enough bran to make a crumbly mash. Repeat the dose once every month for one year, after that one dose to every animal in the herd once every three months, and you will find the herd free from abortion.

This treatment is so simple and inexpensive that many people think it is no good, but try it and see.

Bedford, Pa. R. S. L.

[EDITOR'S NOTE:—We have never tried this remedy, and unless the scientists are wrong, it will offer but slight relief from the curse of abortion.]

Blood in Milk

I have a cow four years old that has given bloody milk in one quarter for two or three weeks and it does not get any better. Sometimes when the milk first starts there are clots of blood that come first and then the milk is tinted with blood until nearly done, when it is very red. The quarter shows no signs of any bruise or injury in any way.

Red Creek, N. Y. C. E. R.

Growths in the teat probably bleed from irritation at milking time and in such cases an operation by a skillful surgeon sometimes succeeds but often it is found best to dry off the milk secretion in the affected quarter. If you cannot find evidence of growths, milk gently three times daily, bathe the quarter with cold water, and each night mix in the feed a level teaspoonful of powdered copperas and three of salt but not if the cow is advanced in pregnancy.

Purulent Mammitis

We have a pure-bred cow that went through a wire fence and injured one of her quarters on the corner brace in the fence and the teat opening seemed to grow up at once. We were unable to get a teat plug for about seven weeks. In the meantime I used a medium sized milk tube to milk her with, being what I thought was careful in boiling it every day. The teat gradually became irritated from the end up and finally got so sore inside that I had to tie her legs down in order to get the milk tube in to milk her. In the course of time the quarter became caked very bad and I spent a great deal of time in applying hot towels, etc., but of no avail. The quarter at present is broken open in two places. In fact, one of the places appeared to be decayed, but that has passed and seems to be healing.

Tony, Wis. H. B.

The quarter is permanently ruined for milk production and infection may be spread from such a cow to other cows by the milker's hands, or contact with contaminated floors or ground. Isolate the cow and milk her last. Split open the tip of the affected teat or amputate a small portion to establish free drainage, then syringe out twice daily with warm water containing a dram of permanganate of potash to the quart. If necessary, gradually increase the strength of the injection solution.

It is suggested to farmers and dealers that everything should be done to conserve straw this year on account of the reduced returns in the cutting of hay which is being harvested. Those having any straw for sale are requested to communicate with Mr. George S. Bridge, Chief of the Forage Branch, Quartermaster's Department, Lytton Bldg., Chicago Illinois.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

DAIRY MARKETS

CHICAGO, Aug. 8—Butter—Creamery extras, 43½@43¾c; standards, 43¾@44c; dairy, firsts, 41@43c; seconds, 39@40c.

Eggs—Ordinary, 35@36½c; firsts, 37½@38c.

Cheese—Twins, 24½@24¾c; Young Americas, 25½@26c.

MILWAUKEE, Aug. 8—Butter—Creamery, tubs, 43½@44c; prints, 44½@45c; extra firsts, 42@42½c; firsts, 39@40c; dairy, fancy, 40c.

Eggs—Current receipts, cases returned, 36@37c; cases, new, included, 37@38c; miscellaneous, cases, 36½@37½c; dirties, 32@33c; seconds, 29@30c; checks, 28@29c.

Cheese—Twins, 25@25½c; dairies, 24½@25c; Longhorns, 26½@27c; Young Americas, 26c; Brick, new, 28@29c; Limburger, new, 1 lb., 27c; 2 lbs., 26c; Swiss loaf, 42@44c; block, 32@34c.

PLYMOUTH, Wis., Aug. 6—On the Wisconsin cheese exchange on Monday the following sales were made: 156 squares at 26¼c; 320 Twins at 24c, 100 at 24½c; 2,250 Daisies at 24c, 200 at 24½c; 150 Double Daisies at 23½c; 75 Young Americas at 24⅞c, 398 Horns at 26c, 145 at 26⅛c, 17 at 26¼, 30 at 26⅜c.

HIGHLAND, Wis., Aug. 6—Sales on the dairy board on Tuesday were 318 boxes Twins, which sold at 24c. Withdrawn, eighty-one boxes Twins.

APPLETON, Wis., Aug. 6—Seven factories offered 390 boxes of cheese on the local call board on Tuesday. Sales were 246 boxes Twins, 88 boxes Cheddars at 24c; 56 boxes Double Daisies at 23⅞c.

SPRING GREEN, Wis., Aug. 6—Offerings of cheese on the Spring Green dairy board of trade on Tuesday was 850 boxes of Single Daisy cheese. All sold at 24c.

NEW YORK, Aug. 8—Cheese—Quiet; state milk, common to specials, 21@26c; skims, common to specials, 5@20½c.

Butter—Firmer; receipts, 10,823 pkgs.; creamery extras, 45¼c; state dairy, tubs, 45½@46¼c; imitation creamery, firsts, 36@45c.

Highland Farm Ayrshires

EXTRAORDINARY OPPORTUNITY

We still have 12 Heifers out of 30 head Major John R. Valentine instructed me to sell.

Some of the best are still here.

All out of Adv. Reg. Cows, all carry the blood of Imp Finlayston, greatest sire of the breed.

Majority by Imp. Baron's Best of Bargenoch, out of Finlayston's daughters.

Color mostly white, well grown, good individuals, a grand lot for a foundation Herd.

PHILIP C. PALMER, Mgr.
Bryn Mawr, Penna.



Write us telling how many cows you own and when you expect to build or remodel your barn and we'll send "The Jamesway," giving helpful Barn Plan Service and valuable information about

JAMES
Sanitary Barn EQUIPMENT

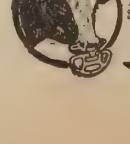
JAMES barns are money-makers. They are *standard*. Barns built and equipped the Jamesway are increasing profits for dairymen everywhere. Write to JAMES MFG. CO., C-K-23 Cane St., Ft. Atkinson, Wis. Elmira, N. Y.

"Kant-Suk" Calf Weaner

LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but absolutely prevents sucking.



Extremely easy to put in place. Endorsed by dairymen everywhere. At dealers.



Sent Prepaid: Calf size 35c; Cow size 45c

Wagner Specialty Co.,
Dept. F. Burlington, Wis.

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Ill.	Highland St. Jacob	W. A. Wegner	July	224	5	49	Emil Fricker
Minn.	N. Hennepin	T. O. Evans	"	384	16	52	H. O. Vollrath
Pa.	E. Bradford	M. E. Neal	June	396	23	60	O. Johnson
Pa.	Troy	W. F. McMorran	"	460	61	59	J. L. Van Horn
Pa.	Canton	M. D. Griffing	"	509	55	67	J. O. Crowl
Pa.	Laurel Hill	G. B. Park	"	457	45	55	R. L. Beran
Ill.	Lake Co. 2	R. William	July	451	31	83	Rouse Bros.
Ohio	Geauga	W. H. Bartler	June	327	18	58	C. Ober
Minn.	Pioneer	H. C. McMurray	July	800	38	56	A. Bergsland
Wash.	Stillaquamish	H. W. Quimby	"	440	65	63	J. Furness

Association Notes

Walla Walla, Washington: During the past month Dr. Pelton, State Veterinary Inspector, tested 515 cows in the Valley, only two of which were reactors. This shows that the herds were 99.6 per cent pure. In both cases where reactors were found the cows were in apparently the best of health and were among the highest producers in the herds. All of which goes to show that testing is the only sure way to detect the disease.

Wahkiakum, Washington: Frank Durrah has just completed a new milk house, built of concrete, at a cost of about $1,000; hot and cold running water, hot water heated in a pressure tank by a three-burner kerosene heater. Skimmilk runs directly to hog house from separator through a 2-inch pipe. Has installed a milking machine and is running the whole works by electricity, which is stored up by a 3-horse gas engine.

W. E. Brown is milking 19 cows and has 8 head of young stock. He has about 24 acres of pasture and this is cut up into 11 pastures. In this manner he is to have fresh pasture at all times. Frank Smalley is building a stay-round silo, 75 ton capacity. Alex Campbell has just purchased a milking machine, P. C. Olsen has a new 2-unit milker and H. L. Weister has a new 3-unit milker. Wm. Lund has just purchased a pure-bred Holstein bull from the Hollywood Farms. P. C. Grungstad has a 2-unit milking machine.

Iowa Associations: Last year members of Iowa cow testing associations saved $4,392 by buying 457 tons of cottonseed meal co-operatively.

In June 3,725 cows were tested in Iowa associations. Fifty-eight cows were sold by members and 27 bought. Seven pure-bred sires were purchased. The number of cows producing more than 40 lbs. fat each was 217; more than 50 lbs., 52.

Highland-St. Jacob, Illinois: Our farmers are buying a good deal of their winter feed now, especially bran which is quite cheap at present. The association is in its second year, but it is still turning out "boarders" from the herds. One member who has been testing for five months says he finds his cows increasing in milk flow each month and because he has changed his ration he finds that it does not cost as much to produce milk as before. In July, milk testing 3.5% sold for $2.30 per hundred lbs. Our members pay $1.40 per hundred for bran, $3.25 for cottonseed meal, $3.25 for linseed meal, $3.00 for ground corn, $2.40 for Sucrene, $2.75 for gluten, $2.00 for corn and cob meal, and $2.25 for ground oats. Our charge for pasture is at the rate of $2.50 per cow per month.

Laurel Hill, Pa.: Nine unprofitable cows were sold during June. In that month our members received $1.73 per hundred lbs., a test of 3% being required. The creamery paid 56.1 cents for fat. Milk retails for 9c, butter for 50c, and cheese for 45c.

Canton, Pa.: Several of our members have already bought their winter grain. Three per cent milk was sold in June for $1.69 per hundred lbs. Pasture costs $1.50 per cow per month; gluten, $45 per ton; bran, $45; hominy, $63; Schumacher, $60; hay, $12; silage, $5; and green feed, $5.

Troy, Pa.: Pure-bred sires have lately been purchased by members. Milk testing 3% sells for $1.68 per hundred lbs.

Eastern Bradford, Pa.: The June price for 3% milk here was $1.74 per hundred lbs. The creamery paid 46c for fat and retailed butter for 42c to 45c. Gluten is priced at $2.65 per hundred lbs. Cottonseed meal, $2.95; wheat bran, $2.35; brewers grains, $2.70; corn meal, $3.85; and wheat middlings, $2.25.

Lake Co. No. 2, Illinois: Poor pastures and empty silos didn't give the dairyman much encouragement this month. Thirteen head of pure-bred cattle were purchased by members and several more are in the market between now and this fall. The difference in production between good and poor cows is so great that there is an abundant opportunity for improvement all the time. Market milk sold for $2.30 per hundred lbs. The test required being 3.5% and, for each point above, 4c were paid. Creameries paid 46c per pound for fat. Prices of feed were: Oats, 70c; oil meal, $60; Schumacher, $56; bran, $38; and Sucrene, $48. Pasture is figured by this association at $1.50 per head each month of 30 days.

Geauga Cow Testing Association, Ohio: In June market milk sold for $2.00 per hundred pounds. The average test required was 3.3 per cent and, for each point above, 4c were paid.

May Irwin and Jerseys in Film

Many breeders of Jerseys in the vicinity of New York City were present at the Broadway Theater, New York, on July 30th to witness the first showing of the American Jersey Cattle Club's new motion picture film, "Hearts and Jerseys," in which May Irwin, the famous comedian and devotee of Jerseys, plays the leading role.

The play was produced by the Universal Film Company of New York, and was pronounced by prominent dramatic critics to be one of the best pictures of farm life that has yet been put on the screen. It will be used by the American Jersey Cattle Club at breeders' meetings and agricultural conventions in various sections of the country. Parts of the film have already been used in food conservation programs to bring forward vivid examples of the pure-bred Jersey cow's ability to produce a high quality of dairy products at a low cost in food consumption.—AMERICAN JERSEY CATTLE CLUB.

Restaurants and hotels are restricted to two pounds of sugar for every ninety meals served. This includes sugar for the kitchen as well as table use.

Universal natural milker



An Investment That Pays For Itself Each Year

Farmers must do more these days than ever before and with less men. This makes every *tried*, time-saving device more important.

That is the reason you should have a Universal Natural Milker on *your* farm.

Its alternating action milks two teats while relieving and massaging the other two.

The rubber lined Universal teat cup fits all cows.

These Universal superiorities mean more contented cattle, more milk, less bother, and result in the Universal being a good investment for every farm.

You need but *one* Universal—It lasts a life-time.

It is simple, dependable and always ready to work.

No holidays, always on the job at milking time.

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See our nearest dealer or write us.

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Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes may be had from the

UNITED STATES EMPLOYMENT SERVICE
Branches in all large cities of the U. S.

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PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT. REGULAR BREEDERS BY
STERILOID

STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for **FREE BOOK.** It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY, Dept. A. 398-408 Columbus Ave., New York City. Reference—Colonial Bank.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

The Pettis County, Missouri, Plan of Calf Clubs

HOARD'S DAIRYMAN JUNIORS:—A year ago last February the County Agent of Pettis County decided that the best way to encourage boys and girls in club work and at the same time conserve the calves that are going to slaughter would be to get the boys and girls to take these calves and raise them. Two obstacles were in the way. One was that the boys and girls as a rule did not have the money with which to buy these calves. The other was that many did not have sufficient milk to raise them. The former obstacle was easily overcome by getting the bankers to cooperate. They readily agreed to loan the club members the money for one year on their individual notes at 6%. It was further agreed that an auction would be held at the end of the year to give the members an opportunity to sell and pay these notes. It was decided to let each member have two calves so that they could sell one and pay the note and still have one left.

A note and contract was worked out, also an insurance contract. According to the insurance contract each member deposited with the Farm Bureau 10% of the purchase price of the calves. This 10% was borrowed along with the rest.

The contract stated that if the losses in the entire county did not exceed 10%, the Farm Bureau would pay the notes of the losers. If it exceeded 10% the loss would be prorated. Whatever was left from paying losses would be pro-rated back to the club member. This safeguarded the banks and protected the club members from the danger of coming up at the end of the year with no calves and a debt hanging over him. Incidentally it was a good lesson in co-operative business.

The second obstacle might seem to some to be insurmountable. However, the county agent had been experimenting along this line for two years with his own boy. The boy and one cow had raised eleven calves in nine months and had thus demonstrated that calves could be raised with no whole milk and very little skimmilk, and by a boy at that. Accordingly this method was carefully written to give to any club member who might need it. The offer was made to furnish the calves of either beef or dairy breeding to any boy or girl in the county between the ages of 10 and 18 without the payment of any cash. They were urged to take the calves if they had as much as two gallons of skimmilk for thirty days, by which time they could be eating Farm Bureau calf meal made according to the directions of the county agent.

Fearing that too many might want calves they were limited to the first 100 that might apply. The fears on this score were groundless. Many farmers in Missouri do not believe you can raise a calf fit for anything on skimmilk. They say that they are "knocked in the head with the churn-dasher." When the agent suggested that they raise them practically without milk of any kind they just knew he was crazy and did not always refrain from saying so. After much talking and some persuading forty boys and girls were induced to take two calves each. Many had never attempted to raise a calf on the bucket and several had only the minimum amount of milk. Arrangements were made with the local miller to mix the calf meal they were to use.

A large commission firm in Kansas City agreed to purchase the beef calves from among those dropped in the yards. The dairy calves were purchased from farmers in Wisconsin.

The calves were shipped in by express two at a time. A fine lot of dairy heifers were procured. They were 5 to 6 weeks old, large, well marked and practically pure-bred but could not be registered. They cost $20 at the stations in the county. This plus the insurance made the club member's notes read for $44.44.

The beef calves were not of so good quality. Many of them carried some Jersey blood. However, they cost less. They averaged $12 at their home stations. The calves arrived in pairs covering a period of six weeks. When a goodly number had arrived trouble began to brew. Club members would forget to follow instructions closely and scours would result. By the judicious use of formaldehyde and blood meal most of the cases recovered. Out of fifty Holsteins there was only one loss from scours. One loss was from blackleg although they were vaccinated. Out of thirty beef calves five were lost, four from indigestion and one from accident. The beef calves proved so much less hardy that only Holsteins are being put out this year.

The fun came at the show and auction. Some of the members lived so far away that they could not bring their calves to the county seat or thought they could not. Twenty-eight came in bringing 45 calves. The extension man who judged them said he had never seen as fine a lot of Holstein heifers in the state. They were quite uniform in color and size. They were in good condition and made a fine showing. Prizes were offered for the best Holstein calf, the best pair of Holstein calves, the most profitable Holstein calf, and the most profitable pair of Holstein calves. Likewise in the beef calves and the sweepstakes on individual and pairs the most profitable individual and pairs.



CLIFFORD CUMMINGS—PETTIS COUNTY, MISSOURI, AND HIS PRIZE HEIFER

He won 1st prize and the sweepstakes prize with her. He got her when she was 4 weeks old and sold her as a yearling for $125.

The Holsteins won the sweepstakes in every class. The boy that won first in the show class did not win in the most profitable class.

The most profitable heifer made the club member $46.00 over feed cost and feed.

The pair made $71.00. They were grown by Ralph Hall of La Monte.



KATHERINE JOHNSON AND HER FIRST PRIZE BEEF CALF—PETTIS COUNTY, MISSOURI

The show class was won by Clifford Cummins of Hughesville. The greatest excitement came at the auction. The prize heifer brought $125.00 and was bought by the member who produced her. He refused $130.00 for her after the sale. The pair of prize winners brought $220.00.

"The Most Profitable Calf" brought $96 and the pair brought $170.00 which shows that they too were good calves.

The 44 calves cost a year ago $820 and sold for $3,180 or an average of $70.10. The beef calves averaged $48.00 and the Holsteins $76.90. These prices alone show whether or not the calves were well raised. Seventy-seven dollars is pretty good for grade heifers from 12 to 14 months of age. That the club members are well pleased is shown by the fact that nearly all have received calves for next year. Only Holsteins will be put out this year as they have proven themselves more hardy. Seventy of these have already been received.

The Pettis County plan, it seems to us, has several points of advantage over the plans where yearling heifers are bought and placed.

In the first place it is not much of an achievement to take a heifer 10 to 18 months old and turn her on grass for awhile then let her winter with the rest of the cattle. It is a real achievement to take a baby calf 3 days to four weeks old and raise it by hand and then carry it through the winter. Our club members are learning what many grown-ups do not know,—how to raise a calf.

Then, by buying the smaller calves, it requires less to buy two than one large one and the club member has a chance to work his way out. Thirdly and not of the least importance, these calves are saved to the beef and dairy industries by the work of the club members. If they had not taken them, in all probability they would have been slaughtered as veal. The older calves are already safe from that that danger. We believe Pettis County has hit upon the calf club plan that will eventually be universally adopted. It is with keen delight that we note that since this work was started here a year and a half ago there has developed a national movement with headquarters in Chicago to save these baby calves.

Missouri. COUNTY AGENT.

Junior Letters

Hoard's Dairyman Juniors:—I received your letter and fob, button, and creed also.

My brother and I were weeding onions this morning and this afternoon mother helped. We have one acre and we are weeding them for the second time. The onions are growing fine and they are from three to thirteen inches long. Yesterday I went visiting and my brothers went fishing. They got thirty fish, but they were small.

My father owns seven Holstein cows and he has seven calves from them all. My mother has about 250 hens and 375 spring chickens. I feed them in the afternoon. They are the Single Comb White Leghorns. I buy War Savings Stamps with the money I earn. I have two large stamps and I will get some more soon.

Minnesota. Johanna Uitdenbogard.

Hoard's Dairyman Juniors:—I read the Junior page every week and enjoy it very much.

Have any of the juniors any Belgian hares or white rabbits to sell?

We have about 300 little chickens and about 175 little pigs.

Well, as my letter is getting rather long I will close with good wishes for the juniors. My address is Elgin, Nebr.

Katherine Freese.

Hoard's Dairyman Juniors:—Pa sold my pig three or four months ago and got $32.50 for it. He has still got the money.

Can you or any of the juniors tell me how to break a calf to drive? Am anxious for an answer.

I have a half share in a sheep with my sister. Papa gave it to us. My two older sisters have one together.

Flanagan, Ill. Albert E. Post.

Hoard's Dairyman Juniors:—I have a sow of my own. I might sell her for $28. She is a Berkshire. We have two grade Holstein cows and one Holstein heifer and an Ayrshire. We have a brood sow which has had one litter and is going to have some more this fall. Our farm contains about twenty acres. We planted 1½ acres. Our Ayrshire heifer comes fresh this month. We have about 100 chickens. They are all Rhode Island Reds. We had a hard rain storm here Friday. Twenty-nine of our chickens got wet and one of them died. We have over 100 hens, Rhode Island Reds, Plymouth Rocks, and some blue hens. In our woods there is a big rock and you can get on the top of it and see for over 4 miles. I will close wishing the juniors good luck.

Rhode Island. Alston Spencer.

Hoard's Dairyman Juniors:—I have not written to you in a long time. In your letter you asked me how maple sugar was made.

Along in March the sugar maker begins to look for signs of warm weather. When it comes he goes into his woods and taps the maple trees. There may not be a run for a week or ten days, but in that time he can get his sugaring apparatus in readiness and get up a little more wood. When the sap comes it must be gathered and boiled down to syrup. If you use a thermometer it must be up to 219° F. If you don't use a thermometer you can tell by the way it leather-aprons.

After that it is taken to the house and put in gallon cans. At some places it is canned at the sugar house. We can ours at the house. This year we made about 313 gallons of syrup.

The horse that had the sore leg got well and we sold her. We have got nearly done planting now.

There are several cases of measles around here. I am just getting over them. I have my garden all planted and it is up. I have 14 chickens now. If any of the juniors wish to write to me my address is Dinmouth, Vt.

Ray O. Wilbur.

Hoard's Dairyman Juniors:—This is my second letter to the Junior Department. I have not written for a long time. I have been very busy at school work.

We are milking sixty-three head of pure-

Better Butter Prices

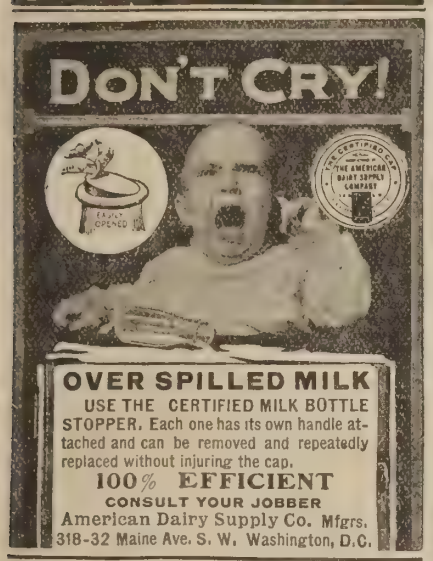
Customers willingly pay *more* for butter they know is *perfect*, just as first churned.

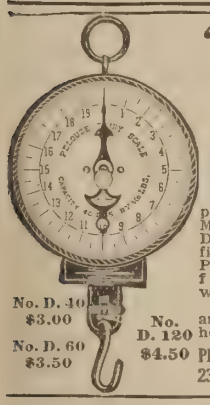
Pioneer Parchment Paper keeps it clean and sweet. Makes butter *worth* more, and *sell* for more. The cost of Parchment Paper is small. The extra profit more than justifies it.

Our free booklet, "Better Butter" is your money-maker. Send for it.



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PARCHMENT PAPER COMPANY,
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Three Sizes:
40, 60 and 120 lbs.
by Tenths of a Pound.

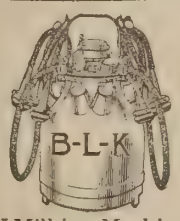
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Order direct or through any leading Dairy Supply house. Specify "Pelouze".

No. D. 40 $3.00
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The B-L-K Milking Machine will solve your labor troubles. Write for free booklet and information.

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GET MORE CREAM
BY USING A
Simple Speed Indicator
on your **cream separator.** Fits any make of separator. Attached in two minutes; easy to adjust; controls speed of machine; absolutely accurate; can't get out of order. Price $3.00. Agents wanted. Splendid proposition.
Simple Speed Indicator Co., Box 219, Sidney, Ohio.

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High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free.

Electric Wheel Co., 31 Elm St., Quincy, Ill.

bred Holstein cattle and ship 140 gallons of whole milk. We feed 40 gallons to the calves and give ten gallons of skimmilk to the hogs. We have a dozen heifers on a pasture at our other place which is eight miles from here. The pasture is a large one covering about 200 acres. There is a creek which runs through it and the heifers can get all the water that they want to drink. My heifer is down there with them. There is a man there to call them up every night to see that none is missing.

We have not a calf barn now, but we are going to build one this summer. We have four milkers to do the milking and I carry the milk from the barn to the dairy house, thus saving the milkers from having to do the walking. I feed fourteen calves now and am raising several for the show ring this fall.

I will close this time. Good luck to all the juniors. My address is Ridge Spring, S. C.

Ralph Jordon.

Hoard's Dairyman Juniors:—I thought I would write you a few lines telling you that I hadn't forgotten that I was a junior. I believe the last time I wrote you I had a young calf. She is nearly as big as a cow. I have a registered pig. I have just got through hoeing my cotton the second time. I have six acres of cotton. Papa has 40 acres. I have been reading the junior letters. I read a piece in your paper how to get a new bicycle.

Texas. Garner George.

Hoard's Dairyman Juniors:—I received your letter about four weeks ago but have not had time to write. The weather has been good all last week and we have begun haying. We have all alfalfa hay except a little oat hay for the horses. We are milking 22 cows now, including 7 heifers, and get 700 lbs. of milk per day.

We had to write our diploma examinations on May 18th and I passed and now I have a diploma. I am very proud of it. The average standing was 82. I would like to go to high school at least a year but I live 12 miles from town and they need me at home.

Yesterday and today I have been painting the machine house and the garage, but I am not through yet because I have to paint both twice. Brother was helping me yesterday but not today. I like to paint very well. When we paint or varnish in the house I always do it.

Our truck is working fairly well. I can run it, but not quite as well as father. Last week papa made a trip of 56 miles with the truck and had no trouble whatever and the roads were not of the best kind.

Sunday we had a fine ride in our car from our place to Winslow, Ill. We and two of our neighbors went to see a family who were our neighbors last year. We made a trip of 46 miles.

As I have told you I did not have good luck with my chickens, so I have only one left but it is doing well and is always busy. One of our neighbors gave me nine duck eggs. I set them under a hen and 7 hatched out, but last night a little kitten killed one so I have 6 left.

The cherries are ripe now but we have very few. We can eat nearly all we have.

I think I know a little cure for the grubs which I asked you about last winter. We had one hired man and papa didn't have time to curry and clean the cows as they ought to have been. We had a pure-bred Holstein bull which papa kept clean all winter and he has not had a one of these grubs yet and is exposed to flies as well as cows. What do you think about this method? Excuse my poor writing as it is dark and can hardly see.

Wisconsin. Emma Naef.

Hoard's Dairyman Juniors:—This is my first letter to the juniors. I received my fob, button, and creed and thank you very much for them.

My brother and I bought a pig apiece last year. My brother's pig died. Father said if he would cut the brush out of some corn he would give him a pig. He raised the pig all right. We sold our pigs and bought a colt from father. We also bought a gilt which was to bring pigs in the spring. We sold her and put the money in the bank. This year each one of us bought a pig and paid $5 apiece for them. My brother and I have an acre of corn. We are cutting hay now. I am buying thrift stamps and I think it would be fine for all the juniors to buy thrift stamps to help down the kaiser.

The juniors are giving their addresses so I will give mine. It is Strafford, Star R., Mo.

Wayne Doughty.

Hoard's Dairyman Juniors:—I suppose you have forgotten this junior for I have not written for some months.

We are cultivating corn today. We have about seven acres of corn to cultivate.

When we had so much rain some of the corn drowned out, so we had to transplant some of it. The corn is growing fine now.

The hay around here is not so very good. In some places the hay is short and other places some of it has died out. We expect to begin to hay around the 27th of June because some of the clover has headed out some time ago.

My calf is growing fine now. When you come into the pasture where she is she will run for you. She always wants you to pet her. My father gave my little brother a calf this spring. My brother may join the Hoard's Dairyman Juniors after a while. We joined the Red Cross in our school but it was so late we did not work any on it. Our school has let out. I am glad of it. I can then help my father with the work.

I am going to spend all my money now to buy thrift stamps as it will be safe and I can get it back. I have five dollars that I am going to put in for thrift stamps. My sister has about $50 in thrift stamps. She expects to get a good deal more before 1923. I wish all the juniors good luck.

Wisconsin. Chester Mortenson.

Hoard's Dairyman Juniors:—I received your welcome letter quite a while ago but neglected to answer it.

We are home on our ranch now and it sure seems good to be in the country after staying a winter in town. I have five lambs this spring, four ewes and one ram, which makes me eleven sheep altogether. I was not home in time to get bum lambs so all my increase this year is from my own sheep. Two of my ewes had twin lambs, but one twin got in the creek and drowned.

When I sold my wool last year I received ten dollars and fifty cents for it, which was from three yearling sheep. This year I have the wool off of six sheep to sell and I expect to receive quite a lot more, as wool prices have gone up.

My sister and I sold our pony last fall and bought a colt with the money. We each took a colt, she the young one and I the yearling. She named her Dixie and mine is named Rayzle. We have four young colts this spring and they are sure nice ones. Next year we will have quite a few colts to break for there will be five three-year-olds and five two-year-olds which we may also handle.

Our sweet clover is cut and stacked. Papa is going to use this cutting for hay and the next for seed. The alfalfa is almost all blossomed and we will soon start to mow it.

We have had a fine spring with plenty of rain and sunshine. All our gardens are coming up fine and also all other crops. We have been using lettuce, radishes, and onions since the first of May and we will soon have peas to use.

Well, I must close as my letter is getting rather long. Wishing the juniors luck.

Wyoming. Dorothy J. Grant.

Hoard's Dairyman Juniors:—I have not written for a long time. I have been very busy as we have 180 acres of land and no help.

I went in the pig club and won third prize. Now I have one cow ready to freshen and a two-year-old heifer will soon be fresh. I also have one two-month-old bull calf from our best cow and an 8-month-old Jersey heifer. I bought a fine colt from my father for $25. She is a year old.

Last week one day it was 122 degrees in the shade. I guess that sounds pretty hot and this summer it averaged 110 degrees in the shade.

I am 12 years and 5 months old now and graduated from grammar school.

I can not get very many subscriptions here as there are not very many dairies.

Well, this is all. Wishing the juniors good luck. Address is Holtville, Cal., Star route.

Ralph Bisnett.

Hoard's Dairyman Juniors:—I have been so busy that I could not write you but it is raining today and so I have time to write.

In your last letter you asked what I am feeding my pig. Well, he weighs about 140 pounds now. He is on alfalfa pasture all the time and then we feed him milk slop and corn and he is doing fine. We are going to put him in a pen to fatten this fall.

The other day my brother and I bought a little heifer from our father. We are milking seven cows now. We lost one of our best cows last winter. My letter is getting rather long and so I will close. Wishing all juniors good luck.

Kansas. Clifford Hultgren.

Hoard's Dairyman Juniors:—Please excuse me for not writing sooner but I have hardly had time. I received the fob, button, and creed all O. K. I sure do like them.

In your letter you asked me if my Hampshire was a gilt. She is. She has five pigs and they sure are pretty. I am going to keep her.

I told about my Shorthorn heifer; I will tell how I got her. The People's Savings Bank of Thomasville sold them to the Corn and Pig Club boys of Thomas County on a credit. They were to weigh them when we got them and the boys were to keep them till the fair this fall and then carry them back and all the heifer had gained the boy got. I am going to buy mine and raise some more. I have fed her beans, soaked, every night till they gave out and in the day time she goes in the pasture and gets Bermuda grass and Johnson grass and gets plenty of water.

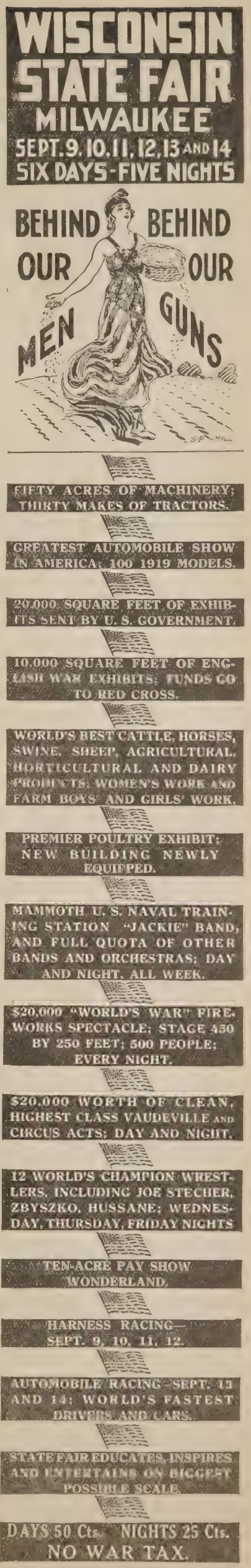
We have four cows fresh now and we are getting plenty of milk and butter and we are going to make some cheese pretty soon.

We have laid by all our corn now. We have 125 acres in corn. I wish we had a silo, I hear so much about them.

I have a patch of potatoes which I am going to sell and invest the money in war saving stamps. Papa has an acre of Caster beans for the government and he also has $200 in liberty bonds. I sincerely hope we can whip the Germans and we all, down here, are doing our part.

I reckon this is enough for this time. I will close. Good-bye to all the juniors.

Georgia. Talmage Elrod.





The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

For Sale—Fifty registered Holstein cows and heifers. Forty registered bulls two to eighteen months old. Two hundred fifty head of choice grade cows and heifers. GIROD & ROBISON, Towanda, Kans. 25-tf

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—Registered bull calves five weeks to four months old. $50 to $100. MAPLE LANE FARMS, Cassadaga, N. Y. 2-tf

For Sale—One hundred high grade heavy springing Holstein cows and heifers, quality good. Also 18 registered heifers. Bred to son of Tidy Abbekerk Prince. J. A. KNORR, Blanchardville, Wis. 3-5

25 2-year-old high grade Holstein springers; 15 cows, 15 registered yearlings, 10 calves. WALTER KNILANDS, Delavan, Wis. 3-2

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

Registered Holstein cows and heifers for sale. Also six bull calves, sired by a 33-lb. bull. AUGUST ROBERG, Cumberland, Wis. 4-2

For Sale—150 high grade Holstein springers, cows and heifers. Call at once. FRICK & HOESLY, New Glarus, Wis. 4-5

For Sale—Registered Holsteins, 12 heifers, 6 months to one year, $100.00. 12 cows and heifers bred to freshen early fall and winter. Some A. R. O. bred to 30-lb. bull, $200.00. Bulls 6 months old, $40.00 and up. FRANK STAFFEN, Howard City, Mich. 4-2

For Sale—10 pure-bred Holsteins, females, aged 18 months to 5 years old, 9 from A. R. O. cows. They are from 29-lb. and 30-lb. sires, and all bred to our 31-lb. sire. Price right. JOS. & NICK ROCKWEILER, Cazenovia, Wis. 4-2

9 registered Guernsey heifers, 9 months old, 4 were imported in dam, Governor of the Chene and May Rose breeding. $1,200 for the nine. PINE HILL FARM, R. 3, Howard City, Mich. 2-3

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Hoard's Dairyman Farm offers three splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Grade Guernseys for sale. LOUIS CLAUSING, Mequon Station, P. O. Thiensville, Wis. 3-4

For Sale—Guernsey bull year old May 4th, sired by a splendid young son of the Advanced Register bull Langwater Demonstrator; he by Dolly Dimple's May King of Langwater. The dam of this bull, Kate's Flatterer, made over 500 lbs. of butterfat last year under adverse conditions and his full sister bids fair to surpass the record of her dam. Color, dark fawn and white, half and half. Individually excellent. Clean bill of health guaranteed. O. E. GIBSON, Route 5, Eau Claire, Wisconsin.

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Nukwonago, Wis. 4-tf

STOCK FOR SALE

Guernsey bulls ready for service. One by grandson of May Rilma 1073 lbs. fat out of A. R. cow. Two by Glenwood Champion, 22 A. R. daughters, one over 800 lbs. fat. One of these is grandson of Beauty Eagle, 846 lbs. fat. Other out of A. R. cow. All splendid individuals. LaBELLE KNOLL FARM, Oconomowoc, Wis. 23-tf

For Sale—Guernsey bull calves sired by May Rose bull from a dam with 871 lbs. fat official record. Dams, granddaughters of Glenwood Boy of Haddon. F. W. KIMBALL, Waltham, Minn. 3-2

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

For Sale—Thirteen Guernsey two-year-olds, due to freshen September and October, large, nicely marked. JACOB F. PRATT, Greenwich, N. Y. 4-2

Jersey Bulls—Yearling by Financial King's Stockwell, dam, Register of Merit 425 lbs. butter; one nine months old by Noble Lorne Financier, Register of Merit dam with 534 lbs.; one three months old by Financial Sans Aloi's Lad. Register of Merit dam with 501 lbs.—a double grandson of Financial Countess. H. G. ST. JOHN, Waverly, Iowa.

Registered Jersey cows and bull calves. Herd average 450 pounds. Priced to sell. R. R. THOMPSON, Defiance, Ohio. 4-2

Ayrshires—Young stock for sale, both sexes of the right kind. SPRINGCASTLE FARM, Charlestown, Ind. 3-2

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

STOCK WANTED

Wanted on Shares—From 10 to 30 Holstein cows coming fresh in August or September and not over 6 years of age. No grades. 5 years' contract. Address BOX 183, care Hoard's Dairyman.

Wanted—To purchase ten or twenty registered Holstein heifers or cows that will freshen this fall. H. STIYER, Box 697, Nampa, Idaho. 3-2

Holsteins Wanted—2 A. R. O. bullocks, 30 lbs. 4% or over; 40 fancy high grade yearling heifers; 25 large heifers due to freshen this fall; 4 registered yearlings. State price and full particulars. BOX 160, care Hoard's Dairyman. 3-2

Wanted—Six or eight registered young Guernsey cows subject to tuberculin test, nearby springers at farmers' prices. GEORGE DAVIDSON, Annapolis, Md. 4-2

Wanted—To purchase for resale, every month, small carload of young, fresh, grade Holstein cows with first calf. WILLARD DITCH, Morgan City, La. 3-21

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

David W. Williams, Lake Forest, Ill., can buy you grades or pure-breds, any breed. 2-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

SWINE

Fine strain pure-bred, Improved Chesters. LLOYD NESBIT, Barron, Wis. 3-4

Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Large Yorkshires, April boars at farmer prices. Pairs and trio not related. M. O. LARSEN & SON, Colfax, Wis. 3-2

For Sale—One sow with pure-bred litter. One boar 14 months, registered Duroc Jerseys. Bargain. REATH FARM, Vulcan, Mich.

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Seed—Wisconsin Pedigree rye. A fine plump 1918 seed. Pure and a great yielder. $2.75 per bushel. S. S. BUDLONG, Rockford Ill. 3-2

FARMS FOR SALE

Secure War Prices for farm products; buy a farm; 40-acre farm $750; 80, $2,400; 120, $2,500; 160, $3,700; choice cutover land $15 to $20 per acre; write for particulars to THE E. L. C. CO., M-A, Dept. 31, Merrill, Wis. 24-tf

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

Improved Farms—In Barron, Polk, and St. Croix counties. Near Twin Cities. For particulars address JOHN McCOY, Owner, New Richmond, Wisconsin. 3-4

For Sale—125-acre dairy farm doing a $30 per day retail business in a town of 4,000 located in northwestern Ohio. Will sell herd and all equipment. Write for particulars to owner. BOX 164, care Hoard's Dairyman. 3-2

Farm—147 acres two miles northwest of Waukesha; five minutes' walk to electric car, fifty minutes' ride to Milwaukee; new $3,000 barn, also house and silo. Price $27,000, no trade, reasonable terms. MRS. CHAS. JACOBUS, Route 8, Waukesha, Wis. 1-spl

For Sale—Dairy and Stock Farm. 300 acres near Mountain, Oconto county, Wisconsin, 1½ miles from C. & N. W. Ry. Station and graded high school. 100 acres cleared, 100 acres pasture, 100 acres timber. Well watered by trout streams. 9-room house, basement barn 42x105; concrete silo 16x40 feet; machinery sheds and stock sheds. Well equipped with farm and power machinery. Stone milk house with power and De Laval separator. Price $13,500; ¼ down, balance on time at 6%. Write THE ANSON ELDRED COMPANY, Stiles, Wis. 22-spl

Farms of all sizes and all prices for sale in this banner dairy section. Largest creamery in the world right here. Write F. W. MEYER, Barron, Wis. 25-spl

A Small California farm earns more money with less work. Raise the crops you know about—alfalfa, wheat, barley, etc.,—also oranges, grapes, olives, and figs. Ideal for dairying, pigs, and chickens. No cold weather; rich soil, low prices; easy terms; good roads, schools and churches. Enjoy life here. Newcomers welcome. Write for our San Joaquin Valley, also Dairying and Poultry Raising illustrated folders free. C. L. SEAGRAVES, Industrial Commissioner. AT&SF RAILWAY, 1800 Railway Exchange, Chicago. 11-spl

80-acre farm for sale. Owner is nearly 70 years old and has lived on it nearly all his life; has always kept a good sized herd of cattle; you know what this means Mr. Farmer and the crops at this minute show it. Located about 10 miles from the city of Providence, near main highway, macadam and concrete, one of the best markets in New England. You can sell anything you can pull off the farm, from wood at $15 a cord to stone at 75 cents per ton. Milk sold at the door. Price of farm including crops, $7,500. Buildings in good repair; barn will house from 30 to 40 head of stock. This farm is all ready to step right on to and make money; you don't even have to plant the crops; you begin by harvesting them. First patch of wheat on this farm is a bumper. Write or wire, OTTO J. NASS, 79 Fountain St., Providence, R. I.

For Sale—Farm, stock and machinery, on easy terms. This farm, containing 105 acres, is situated on the famous Eagle Chain-of-Lakes, adjoining Eagle River, the County Seat of Vilas County, and is an ideal dairy farm. There are three houses on it and two barns, equipped with 48 stanchions, 7 pens, the James fixtures. Chicken house 14-80 feet, wagon shed, electric lights, complete water system, woven wire fencing. 60 acres in a high state of cultivation. Including fine team of bay mares, 15 head of cattle, part of them registered Guernseys. Price $17,000, including live stock and machinery, and all crops except oats. Terms, $5,000 cash, balance $1,000 a year at 6% interest. This is a big bargain, as the returns from this farm will pay for it. Good reasons for selling. Come and look it over. For further information write M. E. SANBORN, Eagle River, Wisconsin. 4-2

For Sale—Dairy and stock farm, 400 acres. 150 acres cleared, 120 acres in pasture, balance in timber. Nine-room modern house, city water and electric light and power. Basement barn 120x82, modern, city water, milk house adjoining. Silo in barn. Horse barn, machine shed, granary, wood house, chicken house. Well equipped with farm machinery, three-unit Perfection Milker, good as new; Great Western separator; 8 pure-bred Holstein cows and heifers; 19 grade A-1 cows, pure-bred sire; 30 Shropshire ewes, seven head hogs, five head horses and mules. January receipts from 17 cows in milk, $435.00. Cheese factory and creamery ½ miles, pea factory ¼ mile, graded and high school ¼ mile, Omaha railroad station ½ mile. Beautifully located, lies high overlooking town and lake. Good demand for building lots and acreage for part of farm in city limits, no other land available. Terms: Will sell farm, stock and machinery, or farm alone. Price for farm $65 per acre. Stock and equipment $8,000. $10,000 down and balance at 6%. Farm owned and operated by doctor going into army medical service reason for selling. DR. J. B. SHERBON, Cumberland, Wis. 4-3

FARMS FOR SALE

Free Maps of Mississippi, showing views and describing the famous black prairie alfalfa, clover, corn, stock and dairy belt, located in Northeastern Mississippi, where Lincoln Harbold of Iowa, the largest hog feeder in the world, has located; 300 miles of hard pike roads; good well and artesian water; excellent climate; three creameries; lots of grass; best hog, cattle, sheep and mule raising section in the South. K. M. WISHART, Aberdeen, Mississippi. 4-2

More families wanted to help till the soil in Aitkin County. To induce quick settlement of our remaining acreage, our company will sell you for actual settlement any sized tract, and at a price below its worth. Let me send you the facts. Write me, ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

Go where they are all going, central Wisconsin. The great dairy district. Write today for free land list showing photographs of a large number of our choice farm bargains. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin.

For Sale—Mohawk Valley country residence stock and dairy farm, 150 acres, state road, four miles from Little Falls, well watered, on Barge Canal and railroad; school house, church, milk station adjoining farm; separate tenant house; tractor and agricultural implements; fine herd registered Holsteins. Price to settle estate. ROBERT F. LIVINGSTON, Little Falls, N. Y.

300-acre stock and dairy farm, stock, tools, crops, $4,100. 100 acres machine-worked fields producing bumper crops; spring watered pasture to keep big herd; 50 acres valuable wood; variety fruit; good 9-room house, 60-foot basement barn, etc.; one of the best stock farms in the county; make money with minimum help; convenient auto road, schools, creamery, stores; owner retiring includes pair good horses, 12 cows, 5 heifers, potatoes, corn, oats, hay, mowing machine, separator, potato hiller, sprayer, wagons, machinery; $4,100 gets everything, easy terms. Details page 9 Strout's Catalogue of this remarkable bargain and others, many with stock, tools, crops, copy free. E A. STROUT FARM AGENCY, Dept. 3001, 150 Nassau Street, New York.

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Wanted—Modern dairy farm, fully stocked, machinery, buildings, rolling land, about 100 to 160 acres cleared, located in Wisconsin where good corn crop assured. State full particulars. Address BOX No. 176, care Hoard's Dairyman.

Wanted—To hear from owner of farm or unimproved land for sale. O. K. HAWLEY, Baldwin, Wisconsin.

FOR RENT

Dairymen attention! For lease 750 acres school land near Jackson, Mississippi. M. LATIMER, Clinton, Miss. 2-3

WANTED TO RENT

Experienced farmer wants to rent dairy farm. Will work for salary or shares. Address BOX 167, care Hoard's Dairyman. 3-2

Would like to lease a fully equipped farm on shares. I can give the very best of reference. Would like from 160 to 300 acres. FRED HELVEY, R. 5, Box 4, Bellevue, Ia.

MACHINERY

Moline Universal Tractor with two 14-inch plows. Almost new, only used to plow 30 acres and 35 hours on belt. Guaranteed in perfect condition. $900.00. W. H. WHITACRE, R. F. D., Limaville, Ohio. 22-tf

For Sale—Hinman Milker outfit, complete for thirty cows, subject to inspection, price $100. In perfect condition. MONROE & MONROE, Alexandria, Va. 25-tf

For Sale—2-unit Sharples Milker in good condition. $100 cash or Liberty Bond. E. R. KEENEY, R. 1, Rockton, Ill. 3-2

For Sale—Emerson 12-20 tractor, run only ten days, good as new. One Sattley engine gang, four bottoms. Hart-Parr tractor, used 18 months. Sharples four-unit milking machine used but nine months. Farm electric lighting plant in A-1 condition. All this machinery in good shape and bargains for cash. HURDCROFT FARM, Monticello, Minn. 3-2

Wanted—Several large, hand, straw balers. Will pay reward of $5.00 for information leading to purchase. In writing give name of baler as well as size and condition. LARIMER BAG COMPANY, Washington, D. C. 3-2

Wanted at Once—Good second hand Sharples milking machine. Give full information and price. C. C. BARDWELL, Starkville, Miss.

Two-unit Hinman Milker, complete. Good as new. HARRY PAULSON, Camanche, Iowa. 4-3

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forrestville, Conn. 3-10

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

LITTER CARRIERS

Litter Carriers—Price only $15.90. Write for catalog and price list too. TORGERSON MFG. CO., Baldwin, Wis. 4-6

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Two litters of pure-bred collie pups for sale. Beautifully marked, real heelers. Prices, females $6, males $10. Also one brood bitch, perfect worker, $25. BRUCE WESCOTT, Kewaskum, Wis. 4-3

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. CUCZYNSKI, Milwaukee, Wis. 24-13

Velvet Bean Meal feed; Peanut meal; Old Process cocoanut oil cane meal; ton lots or car lots. NEUSTADT & CO., 294-Ninth Ave., New York City. 2-4

LIGHTNING RODS

Diddie-Blitzen Rods—Quick sales; guaranteed lightning protection. $250 if they fail. Agents wanted. L. F. DIDDIE CO., Marshfield, Wis. 9-tf

PATENTS

Your idea wanted—Patent your invention. I'll help you market it. Send for 4 free books, list of patent buyers, hundreds of ideas wanted, etc. Advice free. Highest references. Patents advertised free. RICHARD B. OWEN, Patent Lawyer, 86 Owen Bldg., Washington, D. C. 2-5

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Married man wanted for general work on dairy farm. Must be thoroughly reliable, competent, good milker, like Guernseys, be a good caretaker, also have the interest of his employer at heart. House, fuel, vegetables, milk, eggs and good wages. Give full particulars and references in first letter. MARIONDALE FARM, Genoa Jct., Wis. 26-tf

Farm Help Wanted—Teamsters and farm hands. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Wanted—September 1, herdsman with experience, to care for large registered Guernsey herd, cows in A. R. test. Good habits and not a draft. $60 and board, chance for advancement. Give age and reference first letter. HOMER F. RUNDELL, Livingston, Wis. 1-5

Wanted—Good, reliable girl or woman for second work at County Home, eight miles out of Youngstown on car line. Write to MRS. A. ELSAESSER, North Lima, Ohio.

Wanted at Once—Herdsman and assistant. Registered Holstein herd 20 A. R. O. cows. C. A. ZOLLMAN, Mitchell, South Dakota.

HELP WANTED

Wanted—First class middle aged man as a working foreman on a 700-acre farm in Crow Wing County, Minn. Must have knowledge of stock raising of all kinds and be a general farmer. Address BOX 142, care Hoard's Dairyman. 2-9

Milkers Wanted—For the great Anna Dean herd of Guernseys. Good opportunity for well disposed capable men. Wages for single men $45 to $50 per month with excellent accommodations. Married men $60 to $70 with cottage. Applicants applying in person ready for duty preferred. ANNA DEAN FARM, Barberton, Ohio. 1-tf

Wanted—A single dairyman, not in the draft. Must be willing to stay all winter. Good wages. A. EARL NEWCOMER, Bryan, Ohio. 3-2

Wanted—Man to help on dairy farm. Guernseys. Man taken in draft. Been here 3 years. $50 a month, board and washing to man of experience. ARTHUR A. COOPER, Elizabeth, Ill. 3-4

Wanted at Once—A first class all round man to take charge of certified barn, fifty pure-bred Holsteins. ARDEN FARMS, 404 Hackney Building, St. Paul, Minn. 3-2

Married man for general farm work on 160-acre farm about September 1st. Born and raised on farm, competent, reliable, sober, and industrious. New seven-room house, garden, milk, potatoes furnished. Near city and school. Preferably with wife to assist with milking or with boys old enough to work. Fine opportunity for right party. State fully experience and wages expected in first letter with references. S. A. BAIRD & SON, Waukesha, Wisconsin. 3-tf

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Two single men familiar with feeds and feed bags. Splendid opportunity for any one unable to stand dairy work on account of rheumatism or for other reasons. Wages high, room and board furnished. LARIMER BAG COMPANY, Washington, D. C. 3-2

Wanted—Single men for dairy. Wages $45 and board. Apply at once. WHITE HORSE FARMS, Paoli, Pa. 4-2

Dairyman wanted for the Panama Canal. Must be experienced and competent to manage dairy of 320 cows, including selection for breeding and production, also management of pasture. Salary $150 a month with increase to $175 month after six months' satisfactory service. Free steamship transportation from New York or New Orleans, and free bachelor quarters on Isthmus of Panama. Must be American citizen under 50 years, physically sound. Write "CHIEF OF OFFICE," The Panama Canal, Washington, D. C. 3-3

Wanted—Dairyman to milk fifty cows with machine. Prefer man with help sufficient to handle the job. Good wages to right man. State salary wanted. BROAD ACRE FARM INC., Blackstone, Va. 3-2

Farm superintendent, married, must understand care of horses, cows, sheep and poultry; raising of crops and handling of men; wife to care for help; good living conditions near city; fifty acres in connection with suburban residence. State age, experience, salary desired and family in first letter. FIRESTONE FARM, Medina Road, Akron, Ohio. 3-2

Wanted—Young man to work with Guernsey herd. State wages and experience. McKERROW FARMS, Pewaukee, Wis. 4-2

Wanted—Reliable men for dairy work, milking machine operators and strippers, also creamery men. Excellent conditions and salary. Prefer men not subject to draft. THE HARTMAN STOCK FARM, Columbus, Ohio. 2-3

Wanted—Stockman and teamsters. Married or single, elderly men preferred. Service by year. Hinman Milker. Write NORTHEAST EXPERIMENT FARM, Duluth, Minn.

Wanted—Married man to feed calves, and to attend to poultry. House provided. Answer at once. WHITE HORSE FARMS, Paoli, Pa. 4-2

On large dairy farm, state of Maryland, wanted man and wife, no small children, to take care of boarding house. State wages wanted and qualifications in first letter. Address BOX 188, care Hoard's Dairyman.

Wanted—To manage on contract farm and dairy on good road near city. The establishment, cows, and business, must all be in good order. Wish to buy equipment and stock and lease for cash for term of years beginning next spring. Give complete description and terms. BOX 182, care Hoard's Dairyman.

HELP WANTED

Wanted—Herdsman for herd of twenty registered Holstein cows on fully and modernly equipped breeding farm. Man with some experience in A. R. O. and show ring work preferred. Will provide attractive four-room cottage for married man ready to work, and looking for a good home. Write giving experience and recommendations. GARMESA FARMS, Fruita, Colo.

Herdsman wanted for breeding herd Ayrshires. Prefer single man over draft age who understands how to make records, grow young animals and make sanitary milk. We are near two cities, have all modern conveniences and some of the best of Ayrshire blood. Milking about 20 cows at present, herd of 60. Empire Milker. State salary expected, description of yourself and reason for wanting to come, in first letter. No man who drinks or smokes about barns need apply. EVAMERE FARM, L. W. Renne, Supt., Hudson, Ohio.

Wanted—Single man for small herd grade and pure-bred Guernseys. Permanent place for right man. JOHN W. VORHES, Springfield, Ill. 4-2

Wanted—To hire young experienced farm hand, not in draft, for large Guernsey dairy farm. $50.00 per month and board. Railroad fare. Start work right away. HOMER RUNDELL, Livingston, Wis. 4-3

Wanted—Experienced milker, machines used. Chance to learn A. R. work. Also man for milk house. Everything modern. State wages and reference. SPRING GROVE FARMS, R. 7, Ft. Wayne, Ind.

Eastern shore of Maryland, wanted assistant herdsman for Holstein herd; single, above draft; state qualifications, and wages desired. Also reliable man with experience in retail milk plant on farm. Address BOX 186, care Hoard's Dairyman. 4-2

Wanted—Single man as assistant in milk plant on farm, handling 1,200 quarts. State all particulars, wages and when could come, in first letter. Address HOMESTEAD DAIRY FARMS, Salisbury, Md. 4-2

Wanted—Man to manage 300-acre grain and dairy farm. Fertile, near large city. Expect to have 100 head pure-bred Holstein cattle. Salary and share of profit proposition to right party. Address BOX 184, care Hoard's Dairyman.

Wanted by September 1—Man for general farm work. Must be good milker and teamster and dependable. Work the year round. State wages in first letter. FRED WINKENWERDER, Juneau, Wis.

Wanted—Well experienced single man as head herdsman on modern general farm in Chicago suburb to have care of dairying and hog raising. A good position and wages to the right man. In replying state age, experience and last position. Address BOX 175, care Hoard's Dairyman. 4-2

Wanted at Once—Man and wife on dairy farm. Man to take charge of thirty-five to forty milch cows, tend to milking, separate the milk, take care of separator and milk things, work around the barn, etc. Wife to board one or two men to help and take care of other stock. Have good six-room house, good barn, milk house. Separate with engine, also have Empire Milker. Pure-bred Holstein herd. Can use a good man by the year with advancement after the first of year if man can make good. I had an ad. in thirty days ago, hired one who failed to show up; another failed on account of wife boarding help. Men who mean business state wages, experience, size of family, nationality, also give reference. I will give good treatment. As to reference write the Bank of Emmet County, Iowa. G. E. MOORE, Wallingford, Iowa.

Wanted at Once—A reliable man not in draft, understanding care of and able to develop Berkshire hogs and poultry. Near Pocomoke, Md. Address BOX 187, care Hoard's Dairyman. 4-2

POSITIONS WANTED

Manager, married, desires position. Expert developing land, stock raising, A. R. O. work, salary or shares. BOX 148, care Hoard's Dairyman. 2-3

Position Wanted—Herdsman or dairy manager. American, single, past draft age, wide experience, A. R. O. work, can handle successfully any sized proposition, absolutely competent and reliable. Only a first class proposition considered. Give salary and full particulars. Address BOX 178, care Hoard's Dairyman.

Experienced herdsman wants position. Good references. Experienced in A. R. O. work and feeding economically for production. N. I. NELSON, Elkhorn, Wis.

Married man wishes position as farm and dairy manager. Have held present position 7 years and given best of satisfaction. Can furnish finest of references. BOX 166, care Hoard's Dairyman. 3-4

Wanted Position—Energetic dairy and stock farm manager of experience and ability, age 32 years, small family, desires position Jan. 1st. At present in charge of one of the largest and best equipped dairy farms in state. Best references as to honesty, capability, sobriety, etc. State salary and full particulars in first letter. Address MANAGER, Box 465, Rome, Ga.

I want on 3-year contract a dairy farm proposition, of modern housing and equipment, up to me in all respects, co-operating with owner for economical and efficient maintenance. Experienced in high grade A. R. O. work, buying and selling of stock, calf raising, scientific, practical feeding. Planning and arrangement of buildings and fields, soil improvement and crop rotation. Modern machinery, mechanical milker, fruit, garden, poultry, swine. Care of estate. Exempt. Children. Particular as to schools and churches. References. $1,500 per year, one-half of profits over interest and depreciation. Use of farm products. Address BOX 180, care Hoard's Dairyman.

Wanted—By experienced dairyman over draft age, dairy in the south on salary and shares. Can make small investment. BOX 144, care Hoard's Dairyman. 2-4

Married man desires position on farm as teamster. Experienced with horses. Prefer California. W. H. MAHNKE, General Delivery, Tacoma, Wash.

Wanted—Position. Farm or estate manager. Married. No children. Draft exempt. American. References. Eastern states preferred. BOX 172, care Hoard's Dairyman.

Wanted—Position as farm manager or herdsman by American 26 years old, married, no children. Life experience and college training. Can handle help, all farm and dairy machinery, care of dairy cattle, A. R. O. work, grain crops. References. East preferred. Address BOX 185, care Hoard's Dairyman.

Young man, single, wants a position as herdsman or farm manager or as assistant. Want steady job. Life experience on farm. 4-year Agricultural College graduate. Clean habits. Best references from former employers. Would like to take farm on shares or profit sharing plan. Address BOX 173, care Hoard's Dairyman.

Wanted—Position as working farm manager. Young, single, experienced, good habits. Also young man experienced, willing and good habits, as helper. BOX 174, care Hoard's Dairyman.

Wanted—Position as farm manager or herdsman. Life experience farm and dairy. Age 35, married, two children. State wages first letter. BOX 181, care Hoard's Dairyman.

Married couple with 3-year-old boy desire position on big farm. Man 28, experienced. Wife good buttermaker, willing to cook for help. State wages. WM. PAPE, Buhl, Minn.

Wanted—Position as farm foreman. American, age 28. One child, 4 years. Understand farming and dairying thoroughly. Operate all farm machinery, autos, gas engines and tractors. Do simple repairing of same. Handle any number of men. A hustler and not afraid of work. G. C., 1018 Elice St., Waukesha, Wis.

Position wanted by reliable married couple with one small baby, as cook and helper on large farm. Man to do cooking and woman other housework. Steady all year round position expected. Address BOX 171, care Hoard's Dairyman.

Farm manager, scientific, practical, experienced on large modern farm or estate. Thoroughly understands up-to-date farming, A. R. work, orcharding, pruning, spraying, landscape gardening, etc. Can handle men, teams, and farm machinery to advantage and produce results. Strictly temperate, energetic, reliable. 5 years present position. Excellent references. BOX 179, care Hoard's Dairyman.

Wanted—Position on dairy farm by married American, long experienced and training in dairy work, breeding, feeding, developing and showing Jerseys, Ayrshires and Berkshire hogs. Also large A. R. experience. Best references and reasons for change. For further particulars address BOX 177, care Hoard's Dairyman.

Working farm manager and herdsman wants a position by Oct. 15. Life experience in farming and farm machinery, also steam, kerosene and gas engines. Married, one child. State wages and full particulars in first letter. WALTER SCHMIDT, JR., Wrenshall, Minn.

Burr Oak Jersey Farm Picnic

The meeting of the Jersey Breeders' Association of New Jersey at W. C. Spann's Burr Oak Jersey Farm July 31 was made the occasion for the first Jersey breeders' picnic at Mr. Spann's new home.

President M. D. Munn of the American Jersey Cattle Club urged breeders of New Jersey to band themselves more closely together for the improvement and advancement of the Jersey breed. Geo. W. Sisson, Jr., gave a very interesting historical sketch of the part that New Jersey once played in Jersey affairs. He reminded his hearers that some of the greatest cows of the breed were at one time owned in New Jersey, and that the state has always been prominently represented in the breed and in the Club by men who maintained the highest ideals in dairy cattle development. I. Robert Blackburn of Ohio gave an instructive address on "Breeding for Production" and outlined a mathematical formula of breeding operations which have brought him to the front ranks of Jersey breeders within a comparatively few years. Mr. Blackburn does not advocate the breeding of cattle for production alone, and he believes that type should not be lost sight of as one factor is closely dependent on the other for complete success in breeding operations. He referred to the breeding of cattle for type as an art and the breeding of cattle for production as a science, and he gave his views on combining art and science in producing a beautiful and useful dairy cow. Mr. Spann led out some notable animals now at his farm, one of which is Peerless Jolly Fern, a promising three-year-old bull.

The regular business meeting of the Jersey Breeders' Association of New Jersey was held at which arrangements were made for a vigorous campaign to further popularize the breed in New Jersey. Action was also taken in regard to a good showing of Jerseys at the Trenton Fair this year. Membership fees were revised, and the campaign for new members will soon be under way. The present officers of the club are: W. R. Spann, president; C. R. Hires, vice-president; Fred Huyler, secretary.

Mr. W. R. Spann announced his sailing to the Island of Jersey, and was wished *bon* voyage by everyone present. He has experienced some difficulty in arranging for the shipment of fifty-four animals, and is going over there personally to arrange for their immediate consignment.—AMERICAN JERSEY CATTLE CLUB.

Hay Caps' Value Shown

At the New Jersey Experiment Station it was found that when some cocks of alfalfa were covered with cotton sheeting caps 45 inches square and exposed to a heavy rain lasting 24 hours, the hay was damp only 2 or 3 inches below the top. The cocks that were not covered received a thorough wetting, and the hay was more or less bleached, the stems brittle, and the loss of leaves heavy.

Hay caps are especially valuable in curing alfalfa and clover hay, which do not dry out as readily as the grasses. Alfalfa hay must be handled carefully to avoid loss of leaves, which constitute from 40 to 60 per cent of its weight, according to the bulletin. Farmers making a specialty of producing choice hay for market, or feeders, such as dairymen, desiring good palatable hay free from dust will find that under certain conditions it will pay well to cure hay in cocks, under hay caps, when ordinary methods have been found to be unsatisfactory.—U. S. Weekly News Letter.

Vessels sailing from New York in June were cut more than 25 per cent in their sugar requisitions, to conform to the Food Administration ration.



CUT OFF MORE CORN THIS YEAR

The best agricultural authorities have proved that 30% of the feeding value of the corn crop is in the stalk, yet thousands of acres of corn stalks are practically wasted annually by field feeding.

Get the big profit from your crop. Cut off more corn this year. Do this with no more help and in much less time. Use the

JOHN DEERE CORN BINDER

The Binder with the Power Carrier and Quick Turn Tongue Truck

In addition to the labor and time-saving features of the John Deere Corn Binder, its better, more lasting construction and its many operating advantages will have a particular appeal to you.

Power carrier relieves you of all the hard work—simply press the foot trip lever and the carrier, which is always in receiving position, dumps the bundles in windrows free of the horses' path, parallel to the standing corn.

The Quick Turn Tongue Truck, another valuable feature, relieves the horses of all neck-weight and makes turning at the ends as easy as when the horses are hitched to a wagon. The truck, with a flexible mounted axle, conforms to uneven ground perfectly, keeps the gatherers to their work, prevents sluing on side hills and does away with side draft.

There are many other features of merit, such as bigger and stronger wheels, heavier main frame, flexible throat springs, three packers instead of two, four discharge arms and roller bearings, which all combined make an unusual light draft, serviceable and dependable binder.

Like other John Deere Implements, the John Deere Corn Binder is built on the standard of quality that insures service and satisfaction. Place your order early with your John Deere dealer for a John Deere Corn Binder. Be assured of delivery when you need it.



Write for these Free Books

Let us send you literature fully describing this better binder and also big 156-page book *"Better Farm Implements and How to Use Them."* Full of practical information. Worth dollars.

Ask for free package CB 49.

JOHN DEERE
Moline, Illinois



For Better Grain Crops

DRILL planting saves seed, gives the crop a better start, increases yields, and produces grain of better quality than any other known method of planting. These are the years when every acre of small grain must produce every possible bushel and these are the drills to plant with.

If you are growing small grain, and are not using an **Empire Jr., Hoosier,** or **Kentucky** drill for planting, you are losing money and the world is losing grain. Buy the right drill from your local dealer who has in stock, or can get for you, the drill best suited to your soil and crops.

The dealer will show you all about feeds, furrow openers, bearings, attachments, the regulation of quantities, and all the other things you will want to know. Talk this over with him or write to us, and we will send you complete information about the **Empire Jr., Hoosier,** or **Kentucky** drill that is best for you to buy.

International Harvester Company of America
(Incorporated)

CHICAGO U S A

Champion Deering McCormick Milwaukee Osborne

Dairy Cattle Breeders

The National Dairy Show, to be held at Columbus, October 10th to 19th, is to be filled this year with more real value for the industry than any of its predecessors, and that is "a large order," but these are "large times" when every citizen is expected to contribute to the sacred cause our country is at war for, in some useful way.

The government is to use the Show this year to put over some potential messages to those engaged in the industry and to the peoples of the world, as to just what the dairy cow means in the matter of feeding the human family. In order that the work of the government shall attain the highest degree of efficiency, the dairy industry must support the officials in every detail. The men who will have charge of the work are keenly anxious that there shall be imposing exhibits of dairy cattle and dairy products.

The milk, butter, cheese, and ice cream people are planning for an outstanding display of these products.



A Welcome Defense Against the Rigors of Winter and an Insurance of Profitable Feeding.

Now, the cattle men should give evidence of their ability to rise above the exigencies of the war, and "go on" with the work of necessity at home while our boys are taking care of the job over there.

Nothing counts in this war unless each one feels he or she is personally in it and unless we show a willingness to understand the word sacrifice. Canada, with four long, weary years of blood and treasure, is promising more cattle exhibits than ever brought to the National. Surely nothing can obtain in the nature of a so-called obstacle that will cause our breeders even to hesitate in taking hold and making this Show what it should be, an "inspiration."—Publicity Department.

There are instances where it will not pay to construct a silo when there is an abundance of alfalfa hay, but as a rule the silo is a very good institution where alfalfa hay is plentiful. There is nothing that will supplement alfalfa better than corn silage. There is something about the combination of these two feeds that seems to meet the requirements of the dairy cow. Furthermore, cows do better when fed some succulent feed. If alfalfa is to be used for silage it is customary to use the first crop. The crop is ready to cut when the growth of new shoots appear on the crown. When the shoots begin to show, the alfalfa as a rule is just going into bloom.

Sugar bowls have been banished from American dining cars—a traveler is served his portion of sugar and no more.



How Fresh Water-on-Tap Saves Labor

INSTEAD of pumping to water the stock, just turn a faucet and get a steady flow of *fresh* water—not storage water.

Instead of pumping and carrying water to the barn on cold days, have *fresh* water on tap—always at the same even well temperature.

For spraying and for all household uses, there are a hundred ways in which you *save labor* when you have a

NATIONAL
Fresh Water System

Water comes *straight from the well*—not from a storage tank. Delivered in a steady flow by compressed air, safest of all power, operating powerful air-driven pump in well itself. Absolutely dependable.

Write for full information—today.

Watch It Work at the Fair

National Fresh Water Systems in operation will be shown at the Wisconsin, Minnesota, Iowa and Nebraska State Fairs. Be sure to come to our booth and *see for yourself.*

UNITED PUMP & POWER CO.
754 Larkin St., Milwaukee, Wis.
FOUNDED 1907

NATIONAL Fresh Water System

THE Racine TRADE-MARK

Soft Shirts

Collar Attached or Neckband
Cotton or Flannel



The Farmer's Friend



YOU'LL like their honest, broad-shouldered comfort; cut full, not skimped—let muscles play and body "breathe." Reinforced where the "strains" come. Continuous facing on sleeves—making them "rip-proof"—"dirt-proof"—"non-gapping"—buttons sewed on to stay.

Ever Racine is good or we make it good.

The Chas. Alshuler Mfg. Co.
Racine, Wisconsin

"Soft Shirt Specialists for 34 Years."

If you do not find the Racine shirt promptly, write and tell us the name of your favorite dealer and we will see that you are supplied. Insist on the Racine.

Protect Your Buildings Against Lightning

Don't run needless risks of lightning loss on your buildings. Secure complete protection by equipping your premises with a

Security Lightning Rod System

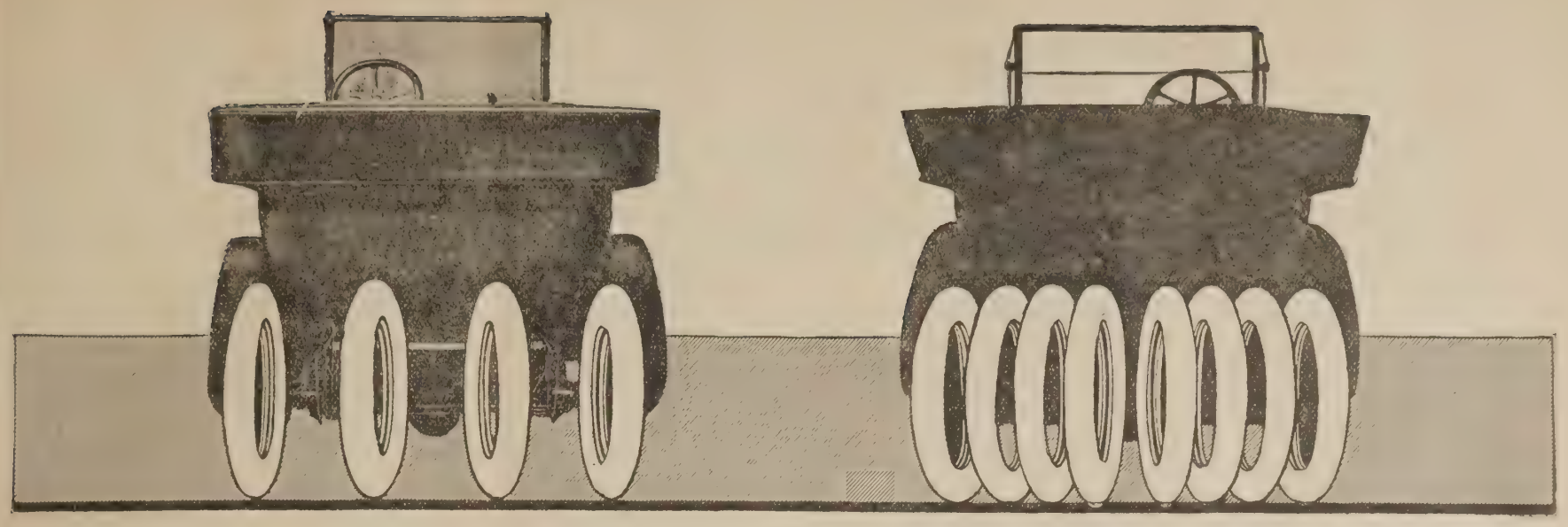
Only system with the Security automatic patented water ground connection providing the moist grounding absolutely necessary for real protection. Extensively used for more than 25 years. Endorsed by National Board of Fire Underwriters, and Insurance Exchanges of many states. Write for free book.

Security Lightning Rod Company
509 Pine St., Burlington, Wis.

Dairy Alfalfa

WE ARE SHIPPERS OF HAY THAT PRODUCES MILK

FERSON HAY COMPANY
Kansas City, Missouri



How Many Tires Does *Your* Car Need To Go 10,000 Miles?

The above question is of direct interest to you. It makes no difference whether you are concerned about motoring economy for personal reasons, or simply as a principle of national conservation.

The average car (on the right) either heavy, or rigidly-built, or both—to go 10,000 miles, needs an extra set of tires, or eight tires in all.

The Franklin Car (on the left) to go the same distance—and further—needs only the four tires on the car, or half as many as the other.

There could be no clearer illustration of the timely economy of the Franklin Car; nor a more direct indictment of *unnecessary* motor car weight.

For it is excess weight that prevents the average heavy and rigid car from equaling the publicly-known Franklin tire-mileage. The action of the weight of an automobile on the tires is similar to a hammer blow—and the heavier the hammer, the harder and more destructive the blow. Heavy weight pounds out tires prematurely. And the heavy car owner, accustomed to paying for tire-mileage he doesn't get, accepts this as a matter of course—until he meets a Franklin owner.

For Franklin owners get a consistent delivery of 10,000 miles or more to the set of tires.

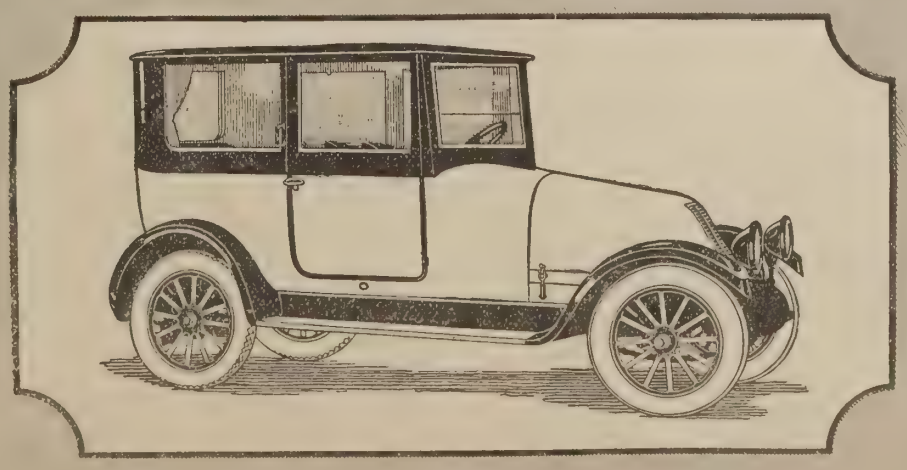
The reason lies in Scientific Light Weight and Flexible Construction. The Franklin weighs 2445 pounds—the right weight for a full-size five-passenger car. It also carries the minimum *unsprung* weight—weight *below* the springs, that contributes to the pound and shock tires must meet.

Franklin Flexible Construction—full elliptic springs, instead of the usual compromise type; chassis frame of tough, resilient ash instead of unyielding steel—is still another reason why tires on the Franklin get every opportunity to deliver the full mileage that is in them. This flexible construction reduces road shocks on the tires. There are no torque bars or strut rods to cause the rigidity that leaves tires unprotected.

These are facts of Franklin Construction that affect the whole performance of the car. Because of Scientific Light Weight, because of Flexible Construction, the Franklin is not only economical in tires, but it also gives a day-by-day delivery to its owners of 20 miles to the gallon of gasoline—instead of 10.

Think of these things—and decide whether any car that combines fineness with motoring economy such as this, is not worth your immediate inspection; especially in these days when waste in motoring is not going to be considered any more legitimate than waste in anything else.

FRANKLIN AUTOMOBILE COMPANY, SYRACUSE, N. Y.



The Work of Two Cars At the Cost of One Ford

The Heath DUPLEX makes a Ford touring car do the work of both a passenger car and a truck.

It actually turns dead expense into paying investment.

The Heath DUPLEX is a patented folding truck body.

It attaches permanently to your Ford touring car, ready, *in a minute's time,* to be made into a truck or passenger car.

It takes advantage of the wonderfully low-cost operation of the Ford and applies it to a practical, money-making purpose.

It adds hundreds of pounds of carrying capacity to the Ford at an exceedingly small initial expense.

On the average farm it will literally pay for itself in a month's time.

All this without interfering in any way with the Ford's usefulness or altering its appearance as a passenger car.

With the Heath DUPLEX you have a strong, serviceable truck to haul produce, machinery and supplies anywhere.

In 60 seconds, and without tools, you turn the Ford back into a passenger car again.

The Heath DUPLEX attaches to an old Ford as well as a new one.

In the original installation (made by any man handy with tools) the tonneau is made removable. Nothing else is disturbed.

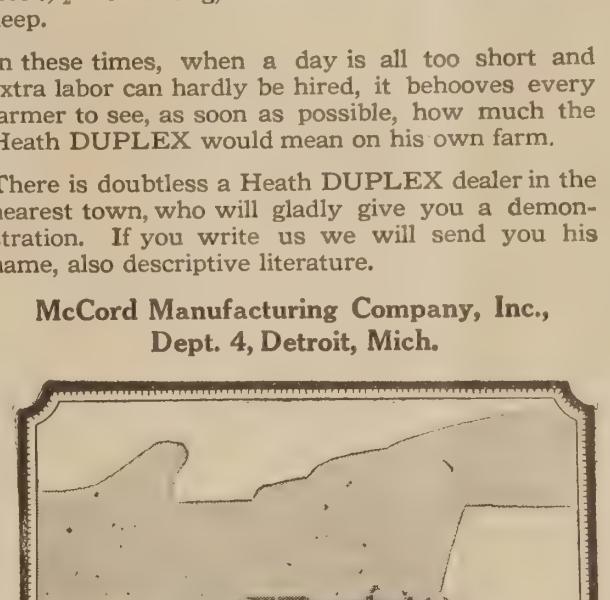
The Heath DUPLEX is never removed. It simply folds under the tonneau when you want a passenger car, and opens out—after the tonneau is lifted off—for trucking purposes.

The folding delivery body has a carrying space 4 feet 4½ inches long, 32 inches wide and 10 inches deep.

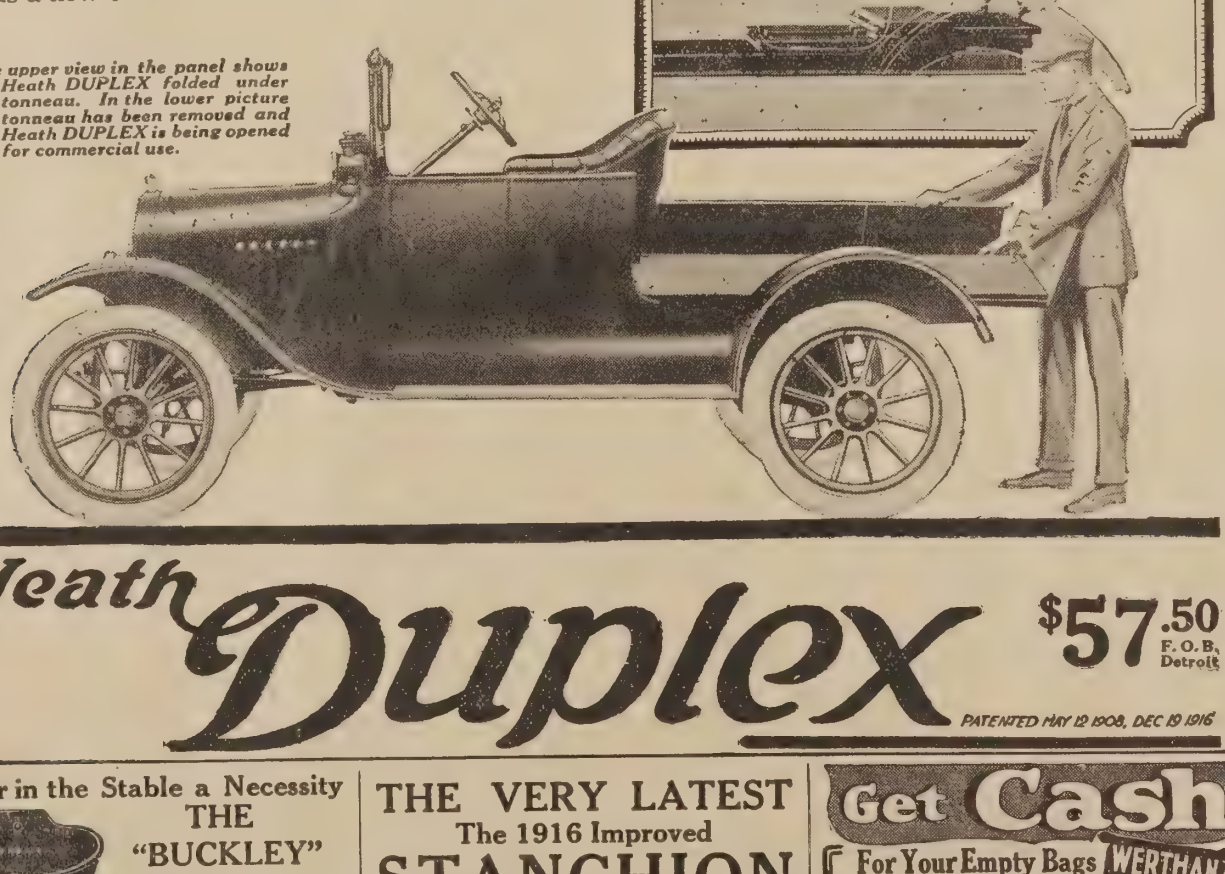
In these times, when a day is all too short and extra labor can hardly be hired, it behooves every farmer to see, as soon as possible, how much the Heath DUPLEX would mean on his own farm.

There is doubtless a Heath DUPLEX dealer in the nearest town, who will gladly give you a demonstration. If you write us we will send you his name, also descriptive literature.

McCord Manufacturing Company, Inc., Dept. 4, Detroit, Mich.



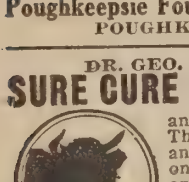
The upper view in the panel shows the Heath DUPLEX folded under the tonneau. In the lower picture the tonneau has been removed and the Heath DUPLEX is being opened out for commercial use.



Heath Duplex $57.50 F. O. B. Detroit

PATENTED MAY 12 1908, DEC 19 1916

Water in the Stable a Necessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

DR. GEO. HOLLABUSH'S
SURE CURE FOR ABORTION



and General Tonic for Cows. The only genuine Sure Cure and General Tonic for Cows on the market. I guarantee and refund money if not satisfactory. Send for circulars.

DR. GEO. HOLLABUSH,
Ft. Atkinson, Wis.

DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

THE VERY LATEST
The 1916 Improved
STANCHION

Is giving thorough satisfaction, write to "HUMANE STANCHION WORKS," BARABOO, WISCONSIN, for Literature.

MILKING MACHINES

Clear and Clean as Water

B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."

General Laboratories—Madison, Wis.
277 So. Dickinson St.

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Don't throw away a single bag—they're worth money to you. Prices are way up now. Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.

WERTHAN BAG CO.
57 Dock St. St. Louis, Mo.
Branch Offices: Houston and Nashville

WERTHAN PAYS HIGHEST PRICES FOR EMPTY BAGS

DO DITCHING THIS FALL

Prevent winter rains smothering the soil. Put land in shape for early spring work. Get your ditching and terracing done now with



The Martin Farm Ditcher Terracer and Grader

Works in any soil. Makes "V"-shaped ditch or cleans ditches down 4 ft. deep. All steel. Reversible. Adjustable. Write for Free Book.

OWENSBORO DITCHER & GRADER CO., Inc.
Box 312, Owensboro, Ky.

10 Days Free Trial

VETERINARY

Advice is given free in this department. Inquires must be signed by the writer, and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Cows Fail to Come in Heat

I wish advice in regard to what to do with five of my best cows that freshened in March and April. I have not been able to get them bred since, in fact they have not shown any signs of coming in heat since. I tried leaving the herd bull with them night and morning for ten days and got no results. Is there any possible way I can get those cows bred?

I have a herd bull, 4 years old. He was always gentle until lately but is now getting ugly and it is dangerous to try handling him at all, unless by great care and force. I would like to keep this bull two seasons yet if I can. How would you advise handling him? Being gentle with him doesn't seem to work any more. His dam made 29.13 lbs. butterfat in 7 days. Her average test was 5.53 per cent. Which would be safest, to use this bull on his own daughters or use one of his sons that was from a pure-bred cow? The young bull I have would be a brother to those yearling grade heifers. Please advise, as I am compelled to do either one. Which method would I get the best results from?

Dushore, Pa. P. J. G.

There is nothing gained in breeding a cow which does not come in heat. We can not understand what causes the condition described unless these cows are under-nourished. It should be made certain that they are fed liberally so that they are maintained in good condition, that they have a liberal salt supply, and that such feeds as legumes make up a fairly large proportion of the ration. These cows should be examined to make sure that they are in good health. An animal badly diseased with tuberculosis might evidence the condition described. Other diseases might also bring this about. Examination by a qualified veterinarian would likely discover the difficulty.

The safest practice with a herd sire is to care for him under the continued supposition that he is dangerous. Never take a chance with a bull. Do not abuse such an animal and do not waste time in petting him. Keep him in an enclosure so that he is fed and cared for and used in service with absolutely no opportunity to injure an attendant. Never lead him without the use of a staff. We have had too much experience with bulls and have had too many friends injured by "gentle bulls" to follow any practice but this one.

Therefore, in this case we would by all means retain the four-year-old bull in service and breed him back to the heifers rather than to use his son which is half brother to the heifers. We gather that the older bull is from a dam with a larger production than the dam of the young animal. This is our reason for maintaining him in the herd.

No Abortion—Impotent Sire

I would like your advice on my herd of Jerseys. They all fail to get with calf although I have bred them every 21 days. This spring they had strong, hearty calves that were carried full time and lived and are all right.

My cows are receiving good care, are in good flesh, and appear to be in the pink of health. Do you think it is abortion? I have never had a cow to lose her calf and have never had abortion that I know of, and they have never shown any sign of abortion.

Iowa. R. L.

We are especially glad to give assurance that we can see no reason to suspect that there is abortion in this herd. The fact that the cows have dropped strong, hearty calves which were carried full time and that the herd has been maintained in good flesh and good health, indicates strongly that the animals are not diseased. It seems almost certain that the difficulty lies with the bull which is being used.

We recommend, therefore, that a different sire be secured immediately as in all likelihood the difficulty lies in the impotency of the present herd bull.

"You Wouldn't Think the Engine was Running"

More than one motorist whose engine is fitted with *Lynite* Pistons has had this experience.

For one of the most noticeable things about the *Lynite*-equipped engine is the almost total absence of vibration.

Put your hand on the hood while the engine is idling, and you'll be struck at once by its smooth, quiet running.

By cutting two-thirds from piston-weight, *Lvnite* Pistons have practically overcome one of the most annoying and destructive features of motor-car operation.

How *Lynite* Pistons Cut Down Vibration

Faster, faster, faster the pistons travel up and down in the cylinders, thousands of times a minute. At the end of each stroke, they have to be abruptly stopped in their swift flight and sent traveling in the opposite direction.

With heavy cast-iron pistons, every stop means a mighty jerk and a shock that travels to all parts of the engine.

Multiply these jerks and shocks by two or three thousand every minute — the number of trips the pistons make — and you can quickly see that the engine fitted with heavy cast-iron pistons cannot help but constantly quiver and tremble.

But cut two-thirds from the weight of the pistons by using *Lynite* and the shock at the end of each stroke is so greatly reduced that, in the well-designed engine, it is scarcely noticeable.

How Reducing Vibration Benefits Your Motor Car

Vibration is a constant menace to satisfactory engine operation. It throws some parts out of alignment and jolts others loose. This, in turn, causes wear on other parts and, before long, the entire engine is affected. Moreover, vibration interferes with the comfort and pleasure of driving.

Every bit of it that's gotten rid of, therefore, means less wear and tear, longer car-life, lower cost of upkeep, fewer stops for repairs and greater freedom from annoying rattling and shaking.

Lynite Pistons also increase acceleration and flexibility, practically eliminate carbon troubles and effect other notable improvements.

You'll find *Lynite* Pistons in the engines of a large number of motor-cars, the moderately-priced as well as the higher-priced. See that they're in your next car.

THE ALUMINUM CASTINGS COMPANY

LYNITE and LYNUX Products

Eight Plants in

Cleveland Detroit Buffalo Manitowoc, Wis. Fairfield, Conn.



LYNITE PISTONS



Satisfaction Assured In Advance

It is a fact that Lalley-Light usually finds preference among those thoughtful farmers who are regarded as neighborhood leaders.

It is not hard to understand why. The man who seriously looks into the electric light situation discovers that Lalley-Light has been in successful farm use for more than seven years.

He hears it well spoken of everywhere it is known.

He learns that faithful, year-to-year service and economy are the experience of Lalley-Light users.

He receives the impression that he would be entirely safe in investing in Lalley-Light.

He accepts these things as actual advance assurance of his own future satisfaction.

In reality, they are exactly that. For Lalley-Light satisfaction probably approaches 100 per cent as closely as it can be approached.

Never was the need for Lalley-Light so imperative as now.

Farm labor is scarce. Lalley-Light saves labor by supplying the power to do much necessary work.

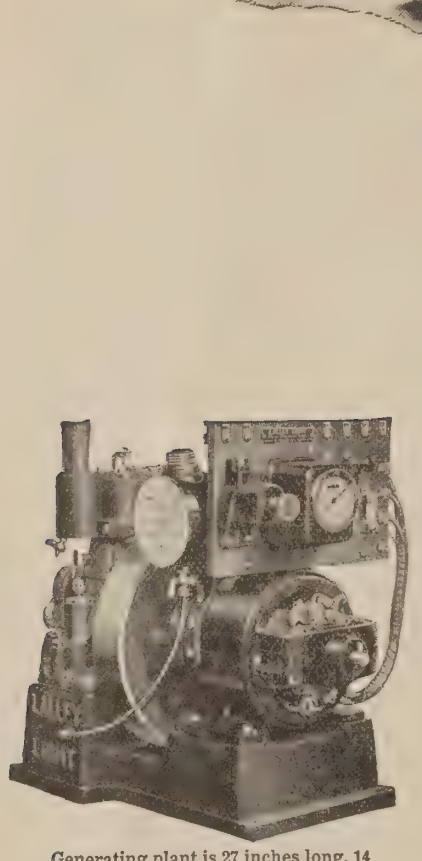
Farm products and farm buildings are more valuable. Lalley-Light safeguards them by removing the fire risk entirely.

Lalley-Light brings to the farm a score of conveniences and comforts that only electricity from a wholly dependable plant can bring.

In addition, it has its own exclusive advantages which the nearest Lalley-Light dealer will gladly demonstrate and explain.

Write us for his name, and for complete details.

Look for the Lalley-Light demonstrating exhibit at your state or county fair this fall.



Generating plant is 27 inches long, 14 inches wide, 21 inches high. Storage battery is included in complete outfit.

Lalley Electro-Lighting Corporation

763 Bellevue Ave. Detroit, Mich.

LALLEY-LIGHT

ELECTRIC LIGHT AND POWER FOR EVERY FARM

Which do you want for your 10c—ordinary plug or lasting tobacco satisfaction.



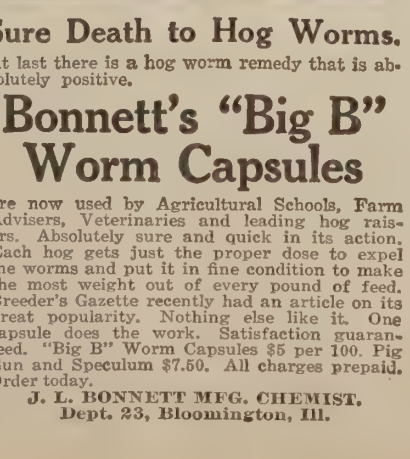
Peyton Brand

Real Gravely Chewing Plug

10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia



Sure Death to Hog Worms.

At last there is a hog worm remedy that is absolutely positive.

Bonnett's "Big B" Worm Capsules

are now used by Agricultural Schools, Farm Advisers, Veterinaries and leading hog raisers. Absolutely sure and quick in its action. Each hog gets just the proper dose to expel the worms and put it in fine condition to make the most weight out of every pound of feed. Breeder's Gazette recently had an article on its great popularity. Nothing else like it. One capsule does the work. Satisfaction guaranteed. "Big B" Worm Capsules $5 per 100. Pig Gun and Speculum $7.50. All charges prepaid. Order today.

J. L. BONNETT MFG. CHEMIST,
Dept. 23, Bloomington, Ill.

Stover Silage

In response to our request for information concerning stover silage, Professor H. P. Rusk of the Illinois College of Agriculture writes as follows:

"After preliminary tests, the Illinois Experiment Station put up four silos of stover silage. All of the corn that could be removed by the husking machine was taken out. The fodder stood in the shock until the latter part of December, when three silos were filled. Water was piped up the outside of the silos and delivered to the top of the distributor and added in the following proportions:

"1st silo—8 pounds of water to 12 pounds of stover.

"2nd silo—10 pounds of water to 12 pounds of stover.

"3rd silo—12 pounds of water to 12 pounds of stover.

"About the middle of February a fourth silo was filled with equal parts, by weight, of water and dry stover, and one-half of one per cent blackstrap molasses.

"Forty head of breeding cows were used in an experiment to determine the relative value of these silages and normal corn silage in winter maintenance rations.

"A detailed discussion of the results would require too much space to include here. A few of the most important observations, as I see them are that this silage made a palatable feed, and when fed *ad libitum* with 1 pound of linseed oil meal per head daily, more than maintained the weight of the experimental cows until they calved. All lots lost some weight, due to the fact that the experiment carried them through the calving period. The largest loss, 88 pounds per head, occurred in the lot receiving our standard winter maintenance ration of 40 pounds of normal corn silage and 1 pound of linseed oil meal per head daily. The normal silage came from the same field that produced the stover put in the first three silos. It contained 7.35 bushels of corn per ton and cost $10.92 per ton as fed. On the basis of this value and 3c per pound for linseed oil meal our standard winter maintenance ration cost us 24.8c per cow per day. On the basis of $1.50 per ton for the stover silage and 3c per pound for linseed oil meal, the feed cost in the stover silage lots ranged from 7.2c to a little over 8c per head daily, or approximately one-third of the cost of maintenance with normal corn silage. We hope to have the complete data published in bulletin form some time in the near future."

Professor Grout, formerly of Minnesota College of Agriculture, figures out the increased value and efficiency of the silo as follows: "The silo practically increases the producing capacity of the farm at least 10 per cent, and often more. A 160-acre farm with a silo will produce as much revenue as one of 180 acres without. Therefore the first cost of a silo—like that of a dwelling house, a barn or a team—should be considered part of the initial investment; and if one's capital is limited, it is better to buy a farm smaller by 10 per cent, rather than dispense with a silo. The producing value of a silo on $50 land would be equal to that of 20 acres added to the 160-acre farm, or $1,000; on $100 land it would be $2,000. This is a low estimate, for the stock-carrying capacity of the farm will often be increased fully 25 per cent by the adding of a silo. As compared with its producing value, the cost of constructing a silo is small."

"Right and liberty have obliterated space and the ocean to bring France and America together."—President Poincare.

Bone Meal Increases Wheat Yield

Bone meal has been shown by experiments conducted by the Missouri Experiment Station to be an excellent fertilizer for wheat on the average Missouri soil. Unfortunately the demand at this time is greater than the supply, and farmers who have been using it in former years will doubtless have to use another fertilizer this fall. The increase in the price of bone meal, however, from about $30 to $50 per ton, has made it no less valuable as a fertilizer for wheat, since with the increased value of wheat the net returns are considerably greater than at former prices. Where farmers can secure bone meal, particularly the steamed bone meal, it will prove one of the most valuable fertilizers.

"Acid phosphate and highly phosphatic mixed fertilizers are destined to take the place of bone meal in Missouri," says M. F. Miller of the University of Missouri College of Agriculture. "Acid phosphate gives about the same return in wheat the first year as does bone meal, but it seems probable, from experiments conducted by the Station and the experiences of farmers, that it will not show quite the same return on the crops which follow. On the other hand, acid phosphate is considerably cheaper than bone, and sells at this time from $27 to $30 per ton, depending upon the grade. It can, therefore, be used with a similar expectancy of profit.

"Phosphatic mixed fertilizers on soils low in nitrogen and potash will often bring better returns than the straight phosphates, particularly at normal prices. The wise farmer, however, will endeavor to put nitrogen in the soil through the growing of legumes and the use of manure, and will limit his fertilizer applications very largely to phosphates or, at normal prices, to phosphates with some potash."

An average dairy cow will eat 35 lbs. of silage per day, or 10,500 lbs. in 10 months; 40 cows will eat 420,000 lbs., or 210 tons. For this amount of silage it would be better to build two 120-ton silos rather than one 220-ton silo. A silo 16 feet in diameter and 30 feet deep will hold 120 tons. If preferred, a silo 18 feet in diameter by 45 feet high may be built, and it will hold about 220 tons of silage.

JERSEYS

MERIDALE JERSEYS



For Sale:—Five sons of Interested Prince 2d 95708. Out of Register of Merit dams. They are the kind that spell herd improvement.

AYER & McKINNEY
300 Chestnut St., Phila., Pa.

GOLDEN SUNSET JERSEYS

Would you pay $250.00 for a butter-bred show sire to head your herd if absolutely convinced he is worth the money? If so, write us.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.
ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE.

Jersey Crest Farms
are offering
Bulls and Bull Calves
which are a credit to the breed. Bred for type and production. Let us send you pedigrees and description. Jersey Crest Farms, Oconto Falls, Wis.

Jersey Bulls
FOR SALE
A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys
Every bull over 8 mos. old is sold, but we have some fancy calves
from Register of Merit dams sired by Ibsen's Chief who won the A. J. C. C. gold medal for Grand Champion at the Wisconsin State Fair, '17.
CHAS. A. PETERSON, Rosendale, Wis.

CEDAR SIDE JERSEY FARM
Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

Registered Jerseys
We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.
Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

JERSEY BULL CALF
STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS
Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD
At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys
We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

HILLCREST JERSEYS
Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

The Blood and the Bull
You should head your herd with a grandson of
Gamboga Knight
His dam, granddaughter of Oxford You'll Do. She is faultless in conformation, solid golden fawn heifer giving 38 lbs. 5.4 milk as two-year-old on herd feed. This calf is right in every way, was dropped Mar. 26, 1918, will be solid dark golden fawn, has the production, size and type. He is an exceptional calf and one that you will be proud to own. First check for $150 gets him, with all papers, crated and loaded. Act now.
MEADSIDE FARMS, - Meadville, Pa.

Registered Jersey Heifers and Bulls
$75.00 to $100.00 Each
from dams now on test and from our great bull, Financial Dairy King 143623.
ELM-O FARM, AUSTIN, MINNESOTA.

Wineland Farm Jerseys
Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

ENTIRE HERD
60 Registered Jersey Cows and Calves 60
For Private Sale

Having recently been elected Secretary and Treasurer of the White Eagle Dairy Company, I will not have the time to give the close attention to breeding and the production of milk which I have in the past and am offering the public a rare opportunity to buy some choice foundation stock, both cows and calves. I have been engaged in the breeding of Jerseys for nearly ten years, and have never had a public sale and will depend largely on my many satisfied customers to buy this stock and will give them the same fair treatment which has characterized my business from the start.

Write me for list of the stock, the milk and fat records, the breeding and prices. This will be your best opportunity this year to select some choice foundation stock, rich in the blood of Noble Oaklands and Oonan of Riverside.

Unprofitable cows have always been culled from my herd. Nothing but good paying cows in this offering.

Five tests of my herd and never a case of tuberculosis.

D. V. VANDIVER, Columbia, Mo.

OWL-INTEREST
Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.
His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.
His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on retest has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address
MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

The Fairview Farm Company
Sophie's Tormentor Jerseys
"Production" Our Watchword
FOR SALE—Bull Calf No. 244, dropped March 21st, 1918; solid color, black tongue and switch; an extremely good individual.
SIRE—Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85% butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.
DAM:—Tweedledum's Emma of H. S. F. 291389, on Register of Merit test and in 2 months has made 164.84 lbs. 85% butter from 3,151.1 lbs. milk. An exceptionally good dairy cow in every respect.
R. L. PIKE, President, - Geneva, Ohio.

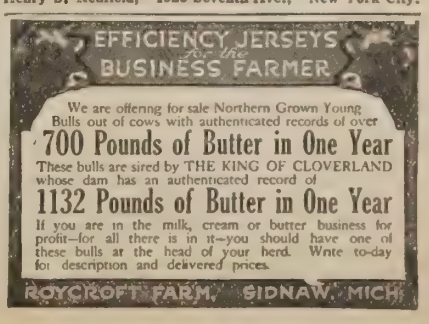
We Offer An Exceptional BULL CALF
Dropped in December 1917
Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

FOR SALE
1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.
14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow.
Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio.

FOR SALE
We Have a Couple of Young
Herd Bulls Left
The Animals have Blood that will count as great Herd Headers.
MURDALE FARMS,
R. F. D. 5, Chardon, Ohio.

Lookout Farm Jerseys
A Rare Opportunity Is Offered
to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.
SIRE. Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.
DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.
Henry S. Redfield, 1925 Seventh Ave., New York City.



On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughter. Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of the Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows with records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSIN.**

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place

Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

BIRCHWOOD GUERNSEYS

We are offering some well bred and nicely marked young bulls nearly ready for service out of A. R. dams and sired by good bulls. Also a few heifer calves. Eighty head in herd. Herd on the State Accredited list. Send for sale list.
M L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons of Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.
W. G. Jamison & Sons, Appleton, Wis.

Young Guernsey Bulls

Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. **Roy Burton, Eagle, Wis.**

SARNIA

Imported and Home Bred Guernseys. 300 Head Imported

in 1917 are all sold. Several good cows for sale. Also young bulls from high class A. R. cows. Place your order early for bred heifers from 1918 importations. Send for sale lists.
Charles L. Hill & Son, Rosendale, Wis.

A few well bred young

Guernsey Cows and Heifers

Also a couple of bull calves from cows with splendid records.
W. R. DUNLOP, FAYETTEVILLE, N. Y.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.
L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

REGISTERED

Guernsey Bulls For $75.00 Each

EXCEPTIONAL OFFER

Lady Helen's Mayfield Lad No. 50636
Born April 2nd, 1918.
Winona Girl's Mayfield Boy No. 50635
Born March 27th, 1918.
WRITE FOR PEDIGREES.
Mayfield Stock Farm, South Euclid, Ohio.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see.
L. V. AXTELL, Old Homestead Farm, Perry, Ohio.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

"OAKS FARM GUERNSEYS"

C. W. BARRON, Prop.

FOR SALE

Young bulls from two to ten months old, from dams which have or are now making credible Advanced Registry records. Write us before buying your next bull.

W. S. KERR, Mgr., Cohasset, Mass.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

$75.00

takes the choice young bull calf R23, dropped Nov. 11, 1918.

Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.

Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.

The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from
Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.
Louis McL. Merryman, Cockeysville, Md.

Harbor Hill Offers

Linden Lad of Harbor Hill 7th. Dropped June 15th, 1917. A good individual, nicely marked.

SIRE:—A son of Linden Girl A. R. 3607 with three A. R. records averaging 14,149.8 lbs. milk, 708.85 lbs. butterfat.

DAM:—A daughter of Brilliant of the Gree. Her herd work at 2 and 3 years exceeded A. R. requirements by a good margin. Price $150.00. Write for photograph and pedigree.
C. H. Hechler, Supt., Box 50, Roslyn, N. Y.

Registered Guernsey Bull For Sale

DROPPED JULY 21st, 1917.

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and prices write **Folly Farm, Libertyville, Ill.**

Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. **Sass Bros., Streator, Ill.**

FOR SALE One Registered Guernsey Bull

19 months old. A grandson of Imp. May King of Frie Boston. Dam, a great granddaughter of Imp. Spotswood Golden Jewel. Price $250.00.

South Hill and Valley Farms, George Thomas 3rd. Whitford, Pa.

FOR SALE

Sixty Imported

Guernsey Heifers

About forty head now in calf, a few three year-olds milking with their first calves and the balance yearlings ready to breed.

I spent several months on Guernsey Island Autumn and early Winter during which time these heifers were selected. I personally inspect every animal imported and in this way am assured of only high class individuals.

Send for catalog and price list. Every animal for sale.
Frank S. Peer, Osceola Farms, Cranford, N.

Pinehurst Guernseys Produc

with *farm care. 70 A. R. records* average *465* lbs. *fa* The former home of *Glenwood Boy of Haddon, 46* where *26 of his daughters* were bred, whose *A. R.* re ords average *554 lbs. fat.* His daughter *Dairymaid Pinehurst* made *860* and *910 lbs. fat.* Present herd bul *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jers

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893 Maxim of Linda Vista 42270

24	completed records, all ages, average 516.09 lbs. fat.
17	of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10	first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

SWINE

Cedar Crest Farm Berkshire

Cholera Immune

The wonderful bargains we offered in Berkshi were so quickly taken advantage of that we have no single boar of serviceable age for sale and only a f brood sows, weighing 250 to 300 lbs. bred for their fi or second litter and a limited number of unbred gilts. Our stock is right and our price is right. Wr us today for complete information. Remember—fi come first served—the quicker your order is placed better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa,

Breeding Powers Injured

I have a Holstein bull eighteen months old at seems to be sterile. Last winter he ran th the young steers and was fed silage with em. He was 14 months old when he served s first cow late this spring and since that ne has served five others. Without exception failed to get any of them with calf. After ying him with each cow twice I bred them another bull and in no case has it been nec- sary to repeat. Will you please advise if u think I have permanently injured him by eding silage or will he get over it? If he has reasonably good chance to yet make a eeder will hold on to him as he is a good, animal and has a good milk record behind m.

Mt. Ayr, Ind. A. J. H.

Feeding any service bull a heavy ipply of silage, particularly when ie animal is under-nourished and oes not receive other nutritious feeds hich would be included in the ration, most certainly injures breeding owers. Whether such an animal is rmanently sterile depends largely on the degree of the under-nourish- ent and the over-feeding of a heavy, ilky feed, such as silage.

Bulls with good milk records be- nd them are of particularly high lue at this time when there is spe- al need for improved dairy herds. is advisable, therefore, that such animal as described should be kept r some time in the hopes that he ill later be of value as a breeding imal rather than that he should be aughtered at this time. This bull ould be kept away from the herd id given plenty of exercise and a eral ration. Such roughages as si- ge should not be fed but a nutri- us legume hay in limited quantities d a grain mixture liberal enough at the bull is maintained in good ndition, should be fed.

With this treatment there is a good ance that this animal will later be value as a herd sire.

Almost 70 per cent of all the sugar nsumed in this country is used in e households. So it is up to the men to make the sugar go around.

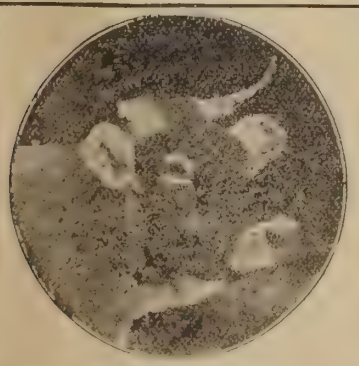
Our August and September

RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.

MEAN DU LUTH FARM NO. 2,
Nickerson, Minn.

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.
Send postal for free information. Address
ARA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

BROWN SWISS BULLS FOR SALE

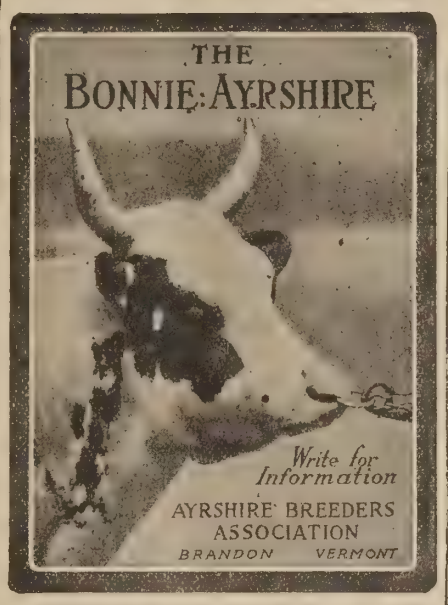
Two Registered—one two-year-old, one yearling—both of good breeding and choice animals.
Orchard Knob Farm, Harvard, Illinois.
P. Whitcher, Manager.

Pleasant View Herd

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK, WIS.

AYRSHIRES



FAYRE FARM AYRSHIRES

ST. ALBANS, VERMONT.
Advanced Register and Show Ring Records. Tuberculin Tested by U. S. Dept. of Agriculture. Calves only for sale.
Geo. H. Dunsmore, R. D. 1, Swanton, Vt.

World's Champion AYRSHIRES

If you want the blood of the champion cows of the breed write us. We offer a few cows, heifers or young bulls.
PENSHURST FARM, NARBERTH, PA.

Crestmont Farm AYRSHIRES

Few Choice Bull Calves

BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

Van Etta's Ayrshires

10 HEIFERS FOR SALE

I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

HOLSTEINS

Springdale Farms Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

LAKESIDE HERD

For forty years this herd has taken the lead in breeding for the highest individuality, largest average production, 4% butterfat, greatest uniformity and prepotency, with the result that over four-fifths of all the cows which have made A. R. O. records of 30 lbs. or more, trace their pedigrees to the Lakeside Herd.
Breed this kind and get same results.
E. A. POWELL, SYRACUSE, NEW YORK.

5 Holstein Bulls

Ready for Business At ½ Real Value

They are from world record sire and A. R. O. dams. We are selling farm.
LONG BEACH FARM, AUGUSTA, MICH.

Registered Holsteins

Must sell my selected foundation herd. 4 Heifers—age 20 to 27 mos. Sire h..s 28.44-lb. dam and sire with 57 A. R. O. daughters. Price $950. 4 Heifers—age 2 to 13 mos. 30-lb. Sire. Price $600. All bulls sold. Let me tell you why you should buy these now. Breeding and photo on request, they are worth it.
C. A. CLARK, TRENARY, MICHIGAN.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.
Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.
This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.
EMBLAGAARD DAIRY, Marquette, Michigan.

The Traverse Herd

Great Values In Bulls

from A. R. O. Cows with records up to 30 lbs. Let us know your wants. We will send extended pedigrees and prices.
TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*
Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Your Last Chance! To Get a Son of The World's Greatest Sire

KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.
Geoffrey Burlingame, Cazenovia, N. Y.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

Registered Holsteins For Sale

9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*
5 Extra good Granddaughters of King of the Pontiacs, from 9 to 14 months old.....*$800 for all*
1 Daughter of Spring Farm King Pontiac 6th. Four months old....*$150*
3 Two-year-old Granddaughters of Spring Farm King Pontiac 6th .....*From $150 to $200*
1 Extra Fine 3-year-old son of King of the Pontiacs; 27-lb. Dam; 29-lb. Grandam *$800*
1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

GEO. S. BIGELOW, BREEDSVILLE, MICHIGAN.

IROQUOIS FARM

AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.
We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.
This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

Jefferson Co. Wisconsin Holstein Breeders

We can supply you with good Holsteins whether you want one or a car lot. Write or come and see what we have.

Carloads or Less

Registered and High Grade Cows and Heifers for sale. A few good registered bulls. Write us your wants whether it is one animal or a carlot. Fobes Mutual Longfield, a son of Fobes Tritomia Mutual DeKol, 37 A. R. O. daughters, and out of a 30-lb. daughter of Homestead Jr. DeKol heads our herd. Breeders and dealers
Edgewater Stock Farm, Fort Atkinson, Wis

150 Registered and High Grade Holsteins 150

If you want a carload of choice springing cows or 2-year-olds, or a car of yearlings, we have them. Also practically pure-bred heifer calves, six weeks old $25.00 each, delivered to your station.
Clover Valley Holstein Farm, Whitewater, Wis.

READY FOR SERVICE

We have for sale several young sons of King Piebe Burke ready for fall service. Also a few younger ones. They are priced to sell. Write or come and see them. **C. E. Ward & Son, Ft. Atkinson, Wis.**

Purebred and Grade Holsteins

furnished on order. Car lots a specialty. Nicely marked high grade heifer calves for sale $20. Purebred bulls of service age and younger. Write
W. H. S. Rhoda, 610 3rd St., Watertown, Wis.

FAIRVIEW STOCK FARM HOLSTEINS

For sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also 1 bull ready for heavy service. Write your wants. **Fairview Stock Farm, W. G. Marshall, Prop., Whitewater, Wis.**

ROY HETTS,
Fort Atkinson, Wis.

Bulls For Sale

Sons of Canary Oak DeKol Homestead whose 3 nearest dams average 31.62 lbs. butter in 7 days. These youngsters from A. R. O. dams with records up to 26.75 lbs. Bred right, built right, and priced right. Write to **S. W. Faville, Lake Mills, Wis.**

King Segis Pontiac Polkadot

He is a full brother in blood to the $50,000 sire and three-fourths brother to the $35,000 sire. His five nearest dams average better than 30 pounds. We have a few of his sons for sale from good A. R. O. dams; also heifers safe in calf to him.
WM. EVERSON & SONS, Lake Mills, Wis.

We Have a Fine Herd of A. R. O. Holsteins

headed by two bulls of merit and the best lines of breeding. Can furnish a few good heifers, also a few good bull calves. **HENRY ANTHES, R. F. D. 1. - Jefferson, Wisconsin.**

35.43-LB. SIRE

Four Bull Calves, 2 to 4 Mo. Old.

75 to 90 per cent white. They are good individuals, straight top line, out of dams with records of 21.46, 22.56, 27.11 and 28.70 lbs. of butter 7 days. Price $100 to $300. For further information and pedigree address **A. M. Anderson, Whitewater, Wis.**

Our last

Yearling Bull

born Dec. 1916. A little more black than white, well grown and vigorous. Sired by our 32.60-lb. son of King Lyons, and out of a 23.76-lb. 3-yr.-old. She is sired by a 27-lb. bull. Price $200.
GORMLEY BROS., - JEFFERSON, WIS.

FRED ALBRECHT
Watertown, Wis.

Bull and Heifer Calves

We are offering for sale some excellent registered bull and heifer calves. Good individuals, priced to sell. Write or come and visit our herds.
STRAUSS BROS., R. 5, WATERTOWN, WIS.

ROCK RIVER VALLEY FARM

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FIRST PRIZE

In Wisconsin Dairy Cow Competition

The Winner, Queen Juliana Dirkje produced in one year as a 3-year-old 1021.72 lbs. butter, (80% fat). Over 30 yearly record cows in herd headed by Mutual Piebe De Kol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, Ft. Atkinson, Wisconsin

OUR HERDS HEADED BY M. M. LILITH ORMSBY FOBES No. 155343, 34.50 lbs. in 7 days, 129.60 lbs. in 30 days. Will have some calves from this bull for sale from daughters out of a 33-lb. bull.
GEO. STROEBEL, JEFFERSON, WIS.
HENRY SCHIMMING, JEFFERSON, WIS.

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CLOVERLEAF STOCK FARM

has sold all the big boys but we have some very nice baby bulls sired by our Homestead bull that I would be pleased to make a bargain price to any one that would like to raise their own calf.
M. B. STEVENS - JEFFERSON, WIS.

THE BEST YOUNG BULLS

you ever saw. Some nearly ready for service. Sons of Sir Ormsby Johanna DeKol 39th, he is a Son of Sir Ormsby Johanna DeKol with 29 A. R. O. daughters. These bulls from dams with very creditable A. R. O. records. Write for pedigrees and prices.
ED. J. KISOW, CAMBRIDGE, WISCONSIN

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To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

Pabst Stock Farm

6th in Prize Money Last Year

King Pontiac Champion is Third

He is only led in this one particular of prize money by King Segis Pontiac Count and Sir Pietertje Ormsby Mercedes. Here is additional proof that the Pabst Stock Farm is one of the foremost Holstein Breeding establishments in America and that King Pontiac Champion is the greatest living bull of the breed as no other sire's record can compare to his in 30-lb. and semi-official yearly daughters. He now has 80 A. R. O. daughters and will soon be a century sire. Look over our sale list before selecting a sire.

PABST STOCK FARM,
Dept. B, Oconomowoc, Wis.

Illiona Holsteins

3 Service Bulls

44-lb. Breeding
Excellent Individuality
Reasonable Prices

Phone Elmhurst 63, R. 1 or write
A. W. FISCHER, Bensonville, Ill.

Head Your Herd With This One

A Son of Dutchland Creamelle Denver Prince—

he a grandson of Dutchland Sir Pontiac Rag Apple and from Dutchland Colantha Denver, 36.25 lbs. butter 702.3 lbs. milk, the best daughter of Colantha Johanna Lad. His dam is an A. R. O. daughter of Uneeda Korndyke Abigail Boy a 33-lb. sire. Her record of nearly 16 pounds was made at 1 year, 9 months of age.

The bull is well marked, growthy and fit to head any herd. He'll suit you.

MILFORD MEADOWS STOCK FARM, - - - LAKE MILLS, WISCONSIN.

RICHLY BRED HOLSTEIN BULLS

from 5 to 16 months of age and sired by King Korndyke Veeman, the bull with 40-lb. breeding, whose two nearest dams average over 37 lbs. butter in seven days. These bulls are out of cows with large A. R. O. milk and butter records. Write us for full particulars.

Wisconsin Star Stock Farms, Ed. M. Schultz, Hartford, Wis.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.
J. D. McDONALD, WEST SALEM, WISCONSIN.

Must Reduce My Herd

Because of lack of barn room. I am now offering for sale some excellent yearling and 2-year-old heifers and a few young bulls. Sired by King Segis Pontiac Polkadot 8th, a grandson of King Segis Pontiac and Johanna McKinley Segis. Some of the heifers bred to Rag Apple Pontiac, a 30-lb. brother to Rag Apple Korndyke 8th. A few of the young bulls sired by him. Write for full information.
W. W. QUACKENBUSH, WEST SALEM, WIS.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

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Lake Geneva, - - Wisconsin.

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Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.
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CEDAR LAWN FARMS

A bull of rare individuality and size—¾ white. Six months son of Cedar Lawn Champion, No. 107976. Dam 14.07-lb. senior two-year-old, granddaughter of Sir Johanna DeKol. Price right. **C. A. Schroeder & Sons, West Bend, Wis.**

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In Carloads or Less

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JOHN MURPHY, R. 27, Eagle, Wisconsin

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.
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FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.
Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Save Money On Your Herd Sire

I am now offering several fine bull calves 3 to 6 months old; all of them from dams with good A. R. O. records and sired by a grandson of Sir Pietertje Ormsby Mercedes, whose 3 nearest dams average 31 lbs. in 7 days. You can raise them as cheaply as I can and my price on these youngsters makes it a paying proposition for you to buy your herd sire now and raise him yourself. Write **W. P. Kissinger, Waupaca, Wis.**

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure, $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

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One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

BULL CALF—Roseclif King Segis Johanna, born June 26th, '17, well built, nicely marked. Sire: King Segis DeKol Fayne 8th, whose dam has 25.63 lbs. butter in 7 days. His grandsire is the sire of Segis Fayne Johanna the World's record butter cow for 7 days. Dam: Johanna Alicine made 14 lbs. in 7 days as a 2-yr.-old. Record made in warm weather. C. I. Reamer, North Liberty, Ind.

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Bull born Oct. 1917, would make a show calf, mostly white. His sire is by a son of the famous Judge Hengerveld De Kol, whose daughters are showing up great in short and long time test. The two heifers born in Dec. and March last, dandy good individuals, mostly white and sired by De Kol Goudgeld Pietertje who is siring a wonderful lot of fine individuals. Priced for immediate acceptance $250.00 F. O. B. Muncie.
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Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.
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Offers a 3 months old son of a 24-lb. 2-year-old, sired by a ¾d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.
ARLINGTON HEIGHTS, ILLINOIS.

BULLS

Send For Our Free Bull Calf

price list with a lot of choicely bred bulls on it at bargain prices or if interested in females ask for our female list.
WOODLAWN FARM, STERLING, ILL.

LISLE FARMS COMPANY HOLSTEINS

For Sale Bull Calf. Born March 26, 1918, almost White, a good individual. Is sired by a 24-lb. bull and his dam is a granddaughter of Hengerveld De Kol and out of a 27-lb. daughter of Lilith's Pauline De Kol's Count. Priced right. Write for chart pedigree.
H. BARKER, Herd Manager, Lisle, Illinois.

U. S. Soldiers' Home

FOR SALE—A number of young Holstein-Friesian Bulls from a clean herd, tuberculin tested, no re-actors in last four years. All from A. R. O. sires and dams. Full information and description with prices, on request.
ADDRESS SECRETARY-TREASURER.
U. S. Soldiers' Home, Washington, D. C.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

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The Only First Prize Winner at the National Dairy Show Having a First Prize Dam and Sire



Sir Korndyke Fytje

We Offer One of His A. R. O. Daughters For Sale

SIR KORNDYKE FYTJE is the best show bred bull in the world—a positive guarantee of type in his offspring.

BOTH HIS DAM AND SIRE won first at the National Dairy Show besides being first prize winners at several state fairs.

THE DAM OF SIR KORNDYKE Fytje made 23.15 lbs. butter at 24 months of age and in a year made 783 lbs. from 18,431 lbs. milk. This was six years ago.

SHE IS A DAUGHTER OF Sir Pietertje Ormsby Mercedes, the greatest yearly record sire in the world, and from

MINNESOTA'S FIRST 1000-lb. cow, Riverview Fytje DeKol Ormsby.

THE YOUNG DAUGHTER of Sir Korndyke Fytje that we are offering made 16.66 lbs. butter in 7 days at 24 months of age.

SHE WILL FRESHEN early in November to the service of King Piebe Ormsby Mercedes, a young bull whose dam made 35 lbs. in 7 days and 1,136 lbs. in a year at 4 years.

HIS THREE NEAREST DAMS average 32 lbs. butter in 7 days and 1,040 lbs. in a year at an average age of 4 years.

SHE IS A SPLENDID heifer for type and size and will make someone a great foundation cow.

THE DAM OF THIS HEIFER made 26 lbs. in 7 days as a junior four-year-old and has a full sister with 26 lbs.

SHE IS SIRED BY Changeling Butter Boy 7th and from a 24-lb. daughter of Queen Piebe of Fairview, one of our greatest foundation cows.

QUEEN PIEBE OF FAIRVIEW made 22 lbs. in 7 days several years ago.

AMONG HER GREAT DAUGHTERS is Queen Piebe Mercedes, 1,389 lbs. butter and 30,230 lbs. milk in a year as a junior four.

THESE ARE BOTH WORLD'S records for her age and no cow, regardless of age or breed, can equal both her milk and butter production.

IF YOU ARE IN THE MARKET for females you want the blood that has produced winners. The pedigree of this heifer contains some of the greatest producing dams and sires in the world.

$750.00 BUYS HER—GUARANTEED SOUND.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

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A Fine Young Holstein Bull

GOVERNMENT INSPECTED—PHYSICALLY FIT.
AGE 18 MONTHS—BRED FOR PRODUCTION.
BEST BLOOD LINES OF BREED.
SERVICE RECORD OF HERD UNBLEMISHED.

A. A. Busse SUNNY HILL STOCK FARM **Slayton, Minn.**

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HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

ie that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

ll exactly fill the requirements. We have a few excellent youngsters by this yally bred sire. Write today for full information.

OHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

he Winship Farm Bulls

Are From Persistent Milking Dams

e 18 cows milking in my herd during April raged 960 lbs. milk per day and 52 lbs. butfat, each, for the month. This included fers milking since last September, October d November. These dams represent the it blood lines of the Creamelle, Johanna, ets, and Ormsby families.

ed by Aaggie Burke Cornucopia De Kol

29-lb. bull, who traces back directly to the o greatest foundation cows of the breed, ring Brook Burke and Aaggie Cornucopia uline. He is also closely related to the two ampion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

nship Stock Farm, Owa'onna, Minn.

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Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

3 BULLS	HOLSTEINS	3 BULLS
	No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.	
No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

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Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A World Record BULL

From a sister to Duchess Skylark Ormsby sired by a brother to Pietertje Maid Ormsby. His dam has 25 lbs. in 7 days and 725 lbs. in 1 year made at 3 years and 5 days.

Dropped Nov. 1917. Well grown, ⅔ white. Buy him now and profit by the increase in his value that is sure to result when his dam increases her record at the next freshening.

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From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖
❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address

W. J. BOYNTON, Mgr., Rochester, Minn.

A Few Holstein Bull Calves

From a sire whose dam was a former state champion yearly cow—

For Sale

R. B. GOODHUE, - DENNISON, MINN.

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Mankato Holstein Herd

Offers you this

WONDERFUL BARGAIN

BULL born February 9th, 1918. ¾ white. Large and straight—a beautiful show calf, from a 32-lb. sire and 20-lb. dam. 5 nearest dams average 25 lbs. butter in 7 days. Price $350. **Marlow and McCargar, Mankato, Minn.**

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

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Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

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VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

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...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

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REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

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Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO.



The growth in membership of The Holstein-Friesian Association of America from 146 in 1894 to more than 11,000 in 1918, evidences both a wider appreciation of the supremacy of the

Purebred HOLSTEIN

for farm and dairy purposes and a merited recognition of the prominent part this association has played in the development of the breed to its present high standard of type and productiveness. Every Holstein owner, or breeder will profit by connection with this progressive breeders' association.

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Send for information about the sales of healthy, reliable, registered cattle, held at *Brattleboro, Vermont, the First Tuesday and Wednesday of every other month. Come to Brattleboro, the Holstein-Friesian Capital of America.*

Address The Purebred Live Stock Sales Company.

FOR SALE: A BULL CALF

born November 12, 1917. This calf is seven-eighths white and a good individual. His dam has an A. R. O. record of 16 pounds; a second record of 22 pounds. And the sire is a 27-pound bull. Price $75. Write for photo and full information. **E. R. Emery, Stanton, Minn.**

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A LONG, tiresome, time-wasting drive with horses is a short, pleasant, time-saving ride with an Overland.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI | FORT ATKINSON, WIS., AUGUST 23, 1918 | Number 5

Organizing for Feed Defense

SANDERS SOSLAND, MISSOURI

VII—BRAN AND SHORTS SUPPLIES.

A SITUATION in direct contrast to that prevailing a year ago confronts war feed community purchasing organizations in the bran and shorts trade in the United States. A year ago the outlook was for the highest prices in history and an extremely short supply; this year, the outlook is for a large supply and for relatively low prices, thus working to the advantage of milk producers. The large supply of mill feeds is the result of a great crop of wheat in the winter wheat belt of the Southwest and prospects for a comparatively generous harvest in the spring wheat country of the Northwest. The relatively low prices prevail because of regulations governing the milling and feedstuffs industry as framed by the United States Food Administration at Washington.

The second largest production of wheat ever witnessed in the winter wheat belt of the Southwest was harvested this year. The July estimate of the United States Department of Agriculture on the winter wheat yield was 557,339,000 bushels, compared with the final yield in 1917 of 418,070,000 bushels. Private crop experts declare the government July estimate is too low, and the general opinion prevails that 600,000,000 bushels is a conservative estimate on the winter wheat crop. Farmers almost generally report greater yields following threshing operations than had been expected.

In the spring wheat belt of the Northwest, the outlook for a large crop is bright. The July estimate of the Federal Department of Agriculture indicated a yield of 333,591,000 bushels compared with 232,758,000 bushels in the preceding year. Development of the spring wheat crop in the Northwest since the issuance of the July crop estimates of the government has been rapid and under highly favorable conditions. The indicated yield of wheat over the entire United States is 899,930,000 bushels, compared with 650,828,000 bushels in 1917.

In the Southwest, the wheat is of exceptionally fine quality, the bulk reaching terminal markets grading No. 1 and No. 2, with only occasional cars of No. 4 or sample wheat. The crop over the entire country—in the Northwest the wheat is now being harvested—matured under highly favorable conditions, and little low grade grain was produced. This, of course, is an important factor in the bran and shorts situation, for a better, more valuable offal, as well as a larger supply, will be offered by flour millers.



RUNNING STRAW FROM THRESHER INTO MODERN DAIRY BARN OF B. C. ROSS, WISCONSIN, FOR WINTER USE. THIS IS A SPLENDID WAY TO PRESERVE STRAW AND THIS METHOD SHOULD BE MORE GENERALLY PRACTICED

New Federal Regulations

In planning purchases, war feed community clubs must have a thorough understanding of the federal regulations governing the milling of wheat and the distribution of the products of the miller. The new government regulations on the 1918 crop, while not entirely different, are unlike the control operations of the past 10 months, and leaders of war feed clubs should not become confused in planning purchases. The important features of the revised government regulations now in effect are that a maximum price has been placed on the products of the miller, flour, bran, and shorts, sales by rehandlers are to be made at an allowable profit, and the extraction of flour from the wheat berry is limited. No miller has any particular allotment of wheat which he may grind in the crop year, but may operate his plant to as great a capacity as he desires.

The various prices of the millers' products were derived in part by an analysis of the freight schedule which became effective with the advance on June 25. For instance, two mills in Kansas, possibly only a few miles apart, may have different schedules of prices. In Kansas City, the Food Administration—the Cereal Division is handling the matter of prices since the abandonment of the Milling Division—has set a maximum price on bran of $22.26 per ton, in carlots, bulk at the mill. Mixed feed maximum price in Kansas City is $23.51 per ton, and for middlings, shorts, and red dog the maximum level at which Kansas City millers may sell is $24.-26. Similarly computed, Omaha, Neb., has the same schedule of prices as Kansas City. The schedule of maximum prices at Minneapolis, Minn., are $23.36 for bran, $24.61 for mixed feed, and $25.36 for middlings, shorts, and red dog.

Export Wheat of Flour?

Outstanding in the matter of supplies of bran and shorts is the question of exporting more wheat and more flour to our allies in Europe. This question is of vital importance to the dairy industry. In the past year, Food Administrator Hoover followed a policy of exporting flour almost exclusively, having the wheat ground in this country. It is understood that Mr. Hoover desires to follow a similar policy this year, but the grain corporation and the food controllers of Britain and other allied countries are asking America for wheat to be ground in their own mills. Associations of dairymen ought to urge that the wheat be ground in the United States.

War feed clubs will do well to follow closely the developments of the export situation. Should the policy of exporting more flour be continued, it is possible, but hardly probable, that lower prices will be witnessed in the market for bran and shorts; while, on the other hand, exporting more wheat would cause the maintenance of the maximum level and difficulty in obtaining sufficient feed. Some food officials at Washington maintain that dairymen could substitute other feedstuffs in the event that a shortage results from exporting more wheat, but dairymen should oppose this view as detrimental to their industry and inimical to the policy of the Food Administration to encourage greater production of food.

Eager Buying in the Southwest

Mills in the Southwest are operating at maximum capacity, thanks to the free movement of wheat from the country, yet they are unable to supply the demand for mill feeds. This eager buying may be only temporary, for supplies in consumers' hands over the entire country have been near this point of exhaustion for months. But Southwestern millers estimate that several months will be required to supply consumers with sufficient feed, the demand having been augmented by dry weather over the grazing districts of the Southwest. In the Northwest, millers are still restricted in their operations because of a shortage of wheat. This situation will be relieved as soon as farmers complete their harvesting and threshing operations in the spring wheat belt. Many millers in the Northwest

(Continued on page 140)

Hoard's Dairyman

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FOREIGN SUBSCRIPTIONS may be sent through Wm. Dawson & Sons, Cannon House, Breams Building, London, S. C., Eng., or their agents, including the news dealers and book sellers in all foreign countries.

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

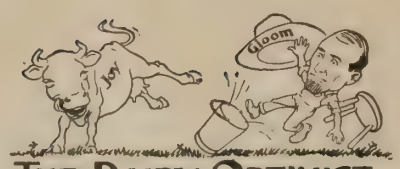
Entered at Fort Atkinson, Wis., as second class matter.

Produce Pork in the South

Seven reasons why the South should give more attention to hog raising are given as follows in Extension Bulletin 10, published by the Agricultural College at Clemson College, S. C.:

1. The people of the South are large consumers of pork.
2. By far the greater portion of the pork consumed by Southern people is brought from other sections at a very high cost to the consumer.
3. Hogs can be raised successfully in the South if given reasonable attention.
4. Hogs are profitable consumers of farm by-products such as damaged grain, refuse potatoes, skimmilk, kitchen slops, etc., thereby turning to profit much that would otherwise be a waste.
5. Hogs develop and reproduce at an earlier age than any other farm animals.
6. In the corn belt, the hog is commonly called the "mortgage lifter." In the South the hog can do much towards abolishing the "credit system."
7. The problem of marketing is being solved in South Carolina by the building of packing houses, thereby affording a home market for meat animals every day in the year.

It is not possible to state the difference between silage made from ripe and unripe corn. If it were possible to determine just how many days or weeks the corn would have taken to mature properly for ensiling, then we could give a close estimate as to how much nutriment has been lost. During the three or four weeks prior to maturity, corn takes up a great amount of nutriment from the soil, and if cut three weeks before it should be there is a loss of about 20 to 30 per cent in its feeding value.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

His Favorite Nook

The parlor is a pretty place,
All tuckered out with curtained lace.
There is an organ, and it's fine
To see the satin covers shine.
The dining room is welcome, too,
With scent of grub and China blue.
But it's the dairy house that seems
To satisfy my fondest dreams.

The young folks like to sit and spoon
On the verandah, with the moon.
Ma thinks the sitting-room is best
For peaceful quietude and rest.
And Katie says our kitchen there
Of all the rooms, is fine and fair.
But I—well I in truth prefer
Around the dairy house to stir.

The clean stone walls—the spotless floor,
The sun that filters through the door,
The perfume of the singing churn,
That makes your jaded palate yearn,
The separator, with its song,
The smell o' milk that comes along—
Here is a fairy sort of place
That's good for all th' human race.

"So you want to be a Farmerette? Can you milk a cow?"

"I've never tried. But it isn't difficult, is it? You wait until she's ready and then put a bucket under her."

A Letter Home

"Dear Mamma:—I like spending the summer on a dairy farm. There are so many strange things. Cows don't give butter. First you get milk and disturb it dreadfully. I think the bossies are perfectly nice, but there's a man cow here with a very disagreeable disposition. A hired boy tried to argue with him and he made the boy move out of the lot. Otherwise it's nice and peaceful here. Lovingly,

Marjorie."

You can say all you please about squab, porterhouse steak, chicken pie, lamb stew, and the rest of it, but for steady wear there's nothing can beat a piping hot order of ham and eggs.

"I read the other day where government bulletins tell the public to 'eat more milk'.

"Sounds reasonable. If it was cream from my herd, they'd have to chew it. That's how thick it is."

Hiram's Aunt Jane says she likes corn on the cob, but it's so much trouble gettin' th' butter out of her bangs.

What Has Become

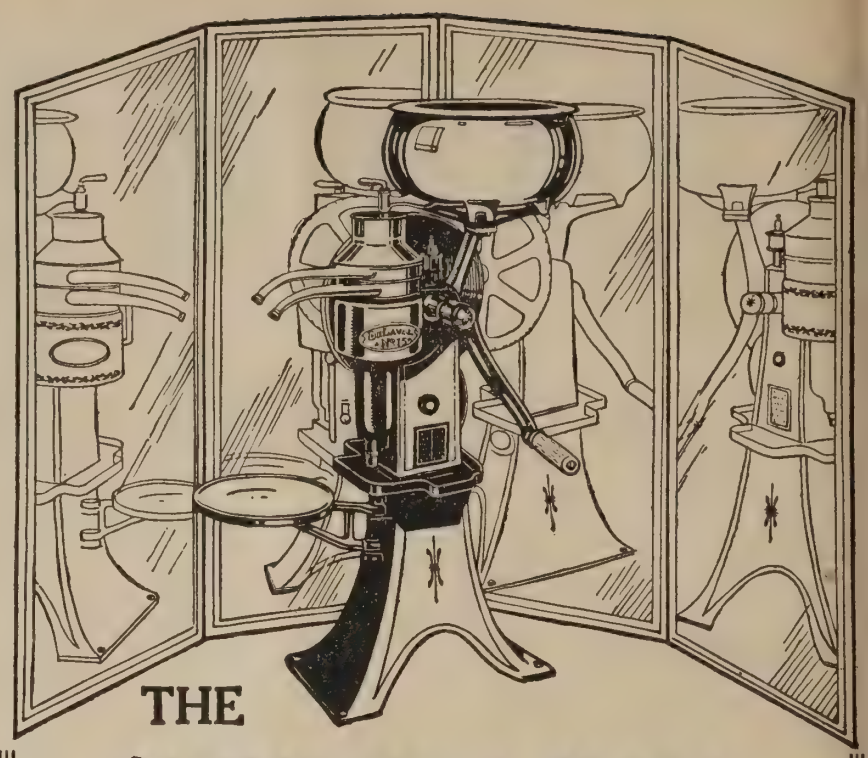
Of the pretty little girl with the red hair who used to go on straw rides with you and promised she'd be your wife when you grew up and had an ortymobile?

Of the freckle-faced, lovable boy who went fishin' with you down by Miller's pond and used to swipe such bully good doughnuts from his mother's pantry?

Of the grocer who never complained when you cut off a little slice of cheese, or took a few dried apples, or watched him when he ground the coffee?

Of the crabbed old codger who owned that big pasture with the apple trees and the swimmin' hole and the blackberry patch, and who always loaded his shotgun with salt pork and peas when you trespassed?

"I've been wishin' for a week," observed Uncle Hi Hikory of Glendale Dairy, "that I could send all th' moles on my farm to a German detention camp. It's just the sort of humane treatment I'd like to dish out to 'em."



THE
NEW DE LAVAL
CREAM SEPARATOR

Every Reflection Shows Perfection

VIEWED from every angle, the De Laval is distinctly in a class by itself. It has a business-like appearance. It looks as if it were well made, and it is. It looks sturdy, and it is. There is no make-believe about it anywhere, from the wide-spreading substantial base to the solid, seamless, symmetrical supply can.

It's no wonder that big dairymen and creamerymen who have for years made a careful study of dairy methods and machinery refuse to consider any other separator but the De Laval. They know that from every angle—clean skimming, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

They know that it has a record of 40 years of service behind it. They know that it can be depended upon. They know that they can't afford to take chances with any other cream separator.

And neither can you.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Co.

165 Broadway, New York 29 E. Madison St., Chicago

Every New De Laval is Equipped with a Bell Speed-Indicator

Fruit and Vegetable Storage

H. COLIN CAMPBELL, Illinois

WHAT the farmer raises is not so important as what he can use or sell to advantage. Some crops, such as grain, may be stored for months without much loss. Others, such as milk and other dairy products, must be marketed almost daily. Between these two extremes are the fruit and vegetable crops, which on most farms must be marketed with little delay. By using well built storage cellars it is possible to keep these products in condition for sale or use almost through the year, thus securing the high prices paid when there is a demand.

Vegetables and fruits stored under suitable conditions are improved in flavor and quality. The quantities of farm produce maturing almost at one time mean an economic loss unless the greater portion can be preserved for future use. Storage cellars are the most efficient means for this purpose and under proper care the fruits and vegetables retain their freshness through the entire winter with practically no loss through decay or shrinkage.

Concrete is an ideal material for the construction of storage cellars and the accompanying drawings indicate some of the essential features of such structures. Three principal storage requirements are readily provided in a concrete storage cellar. The first is insulation against both heat and cold. If too warm the produce will mature too rapidly and soon decay, while if allowed to freeze its value is lost. Concrete cellars permit control of moisture and ventilation and so preserve a uniform temperature.

Ventilation is essential. The air must circulate through the cellar and the produce must be so stored that this is possible. Racks are preferable to bins and open barrels or baskets are better than air tight packages.

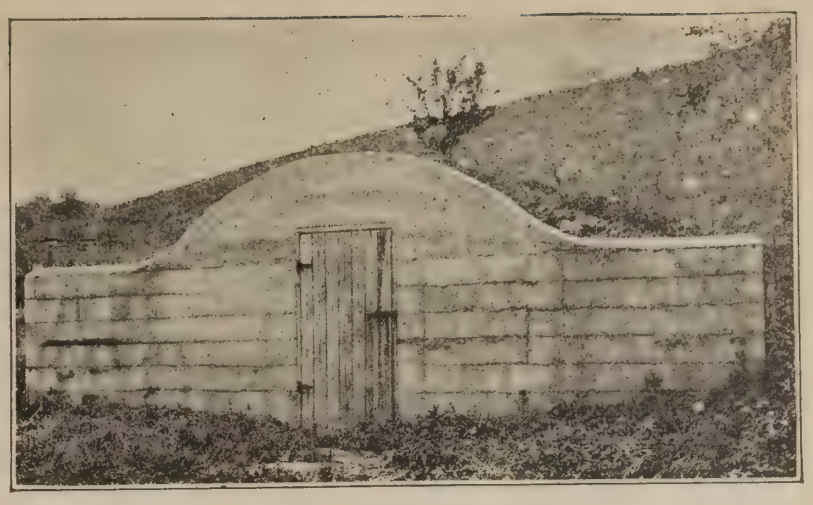
Enough moisture must be present to prevent drying out but floors and walls must not be continually wet. Pans of water or small built-in tanks, over which the incoming air passes, will supply the necessary moisture.

While different classes of vegetables require somewhat different care in the storage building, for all practical purposes such produce as apples and potatoes do well at a temperature between 30 degrees and 40 degrees F. The normal temperature of the earth is about 50 degrees, much too high for ideal storage. During the early fall months there are nights when the temperature drops near or below the freezing point and advantage may be taken of these nights to cool the storage cellar. Cooling can be accomplished by building a good ventilating system which will provide a rapid circulation and change of air. In cold weather the temperature must be closely watched and the approach of freezing temperatures calls for reducing the circulation of the air. Closing the ventilators will do less harm at very low temperature than at higher ones.

Concrete is not subject to rot or decay, and grows stronger with age. It may be necessary to spray the walls and floors to give the required humidity at times. Cement is not subject to the attacks of fungi, rust, or other deteriorating agencies. This property of concrete makes it ideal for storage cellars.

Storage cellars, such as the ones shown in the plans, will give perfect storage facilities for the farm and home and can be built in any locality, largely of local materials, and with farm labor. Time is an element also, and progress on a concrete storage cellar is regulated only by the labor available. The materials, cement, sand, and broken stone or pebbles, can be obtained in sufficient quantities to complete the work without delay.

Probably the cellars shown are of ample size to store all the apples, potatoes, and other produce on the average farm. They will store about 600 bushels of apples or potatoes, and should additional space be required, the length may be increased as desired. One of the best places for storage cellars of this kind is in the side of a hill, as this will usually mean less excavating and filling and insure good drainage. Under favorable conditions it may be possible to build the storage cellar with a grade entrance in which case a short entrance hall with double doors should be arranged, so that there will be protection against extreme changes of temperature.



CONCRETE ROOT CELLAR ON FARM OF FORREST HAYDEN, INDIANA

Construction of either of these storage cellars requires excavation to the lines indicated on the drawing. The concrete for all work except the roof should be in the proportion of 1 part Portland cement, two and one-half parts clean sand, and 4 parts crushed stone or pebbles. The sand should be evenly graded from fine to that which will just pass a one-fourth inch mesh screen, while the crushed stone or pebbles should vary from one-fourth inch up to one and one-half inches. For the roof, and for the rounding roof of the curved top, the concrete must be 1 part Portland cement to 2 parts sand and 3 parts broken stone or pebbles.

Forms for the walls should be of matched inch boards, held in place with plank supports and solidly braced and for the flat roof one should make sure that the supports are strong enough to stand under the heavy load of concrete. The flat roof must be reinforced with five-eighths inch steel rods spaced 5 inches apart and placed one and one-half inches from the bottom of the roof slab. Alternate bars are bent up at a point 2 feet from the inside cellar wall, and the ends of all rods are bent at right angles to form a hook about 3 inches long. This insures good anchorage in the concrete. One-half inch square bars should be placed 2 feet apart or run lengthwise of the cellar. The flat portions as well as the top of the curved portion should be carefully smoothed over before it hardens.

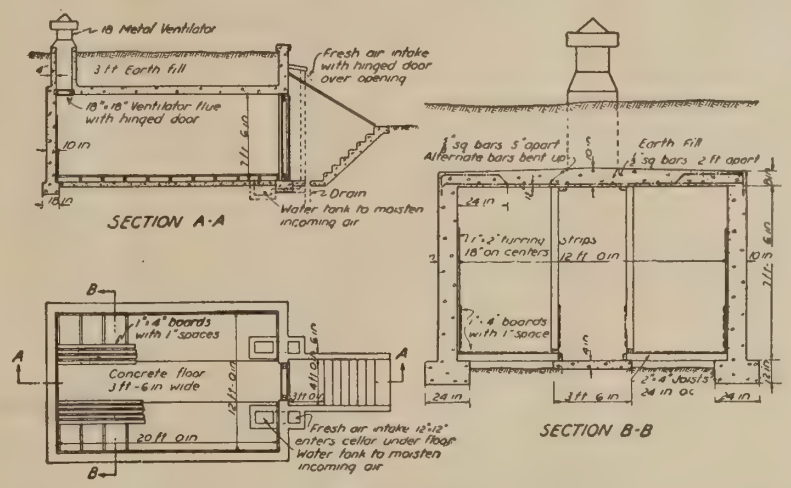
In mixing the concrete just enough water should be used to bring the mass to a quaky or jelly-like consistency, and the concrete should be placed immediately after mixing. It is best to do the concreting as rapidly as possible to prevent possible seams where the work stops for a time. In moderate weather the forms for the side walls may be taken off in 3 or 4 days, after which the concrete should be kept wet for about 2 weeks. At the end of 3 weeks the forms or centering for the arch or roof may be taken out if the temperature and weather has been mild and even during that period. Care must be used in removing the forms, as any jarring is apt to injure the concrete. After the forms are all removed the concrete for the floor may be put in.

Be sure to build in the ventilating flue as shown, as well as the fresh air intakes. These must be provided with dampers or other means for reducing their area when required. The water tanks below the floor should be kept filled and the air passing over them will usually take up moisture to the required humidity.

Regardless of the materials stored the cellar should have a floor of inch strips spaced an inch apart and laid on joists as indicated. The walls should be similarly furred or bins built in, as this will permit the circulation of air necessary for ventilation and preservation of the contents of the cellar.

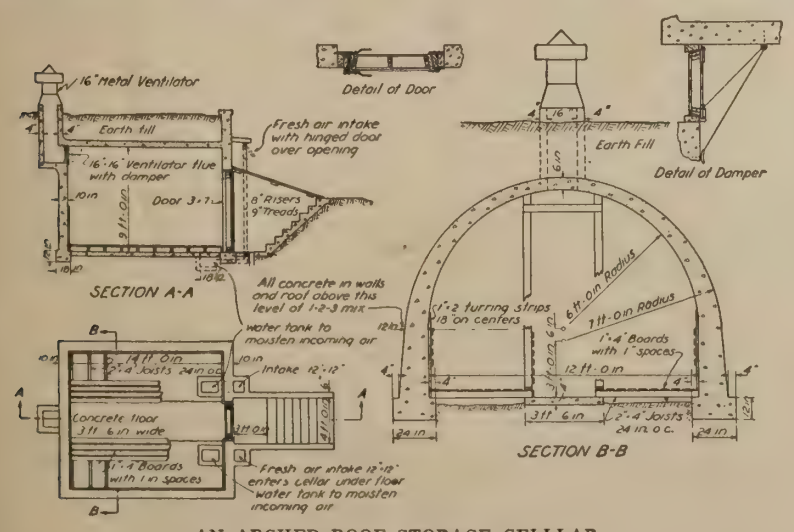
When the earth fill is put over the cellar, puddle it down with plenty of water. This will not only compact the earth but will assist in the hardening of the concrete.

Concrete storage cellars are built to stay and if of proper size for the farm, should pay for themselves in one year. This year, with high prices for all farm produce, and the difficulty in making shipments, a suitable cellar will enable one to market his crops in accordance with supply and demand and the most favorable conditions. Waste may be entirely prevented if crops are stored carefully when in proper condition. No building on the farm will return a greater profit than a well-built concrete storage cellar.



A FLAT ROOF STORAGE CELLAR

This cellar has a capacity of 800 bushels, or 40 bushels to each foot in length. Greater or less capacity can be secured by adding to or taking from the length. To build it will require 47½ bbls. cement, 16½ cu. yds. sand, 28 cu. yds. pebbles, and 1,000 lbs. steel.



AN ARCHED ROOF STORAGE CELLLAR

It has a capacity of 500 bushels which may be increased by adding to its length. Silo or tank forms may be used for the arch. The material required is 43 lbs. cement, 14 cu. yds. sand, and 21¾ cu. yds. pebbles.

Cultivating the Appreciation of Animals

"The admiration of a good domestic animal is much to be desired. It develops a most responsible attitude in the man or woman. I have observed a peculiar charm in the breeders of these wonderful animals, a certain poise and masterfulness and breadth of sympathy. To admire a good horse and to know why he admires him is a great resource to any man, as also to feel the responsibility for the care and health of any flock or herd. Fowls, pigs, sheep on their pastures, cows, mules, all perfect of their kind, all sensitive, all of them marvelous in their forms and powers —verily they are good to know."—Dr. Bailey in "The Holy Earth".

"The spaces of land and sea are nothing where common purposes bind."—General Pershing.

Wisconsin Accredited Herds Transferred

C. P. NORGORD Commissioner of Agriculture

BY the action of the United States Live Stock Sanitary Association at Chicago December 4, 1917, and through the co-operation which the Wisconsin State Department of Agriculture at the Capitol has arranged with the Bureau of Animal Industry, the Wisconsin Accredited Herd System has been made a national system and will hereafter be known as the State and Federal Accredited Herds System. The qualifications for this co-operative list will be practically the same as those formerly required for the state accredited herds, and all of the herds of the state accredited list will be transferred to the new list as soon as they have fully qualified. A regular list of these herds will be published by the Bureau of Animal Industry and the Wisconsin State Department of Agriculture, the same to be sent to all states in the Union.

All states, and foreign nations as well, now thoroughly appreciate the importance of keeping out bovine tuberculosis by preventing it from being shipped in through the importation of cattle. Practically all state authorities fully recognize the fact that a single animal tested from a herd which has not been tested before is an unsafe animal as she may carry the germ in an undeveloped state, later to develop into a complete tubercular condition. They recognize the fact that the only safe herds from which to make purchases are those that are tested annually under the supervision of state and federal authorities.

Many states in the Union have already taken the position that all animals shipped in must be subject to a retest sixty days after their arrival, reactors to revert to the original owner, except animals coming from accredited herds which can be shipped to all states upon the accredited herd certificate.

The European nations now at war have practically destroyed their strains of dairy cattle. Fortunately, Wisconsin and the other great dairy states have secured the pick of the great herds of Europe and have bred from them better strains of live stock than Europe ever had. When the war is closed, we shall have to restock Europe and return to them the Holsteins, Guernseys, Brown Swiss, Shorthorns, and other valuable strains of live stock. This means a great trade for Wisconsin and other live stock states. Naturally these countries will permit no tubercular animals to be imported. The accredited herds will, therefore, play the most important part in the rehabilitation, and the owners of state and federal accredited herds will reap the largest share of this trade. It, therefore, becomes important for all owners of cattle to take steps at the earliest possible date to get their herds qualified for the accredited list. The State Department of Agriculture and the Federal Bureau of Animal Industry, therefore, send out herewith an urgent appeal to county agents, live stock breeders' associations, bull associations, cow testing associations, and all other live stock interests to immediately urge the preparation of herds for the Wisconsin State and Federal Accredited List, secure signatures of people who wish to have their herds tested for this purpose, send them in to the Department of Agriculture, and make arrangements for tests by local veterinarians certified to make accredited herd tests by the department.

The state and Bureau require temperatures to be taken at intervals of two hours to be conducted up to the twentieth hour from the time of injection, thus securing seven temperature records after the hour of injection of tuberculin. By the co-operative plan local veterinarians who have been approved by the Department can make the first annual or the first two semi-annual tests, but when making the last test, they must be accompanied by a state or federal inspector as no herds will be accredited other than those whose tests have been thus supervised by a state or federal employee.

The detailed regulations adopted by the Bureau of Animal Industry and the state and by the U. S. Sanitary Board are herewith presented:

1. A tuberculosis-free accredited pure-bred herd is one which has been tuberculin tested by the subcutaneous method, or any other test approved by the Bureau of Animal Industry, under the supervision of the Bureau of Animal Industry, or a regularly employed veterinary inspector of the state in which co-operative tuberculosis eradication work is being conducted jointly by the United States Department of Agriculture and the state. Further, it shall be a herd in which no animal affected with tuberculosis has been found upon two annual or three semi-annual tuberculin tests, as above described, and by physical examination.

2. The entire herd, or any cattle in the herd, shall be tuberculin tested or retested at such times as is considered necessary by the federal and state authorities.

3. No cattle shall be presented for the tuberculin test which have been injected with tuberculin within 60 days immediately preceding or which have at any time reacted to a tuberculin test.

4. No herd shall be classed as an accredited herd in which tuberculosis has been found by the application of the test, as referred to in paragraph 1, until such herd has been successfully subjected to three consecutive tests with tuberculin, applied at intervals of not less than six months, the first interval dating from the time of removal of the tuberculous animal from the herd.

5. Prior to each tuberculin test, satisfactory evidence of the identity of the registered animals shall be presented to the inspector. Any grade cattle maintained in the herd, or associated with animals of the herd, shall be identified by a tag or other marking satisfactory to the state and federal officials.

6. All removals of registered cattle from the herd, either by sale, death, or slaughter, shall be reported promptly to the said state or federal officials, giving the identification of the animal and, if sold, the name and address of the person to whom transferred. If the transfer is made from one accredited herd to another accredited herd, the shipment shall be made only in properly cleaned and disinfected cars. No cattle shall be allowed to associate with the herd which have not passed a tuberculin test approved by the state and federal officials.

7. All milk and other dairy products fed to calves shall be that produced by an accredited herd, or, if from outside or unknown sources, it shall be pasteurized by heating to not less then 150 F. for not less than 20 minutes.

8. All reasonable sanitary measures and other recommendations by the state and federal authorities for the control of tuberculosis shall be complied with.

9. Cattle from an accredited herd may be shipped interstate by certificate obtained from the office of the state live stock sanitary officials of the state in which the herd is located or from the office of the Bureau of Animal Industry, without further tuberculin test for a period of one year, subject to the rules and regulations of the state of destination.

10. Strict compliance with these methods and rules shall entitle the owners of tuberculin-free herds to a certificate. "Tuberculosis-free Accredited Herd," to be issued by the Bureau of Animal Industry and the state live stock sanitary authority. Said certificate shall be good for one year from date of test unless revoked at an earlier date.

11. Failure on the part of the owner to comply with the letter or spirit of these methods and rules shall be considered sufficient cause for immediate cancellation of co-operation with them by the state and federal officials.

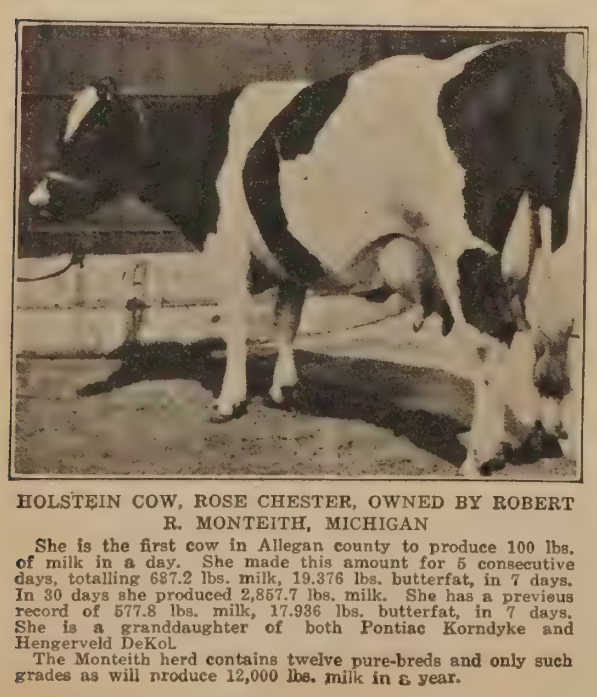
Appearance of Reactors.—When one or a limited number of reactors appear in an accredited herd, the herd shall remain on the accredited list, but no animal shall be sold from the herd as an accredited animal until such herd has passed the test necessary t reinstate it. Any animal sold for inter state shipment during this time pre vious to the reinstatement of all th animals in the herd shall be tested t comply with the requirements of th state into which it is to be shippe just as animals not of the accredite list.

Reinstating a Herd Which Ha Shown Reactors.—A herd havin shown one or a limited number of re actors can be reinstated by passin two semi-annual tests.

Status of Young Animals.—An animal too young to be tested at an regular herd test may be sold as a accredited animal without a specia test until the next regular test of th herd.



PENCOYD'S GOLDEN MAY SECRET, THE GUERNSEY BULL THAT WAS SOLD TO W. H. DUPEE, CALIFORNIA, FOR $10,100, BY W. G. JAMISON & SONS, WISCONSIN



HOLSTEIN COW, ROSE CHESTER, OWNED BY ROBERT R. MONTEITH, MICHIGAN

She is the first cow in Allegan county to produce 100 lbs. of milk in a day. She made this amount for 5 consecutive days, totalling 687.2 lbs. milk, 19.376 lbs. butterfat, in 7 days. In 30 days she produced 2,857.7 lbs. milk. She has a previous record of 577.8 lbs. milk, 17.936 lbs. butterfat, in 7 days. She is a granddaughter of both Pontiac Korndyke and Hengerveld DeKol.

The Monteith herd contains twelve pure-breds and only such grades as will produce 12,000 lbs. milk in a year.

Fodder Substitutes in Foreign Countries

The very acute shortage of feeding stuffs in France, the Central Powers and the northern neutrals has led t experiments with all sorts of wil vegetation, often resulting in thei successful adoption as substitutes fo ordinary fodder.

In France, where the shortage ha been keenly felt, especially in th case of oats, the first experiment were made with a kind of seawee called laminaires, common on th Breton coast. Experiments showe that as a feeding stuff, three pound of seaweed were equivalent to fou pounds of oats. Horses which wer fed on it grew fatter during the pe riod of experimentation than thos fed on oats; and animals sufferin from lymphangitis, an epidemic dis ease which is rife among wounde horses at the front, improved unde the diet, the disease eventually dis appearing entirely. Grass wrack, an other kind of seaweed, is also used i France with success; and in Ger many, Holland, and Denmark sea weed of various sorts is used exten sively.

The French authorities recommen the use of fresh reeds for pigs, and reedflour for fodder was put on th market in France this February Reeds are also used in Germany where the minister of agriculture re cently declared that fodder obtaine from reeds procured green before th blossoming period is quite equal t good meadow hay, The collection an sale of reeds is regulated in German by the government, and a maximu price of $1.25 per hundredweight i fixed. With acorns, horse chestnut and seeds of forest trees the Frenc government has made the most care ful experiments, and has issued fu information as to the use of these fo substitutes. Acorns may be eaten b all animals, though in differin amounts. For horses, seven pints o

(Continued on page 141)



THE WHITE EAGLE DAIRY SUPPLIES THE CAPITAL CITY OF MISSOURI WITH A NEAT APPEARING AND WELL EQUIPPED PLANT FOR HANDLING THE MILK USED BY ITS CITIZENS

Columbia's New Dairy Plant

D. V. VANDIVER, Missouri

IFFERENT from most dairies, the White Eagle Dairy is owned principally by the producers of milk, and it is engaged in the retailing and wholesaling of milk, cream, butter, ice cream, and cheese. It has been in business for over twenty years at Columbia, Mo., and has just completed and moved into its new plant. In the construction of the building, extreme care was exercised to insure sunlight, the most important question to consider from a sanitary standpoint, and an excellent location was secured.

The white tile front and salesroom make a most attractive showing and the operating room is so arranged as to make possible the greatest efficiency in the handling of the product.

A long insulated cabinet in the retail salesroom is cooled by brine from the cold storage plant and contains milk, cream, buttermilk, butter, cheese, and ice cream, all so arranged that the necessary temperature is maintained in each compartment.

Ice cream is frozen by the continuous brine freezers and placed in the dry hardening room, next to which is the general cold storage room in which raw cream and milk are stored.

The producer drives to an unloading platform where his milk is weighed, sampled, and deposited in the pasteurizers; his cans slide down a chute to the wash room and he picks them up, washed and sterilized at the other end of the plant, and drives on out.

After being pasteurized the milk is then bottled and placed in storage for the drivers in the morning. The sweet and sour cream is handled from the same station and is deposited in different pasteurizers and from there in the churn or storage room.

Five delivery wagons distribute the milk and cream and a truck is employed mornings and evenings, hauling in milk from the farms and making deliveries of ice cream during the day.

Dairy farming in Boone County has received a stimulus as a result of this excellent plant and but for the temporary shortage of farm labor, many more farms would be producing milk, as the market is always good on dairy products.

A formal opening of the new plant attracted between 4,000 and 5,000 people who were invited to visit the plant and see how the milk, cream, ice cream, and butter were handled. It was a pretty expensive day for the company and ice cream was in big demand when it could be had for the asking, but the company feels that it was money well spent and the large increase in the volume of business testifies to the popularity of the new plant. The company advertises the fact that it has no secret formulas or processes and the public is invited at all times to inspect the back as well as the front of the plant.

SHOULD ALFALFA WINTERKILL?

JAMES LACEY, Wisconsin

HERE in Green County, where nearly seventy-five per cent of the alfalfa fields were either partially or wholly killed by the past severe winter, a good field of alfalfa is something hard to find. Most of them are badly mixed with June grass. Others show the effects of winter-killing in the numerous patches of weeds. But once in a great while a field is found in which the stand of alfalfa is as good as any enthusiast could wish.

On June 14th, I was on the farm of Ted K. Hefty in Washington Township. Among other interesting crops on his splendid farm he showed me thirty-five acres of the finest alfalfa that I have ever seen, but the shoots on the crowns had begun to show, and Mr. Hefty explained that he intended to begin cutting the hay on the following day.

The remarkable thing about this stand of alfalfa was that it should be so vigorous and apparently unaffected by the severity of the past winter. Neighboring fields looked, in most instances, as if not more than half a stand would be produced. This field would yield one and one-half to two tons from the first cutting.

I asked Mr. Hefty why this field should be so much better than others in the same neighborhood.

"Well, to begin with," he told me, "I always take a great deal of pains and exercise a good deal of care in preparing the ground for my alfalfa seeding. In addition to this, I always make sure that I have chosen the right kind of soil to give my alfalfa a good start. Alfalfa must have plenty of limestone, and limestone is very abundant in the soil of this field. I had the ground tested and it showed no acidity whatever. The seed had been inoculated. I always take the trouble of inoculating the seed before it is sown, for I find that the extra labor is labor well spent. By inoculating the seed, and by determining whether the land is acid, I think I do away with a great many uncertainties in alfalfa growing. So much for giving the alfalfa a start.

"After alfalfa has become firmly established in a field, I have found that two factors cause more winter-killing than all other factors combined. These two are: First, lack of drainage and consequent formation of ice sheets; and second, pasturing or cutting the alfalfa too late in the fall. Neither of these factors caused any trouble here.

"The field, as you see, is rolling enough to drain very well indeed. I find no pools of water here, but in parts of the field heavy rains do some damage by causing ditches. I would rather have these ditches in the field, though, than I would to have water standing there long enough to kill out the alfalfa. During the past winter there was never any ice on this particular field, and I know that this fact is responsible, in part, for the present excellent stand.

"The second important cause of winter-killing is too late cutting, or pasturing of the alfalfa crop. Last fall I did not cut the third crop and this field has never been pastured. In October the third crop stood about twelve inches high. Last winter no part of this field was bare of snow, for the large growth prevented the snow from blowing and drifting.

"On other fields I have noticed that on southern slopes the alfalfa is better because the snow remained for a longer period of time. The stand on this field is even, because the snow remained evenly distributed on the field.

"Personally, I think that a good fall growth is the best preventive for winter-killing. I would much rather leave the third crop on the field than I would to get that extra amount of feed and by doing so sacrifice the entire stand in the following years. I have found that pasturing is even more destructive than late cutting. I try to avoid the causes which I have just mentioned. Maybe, though, this has nothing to do with my good crop this year."

I think it did.



BELLE OF SOUTH FARM 2ND, A SEVEN-YEAR-OLD AYRSHIRE OWNED BY WENDOVER FARM, NEW JERSEY, HAS COMPLETED A MATURE RECORD OF 15,577 LBS. MILK, 4.24% TEST, 660.60 LBS. FAT

Belle of South Farm 2nd was born April 12, 1910. She was bred by John Sherwin, Ohio. Her sire is Fizzaway's Royal Star with several daughters in the Advanced Registry. Her dam is Island Belle. Belle of South Farm 2nd has two previous records: 9,390 lbs. milk, 392.43 lbs. fat; and 12,305 lbs. milk, 520.31 lbs. fat. She was sold to Wendover Farm at the New England Club consignment sale in June, 1916, dropping her calf while in transit to New Jersey. She dropped a heifer calf which was sold at the 1918 sale at Hartford, Connecticut, for $400.—J. G. WATSON, Vermont.

Out of the last harvest the American people, by abstinence, saved 140,000,000 bushels of wheat to feed the hungry allied nations; and these same people are going to stay right on the sugar job and see it through.

The present household sugar ration—with little chance of increase—is two pounds a month in America, two pounds in England, one and one-half pounds in France, and one pound in Italy.

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Coming Events

August 30 to Sept. 8, Michigan State Fair, Detroit, Michigan. Secretary, G. W. Dickinson.

September 1 to 6, Nebraska State Fair, Lincoln, Nebraska. Secretary, E. R. Danielson.

September 2 to 6, Connecticut Fair, Hartford, Connecticut. Secretary, H. C. Parsons.

September 2 to 7, Indiana State Fair, Indianapolis, Indiana. Secretary, Chas. Kennedy.

September 2 to 7, Spokane Interstate Fair and Live Stock Show. Acting Secretary, W. L. Tennant.

California State Fair, Sacramento, California, August 31 to Sept. 8. Secretary, Chas. W. Paine.

Kankakee Interstate Fair, Kankakee, Illinois, August 26 to 31. Secretary, Len Small.

Ohio State Fair, Columbus, Ohio, August 26 to 31. Secretary, E. V. Walborn.

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

Sept. 16-21. Southwestern Jersey Cattle Show, Kansas City, Md., H. E. Colby, Sec.

September 2-7. Minnesota State Fair, St. Paul. Thos. H. Canfield, Secretary.

August 30. Field Day of the New England Guernsey Breeders at Albamont Farms, Campton, New Hampshire.

New York Butter Market

NEW YORK CITY, August 13:—Receipts continue to show a shrinkage and the average quality of butter received continues poor. Quality, if anything, is lower than last week, and at present there is no visible relief. Last week, according to weather reports, the dairy sections were experiencing the hottest weather of the season and while there was a temporary relief late in the week the weather has again become torrid. Butter dealers feel that for the next few weeks there will be no improvement in the quality of butter received. Buyers are not anxious to stock up with liberal quantities of butter under present conditions with the result that there is a scarcity of healthy buying.

In spite of the absence of life in the market, values have continued to work up slowly. The reason for that is because of the tendency for dealers to hold their high grade butter in anticipation of the expected minimum production of high grades because of the heat. There is some accumulation of lower grades of butter and dealers expect that there will be a widening in the range of values of butter of different grades. The condition that has prevented any greater range of values up until the present is that there have been some out-of-town buyers on the market who have picked up considerable quantities of poorer lots of butter.

There has been an advance of a half cent in quotations on butter during the past week. On August 6 extras (92 score) were quoted at a range of 45@45¼c. On Thursday the price advanced a quarter cent and yesterday a price of 45¾c was established. Yesterday's quotations have been maintained today. Additional quotations today are: Higher scoring than extras (93 score or higher), 46@46¾c; firsts, (88 to 91 score), 43¾@45½c; and seconds, (83 to 87 score), 42@43½c.

W. B. LIVERANCE.

Sale Announcements

Aug. 27—Guernseys, Dispersions of the T. D. McChesney, Minette, N. Y., and Winthrop Condin, Mt. Kisco, N. Y., herds at New Castle Farm, Mt. Kisco, N. Y. Leander F. Herrick, Worcester, Mass., Manager.

Aug. 31—Holstein Dispersal Sale, Sweet Brook Farm. The Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Sept. 4—Holsteins, Sauk Valley Dairy Farm, Holsteins. O. S. Cass, Sauk Center, Minn.

Sept. 11—Holsteins. Consignment Sate at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 11—Holstein Dispersal Sale. Springdale Farms, Fishers, Ind., Dr. S. P. Scherer, Owner.

Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.

Sept. 17—Holsteins. Centralia Calf Farm, Centralia, Ill.

Sept. 18—Holsteins. W. F. Phelp's Holstein Sale, Joplin, Mo.

Sept. 25-26—Holsteins. Absolute Disperison of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.

Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.

Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.

Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.

Oct. 4—Guernseys. Dispersion of Sylvanite Guernsey Herd at Baraboo, Wis. Richard F. Klemm.

Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.

Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.

Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.

Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.

Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.

Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.

Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.

Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.

Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

Shall Number of Cream Buying Stations be Limited

Limitation of the number of cream buying stations in localities where there are creameries to take care of the output is asked in the following open letter of George J. Weigle, Dairy and Food Commissioner of Wisconsin, to Mr. Swenson, Food Administrator for Wisconsin:

"Since it is the policy of Wisconsin's Food Administration to eliminate wasteful practices and to promote the conservation of foods as well as efficiency in our industries, I wish to call your attention to a matter, which, I believe, should be given your consideration.

"I refer to the establishment of numerous cream buying stations in localities where there are already creameries and perhaps one cream buying station to take care of the cream produced in such communities. It is my opinion that to cut down the number of such stations would serve to conserve much dairy produce that is now wasted or rendered of such poor quality that it is a detriment to the reputation of Wisconsin as a dairy state.

"Many cream stations, by purchasing cream that is old, stale, and of poor quality, and which has perhaps been refused at the creameries, encourage the production of such cream. In other instances cream that is of good quality when received is often shipped long distances and when received at churning plants is of very inferior quality. The butter made from such cream is far below the standard which Wisconsin should maintain. Often times cream that is shipped long distances foams and overflows the cans and this waste is a total loss which in all probability falls upon the producer.

"Perhaps a more important phase of the question is from the viewpoint of transportation. The railroads of the country are now, and will be for some time to come, taxed to their capacity in handling material needed to successfully prosecute the war, and the transportation and labor of hauling thousands of pounds of cream that could be made into a better quality of butter by local creameries, seems a waste that should be eliminated.

"In the less thickly populated districts of Northern Wisconsin the cream buying station has its place. It is the only direct method that can be employed to give the beginner in dairying an opportunity to exchange the produce from his dairy and obtain needed cash. There are, however, localities in which the cream buying station is a distinct detriment to the quality of the butter, because it is operated in cities and towns where a well established creamery is located. In other localities these stations are detrimental to the progress of the dairy industry because they divide the product of the community and make it difficult for the local factory to exist. The cost of manufacturing butter from only one-half of the butterfat of the community is nearly as large as if all of it were handled; hence a few patrons carry the burden. We find cream stations in operation in towns where creameries are established; these creameries are struggling to exist on account of lack of cream and the quality suffers because the cream stations will accept a product that is turned down at the creameries. An example of such a situation may be seen in that portion of the state from Prairie du Chien to Hudson. In some places there are two or more cream buying stations and one creamery, when the creamery could handle the entire output of the community at less cost to the dairymen.

"A number of stations are only temporary and not always located in a suitable place, many times in old barns, shacks, etc. They are often in charge of men who do not fully realize the importance of accuracy in the operation of the Babcock test and the proper methods of handling cream. Since local boards of health have charge of the licensing of these stations, there is no uniform system governing their control, and poor sanitary conditions result.

"North Dakota has taken action to limit the number of cream buying stations, the order becoming effective August 1st. The regulation provides for the centralization of cream buying in North Dakota, as a war measure for the conservation of man power to enable the best possible utilization of all dairy products and to insure a good and permanent market for the milk and cream of the dairymen.

"The Minnesota Dairy and Food Commissioner is taking action along similar lines.

"Since our success in prosecuting the war depends largely upon food, man-power, and transportation, the elimination of waste wherever possible seems to be our duty. I therefore ask that you consider the matter of taking action toward eliminating unnecessary cream buying agencies, cutting down the number of st stations in localities where they a non-essential and preventing th establishment in localities where th are creameries to efficiently take ca of the output."

Mr. Weigle also writes us that t Wisconsin Dairy and Food Depa ment would be glad to receive any formation regarding establishment cream buying stations and the ma ner in which they are conducted.

Breed Days at the National Dairy Show

To our friends of the dairy wor who desire to mingle with their f lows in the great Annual Natio Show Yard event, the following p gram will be of considerable intere that plans may be made for a p grimage to Columbus on the days b suited for the occasion.

Monday, October 14th, is Ayrsh and Brown Swiss Day.

Tuesday, October 15th, is Jers Day.

Wednesday, October 16th, Guernsey Day.

Thursday October 17th, is Holst Day.

The International Milk Deale Convention is October 14th and 15

The National Ice Cream Manuf turers' Convention is October 1 and 18th.

The American Dairy Science As ciation and other conventions of tional and local import will be sch uled later.

There is also to be a very extens governmental lecture and demonst tion program as well as exhibit wh will incorporate many local conv tions.—NATIONAL DAIRY ASSOCIATI

Value of Kafir and Cane Silage

The Kansas farmer is fortunate having at his disposal three comm crops—corn, kafir, and cane—any which will make good silage. Feed tests with dairy cattle by the Da Department of the Kansas State A ricultural College covering a per of three years have produced very vorable results with kafir and ca silage. Corn silage was found to slightly superior to kafir, and ka slightly superior to cane, pound pound, but when tonnage yield a the certainty of getting a crop w considered, both the cane and the k fir ranked higher than corn. Cov ing a three-year period on bott land at the College Farm the follo ing yields in silage have been tained: Corn, 11.88 tons per ac kafir, 11.8 tons; and cane, 18 t per acre. Basing estimates on th tests the amount of milk produ from the above yields per acre wo be corn, 22,000 pounds; kafir, 21,9 pounds; cane, 30,000 pounds. more than half the counties of K sas a greater yield of kafir and ca can be obtained with greater certa ty than with corn. Manifestly crop should be used which will turn the greatest tonnage.—Kan State Council of Defense.

The Calves' Creed

We believe in milk, the life-giv maker of muscle and bone.

And in sanitation, the guarantee our safety; insisted on by the ca ful dairyman, neglected by the sl gard; slandered, maligned, slurr it has been defamed, is now appre ated, and shall come to be recogni as the mainstay of dairymen.

We believe in pure water; plen of common salt; abundance of h and grain; the cleansing of bucke the disinfection of pens; fresh a and sunlight.

Iowa. A. C. MCCANDLISH

·on's New York Dairy Notes

HOARD'S DAIRYMAN:—The August ɜt situation in the New York milk .tters has, perhaps, been less excit- ; and tense than for the previous nths of the year, with a certain v exceptions. The surplusage, it is ıe, has kept up well for the most of ly, but indications on this line have ıerally pointed to a lessening of ıteness. July for the most part was cool month, and until we get rmer weather it is difficult to elim- ıte all surplus. However, there has ɜn much less storing of cream and lk in refrigeration than in former ars, and when the hot weather of e July came on it was surprising w quickly New York City cried for thousand cans of milk or more in ɔess of the visible supply.

The Federal Milk Commission has ıctically gone out of business so · as farmers are concerned. One lk dealing concern after another ved notice, as they had a right to , that after thirty days they would thdraw from the findings of the nmission, until by July first the irymen's League found itself un- le to meet a sufficient number of alers to enable it to do business der the commission, and so was liged to withdraw also. This left ɜ League free to make prices for ıger periods than the month as has ɜn the custom of the commission d it announced prices for August d September, leaving the way open · making prices for the usual six nths' period commencing with Oc- ɔer. The price for August as an- unced soon after the twentieth of ly was $2.70 for three per cent lk at 150 miles from New York y and for September the price was .de $2.90 a hundred pounds, under ɜ same conditions.

Dealers generally agreed to the ce and the August first situation ɜmed reasonably clear but for a v exceptions. These, so far as I am are, are operators of condensing evaporating plants. As a guess we y say that the condensing business this country is likely to be trans- red largely to territory where milk n be produced cheaper than in Cen- ıl and Eastern New York. This ter- ory would seem to be best suited the production of milk for the ıde in fluid milk in the cities and lages of the state and adjacent ter- ory. It is no matter of surprise ɜn that some of these plants are ɜsing down, and are even transfer- ıg their equipment to other terri- y. It is in these localities where ɔuble is being experienced in the ɜposition of milk by the farmers. In me cases other dealers are taking this milk.

Farmers' co-operatives are increas- g in number with some little speed, t I cannot see that this is, for the ɔst part, proceeding more rapidly ɜn the occasion demands. It is a ıtter of some surprise that the big lk concerns seem to be somewhat endly to this activity, especially ɜere the farmers purchase the ınts of these dealers. It is a com- ɜte change of attitude it seems to ɜ. The dealers are in several cases ntracting with the farmers to op- ate the plants for the farmers or rchase the plant from them after has been pasteurized and cooled. this it is proposed to pay enough to ow the operators some profit. This s not as yet gone on very far and is too early to say just how far it ll proceed or how satisfactory it ll be.

While weather conditions deter- ne to a very marked extent the de- ınd for milk, there is undoubtedly ıs disposition on the part of con- mers to balk at a somewhat higher ice for retail milk than was the se a year or even six months ago. The city man appears to be becoming accustomed to higher prices for milk just as the farmer is getting accustomed to higher feed prices. The weather factor, however, still indicates that it is as a beverage that the city residents want milk rather than as a food and a vitalizer. Evidently the campaign of education relative to the use of milk has not gone far enough. It is the food value of milk that needs emphasis, its importance for growing children particularly, while not neglecting its value to the adult.

The demand for cows from dealers is considerable. It has seemed to me that rather more sales are being made than usual, but it is pretty difficult to say positively if this is true. Milk prices and conditions have tended to provoke considerable discussion in relation to sales, but the real selling is another matter and may not be rapid. The shortage of labor on farms is growing, although there seems to be some of it left for us yet. More milking machines are going in and lines of labor on farms are being changed a little. There may be some cows sold because of labor shortage, but not a large number at present. Feeds are a little higher than a year ago, but not greatly so. There is a difference of opinion as to what they will be next winter. The hay crop is less than a year ago, but may be equal to the needs of the coming winter. Less hay is being carried over than was the case last year because there has been some chance to sell. Possibly more has been sold than was best, but I am not looking for hay shortage to seriously change the number of cows kept. Corn is not looking well, but there is still a chance for further improvement. Many silos have been filled or partly filled with clover or grass. By doing this it has been possible to continue the harvest during catching weather. This method has been followed to some extent for two or three years and is spoken of with favor. There is much hay to cut on the first of August, but probably not so much as on the same date a year ago.

As August worries along we are experiencing a drouth. This is a help to selling milk and making hay, but it is shortening the springs and the streams. A prolonged drought would be harmful, but not so much so as earlier in the season.

There are some interesting tilts between local leagues and certain of the milk dealers, but an account of these may be given in another communication. It is in order to say that farmers are holding to the organization well and in most cases the honors belong to them. There are still battles to be won, but the more intelligent dealers are tending toward co-operation with farmers rather than antagonizing them.

New York. H. H. LYON.

It is estimated by the Wisconsin College of Agriculture that there were 10,000 silos built in Wisconsin last year, making for that state a total of 70,000. While Wisconsin claims more silos than any other state, yet this number feeds only half her cow population. There is satisfaction in the fact that the silos are gaining on the cows, but there is still room for further improvement and this year should see a greater gain.

Testing for tuberculosis is on the increase in Wisconsin. In 1915 the Wisconsin College of Agriculture supplied the state veterinarian with 51,300 doses, in 1916 it supplied 77,500 doses, while in 1917 it supplied 106,250 doses, over 37 per cent increase over the high figure for the previous year. In addition to the tests with this tuberculin, there were, perhaps, fully as many more made with that produced by commercial concerns.



Dairy Authorities Prove Sharples Claims

Sharples Skims Clean at Three Speeds —Thickness of Cream Not Affected

Dairymen now using Sharples Suction-Feed Cream Separator need no further evidence of its superiority, but for the benefit of those farmers who are as yet using fixed-feed separators we give below the result of tests recently made in the presence of dairy authorities and farmers.

Participating in the tests were Professors R. A. Lamson' Purdue University, O. Erf and R. B. Stoltz of Ohio State University J. J. Hooper of Kentucky University, J. A. Gamble of Maryland Agricultural College, G. C. White of Connecticut Agricultural College, W. M. Regan, of New Jersey Agricultural College E. L. Anthony of Penn. State College, A. D. Cromwell of Penn State Normal, and editors from leading agricultural publications.

A committee was requested to go into one of the warehouses and pick at random a Sharples Separator already boxed for shipment. A No. 4 Sharples Suction-Feed Cream Separator, Serial No. 18,441,291, was selected. This separator was then unpacked and set up at the Greystone dairy farm near West Chester, Pa.

The purpose of this test was to make a trial of the Sharples at varying speeds under *actual farm conditions*, which could be duplicated by the average American dairyman.

Here is the report, signed by Prof. R. A. Lamson, Purdue University, Lafayette, Ind., who supervised these official tests.

Tests of No. 4 Sharples Suction-Feed SEPARATOR

Serial No. 18,441,291; taken from stock June 19, 1918.

SPEED Rev. of handle per minute	SKIM MILK TEST (Per cent. of Butterfat in Skim Milk)	CREAM TEST (Per cent. of Butterfat)
38	.01%	22½%
45	.01%	22½%
52	.01½%	20½%
(Note the changes in speed)	(Merely a trace, regardless of speed)	(Note that cream did not get thicker at increased speed)

We will be pleased to send copy of the full details of these remarkable tests to any dairyman who is interested.

SHARPLES
SUCTION-FEED
CREAM SEPARATOR

The above tests prove conclusively that the farmer who invests in a Sharples is certain to get *all* the butterfat regardless of the speed of turning. 95% of separators are turned too slowly, causing a loss of 80,000,000 lbs. of butter in U. S. yearly. The universal use of Sharples would save all of it.

Write today for catalog "Velvet for Dairymen"—

The Sharples Separator Co., West Chester, Pa.

Sharples Milkers—used on over half a million cows daily

Branches: Chicago San Francisco Toronto

DC-66

EDITORIAL COMMENT

THE front cover page of the Guernsey Breeders' Journal for August first contains an illustration of a child leading a lamb and a mature bull. The title under the illustration is: "And a little child shall lead them". We shudder when we see a child leading a bull, for we know how treacherous he is. Undoubtedly this particular child was adequately protected and the subject of the picture was not to teach a practical lesson. But even this is objectionable to us, for it has a tendency to cause carelessness in handling the bull, and not one can be trusted for a moment.

THE large demand for alfalfa hay has advanced its price considerably the past two or three weeks. Those who have alfalfa hay for sale have been harvesting and threshing and comparatively little alfalfa is being baled and shipped. Further, it is a little early to bale alfalfa, unless it was very well cured before stacking.

The situation has unsettled the market for alfalfa, and made conditions rather bad for both shipper and buyer. It is held by those in position to know the facts governing the alfalfa market that two or three weeks from now will be a better time to buy baled alfalfa hay. These men expect the price to be a little lower and few, if any, are looking for a higher price.

WORK OR FIGHT

The present business of the United States is war. Uncle Sam is the manager of this great enterprise and his employees are the citizens of the United States. It is a business none of us like, but circumstances forced us to enter it, and we are going to stay by the job until victory is ours. In view of this we believe provision should be made for extending the selective draft so that every able bodied person in the United States could be used where he would render the most effective service. Uncle Sam should have the same opportunity for directing his help as is given to a manager of any other industry. It is his business to say whether a man shall remain on the farm, make munitions of war, help guide the destinies of state, drive an ambulance, work in factories, build ships, or fight.

If the selective draft were extended to reach men between the ages of 20 and 60 it would increase our fighting power to a large extent and that is what we need. No provision should be made for exemption, but provide the questionnaire so that exemption boards may gather all the facts concerning each person. Each person then should be classified according to his circumstances and placed in the service where he would do the most good.

The farmer is doing his full share and rendering an all important service, but there are men in every city who are contributing little or nothing to the winning of the war and these men of all ages should be called upon to do that which they are able to do. The sooner every able bodied citizen is engaged in some work necessary to winning the war, the sooner the horrible job will be finished. The services of all will mean the saving of our boys over there, and this is by no means an unworthy object. Since the United States is in this war, let us make the most effective fighting nation the world has ever seen.

IMPORTANT FARMERS' MEETING

The Federal Board of Farm Organizations has called a meeting of farmers to be held in Washington, D. C., August 27th, 28th, and 29th. Mr. Charles Lyman, secretary, writes regarding this meeting as follows: "The supreme object of this meeting is to plan how farmers can best serve in this world crisis; and how, in spite of serious shortage of labor, feeds, fertilizers, and, in many cases, inadequate credit facilities and assurances of receiving the cost of production for growing crops, they can increase production of food this coming year."

This is a high purpose, and should lead to a good attendance of the best thinking farmers in the country. It is just as important that the farmers of this country conduct their work on an efficient and comprehensive plan as for the fighting men to be well organized and trained for their service. Food, we are told, will win the war. Bearing this injunction in mind will bring us to the full realization of our responsibilities, and should lead us to appreciate thoroughly our sacred duty to our country and to our boys "over there".

The meeting has other objects, for Mr. Lyman says: "Two of the subjects to be discussed at the meeting are: 'The Farmer At the Peace Table' and 'After the War Readjustments Affecting Farmers'. This war has brought about tremendous changes in all industries and agriculture is no exception. Our condition in everything is abnormal, because everything is being operated upon a war basis. We are putting up with laws and regulations that we would not tolerate in times of peace, because we believe that is the way to win the war.

We are not going to return to the old business relationships as they existed before the war. Some of the things put into practice now for greater efficiency will continue, but some things brought forth for war purposes must necessarily pass into oblivion in times of peace. This meeting is called for the purpose of discussing matters of vital interest to the farmers and to lay plans to carry the agricultural industry successfully through the period of readjustment.

A DISHEARTENING PROSPECT

A few years ago we were visiting a breeder of pure-bred dairy cattle and noted the splendid genius shown by the man in the fine array of barns and stables as well as the appearance of his herd. The farm also was in a most excellent shape and the crops were fine. We complimented our friend on the work of his brain and hands and told him how much good it did us to look at so enticing a picture of farm life. He thanked us for the compliment and said:

"I have tried to carry out my ideals of what a farm should be. In all this I have been helped very greatly by the reading of Hoard's Dairyman and other well conducted farm papers. In many instances they have shown the way to what I wanted to produce. I have made money but what is better I have made a bigger man of myself than what I was when I first began. Associating with pure-bred cattle and with the breeders of such cattle puts a man ahead faster than he may know.

"I have three boys but not one of them has any ambition to keep up and carry on his father's work. It makes me sad to realize that when I am gone this splendid farm will fall into the hands of strangers and go into decay. If I had built up a manufacturing plant very likely my boys would have the same ambition for the business as their father left it but it seems to be different with a farm."

We asked our friend if he had taken any pains when his boys were at an early age to interest them in the farm idea by giving them a good pure-bred heifer which should with her offspring be their especial property. He confessed that he had not done this. Had he done so we believe it would have changed the ideals and purposes of those boys and enabled them to see the old home farm in its true light. It really is a discouraging thought to a progressive, forward-looking farmer to realize that his children do not share in his most worthy ambitions to make as much as possible of the life of a farmer. But it is our observation that many a good farmer has not proved a wise father in training his boys to follow in his footsteps.

LIMITING CREAM STATIONS

Dairy and Food Commissioners Weigle of Wisconsin and Sorenson of Minnesota have recommended to the Food Administrators of these states that cream buying stations be limited. They point out the waste of time in having one or more cream buying stations in a town where there is a local creamery, how these institutions encourage the production of a low quality of cream, and the difficulties they enforce upon the local creamery.

We agree with these commissioners that there is no necessity of a cream buying station in a town where there is a local creamery already properly serving the producers of milk, and in a town where there is no creamery there is no excuse for more than one properly conducted cream station. We also know that the average cream buying station encourages a lower quality of cream, because it often accepts cream refused by the local creamery.

It is our firm conviction that farmers who sell cream to cream stations where there is a local creamery are following a shortsighted business policy. Many times have the farmers destroyed the local creamery and then have been forced to sell their cream below market price. Such instances have brought forth much complaint by the farmers, but nobody was to blame for the situation except themselves. They had played into the hand of the competitor of the local creamery and killed it.

While we recognize the evils of many cream stations and the wisdom of supporting the local creamery, as do Commissioners Sorenson and Weigle, yet we do not agree with them as to the remedy. As a war measure their remedy may be accepted and prove effective. But in times of peace we consider their remedy worse than the evil which they are trying to correct. Who is going to determine which one of the several cream buying stations shall continue in business? Who has the right to direct the farmer to sell his cream to a creamery instead of a cream station? These are questions that must be answered. What could be more autocratic than a government directing the producer to sell their products to certain concerns or limiting the number of concerns that may enter a certain business? The principles of control of creameries and cream stations recommended by Commissioners Weigle and Sorenson would not only apply to these institutions but to factories, shop keepers, store keepers, etc. At Hutchinson, Minnesota, there are two creameries, one a farmers' co-operative creamery, and the other a private creamery. Both have done well. Who will have the authority to say which one of these creameries shall close, or that both shall be permitted to run?

It is the duty of dairy and food commissioners to force food producers to provide wholesome foods, to direct how this shall be done, and to see that foods are properly labeled. It is going too far when these men desire to limit the number of institutions providing foods for the market. As a war measure, to save food and transportation, it might be well to grant some one the arbitrary power of limiting the number of cream stations. But in times of peace this principle of government would not be tolerated.

ACCREDITED HERDS

Through the efforts of the Bureau of Animal Industry, the United States Live Stock Sanitary Board, and state governments, accredited herds are being established. On page 132 of this week's issue will be found an article entitled "Wisconsin Accredited Herds Transferred", and it gives the regulations providing for the establishment of accredited herds. Recently we published a list of the accredited herds in Wisconsin and would willingly publish a list from every state. So far, only a few states have established accredited herds, but it is only a matter of time when every state will have many herds on this list.

It is to the advantage of every breeder to so handle his herd that the state will put it upon the accredited list. It will require but a few years to get all pure-bred herds on this list, and with good management the cost will not be unreasonable. The profit and advantages to be gained by having a tuberculosis free herd, and so recognized by both the federal and state governments, will more than pay the expense of putting a herd upon the accredited list.

The breeder must ever bear in mind that the purchaser of pure-breds is growing more exacting regarding tuberculosis. This is recognized by the leading breeders and sales companies and they are selling animals subject to being returned to them unless they successfully pass the tuberculin test 60 or 90 days after the sale. We must bear in mind, too, that the United States will be called upon to replenish the herds of Europe and that the buyers who come from that country will be very particular about tuberculosis. They will hesitate to purchase animals from a herd containing any tuberculous animals, even though those they select may pass the tuberculin test. In other words, they will want no cattle that have been associated with tuberculous animals or exposed to this disease.

Buyers will pay more for cattle from an accredited herd, because they have the assurance that such herds are not only free from tuberculosis, but every avenue of infection has been checked as far as possible. Breeders who have not considered placing their cattle on the accredited list should give serious consideration to its advantages.

Ice or Mechanical Refrigeration

We want to know whether we should put in a refrigerating plant in preference to buying ice in Savannah, two miles from here, present price 33⅓ cents per hundred pounds. Before the war ice was selling at 15 cents. If you would advise putting in this plant, then would you suggest that we get a larger boiler than would be required for sterilization purposes only, or would you use a boiler only large enough to take care of sterilization pur-

oses? If you think we should increase the boiler or this purpose, then, what size engine should we se in connection with it? Would a two-ton refrigrating plant be large enough to take care of the ooling of the milk from 150 to 200 cows? We have 12 H. P. stationary gasoline engine used for cutting silage and grinding feed about 150 feet from ilk house. Is there some way of utilizing this engine for our power for milk house and refrigerator?

Savannah, Ga. L. F. R.

Professor L. M. Schindler of the Wisconsin College of Agriculture gives us the following reply to he above inquiry:

It is doubtful whether a small refrigeration lant would prove more economical under present onditions than the use of ice at 33⅓ cents per undred pounds. The cost of refrigeration appaatus and ammonia has experienced a considerable ncrease due to war conditions. Allowing in addiion for the increased cost of fuel and a fair perentage for depreciation, would in most cases make his method of refrigeration more costly than ice t the figure suggested.

A two-ton refrigeration plant will cool the milk f 200 cows. A ten-horse power boiler should be sed for power to operate the plant and to furnish team for sterilization purposes. A five-horse pow-r steam engine is usually recommended for a lant of this size. Electric equipment might be intalled to operate the refrigeration plant, using the welve horse power gasoline engine now in use for eed grinding. As steam boilers, however, must be sed for sterilization, it would be much more conenient to operate the refrigeration plant by team.

Curing Clover Hay

Please give me the various methods of curing lover hay.

Kent, O. I. C.

There are nearly as many different ways of curng clover as there are men, but there are, of ourse, well defined practices that are more or less enerally accepted. Concerning the best method f curing clover, Joe Wing once said:

"There are, however, a thousand contingencies f weather that will interfere with any well devised rogram of clover hay making in the land of sumer showers. One must be a schemer, ready to ake advantage of sun and wind, prompt to act hen sudden dark and portentous clouds roll up in he West, patient and unstinting in cocking, openg out to dry, and cocking again."

Something over a year ago, Professor Andrew oss gave us the following very interesting discuson of various methods of curing alfalfa hay:

"Clover for hay should be cut as soon as the first lossoms begin to turn brown. If a large amount to be cut with a small crew, one should begin ven earlier to prevent the last of the crop from etting too ripe before it is cut. The general tenency, among those not familiar with the method f making clover hay, seems to be to let it become o ripe before cutting. The longer any hay crop left uncut after its bloom has reached the proper age, the more indigestible it becomes. The only ondition that should be permitted to delay the utting beyond this point is prevailing bad eather.

"The mower should be started in the evening beore the dew has fallen or in the forenoon as soon s the dew is off; and it is not wise to cut down too uch at one time.

"Clover hay should be cured in the shade, and ot exposed to the hot sun unless it is frequently rned. The sun quickly dries the thin leaves, using them to become brittle and easily lost. The aves are the most valuable part of the hay. The ying of the leaves also closes the natural annel for the moisture to get out of the stems. fter the clover has been cut, it should be turned ith a tedder, side-delivery rake, or hay rake, as on as the leaves in the upper part of the swath e thoroughly wilted. The object should be to ep the hay loose in the swath or windrow, that e wind may have a free circulation through it, d to keep it from exposure to the hot sun as far possible. Before the leaves and stems become y and stiff, the hay should be raked into windws.

"If hay is cut in the forenoon, and the crop is ot too heavy, good weather will permit it to be t into the windrow by night. If it looks like in when it is being raked, it should be put into ell-made cocks, and, if possible, covered with oth covers. If the weather appears likely to conue good, the clover should be left in the windw over night and turned once or twice the following forenoon.

"In good weather it should then be fit for the stack or the mow the second afternoon. If the weather is such that the hay is not fit to stack, but will still go into the cock, it should be put into good sized cocks and left for some time.

"Clover cured in the windrow or in the cock does not become dry and stiff as does that exposed to the sun in the swath for a day or two. The stems are soft and pliable, and they form a cock of hay that will shed much more water than when they are cured in the swath by exposure to the hot sun.

"The fact that clover stems are quite large and succulent frequently causes this hay to be left longer to cure than is really necessary. It is surprising how much sap may be present in clover hay when stacked, and still have the hay come out in excellent condition. A little experience will enable one to determine the degree to which clover must be cured before it is stored. Overcured hay is neither as palatable nor as digestible as hay that is properly cured.

"Good clover hay is so valuable and necessary on the farm that no effort should be spared to cure it in the best possible manner. Cock covers from four to five feet square, made of duck or muslin, are practical to use in protecting hay from sun and rain. They can be used several times each year and will last several years if given proper care. This will reduce the cost per ton to a relatively small amount, ranging from 25 to 50 cents per ton for the covers, and the additional labor of handling them.

"Where clover is put into the cock, it is advisable to open up the cocks and permit them to air a short time before taking them to the stack or mow.

"If the hay is put into a stack, the stack should be started upon a bottom of poles, brush, straw, or old hay. Where it is placed directly on the ground there is bound to be more or less spoiled hay in the bottom. Clover hay does not shed water, and it is advisable to top out clover stacks with rather green timothy, prairie, or slough hay, putting on enough hangers to hold the top in place.

"There are a few variations in the methods of making good clover hay, but the real secret, no matter what the methods, is to cut it at the proper time and cure it "in the shade" as much as possible, being careful to avoid a hasty drying up of the leaves and overcuring. Properly cured clover hay will sweat in either the stack or the mow, but unless it is unevenly packed and loose, no alarm need be felt if it gets warm."

How to Increase Clover

Upon our 160-acre dairy farm we have six twenty-acre fields, lying on either side of a lane, upon which we desire to practice the regular rotation: corn, oats, and clover, forty acres to every crop. We have been seven years trying to improve the land, and the corn and the oats show results, but the clover we cannot depend upon. Why is this? We have tried it under rye, wheat, and oats. We have applied limestone.

If we ever can get it growing surely and strongly, will we be better off to let it stand upon any one field for two years, or one only? Also, which is the better farm practice, to pasture it in the fall before the spring when we are going to turn it over, or to let it grow undisturbed? The land is level, partly a sandy loam, partly a clay loam. Will we succeed? We are trusting Hoard's Dairyman, but the way seems long and we are short of hay, and have to rent pasture.

Illinois. A CITY FARMER.

We cannot tell of any short and rosy path to success in growing clover. Owing to conditions of weather, or for some other unexpected cause, nearly every farmer has years when his clover will not make a good crop. However, if the proper farm practices have been followed, the clover seeded on well drained soil and on ground that contains a proper amount of the necessary fertilizing constituents, there is no reason why success should not generally follow. Just what is the trouble in this particular case, we are unable to say.

If the grain and corn does well on these fields, then clover should also do well providing the soil is not acid. That the soil is not acid would be indicated if it does not show any improvement when limestone is applied at the rate of two tons or more per acre.

The soil may be deficient in phosphorus, which is quite generally true of the prairie soils of Illinois. If so, the application of 1,000 lbs. of rock phosphate in connection with a green manure crop or stable manure should produce good results. If quicker returns are desired, the application of 250 lbs. or more of acid phosphate per acre should be productive of excellent results.

Whether the clover is to stand one or two years and whether it should be pastured in the fall depends largely upon what it is desired to accomplish. In the ordinary farm rotation, it is desirable to let clover stand for two years, providing it makes a good growth. If the clover is to be used as a green manure crop, then it is not desirable to pasture it in the fall, particularly where the ground is to be fall plowed. An attempt should be made to plow under a goodly portion of the green crop if the best results are to be secured. In order to bring their land into better growing condition at as early a date as possible, many farmers either cut their clover for hay the first year only or in some cases cut it but once the first year and plow under all the subsequent growth. Pasturing in the fall gives excellent feed for the cows, but if the ground is to be plowed under that fall or early in the spring, it will not, of course, work to the advantage of the soil itself. However, if the field is given sufficient time to recuperate and is not pastured too closely, it is quite possible that the feed afforded the cows will more than offset such damage as may possibly be done to the crop as a green manure.

Alfalfa Turns Yellow

The first crop of alfalfa we cut this year was very plentiful, good, and healthy. Ever since that time, however, we have had a severe dry spell. Gradually the alfalfa plants turned yellow and began to dry, and our second cutting was just about one-third as much as the first. There is just small evidences of the alfalfa plants coming up again.

What we desire to know is, do you think that the drying of the alfalfa is due entirely to lack of rain or is there a possibility of a disease having gripped the plant? Furthermore, do you believe that with the coming of rain the plants will again thrive?

St. Louis, Mo. A. F.

We have experienced the same trouble in certain of our own alfalfa fields, and we have not yet been able to satisfactorily explain it. We know, however, that the third crop is coming along in somewhat better condition but whether there has been a loss of vitality in the plant, or whether some fungus disease has attacked it, we are unable to say.

It is reported in several cases that cutting alfalfa before the shoots commence to start will sometimes cause this trouble. Also cutting after the shoots have got too long will bring about similar difficulties. This past winter we talked with Mr. Readheimer of Illinois and he informed us that they have noted in several districts of that state that alfalfa last summer failed to make a good growth and the shoots did not start. These farmers who cut the crop as soon as the growth ceased secured a very good crop, while those who waited for the shoots to appear were quite grievously disappointed in the succeeding cutting. It was his contention that while under normal conditions the appearance of the shoots indicated the time to cut, yet there were occasions when it could not be relied upon. He felt that the alfalfa should be cut as soon as it is noted that a certain crop has ceased to make further growth.

We have not heard of any alfalfa disease or parasite that has attacked the alfalfa in Missouri. Further west, of course, they have the alfalfa weevil which is doing a considerable amount of damage and which would bring about results similar to those described. We doubt whether this is the trouble, however. We anticipate that with the coming of rain the field will come on in good shape. This statement is, of course, predicted on the assumption that the field is not acid and it contains a proper amount of fertility.

Last year we had a dry spell following the second cutting the latter part of July, followed by a pest of grasshoppers that kept the new growth eaten off until fall. These fields did not fully recuperate with the fall rains and what damage had not been done before was fully compensated for by the freezing weather. If any of our readers can give further information, we would be pleased to pass it on to others who may be similarly situated.

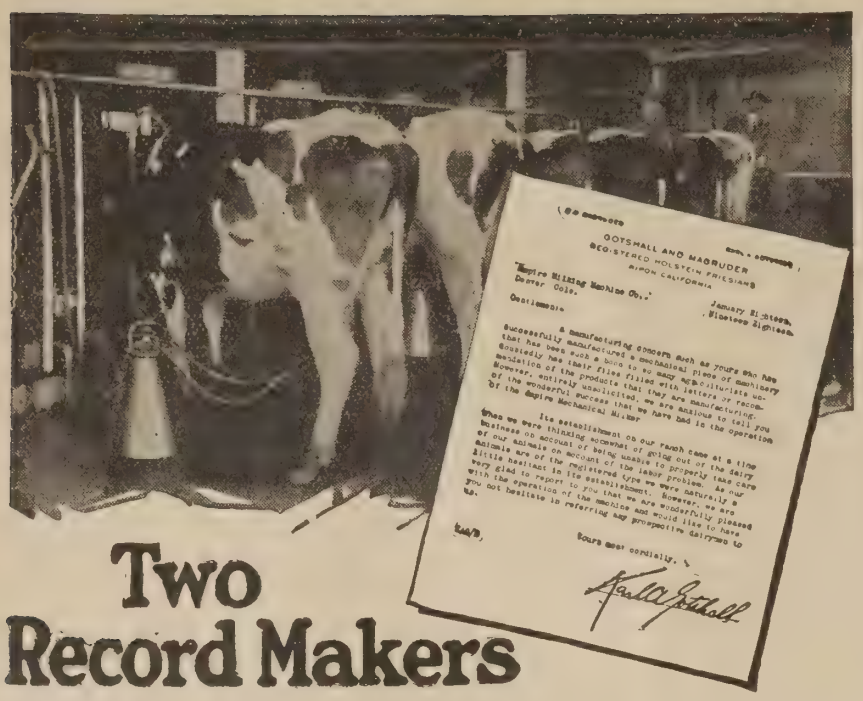
Killing Flies in Barn

I want to get rid of flies inside dairy barn. What shall I mix with milk to kill them?

Newport News, Va. R. A. B.

One of the most effective of fly poisons may be made of a mixture of formalin and milk and water. The proportions of the mixture should be approximately one teaspoonful of commercial formalin to one teacupful of water or milk. Milk is to be preferred.

Another poison which has given very good success is made by dissolving one dram of bichromate of potash in two ounces of water; add a little sugar to the solution. This poison is not dangerous to human life and is very efficient.



Two Record Makers

THE cow at the extreme left in the above picture is the new California State champion two-year-old Holstein, K. P. Tola Joe, who recently made the fine record of 27.15 pounds of butter in seven days, from 459.1 pounds of milk, testing 4.73 per cent fat. Like many other famous record cows of all breeds, K. P. Tola Joe is milked by an Empire Milking Machine.

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Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Ill.	Lake Co. No. 2	R. Williams	July	451	31	83	Rouse Bros.
Vt.	N. Craftsbury	P. E. Basset	"	351	4	42	Alton White
Wash.	Whitman—Spokane	R. C. Johnson	"	265	43	74	T. S. Griffith
Minn.	Greenwood—Prairie	F. L. Thornton	"	369	33	55	Schroeder Bros.
N. J.	Burlington Co.	J. G. Duer	"	274	4	43	
Wis.	Burnett Co.	V. K. Sherburne	"	474	15	55	W. Wiederholt
Va.	Orange Co.	R. S. Gillispie	"	360	21	62	T. A. Atkinson
Tenn.	Wilson Co.	T. O. Key	"	352	15	53	Osment & Westo
N. J.	Sussex	G. Ball	"	534	36	85	
Col.	Arkansas Valley	G. W. Barr	"	423	8	48	W. P. James
Ia.	Jesup	A. W. Coppock	"	315	11	62	H. A. Houck

Association Notes

Greenwood Prairie, Minnesota: Three unprofitable cows were sold last month. Seven members are finding it profitable to supplement pasture with grain. One new milking machine has been installed and another ordered for spring delivery. This makes the total number of machines in the association 11. The price which the creamery has paid for fat varies from 46c to 49½c. Prices per ton for concentrates are: bran, $36 per ton; oats, $40; oil meal, $59; barley, $42.

Burnett County, Wisconsin: Two pure-bred Ayrshire bulls and one Holstein bull have been purchased, also two pure-bred Ayrshire heifers. One four-year-old Holstein bull with high production breeding has been purchased and a large number of pure-bred bulls are being brought in this fall for bull associations. Scrub sires and scrub cows are fast losing favor here. The creamery pays 50c per pound for fat. Bran sells for $29.50 per ton; shorts, $31.00; oats, $70.00; oil meal, $60.00 Hay is not priced here and is very scarce. Feed is hard to buy as little mill feed is on the market. The association plans on buying cottonseed meal, hominy, gluten meal, oil meal, and alfalfa by the carload.

An association picnic was held Saturday, July 27, near Grantsburg in conjunction with the boys' and girls' club meeting. The date was a poor one as it was in haying and harvest time but the attendance of 60 autos made an excellent crowd. The forenoon was devoted to boys' and girls' pig, calf, and potato clubs, and games were played under the guidance of Mr. Cooper, the club leader. The remaining time was taken up with a splendid lecture by Prof. R. M. Washburn of the Minnesota University on the production and the value of dairy products and he brought out plainly the great value of the dairy industry. He also gave a short cow judging demonstration and then placed the cows for a judging contest, the first of the kind held in Burnett County. Bulletins on judging had been distributed the month before by the tester and the interest was keen. About 25 contestants entered and Miss Parnel Larson, a school teacher, won first on the Guernseys, and Clarence Hanson first on the Holsteins. The contestants had to state their reasons for placing the cattle which counted 40 per cent in the contest and many new points were brought out in these discussions that Mr. Washburn never knew existed. Another contest will be held at the local fair and there will be many contestants. Pitching quoits, five-foot races, and a tug of war were the other features of the afternoon. We will have another picnic next year but at a more seasonable date.

Wilson County, Tennessee: In July the creamery paid 44c for fat and retailed butter for 45c. Cottonseed meal sells for $2.70 per hundred pounds; velvet bean meal, $2.25; and wheat bran, $1.70.

Orange, Virginia: The association has finished its second year's work. Milk is now being sold to the Washington, D. C., market for 32c per gallon, a test of 3.5 per cent being required.

Arkansas Valley, Colorado: Our dairy prospects are brighter than they have been since March. The problem of winter feed is being solved by the heavy cuttings of alfalfa and the unusual growth of ensilage corn. This, together with the rapidly advancing price of milk, will put dairying on a boom in our section. In July milk testing 3.5 per cent sold for $2.35 per hundred pounds. The condensery paid 30c per pound fat and in addition $1.25 per hundred pounds milk. The creamery paid 38c per pound fat. Milk retails for 12c and butter for 50c. Alfalfa hay is valued locally at $10.00 per ton; corn silage, $8.00; wet beet pulp, $2.00; corn chop, $67.00; bran, $35.00; shorts, $37.00; and cottonseed meal, $63.00.

Burlington, New Jersey: Two cows have lately been sold from our association as boarders and seven pure-breds have been purchased together with seven grades. There are seven pure-bred bulls in the association and three grades. E. A. Smith had the highest average herd in July with 46 cows which made a total of 21,972.7 lbs. of milk, containing 998.1 lbs. of fat. They produced this milk at a feed cost of $2.09 per hundred pounds.

LaCrosse County, Wisconsin: The association has just completed a very successful year, having nine Register of Merit cows. Frank Wachlin was elected tester to succeed Geo. Scarseth. New officers of the association are W. D. Sandman, president; Mandly Libakken, vice-president; G. W. Vergeront, secretary.

Whitman-Spokane, Washington: In July 3.6 per cent milk sold for $3.12 per hundred pounds. The creamery paid 47c per pound fat. Milk retails for 14c and butter for 55c. Alfalfa hay costs $28.00 per ton; cocoanut meal, $65.00; oat middlings, $35.00; bran and shorts, $33.00; and oil meal, $75.00. The highest average herd in the association for the month of July was that owned at the County Infirmary and included 22 cows which averaged a production of 770 lbs. milk containing 32.5 lbs. fat.

Arkansas Valley, Kansas: One more pure-bred bull has been purchased and a few unprofitable cows have been sold for beef. Market milk testing 3.3 per cent sold here in July for $2.50 to $2.80 per hundred pounds. The condensery paid $2.30 for milk testing 3.5 per cent. The creamery paid 46c for fat. Milk retails for 11c to 12½c and butter for 47c. Alfalfa hay costs $15.00 per ton; silage, $4.00; corn chop, $64.00; bran, $26.00; oil meal, $68.00; cottonseed meal, $68.00; oats, $45.00;

nd pasture $1.50 per cow per month.
Rice and Cedar Lake, Wis.: The gh cow for July was a grade Guern- y owned by Harry Stout. She pro- nced 904.8 lbs. of milk containing 3.8 lbs. of butterfat.

Ames One-Year Dairy Course

HOARD'S DAIRYMAN:—Dairying in his country is beginning to feel the ffect of labor shortage perhaps to a reater extent than any other agri- ltural interest. The women, some f whom realize the situation, have ome to our assistance and today sev- ral women are in charge of local cow st associations. Mrs. H. M. Rochau f Davenport, Iowa, has recently tak- n up official testing work in Iowa nd is, to our knowledge, the first oman in the United States engaged n that work.

A woman should not be considered o be out of place in the dairy. She as a more acute sense of cleanliness han men, and she is reliable, pains- aking, and accurate about her work, hich are just the qualifications de- anded of the one who expects to ake dairying a success. If we enter dairy school in Europe we find hat half or more of the students in ttendance are women. They work in reameries the same as men and us- ally wherever women are employed he creameries are in a sanitary con- ition.

It has been decided that the one- ear dairy course at the Iowa State ollege shall be open to both men nd women. Many women will be eeded for testing work; such can omplete their courses in a shorter ime but those who desire a more com- lete dairy education should take the egular one-year course which covers he following subjects:

First semester: dairy practice, but- ermaking, milk testing, dairy bacte- iology, dairy engineering, breeding nd judging dairy cattle, dairy chem- stry, soils and fertilizing materials.

Second semester: dairy practice, heesemaking, buttermaking, milk esting, factory management, prepa- ation of ice cream and ices, judging airy products, market milk, feeding nd management of dairy cattle, and eneral farm crops production.

The one-year course in dairying ncludes the general work in creamery anufacturing; viz., buttermaking, heesemaking, ice cream making, and arket milk. These branches are op- rated on a commercial basis every ay of the year. The students are re- uired to spend each forenoon in the airy department and carry on this ork under supervision of the depart- ent instructors. The object is to pply the theoretical knowledge ained in the class room to the prac- ical work in the factory. The labora- ory work is very important since it repares students to be buttermakers, e cream makers, cheesemakers, mar- et milk operators, and owners or op- rators of plants.

The men who have formerly taken his course and who have done satis- actory work here have been placed y the dairy department at good sal- ries. The demand for thoroughly ained men who can operate a reamery, cheese factory, ice cream actory, or market milk plant is reater today than ever before and e also believe that there will be lenty of work for women who have eceived such training.

The dairy course referred to begins his year on September 24. Students hould be here to classify from Sep- mber 21 to 23. For further infor- ation address Dairy Department, owa State College, Ames, Iowa.

Iowa. M. MORTENSEN.

The principal dairy states will waste, this winter, 3½ Billion Pounds of Milk

Simply by failing to get it; failing, too, when it would be easy to produce that increase for a world market that demands every possible ounce of food.

Surely this is not the time to overlook any opportunity for increased dairy production and profit. It is no time for waste or neglect. The bending of every effort toward bigger dairy results, for both patriotic and personal reasons, is the duty of every dairy farmer. Here is one way in which the dairy farmers of the principal dairy states could add this winter 3,600,000,000 more pounds of milk. At $3 per cwt. this would mean $108,000,000 more profit.

These are not wild figures. They represent bed-rock facts, and they mean that if all the cows in the principal dairy states were properly watered with James Drinking Cups they would add 3½ billion *more* pounds of milk to this winter's yield—milk that would be worth to the nation as a whole, and to you in part as a producer, at only $3 per hundred, more than a hundred million dollars.

A tidy sum for the dairymen of this country to think about, isn't it? A sum well worth saving in *any* year, but especially so in this period of advancing food prices, increased milk demand and costly feed.

Then there's your own question of labor, and the protection of your herd from disease, to be thought about in this great crisis. James Drinking Cups give each cow clean, safe water that no other cow has had her nose in. They do away with the hard, cold job of herding the cows out to the tank, herding them in again—chopping open the frozen tank.

There are two shortages for you to think about: The world-wide food shortage, and your own pocketbook shortage caused by your cows not getting all the water they want, *when they want it*, at the right temperature, day or night.

They will give more. All they need is the opportunity. James Drinking Cups spell that opportunity. The milk increase of the average cow will *pay for her cup* in 90 days. At the end of that time the account covering the complete installation will be *squared* as a result of increased profit, leaving you the cups for many years of money-making service, either in your present barn or when re-installed in a new one.

Do *your* part toward getting the extra millions which American dairy interests can produce by making milk out of water. Get *your* share of those dollars. It's easy to buy, easy to install and easy to operate James Drinking Cups. We've solved this great watering problem, and solved it *right*—just as we have so many other questions relating to sanitary barn equipment. Write today for booklet, "How to Make More Milk."

JAMES MANUFACTURING COMPANY
ES23 Cane Street, Fort Atkinson, Wis. **Elmira, N. Y.**

Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes may be had from the

UNITED STATES EMPLOYMENT SERVICE
Branches in all large cities of the U. S.



Running Water

in your Dairy, Kitchen, Pastures—wherever you want it—fresh and cold from the bottom of your well—is yours if you install a

BETHALTO WATER SYSTEM

Can't freeze or get stale or warm. Stays in order and does business. Extremely simple and strong. Easy to install. Write today for free booklet.

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has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load

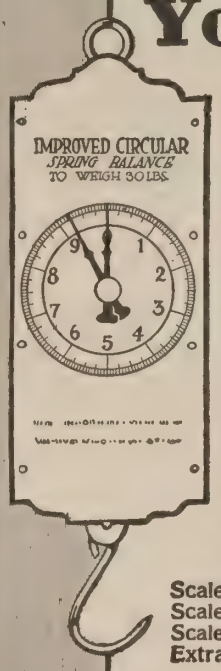


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Pail Balancing Scale

Direct to You For $2.85



JUST the thing to determine the yield of each cow. Especially popular with cream handlers who weigh the cream as collected at the different farms.

On the dial of this scale is a loose indicator which can be adjusted and set by a thumb screw, at the O mark so as to balance the weight of the pail. Thus, the net weight of the milk is shown.

Two
Record Blanks Furnished Free

with each scale. These blanks contain the record of two milkings a day for one week for 14 cows.

Three Capacities

Scales, 30 lbs. capacity, by 1-20 lb. each	$2.85
Scales, 60 lbs. capacity, by 1-10 lb. each	3.60
Scales, 120 lbs. capacity, by 1-5 lb. each	5.80
Extra Records - - net per doz.	.15

Add 20c to your check for Parcel Post. Ask for our Dairyman's Catalog

Creamery Package Mfg. Company
68 W. Kinzie Street
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Plant With These Drills

DRILL-PLANTED fields produce greater yields. Remember that at planting time this year, when every bushel added to your harvest field counts.

The use of **Empire Jr., Hoosier,** or **Kentucky Drills** means not only more grain per acre, but better prices. Drill-planting improves the quality of the grain, for when seed is properly planted, at even depth, and covered as it should be, it comes up all at the same time, grows uniformly, and ripens evenly. Such grain grades high and brings good prices.

The drill that will do the best work for you is in one of these lines. It is handled by some local dealer not far from your farm where you can see it, or you can find out all about it by writing us for drill catalogues. There are drills for planting every kind of grass or grain, with or without fertilizer, in every kind of soil.

The dealer, or the catalogue, will tell you all about feeds, furrow openers, bearings, attachments, etc. All we can tell you here is that you will find just the drill for your work in the **Empire Jr., Hoosier,** or **Kentucky** lines, and that without any trouble or expense on your part beyond the writing of a letter or post card. Why not write it now, before you forget?

International Harvester Company of America
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Alfalfa Hay Grades

The following are the Kansas City Official rules for grading hay, which rules have been adopted by the National Hay Association, with exception of 'Fancy Alfalfa' which was omitted in National Grades.

Fancy Alfalfa—Shall be pure alfalfa, fine stemmed, bright green color, with clinging foliage, and well baled.

Choice Alfalfa—Shall be reasonably fine, leafy alfalfa, of bright green color, properly cured, sound, sweet and well baled.

No. 1 Alfalfa—Shall be, if coarse, of bright green color, and may contain 1 per cent foreign matter. If of finer stem, being of a medium texture, green in color, but not necessarily as bright as the previously described coarse alfalfa. It may contain 3 per cent of foreign matter. Or it may be of fine stem, heavy clinging foliage, of a dull green color, and may contain 5 per cent foreign matter, sound, sweet, and well baled.

Standard Alfalfa—May be of green color, of coarse or medium texture, and may contain 5 per cent foreign matter. Or it may be of green color, or coarse or medium texture, 20 per cent bleached and 2 per cent foreign matter. Or it may be of greenish cast of fine stem and clinging foliage, and may contain 5 per cent foreign matter. All to be sound, sweet, and well baled.

No. 2 Alfalfa—Shall be of any sound, sweet, and well baled alfalfa, not good enough for standard, and may contain 10 per cent foreign matter.

No. 3 Alfalfa—May contain 25 per cent stack spotted hay, but must be dry, and not contain more than 8 per cent of foreign matter. Or it may be of a greenish color and may contain 50 percent foreign matter. Or it may be set alfalfa and may contain 5 per cent foreign matter. All to be reasonably well baled.

No Grade Alfalfa—Shall include all alfalfa not good enough for No. 3.

Organizing for Feed Defense

(Continued from first page.)

are shipping in the golden grain from the Southwest, paying premiums on wheat and excessive freight charges. The feed situation in the Northwest is "tighter" than in the Southwest, a great and broad demand prevailing, with mills of the spring wheat area having only little feed to offer.

Wheat Feeds Lowest in Price

A study of the market prices and feeding value of feedstuffs brings out the fact that bran and shorts, even at the maximum level, are comparatively lower than possibly any other commodity. Many feedstuffs have soared recently to higher levels, and the indications are for further advances, but bran and shorts are held stationary. It would appear from an analysis of comparative feed prices and feeding values that an enormous demand will continue in markets for bran and shorts.

Because other feeds have moved upward recently there is some agitation among bran and shorts trade interests for an advance in the fixed prices on the offals of mills. Formal appeals have been made for advances. One appeal sent to Washington includes an argument that the mill feeds are about $15 a ton cheaper than they would be worth today on the open markets if there were no price restrictions. Many mills already report that they could easily obtain higher prices for their feeds if they were not prohibited by the government from selling at more than the fixed quotations. But the government is not likely to make changes.

Buyers who pool purchases should not overlook that the federal regulations permit them to obtain carlots at reduced prices as compared with less than carloads or mixed cars. Also, if mills nearest the clubs seeking to buy the feed fail to obtain the quantities desired, it would be well for the dairymen interested to appeal to their country merchants to seek this feed when buying flour, and thus accomodate the milk producers. Also, the vendors of mill feed who are not adhering strictly to the profit limitations of the government should be shunned so that the attractive prices fixed by the government will be available to dairymen.

It is needless to hesitate to draw any conclusion from a study of the bran and shorts trade situation as to what is the wisest policy for war feed buyers to pursue. The writer believes it is the duty of every feed club and all other dairy buyers to purchase heavily and early of this feed, and to stock up for future requirements at every opportunity. A bargain basis prevails. Car shortage may intervene to restrict buying opportunities. There will be a wider use of mill feed than ever because of the low price level, comparatively speaking.

Fixed Prices at Mills

The Cereal Division of the Food Administration has promulgated the following schedule of mill feed prices in carload lots, in bulk, at the mill:

Milling Point	Bran	Mixed Feed	Middlings, Shorts, Red Dog
Chicago	$25.26	$26.51	$27.26
St. Louis	24.46	25.71	26.46
Boston	29.66	31.91	32.66
New York	30.26	31.51	32.26
Philadelphia	29.86	31.11	31.86
Baltimore	29.66	30.91	31.66
Nashville, Tenn.	27.46	28.71	29.46
Atlanta, Ga.	31.06	32.31	33.06
Louisville, Ky.	26.86	28.11	28.86
Durham, N. C.	31.26	32.51	33.26
New Orleans	27.26	28.51	29.26
Galveston	29.76	31.01	31.76
Buffalo, N. Y.	28.16	29.41	30.16
Cleveland, O.	27.76	29.01	29.76
Duluth, Minn.	23.36	24.61	25.36
Minneapolis, Minn.	23.36	24.61	25.36
Grand Fork, N. D.	20.82	22.07	22.82
Great Falls, Mont.	16.67	17.92	18.67
Aberdeen, S. D.	19.95	21.20	21.95
Wichita, Kans.	19.41	20.66	21.41
Fort Worth, Tex.	28.66	29.91	30.66
El Paso, Tex.	31.16	32.41	33.16
Omaha, Neb.	22.26	23.51	24.26
Kansas City, Mo.	22.26	23.51	24.26

As mill feeds are sold almost exclusively in sacks, it is necessary to compute the maximum prices in sacks, and not in bulk. The cost of sacks will run from $5.50 to $6, possibly slightly more, per ton of feed. For instance, in Kansas City, where the maximum price on bran in bulk is $22.26, millers quote $27.90 as the maximum level with sacks added. War feed clubs are safe in adding $6 per ton of feed for sacks to the maximum bulk prices. Also, to find the delivered cost of the feed, it is necessary to add the freight charges from the milking station to the point of destination. In sales of less than carlots, such as a mixed car of flour and feed, millers are permitted to add 50 cents per ton to the maximum price of the feed. When purchases are made from brokers, jobbers, and other rehandlers, additional charges are necessary for the support of these trade facilities. These additional charges are limited to $1.50 per ton.

The small retailers, including some country grocers, and commercial feed manufacturers who use bran and shorts are not so restricted as to the selling prices for these feed articles. The country grocer is not licensed by the Hoover administration, and it is reported that some of them are taking advantage of the relatively cheap prices fixed by the government on bran and shorts, making purchases

and re-selling at big profits. Local food administrators are seeking to guard against this, however. Feed mixers are said to be endeavoring to use a larger quantity of bran and shorts in their products than in normal years because of the fact that they will thus cheapen the cost of their mixtures and increase their profits.

Mill feed prices no longer depend on the market prices for wheat. A year ago, the maximum price of bran was equal to 38 per cent of the cost of the wheat, which made bran worth $32 to $33 per ton in sacks, carlots, basis Kansas City. Also, feeds may be purchased and shipped from any territory, but, of course, the most desirable source of supply is the point nearest the buyer.

Milling Percentages

The extraction regulations in the milling of flour are similar to the control rules of the preceding year, except for the fact that only one grade, 100 per cent flour is produced, the remaining portion of the wheat berry making the offals. Millers cannot use more than 264 pounds of 58-pounds-per-bushel wheat in making 196 pounds of flour. The following table shows the allowable feed extraction:

Test weight of Wheat per bushel	Maximum permissible feed returns per 196 lbs. flour manufactured
58 pounds or heavier	68 pounds
57 " " "	72 "
56 " " "	76 "
55 " " "	80 "
54 " " "	85 "
53 " " "	90 "
52 " " "	96 "
51 " " "	102 "

War feed community purchasing organizations should bear in mind that the prices enumerated are the maximum level at which mills may sell their feed, not the fixed basis. Under keen competition to dispose of offerings, which is hardly possible, even though large quantities of feed will be produced, mills may reduce their prices from the maximum level. However, this is a matter of demand and supply, both influences being controlled by numerous factors. In the demand situation, reference must be made to weather conditions, volume of other feed crops, the comparative scale of prices, and the dairy and general live stock situation. Thus far since the new maximum level became effective, there has been a scramble for bran and shorts, the weather situation, the light linseed meal output indicated, and the higher values ruling for other feeds, resulting in a big demand for bran and other feeds produced by the flour mills.

Fodder Substitute in Foreign Countries

(Continued from page 132)

acorns are equal to 5¼ pints of oats. Acorn feeding should be suspended for a week after continuous use for a month. Horses and cattle should have raw acorn crushed and the husks removed. For pigs, the acorns should be crushed into a coarse meal and mixed with cooked potatoes, or cooked with potatoes.

Horse chestnuts are especially good for sheep, one pound replacing three pounds of fodder beets. The maximum ration, however, should be two pounds for sheep. Cattle may receive from four to six pounds for fattening purposes. The chestnuts should be cooked or cut up and well mixed with other food. Pigs refuse them in all forms and they are poisonous to poultry, ducks, and game. In Austria all horse chestnuts and acorns were requisitioned last fall.

Heather has been used extensively in Germany since 1916. It is mown, then chopped, and dried. The leaves and flowers are stripped from the woody stalks, which are then ground. This is known as Heather Meal No. 1, and is used, mixed with molasses and some albuminous material to fatten pigs. Heather Meal No. 2 is made from the stems while still green and containing little wood. They are ground and mixed with molasses, and are used for horses and cattle. Heather is used with great success also among the northern neutrals, where it is dried, crushed, mixed with molasses, and made into cakes. Experiments have been made in several countries with bracken, but this has not been so successful as heather. In Austria, however, the root of the Eagle fern, which grows as a weed in Croatia and Bosnia, is an excellent fodder for pigs. It is stated that a ration of 4¼ pounds is ample for a full grown pig.

The use of foliage, twigs, and young shoots of any trees and shrubs has been largely developed in Germany since 1916. The cuttings of all trees and shrubs may be utilized, with the exception of bird-cherry, laburnum, ivy, acacia, and alder. The material should be collected in the winter before the buds burst. Sheep and goats can eat it unchopped; for other uses it should be cut fine in a chaff cutter and used wet or dry; but it must be kept dry if preserved at all, otherwise it will mildew. This year it will be collected officially in Germany.

The German Leaf Fodder office states that "the young spring leaves are the most valuable for the making of leaf fodder, as the cellulose is still tender and soft and its layers supple and alive. The cells are full of life and filled to the utmost with plasma and sap. They are rich in salt, starch, and sugar. Hence, it should be collected chiefly during May and June, as it contains more nourishment then than later in the summer. Ten hundredweight of leaf fodder collected in May and June contain the same amount of digestive matter as fourteen hundredweight collected in the autumn. It is also more nutritious then, gives the horses an appetite, strengthens their digestion, and is good for their health." The only fodder substitute of this sort used in France to any great extent is vine waste.

The varieties mentioned above are the only ones which are now commonly used. There are numerous other fodder substitutes, however, some of which are most ingenious. Pine and fir needles have been used in Sweden, potato tops in Norway, hazel catkins have been dried and used as a sort of fodder flour in Germany, and in Austria-Hungary stinging nettles were being resorted to last January. Perhaps the strangest fodder substitute of all, however, is cockchafers, a kind of beetle which are being collected throughout Germany and Austria by school children, and are reported to be excellent food, when dried, for pigs and poultry—U. S. Food Administration.

If you run your household on the sugar allowance Uncle Sam asks you to, or less if possible, the grocer this fall won't have to hang up a sign: "No Sugar."

"The American people will gladly make any sacrifice in consumption and in the production of foodstuffs that will maintain the health, comfort, and the courage of the people of the allied countries. We are, in fact, eating at the common table with them."—President Wilson.

Who Fills Your Silo

THERE'S just one way of being sure of a full silo of clean cut ensilage. That is to fill with your own equipment. A farm gas or kerosene engine developing as little as 3 or 4 horse power will operate a small

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There's a PAPEC dealer in your locality.



Get A Gehl Silo Now



Act quickly to save your corn crop—to save money—to back up your government. Councils of defense and other war winning organizations as well as agricultural authorities are urging farmers to build silos this year so as to increase and conserve food supplies.

We Can Ship Immediately

Special attention will be given to rush orders. We have the material in stock and can make prompt shipments.

Gehl Silos are made of the best ensilage-preserving wood in the world—clear, straight-grained Oregon Fir which is recognized as the best silo material, not only because it is very strong, lasting and durable, but because it keeps the air out and the moisture in, preserving the ensilage in perfect condition and retaining the appetizing flavor that makes the cows relish it.

Gehl Silo lumber is perfectly milled to standard silo pattern and is strictly clear and free from knots. One or two piece staves in any length up to 40 feet. As our contribution towards this silo campaign we will allow

A Special Discount on All Sizes

ordered during August and September. Write today for full information. State size of silo you want.
If interested in ensilage or alfalfa cutters ask for cutter catalog.

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Clear and Clean as Water



B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."

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Send at once for FREE INFORMATION on Buckeye Extension Silo Roof. Greatest ever—25% more capacity—protects silage from snow, rain, birds, etc.—no second filling—pays cost first year—many patented features—operates from ground—numerous testimonials—cut shows roof open.

AGENTS WANTED

We can make a good proposition to present silo agents, or others, to handle our line of metal roofs, cribs, bins, etc. If interested, write at once to

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FAMOUS FOR ITS MARVELOUS MOTOR

This Is a Car You Need In Your Business

A FARMER said recently, "To take the automobile from the farmer would be like taking the railroads from the country."

It is very generally agreed among intelligent people that the automobile is primarily a necessity to the progressive farmer.

Any automobile is of service to you.

The Chandler is of most *dependable* service to you. And in your business you want a dependable car.

The Chandler is like the big fine railroad, with rock-ballasted roadway, great steel bridges, bad grades cut down, mighty mogul locomotives and clean, deep-cushioned, easy-riding steel coaches.

The Chandler is famous for its marvelous motor, Chandler-designed and Chandler-built and now in its sixth year, without radical changes but with constant refinement until today it approximates perfection.

The Chandler motor is full of life and power. It will take you *anywhere*, and get you back quickly if you want to drive fast.

Nearly fifty thousand Chandler owners, many of them successful farmers, are Chandler enthusiasts.

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7-Pass. Touring Car, $1795 *4-Pass. Roadster, $1795*
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There are Chandler dealers in all principal cities and in a thousand towns. Some one of them is in position to show you the newest Chandler models. Write us today for catalog and folder "How Chandler Checks with High Priced Cars"

CHANDLER MOTOR CAR CO., Cleveland, Ohio

Let a man once get the pure clean taste of Real Gravely Chewing Plug—and he bids ordinary tobacco good-bye.



Peyton Brand
Real Gravely Chewing Plug
10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

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When Writing to Advertisers, Mention Hoard's Dairyman

Abortion

I have a herd of 10 grade Holsteins and 2 pure-breds and have lost 6 calves in the last 18 months. The cows abort at about 7 months. How can I find out if this is contagious abortion? If it is, would a cow be sure to abort every time or is there a chance of her raising a calf after she has aborted once? Would it be best to sell off the herd and start over or to sell the ones that abort and buy others?

Medford, Wis. H. B.

To find out if contagious abortion is present you could have a sample of blood from each cow tested at the state experiment station. It may, however, safely be taken for granted that contagious abortion is present and there is no specific remedy. A cow may carry her calf the full time after abortion, once or oftener. You might as well keep the cows and after cleansing, disinfecting, and whitewashing the stable and having the cows disinfected by a veterinarian, use disinfectants in the stable twice a week and have each cow and heifer thorougly disinfected before breeding.

Jersey Cattle Notes

For week ending Aug. 2, 1918:

Number of animals registered: Bulls, 164; cows, 404; total, 568. Number of transfers recorded: Bulls, 191; cows, 589; total, 780.

Kentucky Tester Law

The Kentucky legislature has passed a law requiring each creamery and skimming station, and in fact every dealer who buys cream in Kentucky, to procure a license from the Kentucky Experiment Station. Also the man or woman who operates the Babcock test in each establishment shall procure a license from the experiment station. Also only tested glassware shall be used in making Babcock tests. An examination of men who desire to make Babcock tests will be held at the experiment station at an early date. All interested are advised to procure a circular of information that is being issued by the experiment station. The law becomes operative immediately and a fine is imposed on any one who neglects to obey the law.

Kentucky. J. J. HOOPER.

DAIRY MARKETS

CHICAGO, Aug. 15—Butter, creamery, extras, 44½c; extra firsts, 44½c; dairy, firsts, 39½@43½c; seconds, 39@41c.

Eggs—Ordinary, 35½@36½c; firsts, 37@38c.

Cheese—Twins, 24¾@25c; Young Americas, 26@26½c.

MILWAUKEE, Aug. 15—Butter—Creamery, tubs, 44@44½c; prints, 45@45½c; extra firsts, 42½@43c; firsts, 39@40c; dairy, fancy, 40c.

Eggs—Current, receipts, cases returned: 36@37c; cases, new included, 37@38c; miscellaneous, cases, 36½@37½; dirties, 33@34c; seconds, 30@31c; checks, 29@30c.

Cheese—Twins, 25@25½c; dairies, 24½@25c; Longhorns, 26½@27c; Young Americas, 26c; Brick, new, 28@29c; Limburger, new, 1 lb., 27c; 2 lbs., 26c; Swiss, loaf, 42@44c; block, 32@34c.

SHEYBOYGAN, Aug. 14—On the Sheboygan call board ten factories offered 510 cases of Young Americas. All sold as follows: Fifty cases at 26⅛c and 460 at 26c.

PLYMOUTH, Aug. 14—At the Wisconsin Cheese Exchange, twenty-five factories offered 3,355 boxes of cheese. These sold as follows: 170 Squares, 27¼c; 375 Twins, 24½c; 1,900 Daisies, 25⅞c; 325 D. Daisies, 25⅝c; 25 Young Americas, 25½c; 560 Horns, 25¾c.

APPLETON, Wis., Aug. 13—Seven factories offered 365 boxes of cheese on the local call board on Tuesday. Sales were 237 Twins and 83 Cheddars at 24½c and 45 Double Daisies at 25⅝c.

SPRING GREEN, Wis., Aug. 13—Offerings of cheese on the Spring Green dairy board of trade on Tuesday were 984 boxes of Single Daisy cheese. Of these 620 boxes sold at 26⅞c and 364 boxes were withdrawn.

NEW YORK, Aug. 15—Cheese—Firm; state milk, common to specials, 21@26c; skims, common to specials, 5@20½c.

Butter—Steady; receipts, 7,597 pkgs.; creamery, extras, 45¾c; state dairy, tubs, 46@46¾c; imitation creamery, firsts 38@45½c.

Eggs—Firm; receipts, 14,248 cases; nearby white, fancy, 60@63c; nearby mixed, fancy, 38@48c; fresh firsts, 40@48c.

WE FED YOUR COWS

TRADE UNICORN MARK

¶ Almost every high American record for fourteen years with any breed was made with our Ajax Flakes as an important base of the grain ration.

¶ Unicorn Dairy Ration is the only feed that contains Ajax Flakes.

¶ You can hardly find a pure blood whose maternal ancestors were not fed on Ajax Flakes or Unicorn Dairy Ration.

¶ Unicorn is recognized as a safe, efficient and economical dairy feed.

¶ Unicorn during the past year made more high records than any other brand of feed.

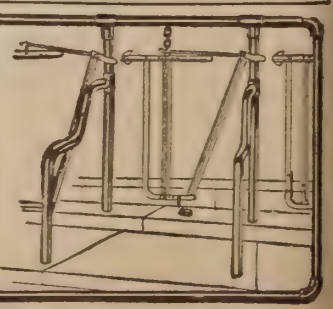
¶ Unicorn really costs less per pound of milk or fat produced than other feeds.

Chapin & Co., Dept. Z, Chicago

$7.60 Buys this Harris Sanitary Cow Stall

complete with Stanchion. The Stanchion has adjustable neck space—will fit anything from a small calf to a big bull. Wood-lined—no cold steel touches the neck. It is equipped with Sure Stop Bar and absolutely cow-proof latch. The Stalls are made of genuine, large-size (1½ in. inside diameter) steel pipe. Complete—any width—$7.60. Write today for descriptive folders.

Harris Mfg. Co., 540 Main St., Salem, O.



TABER LINED SILO

"LINED" (Pat. App. for) Acid-Proof Lining keeps air out—and moisture and juices of corn away from staves. Prevents rot—freezing and spoilage.

Shipped in 24 Hours

Made of *absolutely clear* Long Leaf Yellow Pine boiled in Creosote. Acid-Proof Lined, Painted outside, Double Anchored. Won't blow down.

Non-Shrinkable

Rot-Proof Acid-Proof

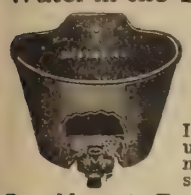
No shrinking or swelling of staves. No frozen silage. Finest circle doors and frame.

FREE BOOK (just out) on Silos and Silage. *Write for it Today!*

TABER LUMBER CO. 1204 Main St. Keokuk, Ia.

Est. 1855

Water in the Stable a Necessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

Get Cash

For Your Empty Bags

Don't throw away a single bag—they're worth money to you. Prices are way up now. Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.

WERTHAN BAG CO.
57 Dock St. St. Louis, Mo.
Branch Offices: Houston and Nashville

WERTHAN PAYS HIGHEST PRICES FOR EMPTY BAGS

Big Wartime Special

ELKSKINS $1.45 PAIR



BEST wear work shoes. Seamless sides sewed and nailed leather soles, full length back stays, nickle eyelettes sewed tongues. Youths sizes 10 to 13½ $1.45, boys 1 to 5½ $1.95, mens 6 to 12 $2.95—all sent FREE. Mens black and brown, others brown.

BATES BOOTS, Lansing, Mich.

RED ROCK The New Wonder Wheat

Originated and developed at Michigan Agricultural College. A large, hard red berry, bearded, hardy, vigorous grower. Greatly outyields all other sorts, superior milling and bread quality. Clean, pure, field inspected seed $3.50 under 10 bushel, $3.25 over 10 bushel. Pure, Clean ROSEN RYE, outyields common rye 30 per cent at $2.25 per bushel. Bags extra for both wheat and rye 55 cts. each. A. H. FOSTER, Allegan, Mich.

DISPERSAL SALE

Gustavus, Trumbull Co. Ohio

Wednesday, Sept. 4th, 1918

100 Heavy Producing Holstein Cows

due to freshen in September and October. 40 one-and two-year-old heifers. Any one wanting high-class dairy stock can find them in this sale. Reached by N. Y. C. R. R. Leave Youngstown 6:20 A. M. Leave Ashtabula 7:05 A. M. Get off train at Kinsman.

TOTTEN & MILLER, P. O. Farmdale, Ohio.

256 Hereford, Angus and Shorthorn STEERS For Sale

Wt., 600 to 1,250 lbs.

CHOICE QUALITY

If interested, write me your wants

HARRY I. BALL, Fairfield, Iowa

Nebraska Breeders' Meeting

The Gage County live stock breeders have planned an extensive campaign for the promotion and extension of better stock in the county.

At the first annual meeting of Gage County, Nebraska, breeders called by County Agent L. Boyd Rist, officers were elected for the coming year as follows: F. C. Crocker, president, Frank Thornburg, vice-president, John Bunte, treasurer, and L. Boyd Rist, secretary.

The following resolution was unanimously adopted at the meeting:

"Resolved, that we, the members of the Gage County Live Stock Association assembled this day in annual meeting, do pledge ourselves to do our utmost to aid and support the government in winning the war, and to exert our best efforts for maximum production of crops and live stock to this end."

A county breeders' directory will be published by the association. This will include a resume of the live stock activities of the county with a list ccntaining the name of every breeder of pure-bred stock.

Gage County has more pure-bred live stock breeders than any county in the state, over 250 men in the county owning pure-bred herds.

Another advertising scheme which will be promoted this fall is the placing of sign boards at the borders of the county. These boards will bear the inscription, "Welcome, Gage County Pure-bred Live Stock Center."

H. J. Gramlich, head of Animal Husbandry Department, gave an interesting address at this meeting.

Nebraska. L. BOYD RIST.

World's Largest Creamery

Australia claims to have the largest creamery in the world, a co-operative manufactory, owned by The North Coast Co-operative Company. During the half year ending April 30, 10,627,543 lbs. of butter were made and sold for $3,895,915. The number of patrons, 1904, as well as the amount of butter made and the price received, constitutes a record in the creamery's history.

Only $2 DOWN ONE YEAR TO PAY



$38 Buys the New Butterfly Junior No. 2½. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here.

30 DAYS' FREE TRIAL Earns its own cost and more by what it saves in cream. Postal brings Free catalog-folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

125,000 now in use

ALBAUGH-DOVER CO., 2161 Marshall Blvd., CHICAGO

Get ¼ to ⅓ More Silage

into your silo—quicker, easier. The HOOSIER SILO EXTENSION ROOF insures a full silo even after silage settles; no refilling needed. Strong. Economical, Permanent; attaches to any silo. Fire and rust proof. Easy to put on and open or close. Guaranteed. Pays for itself in a season. Send for catalog.

SHEET METAL SPECIALTY CO.
20 New York St. Goshen, Ind.

Dairy Alfalfa

WE ARE SHIPPERS OF HAY THAT PRODUCES MILK

FERSON HAY COMPANY
Kansas City, Missouri

READY FOR SERVICE JERSEY BULLS

NOW IS THE TIME TO BUY REAL HERD IMPROVERS

Sires bred for production, type, size and constitution, with the inherited dairy ability of The Sophie Tormentor Family. The Family which has and is producing the Champion sires and the Champion producing cows. The bulls we offer are rich in the blood that produced Sophie 19th of Hood Farm, World's Champion Jersey Cow, 17,557 lbs. 12 oz. milk, 1,248 lbs. butter, World's Champion Long Distance Cow, seven years tests 91,869 lbs. milk, 6,600.8 lbs. butter; Hood Farm Pogis 9th sire of 79 R. O. M. daughters and 24 producing sons; Hood Farm Torono sire of 73 and 21 producing sons; Pogis 99th of Hood Farm at 8 years of age sire of 37, 6 with average records of over 1,000 lbs. butter, the three Champion sires of the breed. These bulls we offer are the kind that will sire hardy cows with size, production, type and prepotency.

TIME IS MONEY, it will help us to assist you in getting the bull you need, if you will write us full particulars as to your requirements and about the price you wish to pay. We can then send you descriptions of several for your consideration. We have these high class bulls to sell. We will need the room this winter and the labor shortage is making our work so heavy we want to sell with as little extra work as possible, writing letters, etc. If you need a high class sire of the leading blood of the world, you can get him at a reasonable price at . . . **HOOD FARM, Lowell, Mass.**

JERSEYS

Jersey Crest Farms

are offering

Bulls and Bull Calves

which are a credit to the breed. Bred for type and production. Let us send you pedigrees and description. Jersey Crest Farms, Oconto Falls, Wis.

Jersey Bulls

FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.

FRANK P. CURRAN, - TAYLOR, WIS.

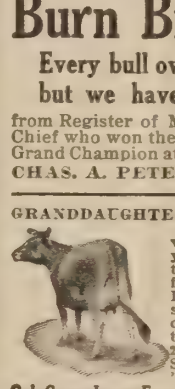
Burn Brae Jerseys

Every bull over 8 mos. old is sold, but we have some fancy calves

from Register of Merit dams sired by Ibsen's Chief who won the A. J. C. C. gold medal for Grand Champion at the Wisconsin State Fair, '17.

CHAS. A. PETERSON, Rosendale, Wis.

GRANDDAUGHTER OF NOBLE OF OAKLANDS



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.

P. G. WARMINGTON, Honey Creek, Wis.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.

Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write

FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm*. Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.

R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.

J. Q. EMERY AND SON, - Edgerton, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address

ROLLIE VANDERVORT, Tomah, Wis.

Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.

ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE.

Wineland Farm Jerseys

Big Milkers—Prize Winners.

100 Head - - 100 Head

A few for sale.

H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

Fairview Farms, Inc.

Sophie's Tormentor Jerseys

"Production" Our Watchword.

FOR SALE Bull Calf No. 267, an extremely good individual and excellently bred; dropped June 23d, 1918; solid color with black tongue and switch.

SIRE: Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85 per cent butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.

DAM: Rose Bosnian 352727, in the R. O. M., Class AA—480.95 lbs. 85 per cent butter in 1 year from 6,156.3 lbs. milk, at 2 years of age.

Price delivered in U. S. A. $150.

R. L. Pike, General Mgr., Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address

FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.

14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow. Prices reasonable.

Byron E. Skillings, R. No. 5, Springfield, Ohio.

The Blood and the Bull

You should head your herd with a grandson of

Gamboga Knight

His dam, granddaughter of Oxford You'll Do. She is faultless in conformation, solid golden fawn heifer giving 38 lbs. 5.4 milk as two-year-old on herd feed. This calf is right in every way, was dropped Mar. 28, 1918, will be solid dark golden fawn, has the production, size and type. He is an exceptional calf and one that you will be proud to own. First check for $150 gets him, with all papers, crated and loaded. Act now.

MEADSIDE FARMS, - Meadville, Pa.

Lookout Farm Jerseys

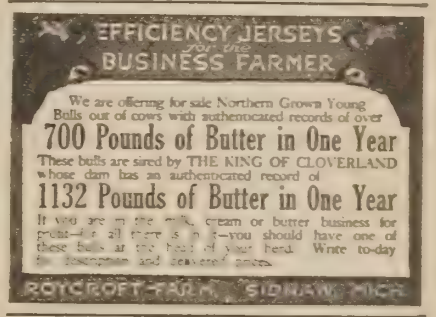
A Rare Opportunity Is Offered

to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.

SIRE, Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.

DAM, Laddie's Prize, 317582, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.

Henry S. Redfield, 1925 Seventh Ave., New York City.



Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.

The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

OWL-INTEREST

Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.

His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.

His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on retest has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address

MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Running a Cream Separator

How many of you ever use a cream separator? Nearly every Hoard's Dairyman Junior does sometimes and a great many of you have to use one every day, for where cream is sold or butter made it usually falls to the lot of the farm boy to do the separating.

It is, therefore, up to you to know how to operate a separator. Can you do it? Every one of you would probably answer "yes" to that question and yet we wonder whether you really do understand all about it. Do you know just what will increase or decrease the loss of butterfat in the skimmilk? That's something worth knowing and it is something a good many of us don't seem to know or at least to remember. Two of the important factors are: temperature of the milk at the time of separation and the speed at which the machine is operated.

Temperature of the Milk

Do you know that it makes a difference whether milk is warm or cold when it is separated? It does, and an important difference, too. The cream separator skims best when the milk is at fairly high temperatures,—from 85 degrees to 95 degrees F., which is only a little below the body temperature of the cow. Of course it would do just as well if the milk were much warmer but it is not at all necessary. At a lower temperature, say about 70 degrees, the milk flows slower and more butterfat appears in the skimmilk.

The New York Experiment Station tried it out to see if it were true. They took several cans of milk and standardized it so that it all contained the same per cent of butterfat. One can was separated at a temperature of 90 degrees F., another at 80 degrees, and a third at 75 degrees. Samples of the cream and skimmilk for testing were taken each time. All the milk was run through the same separator and the machine was run at the same speed each time.

When the different samples of skimmilk were tested, they found that the milk run through at 90 degrees tested .02 per cent, that separated at 80 degrees .04 per cent, and that which was at 75 degrees tested .07 per cent. Certainly the temperature did make a difference. Just what that difference would amount to on a small dairy farm, we can easily figure out.

Suppose that this particular dairy herd is producing 400 lbs. of milk a day. After being separated that would mean about 320 lbs. of skimmilk every day or 9,600 lbs. during the month. If there was .02 per cent of butterfat in the skimmilk, it would amount to a total of 1.92 lbs. during the month. On the other hand, had the milk been separated at a temperature of 75 degrees F., so that the skimmilk tested about .07 per cent, the loss for the month would have been 4.8 lbs. greater. At 50 cents per pound this extra loss would have amounted to $2.40. Worth saving, isn't it? It certainly is and, moreover, from a large herd the loss would of course be greater.



One of the Tippecanoe County, Ind., Sheep Club boys taking a lesson in shearing sheep.

It will pay you then, to separate the milk while it is still warm,—as soon as possible after it is drawn.

Speed

The speed at which the separator is run is another important consideration. Notice the directions that came with your separator and you will undoubtedly find that the manufacturer recommends that the handle be turned a certain number of times per minute.

Now there is a good reason why that separator should be run at such a speed and in order to understand it, you must know how the cream separator works. When the handle is turned, that inside bowl revolves at a high rate of speed as you undoubtedly know and when the milk is whirled rapidly in this way, the heavier part goes to the outside and the cream, which is lighter, is drawn off from the center of the bowl. If that bowl does not whirl fast enough you can readily see that the separation of cream from skimmilk would not be complete and some of the butterfat would be lost.

This is exactly what happens when you get to thinking about something else and forget to keep the separator running fast enough. You are wasting butterfat, and that same thing is happening on many dairy farms in this country every day. Men who have studied these losses claim that on a great many farms they amount to from 7 to 12 pounds of butter per cow every year. That's a good deal to pay for carelessness. Is it true on your father's farm?

My Start in Dairying

HOARD'S DAIRYMAN JUNIORS:—I have been a Hoard's Dairyman junior ever since it has started and always read the junior page and every year help get Hoard's Dairyman subscriptions and it is a great thing to me. I am going to stay by the Hoard's Dairyman and learn more about cattle.

Now I am going to tell you juniors how I got my start. When I was a boy about 10 years old my father gave me a pig and I sold it for $14, and then bought a grade calf and sold it, and got another and raised it up and sold it, and got another and raised it and sold it, then got a colt and kept it a year, then sold it. Then bought another calf. My father always feeds my stock for helping him. After I had 3 grade cattle I wanted some registered cattle. I got Jerseys. I had them about 2 years and I thought I would rather have Holsteins so I sold some of my Jerseys and got Holsteins. I still have an imported Jersey cow left. She made a record of 346.8 lbs. fat last year. This is the way I worked my way up with my own money.

Now I am going to tell you juniors about my Holsteins. The heifer's name is Fayne Concordia Korndyke, born Dec. 20, 1916. Her sire's dam is an 18-lb. (14.4 lbs. fat) 3-year-old and her dam is a 16-lb. (12.8 lbs. fat) heifer. She made this record at 22 months of age and her 7 nearest dams average 21 lbs. (16.8 lbs. fat) and there is only one dam in the pedigree that is untested. This is what the Hoard's Dairyman has done for me. My cow's name is Linnwood Ruby Hengerveld, born Oct. 9, 1915. She has an A. R. O. record of 13.30 lbs. butter (10.64 lbs. fat), 241.30 lbs. milk, average test of fat 4.41 at the age of 24 months. Her sire's dam has a record of 31.01 lbs. (24.8 lbs. fat) in 7 days at 6½ years old and 895.5 lbs. of butter (716.4 lbs. fat) in 1 year at 2½ years. Her dam is a 16-lb. (12.8 lbs. fat) 4-year-old. This cow is bred to a 22-lb. (17.6 lbs. fat) bull. My cow was in the Howell April sale. I bought her for $205. She will make a good start for a 16-year-old boy and the heifer, too. I have got 3 cattle in all and would like to hear from some of the juniors. My address is Capac, Michigan. I also have a number of pure-bred Flemish Giant rabbits. I have a doe 5 months old and she weighs 7½ lbs.

I wish good luck to the Hoard's Dairyman juniors.

Michigan. ELLIS TOSCH.

Junior Letters

Hoard's Dairyman Juniors:—As I have not written for a long time perhaps you may think I have withdrawn. I was so busy with my school work. I was in the eighth grade and passed the county examination. I tried to get subscriptions for your paper but failed to do it as many of the farmers take the paper already. I like to read the Junior page very much.

All the crops look good except the hay. The hay is very thin because the clover is all killed out. Our corn is too high to cultivate it.

We are milking 14 cows. Seven of these are pure-bred Holsteins. I still have my heifer. She will be fresh in December. August the 16th she will be two years old.

We have 20 spring pigs; 19 are Poland Chinas and 1 is a red one. As we only have one red one my father gave it to me.

I planted about a half an acre of potatoes and beans. I have hoed and cultivated them only once for they are not very weedy.

We have started to make hay but it rains on it now.

My father bought a pure-bred Holstein bull calf last spring. He is a little over a year old now.

As my letter is getting long I will close wishing the Juniors good luck.

Wisconsin. Fred Weiner.

Hoard's Dairyman Juniors:—I bought a calf from my father. The 26th of June she was three months old. She has bright eyes. When I call her she will come to see what I have for her. Her name is Crystal. Her mother's highest record is 56.9 lbs. of butterfat in one month.

My little sister, only six years old, feeds one of the calves. She is very interested in feeding calves or in weighing the grain for each cow.

This spring we bought our first pure-bred Guernsey bull. His name is Annie May's Dick of Four Leaf, No. 48503. He got a little stiff which puzzles me very much. His stiffness was more noticeable when he was turned out on pasture. He was going on six months when we bought him. We continued to feed him calf meal and from 2 to 3 lbs. of sweet milk for 1 month. He was fed mixed hay and gradually increased to 4½ lbs. of grain after he was weaned. His grain mixture consisted of oats, bran, and oil meal, which was fed morning and evening. A little whole oats was fed at noon. He is a good eater and has a good dairy disposition and construction.

Wisconsin. Erwin Pflughoeft.

Hoard's Dairyman Juniors:—Since you have not written me I thought I would write to you. My calf is 17 months old. I am going to breed her this fall. The next time I write to you I wil send you her picture.

Papa has 50 spring pigs and 19 gilts and 10 brood sows. We are going to have a sale next spring. We have two herd boars. Their names are Big Jumbo Cheaf and No Wonder.

We are milking 8 cows. We have three pure-bred Holstein cows. We put one on a 7-day test and she made 21.19 lbs. butter. She is a three-year-old. Her name is Devara.

We are short of sugar and flour down here.

Kansas. Clarence J. Barnett.



FAYNE CONCORDIA KORNDYKE, OWNED BY ELLIS TOSCH, A MICHIGAN JUNIOR

Hoard's Dairyman Juniors:—I have not written for a long time so I thought I had better write. How are all the Juniors?

We are milking about sixty cows now and getting twenty-four cans of milk. We have five acres of corn and it is doing nicely. I am feeding nine calves. I am just feeding them grain. They are in the pasture so they don't need much.

I milk from four to eight cows every night and morning. My sister's little Banty hen just hatched six little Banties.

We have eleven Banties, five Plymouth Rock pullets, and three White Leghorns. With all we have eighteen chickens.

We have 15 acres of oats.

I read the Junior page every week. I enjoy it very much. As it is almost time to milk I will close wishing all the Juniors good luck. My address is Everett, Wash., R. F. D. No. 2. Hope some of the Juniors will write to me.

Washington. Dudley Kooistra.

Hoard's Dairyman Juniors:—This is my first letter to the Juniors. As I have just finished reading the Junior letters I will write about some of the things on our farm. I am leading one of the little heifers around that I have, and I am going to drive her with reins soon.

I am at my aunt's now. We have 3 Jerseys, 2 Guernseys, and 2 Holsteins. We have 2 Jersey calves, 3 colts, 2 horses, and 2 little pigs. We have 41 hens and we get from 20 to 25 eggs a day. We had 68 chickens until something got about 50 of them. It was a black and white animal. We set a trap and caught him. He did not get any more chickens. The people that went past did not have to be told what it was. Will you?

As my letter is getting long I will close wishing all the Juniors good luck.

Maine. Florence Small.

Hoard's Dairyman Juniors:—I received your letter and I think it is kind of you to send my letter to Miss Gertrude Nylkema. You asked me to write again so I might just as well do it putting things in about my father's farm.

I told you in my first letter that we are Holland folks. We are a family of eleven, five sisters and four brothers. My parents first moved from Holland to Peterson, N. Y., then to Grand Rapids, Seattle, Snohomish, back to Grand Rapids, and now we live on a farm on the Snohomish River. We have about ninety acres of river bottom land, and forty acres of hill. We have a new 110x42 feet modern built barn with steel stanchions. We put our hay above the cows. We also have a new house, 8 rooms, 2 stories high. And a new silo 36x14 feet.

We've got about thirty milk cows, Guernsey and Holstein. We are going back to the Guernseys altogether. We like them better than any breed. It doesn't take a bale of hay to a feed and they give just as much milk. We have a registered sire, Marshal of Maple Grove 1402, just transferred. And one cow, Dorothy Fernwood 54723. We also bought some grade heifers. My father says he would like to have a little extra cash and then he would go down to Wisconsin, where he would buy about twelve nice cows.

We have four nice horses, 3 black Percherons which we bought this spring, a span of mares, full sisters, one is four years old and the other is five, and a five-year-old horse whose name is Johnnie. He is certainly our pet. We girls ride him around, use him single or double, and he also is a beautiful black Percheron. We have a nice Hamiltonian and a fast one. My father don't like autos. He says people run themselves to death, too much pleasure and no work.

We killed one hog this week. It was seven months old and dressed 185 pounds. We have four more, 2 for home use and two for breeding. My father and mother like to raise ev-



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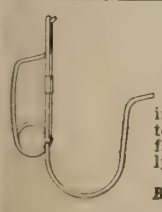
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erything at home. We can beef, pork, salmon, beans, cabbage, and berries.

This is a good country for cows, it is not very hot nor cold. We raise most of our own feed. Hay, clover, grasses or oats for hay. This river bottom will sometimes produce 100 bushels to an acre. Potatoes, corn, Danish ballhead, cabbage, and rutabagas do well here. We have eight acres of corn. You asked me if we could raise corn. I guess we can when it gets from 10 to 14 feet high. My father thinks his 8 acres of corn will almost fill his silo.

We do all our work together. We milk 26 cows now and are getting about 100 gallons of milk a day. We sell it to the Carnation condensery at Monroe, 4 miles from home, the same company who bought the $106,000 bull in your state I think. We milk 6 o'clock in the morning and 6 o'clock at night. This is the only time my dad don't want us to talk much. We work about 3 hours in the forenoon and two hours in the afternoon.

My father don't like to hire his help here. They want $80 and board and are too straight backed for hoeing. My oldest sister does most of the teaming. She does some plowing, harrowing, and many other things. Three of my sisters help my mother, and Garm, Carl, Winnie and I do a little field work. Johanna, Heinie, and Johnnie do the playing. We are going to pick wild blackberries now for canning. They grow near our house on the hills. We have spring water running to the house from the hill.

I must write you a bear story. When Winnie and Heinie went after the cows the other day they saw a big black bear running among the milk cows. She got scared and ran for home. I don't know who ran the fastest, they or the bear. We tried to find the bear with the gun but all we found was his tracks where he took a bath and where he feasted on grass. The lake is in the corner of our field near the lone hill.

We also got a nice buck deer last fall. My father and a friend got him, and dad was all in because he had to pack him a long ways and it weighed 175 pounds.

My father is well known here. Just ask for Gus Danhof at Monroe or Snohomish. We have a nice lake for bathing and a dandy river for fishing.

Washington. Mary Danhof.

Hoard's Dairyman Juniors:—I received your letter June 19. You asked me how old the sow was. She is about 5 months old and large for her age. She is a dandy marked Berkshire. I think I will keep her for breeding purposes. Her mother got first prize at the county fair last year. I like to trap very much. My sow's mother had 9 pigs, 5 boars and 4 sows. We sold 3 boars and 1 sow. Two of the pigs died.

How I came to get my cow, well my father gave her to me because he sold my heifer calf for beef. He didn't think she would amount to much.

We have 3 cows and one heifer. Two of them give milk. The other will freshen this month. The heifer is a nice heifer. She is about one year, six months old.

We have quite a large garden this year.

We have Rhode Island Reds and Plymouth Rocks together so we can't tell how the Reds lay alone. We have 100 hens and get from 50 to 70 eggs a day. The Rhode Island Red chickens are growing fast. They will be laying by fall. We will cut our grass soon.

I like to trap very much. I trap skunks and muskrats. I like to hunt. I have a 20-guage shot gun. I think I will hunt this fall with it. I hunt foxes, rabbits, squirrels, and raccoons, partridges, and other birds.

I wish some of the juniors would write to me about their experiences with trapping. My address is Box 82, North Scituate, R. I.

Alston P. Spencer.

Hoard's Dairyman Juniors:—How are all the juniors getting along? I live on a 134-acre farm 4 miles from Monroe, Wis. We have 23 cows, 6 horses, and six fall calves. We have 21 little pigs. Two were smaller than the rest, so my father said I could have them. I put them in a pen from the rest and feed them milk. The pig I had last year I sold and it weighed 210 lbs. I bought nine war saving stamps with the money. We made 12 loads of alfalfa hay this year. We are cutting some barley hay just now. We are going to make oat hay as soon as it is headed out.

We have a large spring on our farm. So we call it Spring Water Dairy Farm.

My address is Box 50, R. 5, Monroe, Wis.

John Haldimann.

Hoard's Dairyman Juniors:—It has been a long time since I wrote you last but I will make up for lost time.

My father joined the Vanderburg Cow Testing Association this year. Our first tester was in the draft. His name is W. H. Ferguson. He was called to the colors in June. Then they sent us another tester. His name is Miller.

We have two cows, one bull, four calves, and about 200 old and young chicks.

My brother and I joined the Gibson County Pig Club. My brother's pig weighed 73 lbs., and my pig weighs 50 lbs.

I am eleven years old.

I wish some of the juniors would write me. My address is Box 59, R. R. 31, Oakland City, Ind. Charles E. Farmer.



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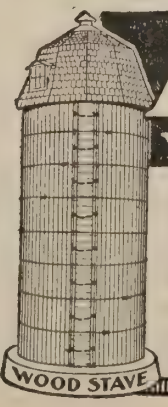


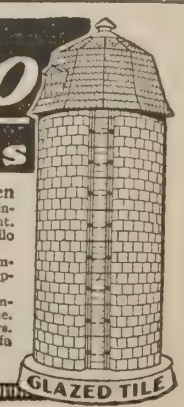
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For Sale—Two carloads White Face heifers, being bred to registered Hereford bull. CHAS. W. O'NEILL, Bridgeport, Wis. 5-2

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

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For Sale—Entire Registered Guernsey herd, also Governor of Chene and Yeksa bulls, serviceable age. JOHN G. BURNHAM, 2444 Lisbon Ave., Milwaukee, Wis. Phone Kilbourn 102. 5-3

For Sale—Fourteen high grade Guernsey cows two to eight years old coming fresh during fall and winter, one registered Guernsey sire serviceable age. PAUL L. LEHMAN, R. 2, Barron, Wis. 5-4

Three registered Guernsey bulls, fine ones, three, six, and eight months old. Also a fine 15-16ths pure-bred grade Guernsey bull calf two months old, out of a 50-lb. dam. Cheap. GEBHARDT BROS., Palmyra, Mo. 5-2

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For Sale—Dairy and stock farm, 400 acres. 150 acres cleared, 120 acres in pasture, balance in timber. Nine-room modern house, city water and electric light and power. Basement barn 120x32, modern, city water, milk house adjoining. Silo in barn. Horse barn, machine shed, granary, wood house, chicken house. Well equipped with farm machinery, three-unit Perfection Milker, good as new; Great Western separator; 8 pure-bred Holstein cows and heifers; 19 grade A-1 cows, pure-bred sire; 30 Shropshire ewes, seven head hogs, five head horses and mules. January receipts from 17 cows in milk, $435.00. Cheese factory and creamery ½ miles, pea factory ¼ mile, graded and high school ¼ mile, Omaha railroad station ½ mile. Beautifully located, lies high overlooking town and lake. Good demand for building lots and acreage for part of farm in city limits, no other land available. Terms: Will sell farm, stock and machinery, or farm alone. Price for farm $65 per acre. Stock and equipment $8,000. $10,000 down and balance at 6%. Farm owned and operated by doctor going into army medical service reason for selling. DR. J. B. SHERBON, Cumberland, Wis. 4-3

Free Maps of Mississippi, showing views and describing the famous black prairie alfalfa, clover, corn, stock and dairy belt, located in Northeastern Mississippi, where Lincoln Harbold of Iowa, the largest hog feeder in the world, has located; 300 miles of hard pike roads; good well and artesian water; excellent climate; three creameries; lots of grass; best hog, cattle, sheep and mule raising section in the South. K. M. WISHART, Aberdeen, Mississippi. 4-2

For Sale—40-acre dairy farm—doing nearly $9,000 yearly. Milk 12½c quart. Outside city limits. City water for all buildings. House modern. State Normal one block. Pupils enter first grade—complete course, get degree. Beautiful home, $16,000.00. Less than cost of buildings. FRED G. MINER, Box 205, Macomb, Ill.

For Sale—In North Rochester, 200-acre farm, Big, modern, dairy barn, fully equipped; 70 milking cows. Sold at sacrifice on account of health. Apply to MR. H. P. DION, 1070 County Street, New Bedford, Mass. 5-4

Big profit in dairy business if income is not all spent for feed. Own a dairy farm near Kansas City, rich blue grass, corn, wheat land. Write for free descriptive booklet. ALLEN MANSFIELD, Ottawa, Kansas. 5-2

$1,500 down gets 247 acres, pair horses, 10 cows and poultry, wagons, harnesses, full line machinery, tools, all hay, fodder, some potatoes, other crops. Productive loamy tillage, 50-cow, wire-fenced, spring watered pasture, wood and timber should more than pay for farm; 100 apple trees, other fruit. Good 8-room house, good basement barn, other buildings, running water house and barns. Retiring owner for quick sale sells everything for only $4,500 and $1,500 down. For details this big bargain and one of 267 acres with stock, tools, crops and house furniture for $4,000 see page 7 of Strout's Catalogue, copy free. E. A. STROUT FARM AGENCY, Dept. 3001, 150 Nassau Street, New York, N. Y.

Money Makers—40-acre farm, $1,800; 60 nearly all under cultivation $1,500; 80 with stock, machinery and crop, $4,800; 160 with good, large buildings, $6,800; choice cut over land $15 to $20 per acre. Write for particulars. THE E. L. C. CO., M-B Dept. 31, Merrill, Wis. 5-tf

Get in Line—Come to Central Wisconsin. The one country that offers many opportunities to the homeseeker. Send for our new land list. It will pay you. GRAHAM'S LAND OFFICE, Marshfield, Wis.

Montana Irrigated Farm—Adjoining county seat town. Fine house, barn, etc. Alfalfa, alsike, oats, barley are bumper crops. Must be seen to realize enormity of crops. 50 Holsteins, crops, and equipment $125 per acre. Land alone $100 per acre. MARK HUNT, White Sulphur Springs, Montana.

FARMS FOR SALE

New York Farms for Sale—112 acres; 30 alfalfa, good buildings, running water in house and barn, $6,000; 66 acres—good buildings, $2,600. Easy terms. Others larger or smaller. For particulars address BOX 78, Peterboro, N. Y. 5-4

Look ahead. You will see the wisdom of buying your land now. Never was there such a demand. Never were such prices for farm and dairy products paid. The moment the war is ended, land prices will jump. Don't put off a matter so important. You need very little money, dealing with us, as we are selling our own lands. We will give you all the time you want. Write ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Farm wanted with stock. Parties have desirable city property to offer as part payment. WALTER MILLER, 320 Brumder Bldg., Milwaukee, Wis.

FOR RENT

For Rent—Dairy farm one mile from Beloit, Wisconsin. Excellent soil, good buildings. 425 acres. 200 acres in pasture. DON VAN WART, Agent, Parker Block, Beloit, Wis. 5-4

WANTED TO RENT

Wanted—Experienced farmer to work equipped farm on shares. Twelve milkers, ten heifers to freshen; good buildings; grain; near markets, modern house. Owner obliged give time other interests. S. EMLEN, Locust Grove Farm, Rahway, N. J.

MACHINERY

Two-unit Hinman Milker, complete. Good as new. HARRY PAULSON, Camanche, Iowa. 4-3

For Sale—Hinman Milker outfit, complete for thirty cows, subject to inspection, price $100. In perfect condition. MONROE & MONROE, Alexandria, Va. 25-tf

For Sale—Six-roll Keystone Corn Shredder. Slightly used. Fine condition. $250.00. J. W. COPSEY, Mt. Sterling, Wis.

Corn Harvester—One-man, one-horse, one-row, self-gathering. Equal to a corn binder. Sold to farmers for 23 years. Only $25, with fodder binder. Free catalogue showing pictures of harvester. Process Corn Harvester Co., Salina, Kansas.

Moline Universal Tractor and two-bottom plow. Model "C", almost new, perfect condition. Only plowed 30 acres. W. H. WHITACRE, 2884 Coleridge Road, Cleveland, Oh. 5-tf

For Sale—One two-unit Sharples Milker, new. Dealers' stock. HEILBRONNER ZAHN CO., Suring, Wisconsin.

For Sale—Ensilage cutter size 15, good as new. C. A. DUTTON, Trempealeau, Wis. 5-3

For Sale—One steam engine, suitable for silo filling or running small threshing machine. W. O. JOHNSON, R. 1, South Wayne, Wis.

Wanted—Second-hand Hinman Milker. State size, price and condition. GUY SMITH, R. 11, Kalamazoo, Mich.

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Pedigree No. 2 Winter Wheat $3.00 per bushel. FRANK DANIELS, Fort Atkinson, Wis. 5-3

SWINE

Fine strain pure-bred, Improved Chesters. LLOYD NESBIT, Barron, Wis. 3-4

Chester Whites, either sex at reasonable prices. JOHN HORLAMUS & SON, West Bend, Wis. 5-4

Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Big growthy registered Poland China spring pigs, boars, and gilts, not related. Also bred sows. CHAS. W. O'NEILL, Bridgeport, Wis. 5-2

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Two litters of pure-bred collie pups for sale. Beautifully marked, real heelers. Prices, females $6, males $10. Also one brood bitch, perfect worker, $25. BRUCE WESCOTT, Kewaskum, Wis. 4-3

HORSES

For Sale—Horses. Good farm teams cheap account putting on auto trucks. O'NEIL OIL & PAINT COMPANY, Milwaukee, Wis. 5-2

For Sale—8 heavy draft horses. Can be seen at our stable. JOS. SCHLITZ BREWING CO., Milwaukee, Wis. 5-4

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

LITTER CARRIERS

Litter Carriers—Price only $15.90. Write for catalog and price list too. TORGERSON MFG. CO., Baldwin, Wis. 4-6

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. KUCZYNSKI, Milwaukee, Wis. 24-13

Velvet Bean Meal feed; Peanut meal; Old Process cocoanut oil cane meal; ton lots or car lots. NEUSTADT & CO., 294-Ninth Ave., New York City. 2-4

LIGHTNING RODS

Diddie-Blitzen Rods—Quick sales; guaranteed lightning protection. $250 if they fail. Agents wanted. L. F. DIDDIE CO., Marshfield, Wis. 9-tf

PATENTS

Your idea wanted—Patent your invention. I'll help you market it. Send for 4 free books, list of patent buyers, hundreds of ideas wanted, etc. Advice free. Highest references. Patents advertised free. RICHARD B. OWEN, Patent Lawyer, 86 Owen Bldg., Washington, D. C. 2-5

PARTNER WANTED

Partner Wanted—Successful dairy farm, dairy business, southern Pennsylvania wants partner or will sell. Address BOX 195, care Hoard's Dairyman. 5-2

Wanted—A good dairyman and farmer with capital to buy half interest and take full charge of fine, well equipped 400-acre farm adjacent city limits of thriving central Michigan city. Will make big sacrifice to good man. This is a proposition of exceptional merit. No trades or triflers need apply. Address BOX 190, care Hoard's Dairyman. 5-3

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forrestville, Conn. 3-10

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—September 1, herdsman with experience, to care for large registered Guernsey herd, cows in A. R. test. Good habits and not in draft. $60 and board, chance for advancement. Give age and reference first letter. HOMER F. RUNDELL, Livingston, Wis. 1-5

Wanted—First class middle aged man as a working foreman on a 700-acre farm in Crow Wing County, Minn. Must have knowledge of stock raising of all kinds and be a general farmer. Address BOX 142, care Hoard's Dairyman. 2-9

Wanted—Man to help on dairy farm. Guernseys. Man taken in draft. Been here 3 years. $50 a month, board and washing to man of experience. ARTHUR A. COOPER, Elizabeth, Ill. 3-4

Married man for general farm work on 160-acre farm about September 1st. Born and raised on farm, competent, reliable, sober, and industrious. New seven-room house, garden, milk, potatoes furnished. Near city and school. Preferably with wife to assist with milking or with boys old enough to work. Fine opportunity for right party. State fully experience and wages expected in first letter with references. S. A. BAIRD & SON, Waukesha, Wisconsin. 3-tf

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Single men for dairy. Wages $45 and board. Apply at once. WHITE HORSE FARMS, Paoli, Pa. 4-3

Dairyman wanted for the Panama Canal. Must be experienced and competent to manage dairy of 320 cows, including selection for breeding and production, also management of pasture. Salary $150 a month with increase to $175 month after six months' satisfactory service. Free steamship transportation from New York or New Orleans, and free bachelor quarters on Isthmus of Panama. Must be American citizen under 50 years, physically sound. Write "CHIEF OF OFFICE," The Panama Canal, Washington, D. C. 3-3

Wanted—A dairyman who understands manufacturing butter and other by-products of milk, to take charge of a small Jersey herd. Give age, married or single, and salary expected. None but a worker need apply. Address BOX 193, care Hoard's Dairyman. 5-tf

Wanted—Milkers for large institution herd of Holsteins. Permanent positions with wage increase at end of six months and again at end of one year's satisfactory service. Living accommodations for single men. Have other help to clean cows and stables. A fine place to work. Give full particulars and references in first letter. BOX 196, care Hoard's Dairyman.

HELP WANTED

Wanted—Young man to work with Guernsey herd. State wages and experience. McKERROW FARMS, Pewaukee, Wis. 4-2

Wanted—Single man for small herd grade and pure-bred Guernseys. Permanent place for right man. JOHN W. VORHES, Springfield, Ill. 4-2

Wanted—To hire young experienced farm hand, not in draft, for large Guernsey dairy farm. $50.00 per month and board. Railroad fare. Start work right away. HOMER RUNDELL, Livingston, Wis. 4-3

Eastern shore of Maryland, wanted assistant herdsman for Holstein herd; single, above draft; state qualifications, and wages desired. Also reliable man with experience in retail milk plant on farm. Address BOX 186, care Hoard's Dairyman. 4-2

Wanted—Single man as assistant in milk plant on farm, handling 1,200 quarts. State all particulars, wages and when could come, in first letter. Address HOMESTEAD DAIRY FARMS, Salisbury, Md. 4-2

Wanted—Well experienced single man as head herdsman on modern general farm in Chicago suburb to have care of dairying and hog raising. A good position and wages to the right man. In replying state age, experience and last position. Address BOX 175, care Hoard's Dairyman. 4-2

Wanted at Once—A reliable man not in draft, understanding care of and able to develop Berkshire hogs and poultry. Near Pocomoke, Md. Address BOX 187, care Hoard's Dairyman. 4-2

Wanted—A sober, reliable married man from thirty to fifty years of age to take charge of a dairy in Indiana. Have an old reliable milk route, the highest class of its kind in the state. Keep two men to attend thirty cows. Use Hinman Milker. Want a man to take charge of my herd and drive the wagon. Must be honest and steady. Will furnish five-room house, garden spot, milk, chickens to raise on shares and furnish feed for them and pay $75 per month cash. Address or apply to WARREN PARK FARM, Terre Haute, Indiana. 5-4

Wanted—Two single men exempt from draft, experienced in operating Empire Milker. Large institution herd of Holsteins. State wages expected. Give full particulars and references in first letter. BOX 197, Care Hoard's Dairyman.

Farm hand wanted for general farm work. Good wages and steady employment. Address J. R. BERESFORD, Newell, South Dakota.

Wanted—At once, a married man without children over ten, to take charge of a few calves and 2 or 3 cows (Jerseys) and cultivate ten acres in corn and feed, etc.; 7 miles from city. Permanent job and increase in responsibility and wages. ROBT. N. BELL, Birmingham, Ala. 5-2

Wanted at Once—Experienced feeder and milker. Must have experience A. R. O. and Register of Merit work. Give experience and complete references first letter. Good pay. Only good men need apply. STATE AGRICULTURAL SCHOOL, Jonesboro, Arkansas.

Wanted—September 1, milk wagon driver with clean habits. Good wages. Address GEO. R. PETTY, R. 10, Oklahoma City, Okla.

Wanted—A working herdsman to take charge of a high grade Holstein dairy, 150 head, in the Roosevelt Dam Project, Arizona. Good proposition for a man who can make good. State experience and wages desired in first letter. If married, state size of family. Address P. O. BOX 127, Mesa, Arizona. 5-3

Wanted—Man and wife for farm work and dairy. Steady work all year. J. S. ROSHOLT, Farmington, Minn. 5-2

Wanted—Single man general farm work, good milker. Steady job to right man. Give particulars. BOX 192, care Hoard's Dairyman. 5-tf

HELP WANTED

Wanted—A competent farm foreman on a 1,000-acre stock farm in Northwest Iowa. Only high class men with experience need apply. CORWIN FARMS, Rock Valley, Iowa.

Man and Wife—Wife to help milk and wash utensils. Average 30 Holsteins. Separate with electricity. No farm work. House, milk, wood, garden. $100 per month. No children; no experimenters. A fine opportunity for the right couple. Middle west. Address BOX 191, care Hoard's Dairyman.

Wanted by Sept. 1—Good farm hand. Must be good milker. Steady job for right man, year round. J. P. MAST, Scranton, Kans. 5-2

Wanted at Once—Man to take charge of test cows Good wages, excellent accommodations. A fine opportunity for young man to gain experience. DAIRY DEPARTMENT, University Farm, St. Paul, Minn.

Wanted—Working farm manager to run 100-acre farm on practical basis, largely devoted to supporting registered herd, 20 head also young stock. Require ability to handle and raise stock properly and feed cows on test. Buildings, land A-1. Location pleasant, convenient to electrics, near city. Here is an opportunity for good man. KIRKBRAE FARM, Box 1385, Providence, R. I. 5-spl

Wanted in Virginia—A dairyman who understands the business and is willing to work as herdsman with an Empire Milker to milk forty cows. This is a man's job with pleasant surroundings and working conditions and a good opportunity to prove ability. Married man with wife, a neat housekeeper. BOX 11, Remington, Va.

Wanted—Boy 15 or over, wishing permanent job and good home, on southern Wisconsin farm. Reasonable wages. Advancement as earned. IRVING P. COLWELL, Helenville, Wis. 5-2

POSITIONS WANTED

Married man wishes position as farm and dairy manager. Have held present position 7 years and given best of satisfaction. Can furnish finest of references. BOX 166, care Hoard's Dairyman. 3-4

Wanted—By experienced dairyman over draft age, dairy in the south on salary and shares. Can make small investment. BOX 144, care Hoard's Dairyman. 2-4

Wanted by Sept. 1—Position as foreman on farm or ranch by single man having practical experience with all stock, crops, alfalfa, irrigation, etc. Good references. Address with all particulars BOX 194, care Hoard's Dairyman.

Boy twenty, girl seventeen, and mother wish work on farm. Can take charge of farm of 80 acres or work otherwise. Steady and trustworthy people. Willing to work hard if can get the right place. DAGNA STENBRO, R. 1, Dane, Wis.

Farm Manager—Thoroughly experienced in A. R. O. work, show and sale fitting and management of large establishment. Salary $1,800. BOX 384, Amsterdam, N. Y. 5-2

Wanted—To manage on contract, farm and dairy on good road near city. The establishment, cows and business, must all be in good order. Wish to buy equipment and stock and lease for cash for term of years beginning next spring. Give complete description and terms. BOX 182, care Hoard's Dairyman.

Middle aged widow with two children aged 11 and 5, experienced farm boarding housekeeper, would like position. Can take full charge and give satisfaction. BOX 189, care Hoard's Dairyman.

Two young men seek positions on an up-to-date dairy. Both are good milkers, of good habits and out of draft. Nothing under fifty dollars and good living conditions considered. State full particulars in first letter. BOX 317, Barberton, Ohio.

Getting Started With Pure-breds

The following quotation is taken from the Bulletin of the Maine Department of Agriculture and contains the remarks of a successful dairy farmer to a group of men interested in beginning with pure-breds. The statements ring with truths gleaned in the school of hard, practical experience in the building of a profitable herd of pure-breds:

"I met with disappointment from one of the bulls which I bought, not from a production point of view, as the production was increased immensely, but there were misplaced udders in his offspring. The teats were not put on where they ought to be; the bag was not the right shape. There were not many hard milkers, but the shape of the udders was not improved. I saw my mistake and in making my second selection I saw the dam and the grandam of the sire of the calf I bought, and also I knew by reputation the sire's sire and the sire's dam. I do not think I ever saw as great an improvement in one generation as there was in the shape of the udders of the heifers sired by him, and the placing of the teats, as well as in the production.

"It was production that I was after when I bought my first pure-breds, and that was the point I had in view. I did not have the courage, with the obligations I had on me, to go into high priced fancy bred stock. I might say that I bought the breed I did, not because it was at that time greatly my preference, but because I could get pure-breds in that breed for a little less money than in any other breed, as an intimate friend of mine, who I knew would not do me a wrong, had a herd from which I could get selections at a reasonable price. I paid $975 for pure-bred stock. I also bought a set of milk scales, and it was the best investment I ever made in my life. Any dairyman who is not using them regularly is making a mistake. I do not mean that you should use the milk scales and never add up the sheet. You should use the scales, weigh the milk, put it down, add up the sheet, and follow its lessons. It is of no use to weigh the milk unless you are willing to abide by the scales. When you have resolved to do that, and stick to it, then you can improve your condition. Nine hundred and eighty-three dollars was the total extra outlay in my herd to bring about an increased average production of 54 per cent in milk and 73 per cent in butter, in ten years' time. This is within reach of any farmer. Perhaps you are in a cow testing association. If you are not, you ought to be. I had to do this work independently, because at that time there were no such associations. Since the organization of our Farm Bureau, 3 years ago, we have a cow testing association in our immediate vicinity, and I am now doing the work through that. It allows me more time to myself if I have a tester do the work, and I think he can do it cheaper than I can. But if you are not in a position to join a cow testing association you should do the work yourself, as you cannot afford to keep dairy cows unless you conduct your dairy work on a business basis, and you are not conducting it on a basis unless you open an account with each individual cow and know what she is doing."

Australian Co-operation

Australia furnishes a notable example of successful agricultural co-operation. The Coastal Farmers' Co-operative Society has issued its balance sheet for the eighteenth year of co-operative marketing of the various products of Australian farms. The remarkable growth of the organization is well illustrated in the increase in its operations year by year. The total sales the first year amounted to $349,692; the fifth, $2,162,998; the tenth, $4,773,029; and the eighteenth, for the year ending March 30, 1918, $12,841,849.

73—HEAD—73

Holsteins At Auction

SEDALIA, MISSOURI

Thursday, Sept. 5th, 1918

AT MISSOURI STATE FAIR GROUNDS

Pettis County's First Annual Combination Holstein Sale

73 HEAD of Pure-bred and Grade Holsteins will be sold owing to the great drought and consequent shortage of feed, and to the fact that the men are closing out their grade herds to make room for pure-breds, as Pettis County has been made the center of the Pure-bred Holstein Industry of Missouri.

Included in the sale are 41 grade females from bred yearlings to mature cows part of them springers, 15 grade heifers, open yearlings and calves and a large number of pure-bred bulls and bull calves from a few months to over a year old.

Everything over 6 mos. of age will be tuberculin tested. Every animal must be just as represented or no sale.

Under the Auspices of the **Pettis Co., Missouri Bureau of Agriculture, U. S. Dept. of Agri., Missouri College of Agri., and Pettis County Court, Co-operating.**

For farther information, address C. M. Long, County Agent, Sedalia, Mo.—Col. C. J. Hieronymus, Sedalia, Auct.

MILK

of the greatest food value can only be produced under sanitary conditions and the most inexpensive method of producing sanitary conditions is by the use of

Wyandotte Dairyman's Cleaner and Cleanser

Ask your dealer or supply man for this cleaner or write us. It Cleans Clean.

Indian in circle



in every package

The J. B. Ford Co., Sole Mfrs., Wyandotte, Mich.

SWINE

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.

CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

GUERNSEYS

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893 Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.

"McLERAN OF MINN. WRENSHALL"

TWENTY Guernsey — TWENTY IMPORTED

GUERNSEY HEIFERS

Will be offered at a SPECIAL PRICE if taken in lots of eight or ten head.

These heifers were recently imported, are very high class individuals and of the best Island breeding.

They range in age from 11 to 30 months, about three-quarters of the number are bred, balance open.

It is getting more and more difficult to import Guernseys and it will pay anyone to investigate this offering if they wish to add a few imported heifers to their present herd.

Frank S. Peer OSCEOLA FARMS Cranford, N. J.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.

Louis McL. Merryman, Cockeysville, Md.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

$75.00

takes the choice young bull calf R23, dropped Nov. 11, 1918.

Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.

Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.

The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from

Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

Registered Guernsey Bull For Sale

DROPPED JULY 21st, 1917.

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and prices write **Folly Farm, Libertyville, Ill.**

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High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

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If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

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We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

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Linden Lad of Harbor Hill 7th. Dropped June 15th, 1917. A good individual, nicely marked.

SIRE:—A son of Linden Girl A. R. 3607 with three A. R. records averaging 14,149.8 lbs. milk, 708.85 lbs. butterfat.

DAM:—A daughter of Brilliant of the Gree. Her herd work at 2 and 3 years exceeded A. R. requirements by a good margin. Price $150.00. Write for photograph and pedigree.

C. H. Hechler, Supt., Box 50, Roslyn, N. Y.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

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GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2¼ years. She also has one A. R. daughter. Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of the Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows with records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSIN.**

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offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. **Roy Burton, Eagle, Wis.**

GUERNSEY

We Have a Nice Young Bull

whose dam as a three-year-old will make about 525 lbs. fat. His sire's dam made 721 lbs. fat. This calf is about 10 months old, good size, nicely marked and colored and his pedigree shows that he would do a lot of good in almost any herd. Price $200 here. Pedigree sent on request. **W. R. Dunlop, Fayetteville, New York.**

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Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

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Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

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Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

REGISTERED

Guernsey Bulls

For $75.00 Each

EXCEPTIONAL OFFER

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Born April 2nd, 1918.
Winona Girl's Mayfield Boy No. 50635
Born March 27th, 1918.
WRITE FOR PEDIGREES.
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Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, - - Perry, Ohio.**

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Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.** Medill McCormick, Owner. R. S. Hulce, Supt.

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Herd Bull: Jury of Koshkonong Place

Sire: Jewel of Koshkonong Place A. R.

Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

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For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

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We are offering some well bred and nicely marked young bulls nearly ready for service out of A. R. dams and sired by good bulls. Also a few heifer calves. Eighty head in herd. Herd on the State Accredited list. Send for sale list.

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Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.

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Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

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Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

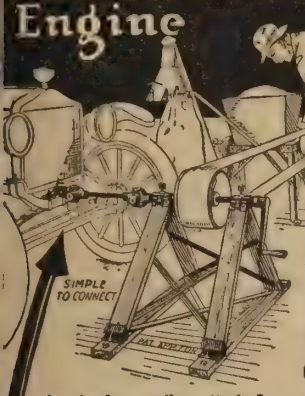
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ts superiority proven by agricultural college tests nd by actual field tests all over the country. Does ot winterkill like other varieties. Heaviest yields. Highest in feeding value. Be sure to plant genuine Grimm. Certificate of genuiness furnished with ach lot of my seed. Book "How I discovered the Grimm Alfalfa" and seed sample free.

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Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

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Advanced Register and Show Ring Records. Tuberculin Tested by U. S. Dept. of Agriculture. Calves only for sale.
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CHOICE BULL CALVES AT FARMERS PRICES
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Some fresh cows. Also two choice young bulls.
F. R. McCONNELL, - Wellington, Ohio.

World's Champion Ayrshires

SHOW CALF—Bull, born July 5th, 1918, white with red markings. Sire:—Deubler's Favorite, 15669, great breeding, son of Kate's Good Git, and Auchenbrain Favorite Beauty 8th. Dam:—Imported Auchenbrain Ada 8th, a very handsome young cow with almost perfect udder and large teats, now on A. R. test and averaged over 50 lbs. daily for first month. Price, $100 for quick sale. Penshurst Farm, Narberth, Pa.

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Few Choice Bull Calves

BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.

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EXTRAORDINARY OPPORTUNITY

We still have 12 Heifers out of 30 head Major John R. Valentine instructed me to sell.

Some of the best are still here.

All out of Adv. Reg. Cows, all carry the blood of Imp Finlayston, greatest sire of the breed.

Majority by Imp. Baron's Best of Bargenoch, out of Finlayston's daughters.

Color mostly white, well grown, good individuals, a grand lot for a foundation Herd.

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6 World's records. 300 head. Write for circular.
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Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.

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High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.

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TEN HEIFERS

Twelve to sixteen months. Record breeding—good type and color.
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Stock of all ages for sale. Seven yearling bulls ready for service.
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10 HEIFERS FOR SALE

I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.

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Complete Dispersal Sale
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Saturday, Aug. 31st, at 10 A. M.
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under the auspices of
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"Come to Brattleboro, the Holstein Capital of America."

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5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
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Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.83 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. C. I. Reamer, North Liberty, Indiana.

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Bull born Oct. 1917, would make a show calf, mostly white. His sire is by a son of the famous Judge Hengerveld De Kol, whose daughters are showing up great in short and long time test. The two heifers born in Dec. and March last, dandy good individuals, mostly white and sired by De Kol Goudgeid Pietertje who is siring a wonderful lot of fine individuals. Priced for immediate acceptance $250.00 F. O. B. Muncie.
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9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*

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1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

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Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.

We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.

This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

Milford Meadows Stock Farm

Now Offers For Sale

M. M. Rag Apple Oak Denver

A most promising young sire, born June 4, '17. Nearly half white and an exceptionally good individual.

His sire is Dutchland Creamelle Denver Prince, a 36.25-lb. grandson of Colantha Johanna Lad.

His dam, Milford Josephine Oak DeKol, made 22.82 lbs. butter as a junior 2-year-old in June. Her sire is a son of Canary Paul Fobes Homestead and from a 29.55-lb. daughter of Homestead Junior DeKol. Her dam, 31.77 lbs. butter, 616.2 lbs. milk, is a granddaughter of Dutchland Sir Pontiac Rag Apple.

The three nearest dams of this young sire average over 30 lbs., one a junior 2-year-old. His dam is one of our good prospects and is to be retested this winter.

Milford Meadows Stock Farm, - Lake Mills, Wisconsin.

RICHLY BRED HOLSTEIN BULLS

from 5 to 16 months of age and sired by King Korndyke Veeman, the bull with 40-lb. breeding, whose two nearest dams average over 37 lbs. butter in seven days. These bulls are out of cows with large A. R. O. milk and butter records. Write us for full particulars.

Wisconsin Star Stock Farms, Ed. M. Schultz, Hartford, Wis.

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I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

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FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

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FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis. Jas. McKone, Prop. Wm. Lucia, Manager.

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In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.

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$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

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Save Money On Your Herd Sire

I am now offering several fine bull calves 3 to 6 months old; all of them from dams with good A. R. O. records and sired by a grandson of Sir Pietertje Ormsby Mercedes, whose 3 nearest dams average 31 lbs. in 7 days. You can raise them as cheaply as I can and my price on these youngsters makes it a paying proposition for you to buy your herd sire now and raise him yourself. Write **W. P. Kissinger, Waupaca, Wis.**

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

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Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

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A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

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6th in Prize Money Last Year

King Pontiac Champion is Third

He is only led in this one particular of prize money by King Segis Pontiac Count and Sir Pietertje Ormsby Mercedes. Here is additional proof that the Pabst Stock Farm is one of the foremost Holstein Breeding establishments in America and that King Pontiac Champion is the greatest living bull of the breed as no other sire's record can compare to his in 30-lb. and semi-official yearly daughters. He now has 80 A. R. O. daughters and will soon be a century sire. Look over our sale list before selecting a sire.

PABST STOCK FARM, Dept. B, Oconomowoc, Wis.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

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For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.**

Illiona Holsteins

3 Service Bulls

44-lb. Breeding
Excellent Individuality
Reasonable Prices

Phone Elmhurst 63, R. 1 or write

A. W. FISCHER, Bensonville, Ill.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a 2/3d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.

ARLINGTON HEIGHTS, ILLINOIS.

YOU

Will be interested in our free price list of 100 head of choice, pure-bred

Holstein Cows and Heifers

or if interested in a bull calf send for our bull calf list. **Woodlawn Farm, Sterling, Illinois.**

LISLE FARMS COMPANY HOLSTEINS

For Sale Bull Calf. Born March 26, 1918, almost White, a good individual. Is sired by a 24-lb. bull and his dam is a granddaughter of Hengerveld De Kol and out of a 27-lb. daughter of Lilith's Pauline De Kol's Count. Priced right. Write for chart pedigree.

H. BARKER, Herd Manager, Lisle, Illinois.

5 Holstein Bulls

Ready for Business At ½ Real Value

They are from world record sire and A. R. O. dams. We are selling farm.

LONG BEACH FARM, AUGUSTA, MICH.

Registered Holsteins

Must sell my selected foundation herd. 4 Heifers—age 20 to 27 mos. Sire has 28.44-lb. dam and sire with 57 A. R. O. daughters. Price $950. 4 Heifers—age 2 to 13 mos. 30-lb. Sire. Price $600. All bulls sold. Let me tell you why you should buy these now. Breeding and photo on request, they are worth it.

C. A. CLARK, TRENARY, MICHIGAN.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.

Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Michigan.

The Traverse Herd

Great Values In Bulls

from A. R. O. Cows with records up to 30 lbs. Let us know your wants. We will send extended pedigrees and prices.

TRAVERSE CITY STATE HOSPITAL, Traverse City, Michigan.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Hazelhurst Stock Farms

Offer a Yearling Son of King Segis Pontiac Canary

who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.

H. H. Wickwire & Son, Hubbardsville, N. Y.

Your Last Chance!

To Get a Son of The World's Greatest Sire

KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.

Geoffrey Burlingame, Cazenovia, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. **E. A. POWELL, Syracuse, N. Y.**

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

A Rare Chance

To secure a few choice Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46 33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

42—HOLSTEINS—42

31 Pure-Breds REGISTERED AND HIGH GRADE **11 Grades**

DISPERSION SALE

of the O. S. CASS HERD, to be held on the Farm, one Mile South of SAUK CENTRE, Minnesota, SEPTEMBER 4, 1918

Daughters and granddaughters of a son of Colantha Johanna Lad No. 116416. Altje Salo Mercedes DeKol Prince No. 39357. King Colantha Matina Segis No. 184743. 7 bull calves and the 2-year-old herd sire included.

This is strictly a breeders' sale. This herd is the result of 17 years of careful selection and breeding and all are tuberculin tested.

State Fair visitors will have time to stop between trains either way.

Sale begins promptly at 2 p. m. O. S. CASS, Sauk Centre, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.



From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG
Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

Here's Your Chance to Get a
Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

A Grandson of
Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

3 BULLS HOLSTEINS **3 BULLS**

	No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.	
No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

A Few Holstein Bull Calves

From a sire whose dam was a former state champion yearly cow—

For Sale

R. B. GOODHUE, - DENNISON, MINN.

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Mankato Holstein Herd

Offers you this
WONDERFUL BARGAIN

BULL born February 9th, 1918. ¾ white. Large and straight—a beautiful show calf, from a 32-lb. sire and 20-lb. dam. 5 nearest dams average 25 lbs. butter in 7 days. Price $350. **Marlow and McCargar, Mankato, Minn.**

Bloomingdale Herd

...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

A. A. Courtelyou, Somerville, New Jersey.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO.

U. S. Soldiers' Home

FOR SALE—A number of young Holstein-Friesian Bulls from a clean herd, tuberculin tested, no re-actors in last four years. All from A. R. O. sires and dams. Full information and description with prices, on request.

ADDRESS SECRETARY-TREASURER. U. S. Soldiers' Home, Washington, D. C.

FOR SALE HOLSTEIN BULLS

SAFE FROM TICKS
(At One-half Price)

No. 1. Crescent Beauty Butter Boy 19th No. 172753, 2 years 6 months old, whose 6 nearest dams average 26 lbs.

No. 2. King Alcartra Nudine No. 228837, one year, 3 months old, whose 6 nearest dams average 30 lbs. butter.

No. 3. King Alcartra De Kol Ormsby No. 228838, 12 months old, whose 6 nearest dams average 31 lbs. butter.

They are as straight as a line, and beautiful individuals.

Price—$250.00 each.

Write Dr. Chas. H. Harris, Ft. Worth, Texas, for further particulars.

HERD REGISTERS Two Sizes. New, Low Price Covers.
HOLSTEIN PEDIGREES COMPILED.
Stationery, Catalogs, Circulars Printed. Send for Samples and Price Lists. LIVE STOCK PRINTING CO., La Grange, Illinois.

NOW When Pastures Are SHORT



You Can Keep Your Cows up to the Fullest Flow

and make your milk checks show a handsome profit, even if your pastures are short, if you will adopt SCHUMACHER FEEDING PLAN.

Thousands of dairymen have solved their summer feeding problems and become entirely independent of the varying pasture conditions which confront them each summer, due to drought, hot sun, flies, etc., by feeding their cows the dairymen's "stand-by" SCHUMACHER FEED in conjunction with our high protein feed—BIG "Q" DAIRY RATION.

Too much is expected from pasturage as a rule. We forget about the hot sun and flies—and that cows spend a big part of the time in the field standing in shade (if they can find it) fighting flies. No wonder their milk flow drops off. Now is the time

SCHUMACHER FEED

and BIG "Q" DAIRY RATION will yield you a handsome profit—not only by preventing shrinkage in the milk flow now, but in keeping up larger yields during the fall and winter months. Also you will put the physical condition in better form for the next freshening period.



SCHUMACHER FEED is a "constitution" builder. Its high nutritive value provides the energy, vim and vigor necessary for the animal to keep going strong during the hot, "short pasture" season. SCHUMACHER FEED (as the carbohydrate ration) has more world Champion Milk and Butter records to its credit than all other feeds combined—it is the best known and widely used dairy feed in the world.

BIG "Q" DAIRY RATION is remarkable for the quality of its protein content, and the two combined form the most satisfactory ration—easiest to balance to suit individual requirements—that you can find. Feed BIG "Q" for milk—SCUHMACHER for condition.

If your dealer cannot supply you, write to us. (90)

The Quaker Oats Company Address Chicago U. S. A.

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DICK'S Blizzard Ensilage Cutter



New double feed models give bigger capacity—easier feeding

Just one way to be safe. Own a Blizzard silo filler. No wait for a neighbor or anyone else. Be ready to get busy the minute the corn is right. Ready with the silo filler that **does the work.** The Blizzard will cut as fast as you can feed the corn, and cut evenly. It will elevate high as needed, if it's 100 feet. It is light running because of right principle. Knives and fan on heavy reinforced flywheels. Safe, built to last. Earliest machines still running. Parts of wear replaceable at small cost. New models greatly increase capacity. Write for catalog describing them.

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"Get a WITTE" Wood Sawing Outfit

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NOW HELP SAVE COAL

Arrange At Once for your WITTE Saw-Rig at Direct Factory price. Earn Big Money. Made in sizes 4 to 22 H-P. To be sure of delivery, write for my latest, lowest offer today.—E. H. Witte, Pres.

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Safe and Sure

catches easily and locks firmly. Has straight pull—no twisting. Your bull will respect the

KEYSTONE BULL STAFF

Shepherd's crook, automatic latch, easy to release, taper socket riveted fast to 5-foot heavy ash handle.

Guaranteed.
Write for free circular.
M. T. PHILLIPS, BOX 109B, POMEROY, PA.

KING SEGIS PATENT LOCK

Ear Tags, Bull Staff and Rings. Description and prices sent on application. 300,000 of these ear tags have been sold without adverse criticism. 500 of these BullStaffs are used by the best breeders in the business.



H. A. Mayn, Syracuse, N.Y.



BURRELL B-L-K MILKERS

The B-L-K Milking Machine will solve your labor troubles. Write for free booklet and information.

We handle a full line of supplies for the Dairy and Dairy Farmer. Highest grade goods at lowest prices. Prompt shipments.

N. A. Kennedy Supply Co., Kansas City, Mo.

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MILWAUKEE
SEPT. 9, 10, 11, 12, 13 AND 14
SIX DAYS - FIVE NIGHTS



FIFTY ACRES OF MACHINERY; THIRTY MAKES OF TRACTORS.

GREATEST AUTOMOBILE SHOW IN AMERICA; 100 1919 MODELS.

20,000 SQUARE FEET OF EXHIBITS SENT BY U. S. GOVERNMENT.

10,000 SQUARE FEET OF ENGLISH WAR EXHIBITS; FUNDS GO TO RED CROSS.

WORLD'S BEST CATTLE, HORSES, SWINE, SHEEP, AGRICULTURAL, HORTICULTURAL AND DAIRY PRODUCTS; WOMEN'S WORK AND FARM BOYS' AND GIRLS' WORK.

PREMIER POULTRY EXHIBIT; NEW BUILDING NEWLY EQUIPPED.

MAMMOTH U. S. NAVAL TRAINING STATION "JACKIE" BAND, AND FULL QUOTA OF OTHER BANDS AND ORCHESTRAS; DAY AND NIGHT, ALL WEEK.

$20,000 "WORLD'S WAR" FIREWORKS SPECTACLE; STAGE 450 BY 250 FEET; 500 PEOPLE; EVERY NIGHT.

$20,000 WORTH OF CLEAN, HIGHEST CLASS VAUDEVILLE AND CIRCUS ACTS; DAY AND NIGHT.

12 WORLD'S CHAMPION WRESTLERS, INCLUDING JOE STECHER, ZBYSZKO, HUSSANE; WEDNESDAY, THURSDAY, FRIDAY NIGHTS

TEN-ACRE PAY SHOW WONDERLAND.

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STATE FAIR EDUCATES, INSPIRES AND ENTERTAINS ON BIGGEST POSSIBLE SCALE.

DAYS 50 Cts. NIGHTS 25 Cts.
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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI | FORT ATKINSON, WIS., AUGUST 30, 1918 | Number 6

Milk, the National Drink

ENOCH H. JOHNSON, New York

YOUR featuring in Hoard's Dairyman the article by Helen S. K. Willcox under the caption "Why Not National Milk Week?" shows the value of the suggestion in your estimation. The plan of the National Milk Week should meet with popular favor and could be very readily worked out. Publicity and enthusiasm would put it across.

Why not make milk the national drink? There are a thousand arguments in favor of such a movement. I cannot think of one argument against it. Such a plan would not enrich a few breweries or distillers, but it would enrich the dairyman, the seller, the consumer, the community, the nation, and the world. Very likely there never would be any federal tax on milk—to the contrary, I believe every facility should be afforded to get it to the consumer at minimum cost.

The Dairyman

With milk the national beverage it would be a mighty stimulus to the dairy industry. Assured a steady market it would mean more dairies and better cows; sanitary barns and sanitary handling of milk. The more cows, the greater the soil fertility. The profit made by the farmer on milk would be returned by him to the consumer in a more abundant supply of farm products at low cost. It would lift the business of farming to a still higher plane.

The Seller

Can you imagine the glorious spectacle of a man standing up to the hotel bar with his wife and children, refreshing themselves with milk? No screens necessary, no federal, state, and city tax to come out of the seller's profits. His signs might announce: "Pure Guernsey, Holstein, or Jersey milk, fresh today in sterilized containers—kept on ice." A large sign on the wall should read as follows: "Dairy Products Make Us What We Are."

"Who are the peoples who have achieved, who have become large, strong, vigorous people, who have reduced their infant mortality, who have the best trades in the world, who have an appreciation for art and literature and music, who are progressive in science and every activity of the human intellect? They are the people who have patronized the dairy industry."—From an address by Dr. McCollum.

This same reading matter should appear on the hotel menu cards.

The masses would have free access to the milk counters—the amount of business in the "Milk Rooms" would insure the proprietors a good profit—none of it to be back-handed to the local political ward heelers. What a self respecting and community respected man the hotel proprietor would become! The barrier of ostracism would be removed.

Ice cream parlors should encourage the serving of cold milk instead of water with the ice cream. Wherever people gather at base ball and amusement parks, fairs, conventions, and shows there should be found the milk bar or the milkmaid serving the people with the refreshing food beverage.

The Consumer

The English language hardly contains descriptive words sufficient to enumerate the blessings and benefits that would come to him by drinking milk in contrast to alcoholic drink and camouflaged temperance beverages with their demoralizing influence. Drinking milk does not excite the passion or set the brain on fire as do alcoholic beverages, which is the great factor leading to crime, vice, and immorality.

The benefits are summed up in Dr. McCollum's classic above referred to and covers the situation in a nut shell. Again quoting Dr. E. V. McCollum, Johns Hopkins University, Baltimore, Md.:

"Whole milk is the perfect ration—the natural food. It is not merely a drink—it is a food. You eat milk. It nourishes the body, rebuilds and repairs the worn tissues. Most people eat too much. They overload their stomachs. Dairy products are easily assimilated. They give you a higher rate of food value, without taxing the stomach. The family whose meals are largely composed of dairy products are seldom troubled with digestive disorders.

"The food value of a quart of milk is the equivalent of three-fourths of a pound of beef, two pounds of chicken, or eight eggs. Compare costs—milk wins.

"Butter, cheese, cottage cheese, and ice cream, as concentrated products, are still higher in food values.

"Dairy products help solve the problem of the high cost of living. They save health. They save money. They save meat and wheat for our armies 'Over There'.

"The dairy-fed family lives more healthfully, more economically, more patriotically, and more sensibly, than families who live on meat, not milk.

"The children must have a dairy diet—adults should have it.

"For the sake of your family's health, and for the reduction of your living expenses, use more dairy products, and then some more."

The Community

Would you not like to live in the locality where milk was used as a refreshing beverage as well as for food? Very little work for the policeman or criminal courts; vice and crime largely eliminated; everybody healthy and happy; school children well nourished would excel in their school work; the hazard of the drunken chauffeur a thing of the past; the money saved by the habit of milk food drink would build and furnish happy homes.

The Nation

When all communities have the milk habit this nation would develop a wonderfully efficient people, a nation incomparable with any previous or at present existing. Its power would have a marked and beneficial influence on all the peoples of the world.

The statement has been made that to take beer away from the workmen in the shipbuilding yards would impair their efficiency. It seems to me that here would be an opportunity for the National Milk Dealers' Association to prove the value of milk in a very very practical manner. If they could make armaments to open up canteens for distribution of milk to the shipbuilders and supply it free to all for a stated time it would prove the advantage of the use of milk as a beverage.

When the workman is convinced that milk is as much a man's food as it is food for a baby, that he feels better physically and can work more comfortably and effectively, he will gladly get the milk habit. The basic principal of merchandising will apply to milk the same as to beer, viz., create the desire—make the product available and it is sold.

Why not make milk the national drink? The public press can put it across.



JERSEYS IN A GEORGIA VALLEY

Turkey is starving, Germany pinched, and Austria rioting for food The allies are well fed and full of fight, thanks to Uncle Sam who invited them to sit down to his table a year ago—he has been passing around the victuals ever since.

"It's the songs ye sing, an' the smiles ye wear,
That is makin' the sun shine everywhere."

—JAMES WHITCOMB RILEY.

Watch the soap dish. If there is improper drainage, much of the soap will be wasted. And soap is made from fats, which in these war days are precious.

Hoard's Dairyman

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ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Wisconsin Jersey Meeting

The Jersey breeders of the Buffalo County (Wis.) Jersey Breeders' Association held their annual picnic at Wm. Armour & Son's farm, July 26. Many beautiful pictures and posters of Jersey cows sent by the American Jersey Cattle Club helped to boost the Jerseys. Mr. Houser, president of the association, gave a very appealing, patriotic talk which was followed by plenty of good music. Mrs. Ada Howie, a prominent Jersey breeder and extension worker, whose name is a household word in this state as one of the American women who have accomplished big things, gave the most entertaining and inspiring talk that the people of this country had had the opportunity to hear. She related her experience as a farmer and how she raised from one cow her famous Jersey herd.

The association has in the last year given out four valuable ribbons for different classes of Jersey cattle at the Buffalo County Fair, and has also gotten out a directory of the Jersey breeders of this county. The meeting closed with a very interesting judging contest. There are nearly fifty members of this association now and they are all boosting the Jerseys.

Wisconsin. HARLAN SEYFORTH.

New Connecticut Extension Dairyman

Mr. W. A. Rhea has been appointed to the position of extension dairyman in Connecticut, which was previously held by Karl B. Musser, who resigned to take up similar work in the state of Washington.

Mr. Rhea is a graduate of the University of Missouri and of Cornell University, New York. Since finishing school he has had charge of dairy instruction in the University of West Virginia.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

"It'll Come Out All Right"

When there has been a week of rain,
And then another one or so,
As if no sun would shine again,
And Noah's flood was in a flow.
When life, beclouded, dark and gray,
Is more blessing than a bliss,
And worry clutters up the day
With woes the other fellows miss.
My only star, my brighter word,
Is centered in the lowing herd.

Whatever else may come to pass,
The dairy dividends are sure.
The profits on each bonny lass
Make up for much we must endure.
They go right on, in rain and shine,
Through trouble and through happiness,
Whatever little ache is mine,
They balance up the sheet I guess.
Small wonder, heart and pulse are stirred
When thinkin' of the busy herd.

I come back blue, from trips in town,
This war talk has its ugly side:
And there I stand and grunt and frown,
With morbid thoughts I cannot hide.
But, purty soon, my dim eyes see
A pasture, shining in the sun,
Some brown forms, and an apple tree,
And fields where little rivers run.
And all those doldrums seem absurd,
I have my herd, I have my herd!

"What can you do to keep cows from kickin' while you are milking them?"

"Well, stranger, you could read them the latest war news, or sing Annie Laurie, or rig up a movin' picture show, but I keep 'em so busy thinkin' of the good food they're eating that they don't remember to kick."

The old oaken bucket used to hang in the well until some gol ding motorist cut th' rope and took it to fill his radiator.

Far from solving the labor problem, the farmerettes that move out on farms, stay just long enough to make our boys fall in love with 'em and then both beat it back to the city.

Thoughts of the Oldest Dairyman

Most men haven't any idea of what patience means. Ever watch a spider waiting for a lush young fly?

You could get along without a cream separator just as well as you could get along without cream, but why mix up with the kind of man that sees soldiers passing and thinks it's still th' Civil War.

There's one sure sign that times are advancing—th' chaps that illustrate farm journal ads have quit drawing farmers with long chin whiskers.

If Mr. Hoover asks me to cut down on my grain as feed, you can bet your last dollar that there'll be a mighty hungry peacock struttin' around by next August.

The One Thing He Learned

"Been up to the farmers' college, Zeke?"

"Yep, spent a week there."

"What ye learn?"

"That ye can't beat one uv them wheels uv chance, that buttered popcorn is bad fer th' digestion, an' thet them Circassian ladies takes their hair off after workin' hours."

Playing Safe

"Sam, why do you always take off your hat when you pass the lot where I keep that big red bull of mine?"

"Kaze why, Suh, Mistah Henry, any bull dat kin do whut dat bull did ter three er my wust enemies, deserves respec.' "



"Slipping" not "Saving"

"I kept slipping back two feet every time I went ahead one." That's what the small boy gave as an excuse to his teacher for being late for school one winter day.

And that's just what is happening to the cow owner who is trying to get along without a cream separator or with an inferior or half-worn-out machine. Like the small boy he is "slipping." He thinks he is thrifty, but for every dollar he saves by not buying a De Laval he loses two through not having one.

It *isn't* economy to do without labor saving and money saving and food saving machines. It *isn't* economy to feed 40-cent butter to the calves and hogs.

It *is* economy to buy and use only the best cream separator made—and that's the De Laval.

Viewed from every standpoint—clean skimming, ample capacity, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

It's real thrift and genuine economy to buy a De Laval Separator NOW.

Why not see the nearest De Laval agent at once! See a new 1918 De Laval machine for yourself. Try it to prove every claim made for it. If you don't know a De Laval agent write direct to one of the addresses below.

The De Laval Separator Co.

165 Broadway, New York 29 E. Madison St., Chicago

Important Alfalfa Winter-Killing Precaution

L. F. GRABER, Wisconsin

IF you have a good stand of alfalfa and want to keep it good—don't cut or pasture it after the first week in September. This applies particularly to the eastern and north central states where winter-killing is a serious problem to be contended with. Alfalfa requires a growth of eight or more inches to hold the snow for winter protection. More than one good field has been entirely or partially winter-killed because it seemed such a waste to leave that much growth of valuable alfalfa uncut. Even though you only get two cuttings this year, do not take the third unless you can get it before September 5th. You may need the hay this winter but you will need it just as badly next year. A good alfalfa field produces hay which commands the highest market price. Does it pay to take a chance on "killing the goose that lays the golden eggs"?

Late Fall Cutting Reduces Next Year's Yields by One-Half

Here's what happened on the Wisconsin Experiment Station Farm last winter.

In the fall of 1917 the upper half of our five-year-old experimental plots was cut on September 25. A fall growth of 12 to 15 inches was left on the lower halves of these same plots. This spring and all summer long you could see to the very line the difference in the stand and growth of the alfalfa where it was and was not cut late the previous fall. The upper half of each of these plots was decidedly thinner—shorter in growth, weedier, and yellowish in color. It had been weakened and partially winter-killed by late cutting and has not as yet recovered from the shock. This season's yields will warrant your most careful consideration.

Late fall cut half of the plots of common alfalfa (first cutting) averaged 1,620 lbs. of weed free, field cured, alfalfa hay an acre compared with 3,300 lbs. for that which was not cut after September fifth the previous fall, a reduction in yield of over 50 per cent. With the second crop late fall cutting reduced the yield 35 per cent.

With the hardier Grimm and Baltic alfalfas this unwise practice did not cause such a serious loss but even these sturdy varieties suffered considerable reduction in vigor of growth and yields. The late fall cut portion of the Grimm and Baltic plots, (first cutting) averaged 3,720 lbs. of weed free, field cured alfalfa hay an acre, compared with 4,680 lbs. for that which was not late fall cut—a very pronounced difference, when measured in the dollars and cents of present hay prices. With the second crop late fall cutting reduced the yield 11 per cent.

A Cure for Blue Grass Troubles

To be sure, the avoidance of late fall cutting is not a guarantee against winter-killing, but it does often spell the difference between failure and success in maintaining good stands of alfalfa. How very often we hear that alfalfa is not adapted to the middle west and eastern states because blue grass crowds it out. Nine-tenths of the blue grass troubles are the result of winter-killing, either from a late fall cutting and pasturing, or the use of tender strains of seed or both. With proper soil conditions, preparation, and treatment, a good, thick stand of alfalfa will not become infested with blue grass until winter-killing thins out the alfalfa and gives the blue grass a chance to creep in. A good field that becomes 50 per cent winter-killed will appear full of blue grass the same spring. The natural conclusion which follows from the sudden and abundant appearance of this valuable pasture grass is that it has crowded out the alfalfa and taken possession of the soil. Has it? Yes, it has taken possession of the soil occupied by dead, winter-killed alfalfa plants which if alive and vigorous would hold their own against the most aggressive invader of our alfalfa fields. This fact is well illustrated in the alfalfa experimental plots of the Wisconsin Experiment Station, where the five-year-old plots of Grimm and other hardy varieties are today practically free of blue grass while the plots of common, immediately adjacent, which have partially winter-killed are full of blue grass.

Hardy Varieties for Permanence

The growing of such hardy varieties as Grimm, Baltic, and Cossack alfalfa and the avoidance of late fall cutting and pasturing will in a large measure solve our winter-killing problems. To be sure, no alfalfa is absolutely winter-proof. But it is a fact that true, genuine Grimm, Baltic, or Cossack alfalfa will live through winters where the common ordinary alfalfa from western states may kill out so badly that plowing up is essential. It is very important to remember that it is just as hard to get a stand of Grimm alfalfa as it is with common but after you once got a stand of Grimm, it lasts. Hardy alfalfas need exactly those same soil conditions and treatment as are necessary for the common types.

Lime, inoculation, and manure,
Make alfalfa doubly sure,

applies to Grimm and other hardy strains just as emphatically as it does to common alfalfa.

The greatest difficulty that obtains with hardy alfalfa is to secure true, genuine Grimm, Baltic, or Cossack alfalfa seed. There may be seed offered on the market under the name of these hardy varieties that is nothing more or less than common alfalfa. Substitution, adulteration, or misrepresentation are readily possible, for no one can distinguish between seed of these excellent varieties and common. It is indeed unfortunate that such a handicap should exist. On the other hand, there are reliable alfalfa seed growers' associations, as well as large individual growers of true Grimm, Baltic, and Cossack, whose seed can be relied upon and whose honesty and integrity for square dealing is unquestioned.





TWO AYRSHIRE COWS OWNED BY SOUTH FARM, OHIO

On the left is Lessnessock Joan who recently completed a mature record of 14,488 lbs. milk, 592.58 lbs. fat. She has two previous records; as a two-year-old, 12,374 lbs. milk, 511.7 lbs. fat; and as a three-year-old, 13,595 lbs. milk, 565.9 lbs. fat. She is a half sister to Lessnessock Buntie, exchampion two- and three-year-old.

On the right is Foxten's Myrtle Beppo whose mature record, lately completed, is 14,653.6 lbs. milk, 534.42 lbs. fat.

A third cow on South Farm, Moss Rose of South Farm, has finished a production of 13,541 lbs. milk, 472.32 lbs. fat.

Picardy—And The Farm

I

WE'VE fought like fiends along the line of blood and death today,
And never, since the first of it, home seemed so far away.
Dawn filled the sky with sun and shell; the barren land between
Stretched endlessly, without a sprig or blade or leaf of green.
We closed our eyes, my pal and me, and both thought back awhile
To other fields and other hills where summer beauties smile.
I think we both could see the farm—could breathe the clover-air,
And feel the warm, sweet, wine-like breeze that always whispered there.

II

"I wonder what they're doing," Jim, my pal, was whispering,
"It's milkin' time! I hear th' cows—th' bells upon 'em ring."
"You fool!", sez I, "it's fightin' time—you hear a telephone;
They're mapping out a new barrage to give th' twilight tone."
But I was dreaming, too, I guess—I thought I heard a bell,
And home-bound feet that trudged along a little leafy dell.
And all the shell-torn miles grew bright because of memory
That brought a vision of a home and peaceful herd to me.

III

"Just now," sez he, his 'fag' agleam, "they're comin' down th' lane;
Th' dog is runnin' on ahead—it's dampish, after rain,
Them plum trees, over by the lot, are glistenin' an' bright.
Say, boy, the old place, just at dusk—it was a purty sight!"
I lit my fag from his and grinned and got my gas-mask out;
"That ain't no clover what you smell," I sez, "It's gas about.
And, as fer rain, I hope it won't—the mud is bad enough!
I hate like sin to fight th' Huns while wadin' through that stuff!"

IV

And when th' spring came over France and flowers bloomed a bit,
Jim used to crawl outside th' lines fer them and risk a hit.
He'd wear a poppy on his coat—a purple iris, too,
And smile at them, through dust and mud and things they shot at you.
"We have them little purple flags back home," Jim used to say,
"I wonder if th' meadow paths show golden rod today."
"Forget it, Jim," I always cried, "hold down your foolish head;
The Hun is sowing seeds of strife in this here garden-bed."

V

And then—one evening, just at dusk, they brought Jim down the line;
His poor, limp figure tóld th' tale—that home-sick pal 'o mine!
And, somewhere "West" of trench an' guns we gave Jim back to God—
His poppies on the little mound—his iris on th' sod.
It was a pretty, quiet place, for Flanders hills are fair,
And to his left an old church stood in benediction there.
But, best of all, the slope was green with grass and willow trees,
The things Jim loved were 'round about, in case a dead man sees.

VI

Since then, it's been the same old life of conflict and of gun;
Of battles that we love to fight—of trenches lost and won.
The Flanders fields are khaki-hued—and still the legions come,
And still the dear flag sings our souls when lips of us are dumb.
And I will ever think of Jim as one, who, facing death,
Could see the grazing herds at home—could catch th' violet's breath.
No barren waste of shell-torn land, but what gave back to Jim
The little, simple, homely things that farm life meant to him.

—*W. Livingston Larned.*

Louisiana Dairymen's Co-operative Association Incorporates

HOARD'S DAIRYMAN:—At the recent annual meeting of the Louisiana Dairymen's Association, policies were adopted which, if carried out co-operatively, will greatly enhance the value of the dairy industry of this section. Over six hundred producers ship their entire output of milk to New Orleans. In the past there have been two factions, each, seemingly, working against each other and all of them antagonistic to the consumers and city distributors. Indications are now that all differences have been cleared up and the dairymen will get down to work in a business way to bring about more friendly relations between farmer, dealer, and housewife and also do something for the good of the industry as a whole.

There was a large attendance at the meeting, with no display of unpleasantness or wrangling over any phase of the dairy and milk situation. The Louisiana Dairymen's Co-operative Association, Incorporated, was organized to take the place of the old association. Authority to incorporate is granted under the Clayton amendment to the Sherman anti-trust law and the Johnson co-operative association law recently enacted by the Louisiana legislature. The board of directors has absolute power to fix the prices at which dairy products shall sell and do it within the law. Heretofore the dairymen have had to take what dealers were willing to pay. Indeed the producers have been compelled to resort to some strong practices in order to obtain a living price for milk. It is believed the price question will solve itself as the new association gets into operation because everybody realizes that

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Carterville Jersey Breeders' Association

E. M. CLARK, Illinois

THE betterment of the dairy industry depends upon many factors which are within the control of the dairyman. Good cows, intelligent feeding, and proper herd management are all essential in profitable dairying; but if any permanent improvement is to be made in the production of milk and butterfat in the future herd, all the foregoing factors are good for naught, unless a good dairy bull is used. By a good dairy bull is meant a pure-bred sire of one of the recognized dairy breeds of cattle, which possesses good individuality and is the offspring of high producing ancestors. If "like begets like or the likeness of some near ancestor", it behooves every breeder of cattle to obtain the use of the best bred bull that circumstances will permit.

Pure-bred bulls from cows producing large quantities of milk and butterfat are higher in price than grade or scrub bulls. Dairymen with small herds do not usually feel justified in investing much capital in a bull. As a result many scrub and grade sires are used. Even though a good bull is used, it will be necessary to dispose of him after two years' service in order to avoid in-breeding and, in most cases, the bull then goes to market. Many good bulls have been sent to the shambles long before their period of usefulness was over and before their real worth as sires of good daughters was determined.

A dairy bull association is an organization for the purpose of co-operative ownership of pure-bred dairy bulls. The bulls purchased by the association are distributed among the members in different territories. Each territory is called a "block" and one bull is assigned in each "block." At the end of each two years the bulls in the various "blocks" are exchanged to prevent in-breeding; that is, for instance, if there are four "blocks" in the association, each of the four bulls serves two years in each "block," thus making the period of usefulness of each sire eight years. This method of management reduces the investment per member to a very low figure, and makes it possible to know the value of each sire before it becomes necessary to dispose of him.

The farmers in the vicinity of Carterville, Illinois, saw the advantage of a co-operative dairy bull association back in 1916, so they formed what is known as the Carterville Jersey Breeders' Association.

The farmers who joined were sectioned off in five breeding blocks. Five pure-bred Jersey bulls were obtained and one placed in each breeding block.

In this community the herds are small, averaging about six cows. Jersey blood predominates, although there are several cows which do not show much dairy blood. There is a total of about forty head of pure-bred Jersey cows in the association which will undoubtedly serve as "seed" for an increased number.

At present the results of the efforts of these dairymen to better their herds are being felt. There are a large number of fine Jersey heifers resulting from the use of these good bulls. So soon as these heifers begin to freshen there should be an increase in the milk and butterfat production per cow in the Carterville community.

Some of these dairymen in co-operation with the University of Illinois Dairy Department will soon begin to keep production records on their herds. When the heifers freshen, milk, butterfat, and feed records will be kept on them in order to compare their production with that of their mothers.

The Carterville Jersey Breeders' Association is the first co-operative bull association in the state of Illinois. It is meeting with such splendid success that from this small beginning it will not be long before Carterville is known far and wide as a Jersey community where high class stock is raised.

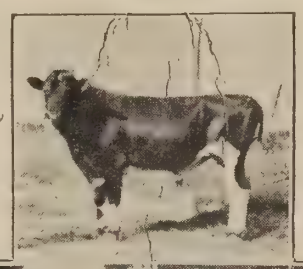


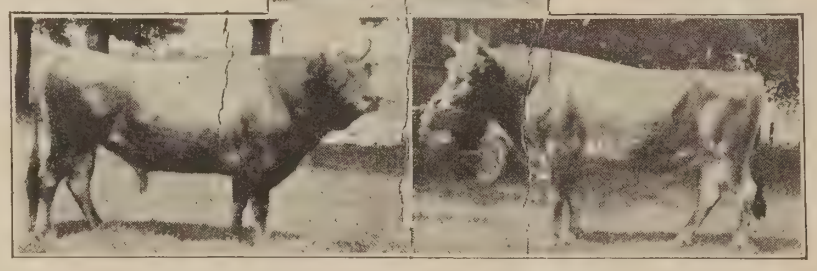
JERSEY HEIFER CALVES SIRED BY THE PURE-BRED JERSEY BULLS IN THE CARTERVILLE, ILLINOIS, BULL ASSOCIATION

Records will be kept when they reach milking age and a comparison will then be made of their production as compared with that of their dams.

Value in Milk Producers' Organizations

HOARD'S DAIRYMAN:—The usefulness of organization is illustrated in the milk prices for the season and the inferences that may be drawn from them. For the six months, April to September inclusive, the dealers offered for the season the following prices: April, $2.25; May, $2.00; June, $1.60; July, $2.00; August, $2.25; September, $2.50. This is an average of $2.10 a hundred pounds and is for three per cent milk. The prices that have been obtained are as follows: April, $2.50; May, $2.46; June, $1.80; July, $2.25; August, $2.70; and September, $2.90. This is an average of about $2.42 or some 32 cents above what the dealers thought they would pay. Now if you can imagine what the dealers would have thought right for them to pay, had they known that there was no organization to deal with, it will be easier to determine the worth of organization. It is an easy guess that the price under such conditions would have been a lot lower.





THREE OF THE FIVE PURE-BRED JERSEY SIRES OWNED BY THE CARTERVILLE, ILLINOIS, JERSEY BREEDERS' ASSOCIATION

For the most part I think that dealers are glad that we have organized. Not so much because we get higher prices than otherwise, but for the reason that they deal with a body rather than with individuals. Moreover, they have known for a long time that farmers did not get enough for the milk. I have had them tell me so. They want and have wanted all along a good profit for handling the milk, but if they could get that they did not care how much they paid for it. For example, a few years ago the Bordens decided to pay extra for a couple of months for milk. They expected to charge more to consumers. They made the experiment and every paper in the city raised a cry against them. Other dealers were ready to follow the Bordens, but when they saw the cut in the trade that resulted from the act the others did not follow and the Bordens had to abandon the idea. The better dealers have decided to work more in harmony with the League I am sure. It is true that I am taking their statements in this, but conditions warrant accepting the truth of the statements. Organization has made it possible for dairymen to be heard and for them to get the prices needed by enlightening the consuming public on costs and the necessity for better prices. Let us keep our organization intact and strengthen it in every way possible.

In my home town we have another illustration of the worth of organization. Some may remember my account of the seven dairymen who bought a house and lot by the railroad last fall. We got the co-operative organization formed and it took over the property as we planned. Some of us thought we should go further and put up a building so that we might be fortified against trouble with the buyers of milk. Others said there was no danger and the fact that we had a beginning would deter any attack on us. It did not so prove out. Early in July we were told that we could not sell milk to them after the first of August. We were organized however not only as a League, but as a co-operative association. We went to work at once and raised money and bought a fine creamery building, rented it to one of the largest milk dealers, and on the first of August had some 35,000 lbs. of milk going right in there. Moreover, we were getting League prices and getting good interest on our investment in the creamery. More about this later. Organization did the deed.

The various experiences that we have in organization, especially when we get out of a tight place nicely, strengthens our organization. The concern that had been buying our milk became arrogant and seemed to have set out to destroy us as an organization. Indeed they are reliably reported to have said that they had the League right where they wanted it. They decided to divide the members and take on a part and leave the workers without a market for their milk. Only a half dozen or so remained with them and a part of those have decided for one reason or another to abandon the fight and have come with us. Now the company admit that they want milk and are willing to pay for it. It is doubtful if they can get much from the League members after the experiences of the past month. Even those who would be taken on refuse to go against the organization. It was a badly advised stunt of the dealer and was abetted by some of the village people, one of whom owns a farm and sells milk. It has placed both in bad repute among farmers of the vicinity.

Organizations among milk producers seem to be quite strong whether about New York, Boston, or Philadelphia. I have heard of disaffection in some sections but there appears to be little ground for the reports. The strength lies in the members, of course, but it looks now as though there may have been fortunate selection of officers. Not that the ablest have always been chosen, but men who are for the most part honest. Some think that there has been a desire to get salaries beyond the ability to earn in certain cases and this may be true, but we have so far heard of no overt actions that were tinged with absolute dishonesty. We know of few statements relating to financial conditions and it is claimed that such statements should not be made public. To this I cannot agree but that may be because I do not understand the situation as well as I should. Really I do not think that it is altogether the changed attitude of the rank and file or the exceptional ability of the officials in any of the organizations that have made organizations stronger than in the past. It seems to me that the opportune moment arrived and that advantage was taken of it.

It is by no means impossible that such organizations as the Dairymen's League will go to pieces some day, but as the time goes on there is less liability for it to fall to pieces. Here and there we find some trouble of course. There is a case of a creamery in Vermont I am told that is in Boston territory but which is shipping milk to New York. The buyers maintain that it is not under either organization, and they simply pay just what they feel disposed to pay and that is much less than organization prices. This illustrates the usefulness of organization and at the same time shows that it is possible for the dealers to get in a wedge here and there. Condenseries have been closed or part of the milk refused and there is another wedge. These breaches will have to be closed in some way or organization will suffer. In one case a condensing concern was operating three sub-stations. They gave notice that they would not take the milk longer from the League, but they went into the territory and offered to take the milk if the farmers would pay a generous bonus for transportation. In this case the League came off victorious as they immediately sold the milk to another concern. The former buyers made complaint but the deal stood. It is still a game and the victories are not all on one side.

I have been asked why the Bordens, for example, desire to open new creameries in some localities and close them in others. We must remember that there are now two Borden concerns. Both are undoubtedly supported by the same money but are under distinctly separate management. One is a condensing concern and the other sells milk in the cities in the fluid form. They closed one large condensery not far from my home and at almost the same time opened other stations to take in milk for the city trade. Why not take milk from the locality where the condensery has been operating? There may be more to this than appears on the surface, but it is understood that condenseries are closed because they can

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Organizing for Feed Defense

SANDERS SOSLAND, MISSOURI

VIII. CORN AND OATS PROSPECTS

CAREFUL consideration must be given corn and oats in studying the general feedstuff situation, or the probable trend of prices and supply of any particular feeding commodity. Too little attention has been given corn and oats in the past by co-operative dairy feed purchasing organizations. These coarse grains wield a tremendous influence in the general feedstuff situation. It is often possible to forecast with some degree of safety the outlook for any particular feed by giving close study to corn and oats. For this reason, war feed community purchasing organizations must not overlook these two commodities when seeking light on feedstuffs in general.

Unless some unusual condition develops, all the products used in rations for live stock have a normal relation with each other. Generally corn is the basis of values. In this respect, oats ranks next to corn; in fact, when studying the general feed market situation, attention must be given to both corn and oats. For instance, corn sold at unprecedented levels last year, for a time even higher than the fixed quotations for wheat, and all other feedstuffs were then at the highest mark in history. Similarly, the decline in prices for corn and oats —the latter grain feed usually follows a course sympathetic with corn —was the prelude to a relative downturn in other feedstuffs.

Unfortunately, prospects for the corn harvests, which on July 1 gave promise of a crop of 3,160,000,000 bushels, the greatest crop in the history of the country and larger than last year's record production, have slumped enormously. As compared with the July 1 estimate of the United States Department of Agriculture, a decrease of 170,836,000 bushels was recorded in the August 1, 1918, prospect, and in the week following private students of the crop situation declared many, many more millions of bushels of the coarse cereal were lost owing to the severe drouth. On August 1, the Department of Agriculture estimated the final yield, allowing for normal deterioration in the remainder of the crop period, at 2,989,000,000 bushels, compared with the 1917 harvest of 3,159,836,000 bushels. The estimated figures are based on a condition of 78.5 per cent of normal, compared with 87.1 per cent a month ago and 78.8 per cent a year ago. Approximately 113,835,000 acres were planted to corn this year.

Extremely high temperatures, ranging as high as 115 degrees in Kansas, and above 100 degrees in other states of the Southwest, with a marked and almost nation-wide absence of moisture, were the influences of the crop deterioration in the month of July. Since the issuance of the government report on August 1, territory west of the Mississippi river, and even the leading corn states, Iowa and Illinois, have suffered heavy deterioration.

Advices from all parts of the corn growing sections indicate the crop is two to three weeks ahead of normal, which assures maturity before frost. It is remembered that frost resulted in extensive damage a year ago. But moisture is seriously lacking at this writing.

The federal crop observers predict an oats yield of 1,428,000,000 bushels, compared with the estimate on July 1 of 1,436,617,000 bushels, and the final 1917 production of 1,587,286,000 bushels. Most of the oats crop matured before the drouthy period, and considerable of the new grain already is moving to market. It is estimated that farm reserves of old oats amount to 80,504,000 bushels, compared with invisible holdings in the preceding year of 47,771,000 bushels.

In analyzing the trade situation in corn and oats, war feed community organizations must not overlook the demand for both coarse cereals for human consumption. Demand for corn meal and corn flour in the past year was the important influence in the rise of cash corn to a point above the $2-level. For the first time in the annals of the grain trade, prices in the past year reached the highest mark on a crop the greatest on record. The same was true of oats, but to a lesser extent.

Regulations of the United States Food Administration, since the accession of Herbert C. Hoover to the position of food administrator, called for consumption by housewives of an equal amount of some substitute product with wheat flour. Bakers were required to use at least 25 per cent of substitutes, but many bakers, as well as hotels and restaurants, eliminated wheat flour entirely from the table. As a result of this substitution and elimination, vast quantities of substitute products were required. With the housewife and the baker having little knowledge of any substitutes except corn and oats flour and meal, these products were almost generally consumed, thus greatly augmenting the demand for corn and advancing prices. For the first time in history, feeders of cattle and hogs were forced to enter into keen competition with millers who were feeding humans.

Substitution continues but in lesser volume. Housewives are still required to take 50 per cent of substitute and bakers 25 per cent, while complete elimination of wheat products from restaurants and hotels, which was voluntarily agreed upon, no longer is necessary. It is understood the food administration will make less drastic its substitute regulations after September 1, but the extent of the probable reduction is not known. However, war feed community organizations can safely rely upon a much smaller human consumption of the coarse cereals. A great wheat crop lessens the need for substitution. Millers of flour already are clamoring for a change in the substitute regulations, declaring they can easily supply the crop year's domestic demand with mills running less than two months.

Corn and oats have advanced sharply on account of the serious drouth over the entire Southwest, and inadequate rainfall elsewhere. Choice grades of corn are now selling around the $2-level. Oats, as usual, followed a sympathetic course, with prices around 75 cents per bushel. With further deterioration in the prospective corn yield, which seems probable, high prices will doubtless prevail on the coarse cereal. Another important factor in the corn trade is the greatly increased feeding of cattle and hogs in the United States. Demand from feeders will be further augmented by the lack of pasturage in the Southwest and West. Hay crops, too, are short, another important influence.

Owing to the relatively high price of corn, oats have been extensively substituted for the leading coarse cereal. Live stock interests will doubtless continue this practice of economy, especially if the corn crop suffers more permanent damage.

War feed clubs which plan co-operative buying of corn and oats in order to prepare for winter's needs, will do well to enter the market immediately. A glance at market statistics and probable factors brings out practically no "bear" or price depressing influences. Early buying of corn and oats, especially the latter, by war feed community purchasing organizations, seems advisable. And, as the prices of all feedstuffs not regulated depend in a great measure upon these two coarse cereals, the time seems ripe for early purchases of other feedstuffs. In fact, the recent adverse corn crop developments make delay in acquiring feed for winter more inadvisable than ever unless heavy and general rains come very soon and effect a reaction in prices. But the damage to corn is already too extensive for a very sharp reaction.



IMP. MASHER'S GALORE, GUERNSEY SIRE, OWNED BY HARBOR HILL, NEW YORK, NOW SEVENTEEN YEARS OLD AND STILL IN ACTIVE SERVICE

He has 19 A. R. daughters, five of which completed their records during the past year with an average of 13,093.18 lbs. milk, 667.09 lbs. butterfat. Two of his daughters and a double granddaughter are shown on this page.

Cost of Concrete Silo

In his annual report to the Dairy Division, Ben R. Eldredge of Utah gives the following detail of costs in building a 100-ton monolithic concrete silo. The figures are taken under Utah conditions but are applicable to many other sections. The total of $319.35 is said by Mr. Eldredge to be less than the cost of erecting a similar capacity stave silo in Utah.

127 sacks cement @ 70c	$88.90	
Rope, buckets, oil, pulleys, and tamper	4.80	
Nails	.70	
Lumber for platform and scaffolding	17.00	
52 ft. 1½ inch pipe	10.05	
34 rds. wire, 36 inches high	17.70	
14 rds. for ladder	4.20	
Tarring	10.00	
Total for material		$153.35
3 men 13 days @ $2	78.00	
4 men and teams 2 days @ $4	32.00	
1 team 3 days @ $2	6.00	
Total for labor		$116.00
Rent of forms		50.00
Total cost		$319.35

"Diligence is the mother of good luck."

"Economy is simply the art of getting the worth of your money."

"If you want a thing done, and done right away, ask a busy person to do it."



Linden Girl of Harbor Hill 3d has a recently completed record in Class CC of 15,032.9 lbs. milk, 785.89 lbs. fat. This places her at the head of the class and makes her champion cow of the breed in the new maternity class. A previous record of 12,636.9 lbs. milk, 681.34 lbs. fat, gave her fourth place in Class F.

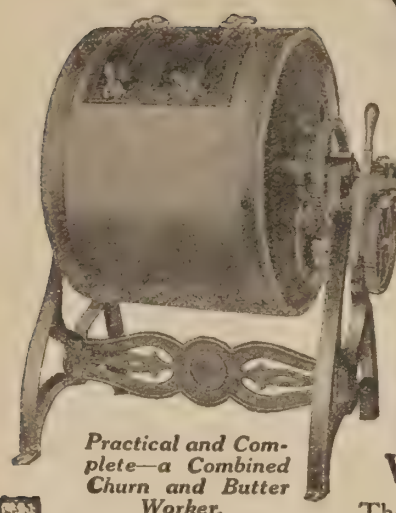


Linden Girl 2nd, a daughter of Linden Girl and a double granddaughter of Imp. Masher's Galore, now on test has produced 7,726.3 lbs. milk, 312.56 lbs. fat in Class D in 204 days.



Linden Girl, whose third A. R. record lately finished is 15,819.9 lbs. milk, 785.55 lbs. fat. The three records made in consecutive lactation periods average 14,149.7 lbs. milk, 709.17 lbs. fat. One of these, of 14,682.8 lbs. milk, 747.45 lbs. fat, makes her among the leaders in Class B. She is a full sister to Linden Girl of Harbor Hill 3rd, both being daughters of Imp. Masher's Galore.

Victor Jr. Churn



Practical and Complete—a Combined Churn and Butter Worker.

The Churn That Helps You to Make Firm Butter in the Warm Weather

The **Victor Junior** Churn puts butter making on the farm on a level with creamery butter making. It keeps the temperature down much better than the ordinary churn both during the churning and the butter working.

The mechanism of the churn is such that it will not only churn quickly but will get all of the butter. It also preserves the butter from dust and flies because when the churning is done, the butter can be salted and worked right in the churn. It does not have to be removed until finished.

To get the best butter, the temperature of cream for churning should be from 50° to 60° F. according to the density of the cream. A rich or dense cream requires a lower temperature than a thin cream. Having the cream at the right temperature to start with counts much in producing firm butter of good appearance.

The **Victor Jr.** will do the rest. The drum of the churn is built of heavy, well seasoned lumber. Under average conditions the temperature in the churn should not rise more than a few degrees during the churning and working process. The rolls work the butter thoroughly. It comes out with a good grain and firm.



We make and sell more churns for creamery use than all the other concerns combined so you can depend on our recommendation of the Victor Jr. as the ideal farm churn. It is covered with our iron clad Guarantee.

Full information in our Dairy Supply Catalogue.

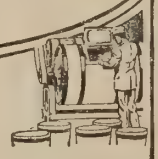
THE CREAMERY PACKAGE MFG. COMPANY
68 W Kinzie Street Chicago, Illinois

Women Want It

Butter with the rich golden June tint of Dandelion Brand Butter Color *sells better* because it *looks better.* Don't think *any color* will do—demand

Dandelion Brand Butter Color





We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.

WELLS & RICHARDSON COMPANY, Burlington, Vermont.
Manufacturers of Dandelion Brand Butter Color

Dandelion Brand Butter Color
The color with the golden shade

Help Save the Canadian Crops

When Our Own Harvest Requirements are Completed

United States Help Badly Needed Harvest Hands Wanted

Military demands from a limited population have made such a scarcity of farm help in Canada that the appeal of the Canadian Government to the United States Government for

Help to Harvest the Canadian Grain Crop of 1918

Meets with a request for all available assistance to go forward as soon as our own crop is secured.

The Allied Armies must be fed and therefore it is necessary to save every bit of the crop of the Continent—American and Canadian. Those who respond to this appeal will get a

Warm Welcome, Good Wages, Good Board and Find Comfortable Homes

A card entitling the holder to a rate of one cent per mile from Canadian Boundary Points to destination and return will be given to all Harvest Applicants. Every facility will be afforded for admission into Canada and return to the United States. Information as to wages, railway rates and routes may be had from the

UNITED STATES EMPLOYMENT SERVICE

Branches in all large cities of the U. S.

Storing Vegetable Crops for Winter Use

HOARD'S DAIRYMAN:—In times of peace the average householder provides some means of furnishing his table with vegetables through the long winter as well as the summer months. Now that we are at war it is especially desirable that we save all surplus vegetables and root crops. Some vegetables and fruits lend themselves readily to the process of drying and this practice should be followed as closely as possible.

Whatever methods of storage are employed every ounce of foodstuffs should be saved. The questionable condition of freight systems, the shortage of labor just when needed, and the quick spoilage of food crops all make it imperative that some form of provision for the storage of food be planned for before the harvest season is upon us.

Storage of root crops in outdoor pits or banks is the least expensive method and was practiced successfully by our forefathers. These pits or banks are made by digging an excavation 6 or 8 inches deep in a well drained location and are lined with straw, leaves, or material of like nature. The vegetable root crops are placed on this litter in a conical pile. Straw and leaves are then placed over this as a first covering followed by 10 or 12 inches of dirt. The mound must not be completely covered with dirt the first day but should be allowed to sweat and dry out a few days. Precaution must be rigidly observed to protect the mound from rain. As severe weather approaches, an extra layer of soil may be added. Deep drains must be provided until there is no danger of moisture soaking through into the bottom of the pile of vegetables. The question of ventilation is important. Small pits that contain but a few bushels of vegetables will receive sufficient ventilation if the straw between the vegetables and the earth covering is allowed to extend through the latter to the top of the pile. This exposed straw should be covered with a board or piece of tin held in place by a stone as a protection from rain. In the larger pits ventilation can be secured by placing two or three pieces of rough boards up through the center of the pile of vegetables so that a flue is formed. This flue must be capped by an inverted trough made by nailing two pieces of boards together at right angles.

As it is somewhat difficult and precarious to open these pits and close them again without injury to the roots nearest the surface, a small number of small pits is preferable to one large mound. Again, in place of storing each crop in a pit by itself, it it better to place a small quantity of several kinds of vegetables in the same pit so that it will be necessary to open only one bank to get a supply of all of them. In storing several crops in the same bank it is a good plan to separate them with straw, leaves, or other material.

When the ground is frozen hard in winter difficulty will be experienced in opening the pits. Several big steel wedges will open the banks easily for as they are driven into the frozen earth it will crack in large pieces and can be easily removed.

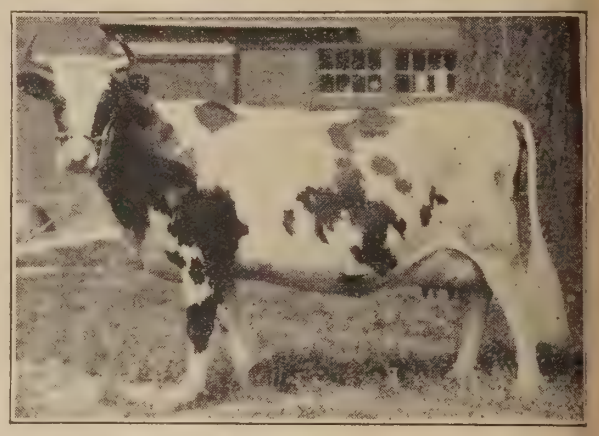
Most vegetables suitable for storage should not be harvested and stored until the arrival of cool weather or about the time of the arrival of the first killing frost.

There are a few root crops that respond successfully to the same method of storage. Others require a little different treatment. Among all the various kinds of winter vegetables, the onion stands out by itself for certain conditions at harvest. To keep well, onions must be mature and thoroughly dry. As good ventilation is essential they are best kept in baskets or crates. When so stored they must be placed where it is dry and well ventilated. The attic is a favorite place with many people as slight freezing does not injure the onions.

The Irish potato is one of the important food crops that may be stored successfully in the outdoor pit. Potatoes should be fully matured before digging, have the loose dirt removed from them and left in the sun to dry a little before storing.

The outdoor pit method is one of the best ways of storing cabbage. When pulled up they are left with their roots and leaves on and arranged roots up, three directly on the ground and two above. The row is covered by heaping dirt on it.

Carrots, beets, and turnips require about the same treatment when stored in outdoor pits. These pits should be filled with the roots piled cone fashion covered with leaves or straw, then earth. Beans and peas may be kept for winter use by picking the pods as soon as they are mature and spreading them in a warm, dry place like the attic floor till the beans or peas are thoroughly dry. Then shell and store in bags hung in a dry, well ventilated place till needed. Navy and other bush beans must be allowed to mature on the vines until the greater number of pods are ripe. Then pull the whole plant and cure it like hay. After thoroughly drying, beans may be threshed and stored.



Willowmoor Moss Rose, Ayrshire cow bred by J. W. Clise, Washington, and purchased from him at the 1918 New England Ayrshire Club Sale by Peter Bradley, Massachusetts. This cow has three A. R. records: with the first calf, 7,764 lbs. milk, 364.4 lbs. fat; with the second, 11,699 lbs. milk, 532.2 lbs. fat; and with the third, 17,005 lbs. milk, 714.32 lbs. fat.

Celery may be stored for a time in the position where grown by placing enough earth around the base of the plants to hold them in good form. When the weather gets to the freezing point bank the earth up to the very tops of the plants till they are almost covered. Then as the weather grows still colder cover the ridge with coarse manure straw or corn fodder held in place by means of stakes or boards.

Another way to store celery is to dig a pit 10x12 inches wide to a depth of about 24 inches and any desired length. Loosen the soil in the bottom or shovel in loose topsoil to form a bed in which to set the roots of the plants. Pack this trench with fully grown plants, placing the roots close together with considerable soil adhering to them. Water the celery as it is placed in the trench and allow the latter to remain open long enough for the tops to become dry. Unless the

soil is very dry at the time of storing it will not be necessary to apply more water. Place a 12-inch board on edge along one side of the trench and bank it with the surplus earth. Cover the trench with a roof of boards, straw on poles, or cornstalks from which the tops have been removed. Spread a light covering of straw or other material that will pack closely and increase as the weather becomes more severe. This is a favorite method with many growers of celery.

Pumpkins and squashes are best kept for winter use in the room of the basement or in dry, well ventilated cellars but the best place is a dry, frostproof place above ground. They may be placed on shelves in rows so that they do not touch. If the temperature is maintained at about 40° F., late maturing varieties will keep well throughout the winter.

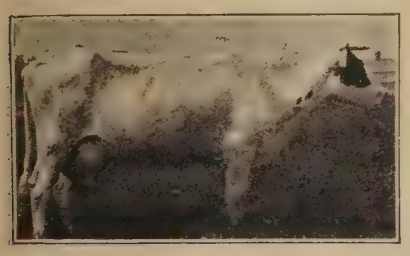
Salsify may be stored in the same manner as beets, carrots, parsnips, and root crops of this nature. One hard frost does not injure turnips but alternate thawing and freezing does. It is best to gather them before freezing weather and store as the other root crops in the outdoor pit.

Illinois. M. G. DUNN.

St Croix Dairy Picnic

The Holstein, Jersey, and Guernsey breeders of St. Croix County, Wis., met recently in annual picnic at the home of Mr. and Mrs. Franklin Hunt of the Leland Ash farm near Roberts. It is estimated that nearly one thousand people were in attendance.

Choice animals representing the three dairy breeds of the county were



CARRIE PET LASS, HOLSTEIN COW

In June she produced 2,160 lbs. of milk containing 86.4 lbs. fat and was highest cow in the Lake County No. 2 Association, Illinois. She is owned by Rouse Bros.

exhibited by some of the principal breeders of the county. Those exhibiting Guernseys were Lloyd Rundell, Wm. Graham and son, B. L. Rundell, and O. R. Schwalen. Jerseys were exhibited by Leland Ash, Frank Ash, Lloyd Jones, and W. A. Lamb. Holsteins were exhibited by J. E. Rundell, David Imrie, and A. O. Fillbach.

Competing high school teams judged the Guernseys in a contest for a silver cup offered by the St. Croix County Guernsey Breeders' Association. In this contest the high school teams of St. Croix and Polk counties competing were rated as follows: First, Frederick; second, St. Croix Falls; third, Roberts; fourth, Milltown; and fifth, New Richmond. In the general judging, prizes were won by William Ross, Neal Brown, and Howard Jones.

Supt. Robert Lohrie of New Richmond gave a patriotic address in which he briefly reviewed the struggles which were fought for American liberties and urged all true Americans to live up to the examples set by our forefathers. County Agent Thos. M. Olson, who is a valuable factor in promoting good agriculture in St. Croix County, gave a talk on the barberry plant as a breeding place for wheat rust. Attorney George Oakes gave an interesting talk on flag etiquette, and Professor Kraege spoke of the future of the dairy industry in Wisconsin.

Hon. W. C. Bradley auctioned off a draft horse donated to the Red Cross by John Snoeyenbos. The horse was finally bid in by George Graham after which five hundred dollars were added to the Red Cross fund.

Wisconsin. J. M. HAMMER.

Civilization and Milk

HOARD'S DAIRYMAN:—Since the somewhat recent discoveries as to the essential growth constituents that are found in sufficient quantity in butterfat only, quotations from earlier writers are being collected here and there. These help to reinforce the position of milk as "indispensable to the welfare of the human race".

Lewis Henry Morgan, American archaeologist and anthropologist, in 1877, published his book, "Ancient Society". This was in the nature of a philosophical discussion of the progress of the human race from savagery to civilization. The matter of special interest to dairymen is found in his discussion of the reasons for the differing progress of civilization in the two hemispheres, wherein he says:

The Cow vs. Barbarism

"In the eastern hemisphere, the domestication of animals enabled the thrifty and industrious to secure for themselves a permanent supply of animal food, including milk; the healthful and invigorating influence of which upon the race, and especially upon children, was undoubtedly remarkable. It is at least supposable that the Aryan and Semetic families owe their pre-eminent endowments to the great scale upon which, as far back as our knowledge extends, they have identified themselves with the maintenance in numbers of the domestic animals. In fact, they have incorporated them, flesh, milk, and muscle, into their plan of life. No other family of mankind has done this to an equal extent and the Aryan has done it to a greater extent than the Semetic."

This man spent a lifetime in the study of human progress, his first work being a scientific study of the social organization of Indian tribes. Indeed, for several years he lived with them, and was called by the Senecas, "Ta-ya-da-wah-kugh." Although the western hemisphere was in possession of corn, a cereal more important than all others combined, yet it was so far outstripped by the eastern hemisphere that only some remarkable condition could explain it. That explanation was forthcoming only by the cow, and the generous use of her milk which the Aryan family practiced. As members of that family we have inherited the superior wisdom and strength which centuries of persistent use have endowed us with.

As a general food milk has a value double or treble the prices received for it by the producers. Its restricted use would be not only a loss of energy but would be a serious menace to the winning of the war, and to the destiny of the race in general. Let us save and save wisely, but not to the detriment of the greatest factor in our civilization.

Kansas. G. A. MORGAN.

Jersey Cattle Notes

For week ending July 26, 1918:

Number of animals registered: Bulls, 186; cows, 410; total, 596. Number of transfers recorded: Bulls, 139; cows, 461; total, 600.

To the names of the illustrious generals of today, history will justly add General Housewife.

There is no deferred classification in food conservation. We are all in Class I, all in camp, and ready to go "over the top" when we must further conserve.



DC-67

By skimming clean at any speed your Sharples

SAVES BUTTERFAT

Absence of discs and simple one-piece bowl make your Sharples easy to clean

SAVES TIME

Durable construction and less parts practically eliminate repairs—your Sharples lasts for years

SAVES MONEY

THE SHARPLES SEPARATOR CO., West Chester, Pa.

BRANCHES: CHICAGO SAN FRANCISCO TORONTO

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Coming Events

September 1 to 6, Nebraska State Fair, Lincoln, Nebraska. Secretary, E. R. Danielson.

September 2 to 6, Connecticut Fair, Hartford, Connecticut. Secretary, H. C. Parsons.

September 2 to 7, Indiana State Fair, Indianapolis, Indiana. Secretary, Chas. Kennedy.

September 2 to 7, Spokane Interstate Fair and Live Stock Show. Acting Secretary, W. L. Tennant.

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

Sept. 16-21. Southwestern Jersey Cattle Show, Kansas City, Md., H. E. Colby, Sec.

September 2-7. Minnesota State Fair, St. Paul. Thos. H. Canfield, Secretary.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

Sept. 15 to 21. Illinois—Indiana Fair, Danville, Ill. G. M. McCray, secretary.

Sept. 16 to 21. Interstate Live Stock Fair, Sioux City, Iowa. Joe Morton, secretary.

Sept. 9 to 14. Kansas Free Fair, Topeka. Phil Eastman, secretary.

Sept. 14 to 21. Kansas State Fair, Hutchinson. A. L. Sponsler, secretary.

Sept. 9 to 14. New York State Fair, Syracuse. T. D. Ackerman, Jr., secretary.

Little Economies at Siloing

HOARD'S DAIRYMAN:—There are a number of things at siloing time which may seem of minor importance to some but which nevertheless help to keep the work moving along smoothly with as few men as are now available on farms. The few suggestions I am giving here have been of great value on our farm and no doubt many others can use some or all of them to their advantage.

The heaviest work is the handling of the corn from the field to the cutter. As most of our crew consisted of boys between 16 and 21 last year and these boys worked best in handling the corn on the wagons, the corn binder was set to make average sized bundles so they could handle them easily. In the heavier corn the bundles contained four hills or about twelve stalks. This is the most convenient size to handle all around, facilitating the operation of feeding as well as handling in the field, though it takes a little more twine than for larger bundles. The extra cost, however, will be returned in the greater convenience in handling.

Rotten twine is a poor investment. The twine should be strong enough so that the bundles can be lifted by it with the support of one hand underneath. In heavy corn from three to four pounds will be needed per acre if bundles are made average size.

It is much more convenient to have the bundles dropped in bunches of 3, 4, or 5 rather than to have them distributed along singly. This is where the bundle carrier on the binder comes in handy. Do not let more than two men hand up bundles to one driver, for more than two are sure to get in each other's road and the driver cannot handle the bundles fast enough to keep them busy all the time. Where the bundles are dropped in bunches the wagon can be driven close enough so that carrying is avoided. Steps that may be eliminated by some system are useless steps.

In our work a distributor is used inside the silo. This is an extra loose-jointed pipe which is hinged to the blower pipe where it comes over the top of the silo. As this is carried about by one of the trampers the silage is automatically distributed. Practically one man can be saved by this method and the silage can be distributed more evenly than with forks; it also keeps the atmosphere inside freer from dust than when no distributor is used. When water is run into the blower the trampers do not need to wear rubber raincoats. The distibutor is almost indispensable in filling the large diameter silos because of its labor-saving features.

When running water into the silo we put it in at the blower so that it is thoroughly mixed with the silage. For this purpose we have several sections of galvanized iron pipe which is attached to either the pressure system or pump and which runs out to the cutter. Not a drop of water is carried, the gasoline engine taking care of that part in a most effective way, giving a steady stream of any size up to one inch. There is a cut-off at the blower which is turned whenever the cutter stops or starts, thereby preventing flooding of the blower.

Stops are frequently caused by the choking up of the blower pipe. This can be easily avoided in two ways. First, set the pipe as near a perpendicular line as possible and screw the joints securely together, being careful to keep the sections in a straight line. Second, stake the cutter solidly so that the engine belt can be pulled tight and kept running tight. If the belt is so loose as to slip a little when the cutter is being fed heavily the speed of the blower is lessened and causes the pipe to choke. As it takes some little time to unjoint and clean the pipe this precaution is worthy of close attention. The belt should be retightened or looked after several times a day.

We usually have four men in the field handing up bundles and from three to four men tramping and distributing the silage. If at any time the wagons are slow in arriving at the cutter one man is taken from the silo and sent to the field for a while to help the field men catch up.

Another convenience is an outside ladder. This is a permanent steel ladder bolted to the silo. It comes within about eleven feet of the ground, making it easily accessible with a short ground ladder. The ladder is especially convenient when putting up or taking down the blower pipe, and being well secured is not dangerous to ascend.

Indiana. J. L. JUSTICE.



CONCRETE SILO ON JUSTICE FARM, INDIANA

This silo was built and the photograph taken before the barn was erected. It is 12x43 feet, built with five-foot forms, has now continuous, oval shaped doors, a concrete chute, and practically no pit. Mr. Justice writes: "We have put three crops of silage in it and I do not see how corn can keep any better than it does in this concrete silo."

Sale Announcements

Sept. 4—Holsteins, Sauk Valley Dairy Farm, Holsteins. O. S. Cass, Sauk Center, Minn.
Sept. 11—Holsteins. Consignment Sate at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 11—Holstein Dispersal Sale. Springdale Farms, Fishers, Ind., Dr. S. P. Scherer, Owner.
Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 17—Holsteins. Centralia Calf Farm, Centralia, Ill.
Sept. 18—Holsteins. W. F. Phelp's Holstein Sale, Joplin, Mo.
Sept. 25-26—Holsteins. Absolute Disperison of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.
Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.
Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.
Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.
Oct. 4—Guernseys. Dispersion of Sylvanite Guernsey Herd at Baraboo, Wis. Richard F. Klemm.
Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.
Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

The Allied Sugar Bowl

We have been able to tide over times of great difficulty and today the acute food crisis is past. There will be a better loaf for the allied nations and greater meat supplies.

That those who dare all must share all is the growing conviction of America. In fact, as the President said, speaking of the allied nations, "We are eating at the common table with them." Although there are some individual sugar bowls scattered here and there on this table, the family bowl into which America and the Allies must dip in the Western Hemisphere; for Java is out of reach, and the beet fields of Europe either lie inside the German lines or their production has been cut down by German invasion.

The Honor Ration

A careful survey of the sugar situation has promoted the Food Administration to drop the individual sugar ration from three to two pounds a month. Two pounds per person for household purposes will put us on a level that England tries to maintain. The French ration is one and one-half pounds and the Italian one pound; but it is not always possible to assure these quantities.

This honor ration, with the additional allowance for canning, can be made to go around; and when our people understand the "whys" they will be willing to put the sugar campaign through with the same spirit with which they tackled wheat.

The New Sugar Crop

Those who recall the sugar shortage last fall know that before the end of the year there was a practical exhaustion of supplies in home, store, factory, and bakery, leaving little carry-over as a starter for 1918. The mere filling of this void took up most of the surplus of new sugar coming in. Then, too, the production from the American beet and Louisiana cane crops has been disappointing and the yield in Porto Rico has likewise been smaller than anticipated.

The imperative call for ships for the movement of troops and their supplies has materially reduced the amount of sugar from distant sources. Added to this already difficult situation, the quantity needed by the army and navy greatly exceeds earlier estimates. There must be no counting of spoonfuls for our troops or holding back even on the candy they want. The best we have and all we have is not too much to offer them. Remember, that for soldiers on the battle front sugar and candy are by no means a luxury as they are to a large degree with us at home. Sugar is necessary for them to supply the energy they must quickly gain for the heavy work of fighting.

We find also that an increased amount of sugar must be sent to France and Italy to take the place of that lost as a result of the German and Austrian invasions, during which much beet land was overrun and many factories destroyed. Under agreements we are to supply certain quantities of sugar to neutral nations; and, finally, over fifty million pounds were lost recently through submarine sinkings off our Atlantic coast. To sum it all up, we must accept the situation and push on to victory.

Most of the industries using sugar have had their supplies cut in half; and the situation is so serious that only the utmost conservation will pull us through. Women are urged to go ahead with their canning, sugar or no sugar. Fruit can be canned with the hot water pack or fruit juice pack and sweetened when opened, or cooked to a pulp, canned and made into jam later. This is a little more trouble, but every American woman wants to share in the great work of building up the food reserves, for reserves mean victory. Each jar on the home shelf frees another commercially packed can for the army. Save the fruit crop! It will not be easy, but it must be done.

Why a Shortage

The first beet sugar will reach the market in October and will continue to arrive until the end of the year. This sugar will probably not be distributed further east than Buffalo. Louisiana cane will commence coming in about the middle of November and the Cuban crop about the middle of December. This sugar comes on the market gradually and the distribution is necessarily slow.

America, faced the wheat crisis, cut household consumption to 50 per cent of normal, and exported 141,000,000 bushels of wheat. This wheat was the salvation of the Allies, and each individual who helped has the right to the consciousness of duty well done. What has been done with wheat can be done with sugar.—U. S. Food Administration.

Present Supply of Dairy Products

Dr. H. L. Russell, in his address before a meeting of representative dairymen held in Milwaukee, Aug. 7, gave some very interesting statements regarding our present supply of dairy products. Dr. Russell has been serving in the United States Food Administration for the past year, and this has given him unusual opportunities to know about our supply of foods and the necessity of a large reserve. We print the portion of his address which pertains to the supply of dairy products:

What are the facts today as to existing supplies of dairy products? Last spring when there was a considerable surplus of dairy products in storage, the feeling gained ground rapidly that the future of the dairy industry was seriously imperiled. Many dairymen came to Washington and stated that unless something was done immediately, hundreds of thousands of dairy cattle would be sacrificed, and dairy products would become a drug upon the market. What are the conditions we find at the present time?

Butter

Take, for instance, butter, how much have we now compared with that which was in storage a year ago? On July 1 of this year there was 66,000,000 lbs. in storage as compared with 67,400,000 lbs. a year ago, or 1.6% less than the same time last year. Our exports for the year just closed are less by almost 10,000,000 lbs. than they were for the previous year. Reduction in export has, of course, been due in large measure to lack of transportation, due not only to the development of the submarine warfare, but to the use of boats for men and ammunition rather than for carrying these food products.

Cheese

The same situation has developed with reference to cheese. It will be recalled that last year the storage houses were full of cheese and last winter it was thought that it would be impossible to dispose of this product satisfactorily,. On October 1, 1917, there were 92,500,000 lbs. of cheese in storage, and it was thought that grave danger faced the cheese industry. This large oversupply has been consumed during the season. On July 1, 1918, we had only 30,800,000 lbs., as against 34,100,000 lbs. on the same date of the previous year, or practically 10% less than we had a year ago. Exports of this product have also increased rapidly during the last four years. In 1913 and 1914 we exported about 2,500,000 lbs., while in 1916 this had jumped to 44,000,000 lbs., and in 1917 to 66,000,000 lbs. England alone took substantially nine-tenths of all of our cheese exports.

Condensed Milk

The same situation obtains with reference to condensed milk. Last winter the price of condensed milk reached its very highest point. This was due largely to the fact that Great Britain bought condensed milk at almost any price, many factories selling their product as high as $10 a case. This was before the development of the Allied Purchasing Committee. This led to a very rapid increase in the number of factories producing condensed milk, the total number having been doubled substantially in the last two years. The result of this stimulus led to an accumulation of stock which was still further increased by the interference with transportation. The result was that many thought the condensed milk business this spring was on the verge of ruin. A number of the condenseries situated within the milk supply zones of cities where the cost of production was higher than normal, have been forced to close down, but as a matter of fact, the enormous accumulation of condensed milk in storage warehouses has practically disappeared. There is being shipped at the present time about 670,000 cases a month, and the demand for the product cannot be fully met. The price of condensed milk in the last thirty days had advanced $1.00 a case. The price in August was $5.50 as compared with $4.40 for the month of June. You will see from this that the condensed milk situation has worked itself out entirely, and governmental authorities are now looking forward to ascertain where it will be possible to secure larger quantities of condensed milk than the present supply will permit.

War Needs First

These are facts that must be taken into consideration in determining the wisdom of putting on any campaign of advertising which is going to stimulate consumption. In any case, one must figure upon meeting the home demand as well as the export needs, and under existing conditions, while we are at war, it is essential that we look upon this matter in a different way from what would ordinarily be the case under more normal conditions. This nation is now at war, and we should see to it that we lend all possible assistance to those of our allies who are now fighting our battles. This means that we must not only supply them with armies and munitions, but we must also furnish them with those sinews of war which alone can solve the struggle. This means that food for the allies must always be kept uppermost. The case is particularly exemplified in the situation with reference to sugar.

Chicago September Milk

HOARD'S DAIRYMAN:—During the month of September, milk producers in the Chicago district will receive $2.92 per hundred pounds for their product. This price, which is an advance of 17 cents over the August rate, was recently decided upon at a meeting of the Food Administration held at Chicago, to set the regular monthly price

The advance in price to the producer will mean higher prices for the consumer. Milk will retail in the cities at 13 cents per quart or one-half cent higher than previously. At the cash and carry stations, a charge of 11 cents will be made instead of 10 cents as in the past.

W. E. Lamb, attorney for the milk division of the Food Administration, stated that the retail price of milk to the consumers would not advance above the 13 cent market unless unexpected conditions arise to make a higher rate necessary. This means that the dealers will most likely figure a smaller proportion of profit during the remaining months of the year, because the price to the producer is scaled to advance as the year progresses.

Illinois. J. M. CARROLL.

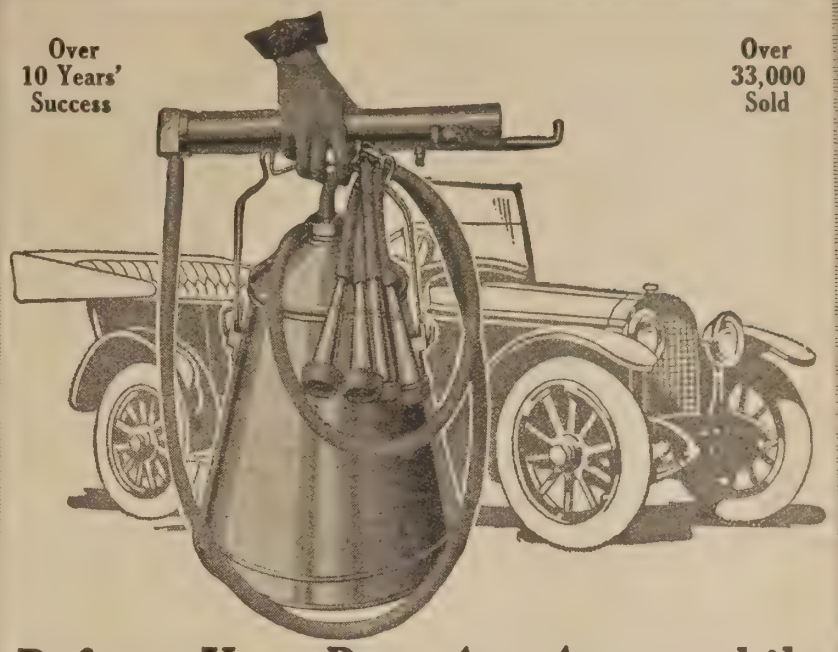
Join Food Administration

Dr. W. R. Dodson, Dean of the College of Agriculture of the University of Louisiana, and E. S. Brigham, Commissioner of Agriculture of Vermont, are new members of the Food Administration staff in Washington. Dr. Dodson has charge of problems of interest to both the Food Administration and the Department of Agriculture. Mr. Brigham will head the butter and cheese section.

Dean H. L. Russell of the College of Agriculture of the University of Wisconsin, who has rendered exceptional service to the Food Administration in the capacities which Dr. Dodson and Mr. Brigham now assume, has been recalled to Wisconsin by pressing duties at the University.

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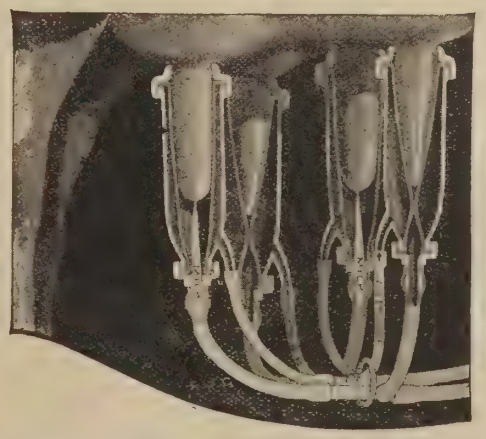
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Universal natural milker

Alternates, Like Milking With Hands



Read What This Farmer Has to Say:

June 25, 1918

Gentlemen:

I have been using the Universal Milker since last March.

I was very skeptical about using a milking machine on my good dairy herd, but will say frankly that after this experience, I would purchase another even if it cost $1000.00.

(Signed) A. M. SEYMOUR
Copenhagen, N. Y.

More Milk—Less Labor—Increased Profits

Feed is up, help is scarce, but you can save labor and cut your costs with The Universal Natural Milker on your farm.

Hundreds of other farmers find true satisfaction and genuine economy in the Universal. Why not you?

This is because of its special features.

The Universal milks *nature's* way. It alternates, milking two teats at a time, while it is massaging and relieving the other two, and imitates nature so closely that,

—It means more contented cows

—And more milk in the pail.

That counts!

The Universal teat cup fits all cows. There is no bother—no adjustments to make.

You need buy *only one* Universal—it lasts a life time.

It is simple, dependable and always ready to work.

No holidays, always on the job at milking time.

Put Universal to work on your farm today. Increase your profits.

See our nearest dealer or write us.

The Universal Milking Machine Company
402 Mound Street, Columbus, Ohio

EDITORIAL COMMENT

LIBERTY bonds are the best security in the world. No form of investment is safer. But in view of this, it has been reported on good authority, according to The Rural New Yorker, that during the past year nearly $500,000,000 of fradulent stocks and bonds have been exchanged for liberty bonds. The liberty bonds bear only 4¼ per cent interest and the worthless stocks and bonds promise 12 to 15 per cent. The promise of a high return on the money invested is the fetching argument, and these foolish people exchange gold dollars for worthless paper.

THE FOURTH LIBERTY LOAN

Our government is sorely pressed for funds to carry on this great war. It turns to all classes of the American people for help in men and money. Our farm boys have responded nobly. There are none braver in the field today than the farm bred boys. It was so in the Civil War, it was so in the Spanish War, and it will always be so in any war. But we farmers must rise to the full dignity of American freeman and subscribe for the fourth loan as we did for the second and third loans. We must remember that in this we are not donating the money, we are lending it; and what is more, it is the safest investment for our surplus funds that we can make.

Hoard's Dairyman has an especial pride in the standing of the American farmer in this great emergency. It believes in the patriotism and manhood of our farmers. We want to see them make a powerful impression upon all other classes in society by a ready and hearty response to the call of the government for the Fourth Liberty Loan. Make it apparent that there are no slackers among the farmers when Uncle Sam raises his hands for help.

WHAT PHOSPHATE IS DOING

On the 19th day of August this year we picked ears of corn, representing fully two-thirds of the crop, of the Murdock variety which had begun to dent. There are 65 acres of this corn. It was planted the 8th to 15th of May from perfect 100 per cent seed and fertilized with 400 lbs. of 1-10 fertilizer per acre. This corn has gone ahead with a maturing rapidity that we have rarely ever seen equalled. We are convinced that this is largely due to the phosphate in the fertilizer. The ears are abundant, well developed, and we are convinced that what pushed the corn along so remarkably is the phosphate.

Some of our neighbors complain that while their corn shows a good growth of stalk it is not earing satisfactorily. Right at that point is where the phosphate comes in. Phosphate has to do with the formation of the seed more than with the stalk in either grain or corn.

It looks now as if this corn will be nearly ready to cut and stook in two or three weeks more. It was cultivated five times and hoed once and is very free of weeds. Is it not quite unusual to have corn begin to dent by the middle of August? If we can hurry our corn along so as to escape early frosts, is it not a big advantage? What do our readers think of the proposition as we have stated it?

DISCONTENT

There are two kinds of discontent. One leads to destruction and the other builds. Discontent of the right character is highly commendable, for without it we make little or no progress. It is one of the developing forces of the human race. A man wholly satisfied with himself, with his occupation, or with his surroundings is in a state of stagnation and gradually dying. A discontent which leads people to improve themselves and to improve the industry in which they are engaged leads to success.

Paul said in a letter to the Phillippians: "Not that I speak in respect of want; for I have learned, in whatsoever state I am, therewith to be content." By this Paul did not mean self satisfaction; to be content with injustice; or to have wrong principles prevail, but rather to accept conditions and circumstances as they were without being unhappy. He believed in the divine discontent which leads men forward and upward, and yet to be content in the struggle to bring about the better things in life.

So in our struggle for justice and liberty for all humanity and in our work to bring about better conditions in farming, let us be content with our lot, but with a divine discontent to stimulate us to do our duty in establishing right principles and practices between all classes of people.

A discontent which directs men to act for better things, for equal opportunities is highly commendable. But to create a discontent for the purpose of breeding malice and hatred between classes and to divide industries into groups is deplorable. No act would lead this nation faster to destruction.

UNITY OR CLASSES, WHICH?

The world seems out of joint, and we have those who would use our present situation for selfish and ulterior purposes. Some of these men would form us into groups according to occupations, religious tendencies, or nationalities. These men would destroy the unity of purpose which is so vital to the welfare of the nation. War has proven to us that essential industries are vital to our nation and to divide them would lead all to destruction. Agriculture without doubt is the important peace industry, but other industries are essential. The farmer would suffer untold hardship if the manufacturer should pass out of existence and the manufacturer would suffer if the farmer were not treated equitably.

Then why this attempt to breed discontent that leads to destruction; why this attempt to divide our industries into separate classes for the purpose of creating hatred and dissatisfaction? This is not what our country needs or any industry desires. What is needed is thoughtful consideration as to how each industry may have equal opportunities. The farmers of this country do not desire special privileges. But they do desire equal opportunity with other industries. To secure this it is not necessary to array them against others engaged in essential industry, but rather to discover ways and means of providing equal opportunities.

AREA TUBERCULIN TESTING

Practically every herd of cattle in two townships of Waukesha County, Wisconsin, has been tested for tuberculosis in the "area clean-up". The state veterinarian advises that so far less than seven per cent of the cattle have reacted, and it is believed that this figure will be reduced to five per cent when the census and tests are completed.

The work now being done in Waukesha County is the outgrowth of the idea that the tuberculosis question will not be adequately met until all herds are regularly tested. The present hit-or-miss system is certain to leave large numbers of tubercular animals on the farms, there to further spread the disease among the healthy young animals. A rather complete discussion of this system of area testing was given in our columns last winter, but in brief it is as follows: The State Department of Agriculture will undertake to test every herd in a certain circumscribed area, providing a majority of the stock owners petition for the same. Thus far, Waukesha and Barron Counties have completed their petitions, and preliminary work was started in the former county last February.

As was to be expected opposition has developed and some breeders have got out "injunctions" to prevent the testing of their herds. To abandon the work now would be doubly unfortunate and every wide-awake and constructive breeder should put his shoulder to the wheel and give this movement the support it deserves.

Under improved methods of control communities can look forward to decreasing the ravages of tuberculosis rather than see it increasing as it has done under the methods of control exercised in the past. Clean herds are valuable to the producer of milk as well as to the breeder of sales stock, for few appreciate what the loss by death and depreciation has actually been on the farms of this country.

RETAIL MILK SITUATION

The Cost of Delivering Milk

The numerous milk hearings which have been held in all parts of the United States, to determine a fair price of milk to the producers, have brought forth much information concerning the retailing of milk. Milk producers everywhere held, and rightly too, that the prices paid them for milk were too low. The milk situation everywhere became so acute that many milk producers threatened to sell a part or all of their herds. On the other hand, the consumers were complaining because of the high prices charged for milk. In some instances the consumption of milk was materially decreased.

The milk situation has not been comforting or satisfactory and not a great deal has been accomplished to bring satisfaction to producers and the consumers. At the present time the producers in New York are getting about 6 cents a quart for milk and the consumers are paying 14 cents a quart for this milk pasteurized, bottled, and delivered. There is a cost of 8 cents for getting the milk from producer to consumer, when delivered in bottles. Bulk milk can be bought from stores for 10 cents a quart and bottled milk for 13 cents.

The producers feel that the cost of delivery is too high and that they are not receiving their fair share of the consumer's dollar. The milk distributors have so far been successful in producing evidence that it requires the margins which they are receiving to deliver milk. There we are,—the problem of marketing milk economically still unsolved.

It is to the advantage of the producers that milk be delivered at low cost, for this means increased consumption and better prices for him. The importance of milk to the welfare of the nation, the dissatisfaction which exists upon the part of the consumer and producer, and the complex problems of the milk business warrants, we believe, the several states and the federal government to undertake the task of securing more information concerning the cost and methods of marketing milk.

They could enter the milk business in several large cities on a sufficient scale to determine the cost of marketing milk and to determine the most economical methods. We do not believe it will be as difficult to determine the cost of marketing milk as it is its cost of production. Attempt has been made by the Dairy Division, several state experiment stations, and some business organizations to find out what it costs to produce milk. The information so far is not complete, but that which has been gathered has helped in solving the price which the producer should receive for milk. The information regarding the cost of marketing has been obtained from those engaged in the business, and even though accurate, its source leads the producer to be suspicious.

For the sake of harmony and understanding, we believe that some of our state experimental stations in co-operation with the Dairy Division could well afford to investigate the methods and cost of delivering milk.

SOLDIERS OF THE SOIL

The national government could pay the farmer no higher compliment than through its appeals for greater production of agricultural products. To know that agriculture is vital to our success and our allies should make the farmer feel that he is rendering a most important service to his country. The boys left upon the farms, because they are considered by the government as being more valuable there than in active war work, may well consider themselves rendering their country a necessary and patriotic service. Soldiers of the soil, as they have been designated by some, is not an inappropriate term to apply to these boys and it does not compliment them too highly.

There is no industry of higher value to our country now, because the United States is the great food reserve of the world. The farmers fully appreciate their responsibilities and are nobly meeting them. Many of the farm boys have been selected for active war work, because this country must build a strong army. Instances can be cited where boys have been taken from the farm that would have rendered a greater service if left on the farms. Experienced farm labor is difficult to obtain and some farmers have been seriously handicapped because of the shortage of competent farm help. The farmer has always worked long hours, and applied himself industriously to his job, but under his present circumstances he is working harder. He is co-operating admirably with his government.

Many farm boys are not satisfied to be simply soldiers of the soil, and have claimed no exemption from army service. Thousands of them volunteered, because they desired to enter the army rather than to remain on the farm. The increased demands for a larger crop production and the taking away of experienced farm labor from the pursuits of agriculture have thrown upon the farmer and his family a heavy burden. They have met their duties as the boys in the trenches have met theirs.

The farmer, like the soldier of the trenches, has grumbled, but it has been no more serious than that of the soldier. Men weary with heavy burdens have a right to grumble, if it makes their burdens lighter, and no one need be condemned. The farmer, like all American citizens, knows that everybody who is worthy of the name of American citizen, is doing his very best. The farmer can be counted upon to do his full share, and it should be an encouragement for him to know that his occupation and his labor are playing so important a part in our great struggle.

Brick Silo—Ensiling Corn Stover

I am building a pit silo, 20 ft. of which will be under ground, and 10 ft. above ground, by 14 ft. diameter. The silo is being made of bricks which are held in position by mortar made of a mixture of white lime, sand, and water. Can you inform me if the walls will be air tight, or whether it will be necessary to plaster it over with cement? I am particularly anxious to have it air tight, as I understand that the silage will spoil unless the silo is absolutely air tight.

I am planting corn to fill this silo but on account of the high price of the grain would like to know if the part of the corn plant remaining after the ears are removed will make good silage. Corn sells here at $3.00 per bushel, and this seems a lot of money to pay for cattle feed, when you consider that the most that the best cow I have will give is 30 lbs. of milk a day; and when you consider that I can always give them fresh green grass, and can also give them grain grown locally, which is infinitely cheaper than corn and is good feed if not better than corn.

Jamaica, W. I. L. H. F.

Unless the bricks are of the vitrified type and the mortar is impervious to the action of such acid as may be formed by the fermentation of the corn, it would be desirable to plaster the interior with a Portland cement mortar.

Common clay brick are very porous and not only admit moisture, but will draw the moisture from the silage next to the wall. This will cause spoilage next to the wall and is probably a larger reason for plastering the interior than the small amount of air which may seep through the semi-porous brick. If the silo is plastered it will be desirable to whitewash it on the inside with cement mixed with water to a creamy consistency.

Experience in the United States has been that where brick silos have failed it has almost invariably been due to poor reinforcement or poor foundations. A brick silo set in a mortar made of one part lime to five parts cement is sufficiently strong. The presence of a small amount of lime in the mortar makes it possible to move the bricks slightly while laying without destroying the bond as would be the case with pure cement mortar. One method of reinforcement consists in the use of steel woven wire fencing. The outer wall of brick is built up five courses at a time, then the reinforcing wires are put in place and fastened at either end to the iron brace at each side of the doorway. This wire is pulled as tight as will allow the next course of brick to be laid easily and is held in place by loose brick until the next course is laid. The inside wall is built up five courses and then a header course laid, that is, alternate bricks are laid crosswise in the wall to bind the two sides together. Before putting on the header course any space left in the center of the wall between the bricks is slushed full of sloppy cement so as to bed the reinforcing wires solidly in the concrete.

Corn may be husked and the stalks ensiled, with a fair grade of silage resulting. In ensiling this corn stover an amount of water equal in weight to the fodder ensiled should be added in order that the cut material will properly pack to prevent spoiling and that the resulting silage may have the succulence of the regular corn silage. This method of ensiling corn is discussed in our issue for August 16th. In view of the fact that the ear corn sells for such a high price and other grain can be purchased more cheaply, it may be profitable to allow the corn to cure as ear corn rather than to ensile it. However, under general conditions existing in this county, we find it desirable to ensile the entire corn plant rather than to attempt to husk out the ear.

Beet Top Silage

With sugar beets selling at the dump at the rate of $10 per ton regardless of sugar content, what would the tops be worth to put into the silo for feed for dairy cows? What would be an average yield of tops per acre? Do you consider beet top silage a good feed for cows when fed in a combination with alfalfa? Does this silage have a strong purgative effect? Should the tops be run through an ensilage cutter? How are the tops generally handled from the field to the silo? Should they be put in immediately after being cut off the beet?

My corn crop was a failure this year and I have an opportunity to buy beet tops. I would have to haul them about one-half mile. Do you think it would pay me to buy this crop. I have a 60-ton pit silo, my own 13-inch cutter, and electric motor. Last year it cost me $6.25 for "juice" to fill the silo with corn.

Miles City, Mont. G. E. F.

The average yield of sugar beets gives about four tons of fresh leaves and one ton of the severed part of the upper portion of the roots per acre. The leaves of sugar beets have about one-half the feeding value of the roots. They have been used to some extent in the making of silage but are purgative in effect and should be fed in limited quantities and in conjunction with a liberal supply of hay. The tops may be ensiled whole but they keep somewhat better if they are run through an ensilage cutter. It is recommended that the tops be ensiled with some other roughage, one of the methods of filling a silo being to put in alternate layers of beet tops with cut straw or dried fodder or stover. Another plan which seems to be practicable is to ensile the beet tops along with corn fodder, using about an equal weight of each and seeing that enough water is run in that the mass packs tightly. The tops should be ensiled as soon as possible after being cut from the beets.

The purgative effect of beet tops can be reduced greatly by liberal feeding of other roughages. It is also recommended by some feeders that about three ounces of chalk or ground limestone be fed with each hundred pounds of beet top silage. Some farmers have added salt to the quantity of seven pounds for each ton of leaves ensiled and have reported good results.

While it cannot be said that beet tops will make the highest quality of silage, the feed is said, by those who have used it, to give fairly satisfactory results.

Liming Alfalfa Sod

Last spring I seeded six acres to alfalfa with barley as a nurse crop. I succeeded in getting a good stand but it is very weedy. At the time of seeding I was unable to procure lime and would like to know if the lime could be applied as a top-dressing this fall. Is it good practice to apply lime to alfalfa each year? After which cutting should it be sown?

Manchester, Mich. H. S. F.

Lime can be applied as a top-dressing at any time. However, this would necessarily be either finely ground lime rock or lime that has been thoroughly air-slacked. Quick lime would, of course, injure growing alfalfa and coarsely ground limestone would not become readily available to the plants.

We are not at all certain that it is the lack of lime which has caused the trouble. The safer practice would be to test the soil with some blue litmus paper such as may be secured at the local drug store. If this paper turns red when imbedded in a small quantity of moist soil, it would indicate an acid condition and that it was desirable to apply lime.

If the soil does not prove to be acid, there are, of course, several explanations as to what may have caused the relatively poor stand this year. It may have been due to freezing weather or to the lack of sufficient fertility in the soil to give the alfalfa a good start. These would seem to be the two most possible reasons for the trouble but there are numerous other factors to be considered.

When ground limestone is applied at the rate of two tons or better per acre it is not necessary to repeat the application oftener than once in three to five years. The application will be most serviceable if applied on the plowed ground before seeding the alfalfa, but may be applied at any time. When applied on alfalfa sod very finely ground lime rock or air slacked lime should be used as they become more nearly immediately available for correcting acidity. Somewhat coarser ground lime rock is preferred by many when applied to plowed ground, using it in somewhat greater quantity. By this method the rock disintegrates as needed by the growing crops and smaller proportions are washed away or dissolved and carried deeper into the soil.

Oats Fail to Fill

Practically every field of oats in this section is affected with a blight that has caused the heads to fail to fill properly as indicated in the sample I am sending under separate cover. Oats and other grain have had ideal growing weather, with plenty of moisture and not too hot weather. They have made excellent growth and promise a splendid crop except for this blight, which affects alike fields on high and low ground, fertile and unfertile fields, and erect as well as lodged grain.

Fort Atkinson, Wis. P. C. B.

I have examined the sample of oats which was sent in and find that the oat heads are affected with what is known as imperfect fertilization. We scarcely know what causes this lack of fertilization and many parties are working upon the proposition to know just why the fertilization does not take place in these particular glumes. My theory is that it is quite largely on account of the organs of fertilization being destroyed by heavy dews or sudden rains.

The oat has a perfect flower, i. e., both male and female parts being within a single glume. If either of these organs are interfered with the fertilization would not take place. When conditions are just right this imperfect fertilization is noted in oat fields. We have never found that it has occasioned any great loss from this although by looking at a field one would almost expect that he would suffer great loss. However, the oat panicles seem to spread out more when the fertilization is not perfect in some heads and take the place of those so lost thereby giving a normal crop.

Wis. College of Agriculture. R. A. MOORE.

Cowpox—Fall Pasture

Kindly inform me what the cause is of cowpox on the cow's teats and what will remedy it?

What will provide the best fall pasture after the oats has been cut, and will it be profitable and grow in this part of the country?

Greenwood, Wis. A. E. P.

Bathe the udder twice daily with lukewarm water containing a teaspoonful of granular hypo-sulphite of soda or hypo-chlorite of soda to the pint and apply glycerite of tannin to the sores as often as found necessary. Isolate the cow and milk her last, as the disease may be spread from cow to cow by the milker's hands.

Fall sown rye or wheat will provide good fall pasture and also early spring pasture. However, we know of nothing that can be sown that will give pasture early this fall, although almost any of the grains if sown now will make fair to good pasture. Barley is said to be best for late summer seeding as it is less liable to rust.

Percentage of Holsteins in United States

I would like to know what per cent of dairy cattle are Holsteins. A man has told me that over 50% of all the cattle, beef and dairy, in the United States were Holsteins.

Stamford, Conn. P. F. H.

It is very difficult to estimate the percentage of the total number of dairy cattle in this country which is made up of Holstein cattle. In the first place there are no accurate figures to show how many Holstein cattle there are living at this time. Since the beginning of registration of Holstein-Friesian cattle in 1886 there were registered a total, both bulls and cows, of 608,130 animals up to September 1st, 1917. There are about 23,000,000 dairy cattle in the United States. It will be noted, therefore, that even though all of those Holsteins were alive they would make up but about 2½ per cent of the total cattle population. As a matter of fact it is probable that not more than about three-fourths of one per cent of the dairy cattle of the United States are registered Holstein-Friesian animals.

Cut Oat Straw to Cows

I find that we are going to be short of hay for our cattle next winter and am planning to use good oat straw cut up with our dry corn fodder, sprinkling diluted molasses over it, and plan to give the cows one feeding of it a day, using silage and other hay for one feeding. Do you think this would be a good ration for dairy cows? I shall be glad to know of your experience with it.

Chicago, Illinois. J. H. M.

There is very little advantage in feeding finely cut oat straw and dried corn fodder to cows even when it is sprinkled with diluted molasses to make it palatable, except as a filler. Since there is apparently a liberal supply of silage available together with a limited amount of hay, it is very questionable whether oat straw can be fed to any advantage whatever. The dry corn fodder might be placed before the cows so that they can pick it over, thus securing the palatable portions and adding somewhat to the variety of their rations.

Even at the high prices of hay last winter, high quality legume hays furnished nutrients at less cost than they could be purchased in concentrates. Unless some unusual shipping condition makes the cost of hay in this section unusually high, we recommend that the ration be based on a liberal supply of a legume hay. It will be necessary to purchase a portion of this hay, but we believe it to be economical rather than to attempt substituting low quality feeds, such as oat straw and corn fodder, and making up the deficiency in nutrients by supplying additional quantities of high priced concentrates. Fairly good milk production can be secured with the feeds suggested, provided concentrates are fed in large amounts. If good quality hay and silage are fed liberally, an equal or greater quantity of milk will be produced with a very much lower consumption of concentrates.

The Dairyman's Real Problem

How to overcome Loss of Man Power and To Lower Cost of Production—To Keep Things Going at Home

After Our First Year at War, Necessity Has Produced Many Answers to These Problems, at the

National Dairy Show

COLUMBUS, OHIO, OCT. 10th to 19th, Inc.

You Can Learn What Has Been Done for You. There Will be Labor-Saving Devices—Machinery to Take the Place of Man Power—Improved Methods of Operating. The United States Government is Bringing to Your Show, Helpful Ideas and Suggestions.

To Win the War Must be Our One Great Thought, and the Government wants to Co-operate with You to this end.

The Show this year will be a real patriotic getting together of the whole Dairy Industry to work out its problems.

You can give and receive help by mingling with your fellows a few days at the Show.

Four Departments of Government are bringing to the Show, the meaning of our Industry to the people of the world.

The Greatest National Exhibit of Milk, Butter and Cheese Ever Assembled.

Creamery Men—Cheese Makers—Ice Cream Manufacturers—Cattle Breeders—Milk Dealers.

Dairy Farmers Will Hold Big Conventions

There is a duty and an opportunity in why you should not miss this Show this year. We must feed the world, and restock Europe with Dairy Cows.

Machinery Exhibits—Infant Welfare Demonstrations—Dairy Products Manufacturing Demonstrations—Home Economics School—Best Bred and Most Practical Cattle in the World.

Horse Show—Cattle Judging—Competitive:—Students' Products Judging—Bull Clubs—Calf Clubs. Cow Testing Associations—Lower Cost Feeds—Practical Farm Herds of Cattle.

Read your paper closely for stories of the valuable events to take place at this year's Show.

JENNEY SILO-FILLER-HUSKER



HUSK THE CORN FROM YOUR SILAGE

Put the corn in the crib and the stover in the silo. It is a useless waste of money to put $1.50 corn in the silo when good silage can be made from the corn stalks. **The Jenney-Silo-Filler-Husker.**

Turns Your Waste Stover Into Wealth

It picks out and husks the ear corn and fills the silo at the same time. It's something new—a machine that marks a new era in farming.

Send for a free copy of Robt. T. Jenney's 36-page illustrated book, entitled "STOVER SILAGE" which tells all about the feeding of Stover Silage and how to fill your silo and save 500 to 800 bushels of corn.

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Don't throw away a single bag—they're worth money to you. Prices are way up now. Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.

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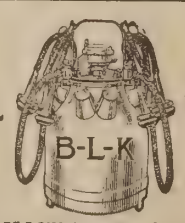
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You must read about the new LIBBEY AUTOMATIC WATER BOWL for cows and horses—a wonderful improvement in barn watering. No float tank needed. Every bowl is automatic—controls its own water supply; can be placed any height and in any stall or pen. Most sanitary bowl sold. PREVENTS SPREAD OF CONTAGIOUS DISEASES. Increased milk yield quickly pays cost. Saves labor, saves feed. Write today. Also for Catalogue No. 9, if interested in stanchions, stalls, carriers, etc. Sent free.

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The B-L-K Milking Machine will solve your labor troubles. Write for free booklet and information.

We handle a full line of supplies for the Dairy and Dairy Farmer. Highest grade goods at lowest prices. Prompt shipments.

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GUERNSEY BREEDER'S JOURNAL

Indespensable **toall interested in Guernseys or improving their herds of dairy stock. Well gotten up. Full of pertinent facts. Giving latest records of production. With Hoard's Dairyman 1 year, $2.75.**

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When writing to advertisers please mention Hoard's Dairyman.

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Wash.	Walla Walla	J. S. Bixby	July	391	48	62	Wn. State Penn.
Minn.	Winona Co.	H. A. Durking	"	347	41	77	H. Greethrust
Ohio	Geauge	M. H. Bartter	"	248	10	62	Chas. Ober
N. J.	Middlesex—Somerset	James Duer	"	457	25	59	Raritan Valley Farm
Wis.	West Bend	P. F. Krueger	"	436	24	75	W. H. Gruhle
Ida.	Pioneer	R. W. Sharp	"	445	11*	82	R. Maxwell
Mich.	Van Buren Co.	C. Richards	"	233	3	46	L. L. Lawrence
Mich.	Allegan Co.	L. L. Rockwell	"	264	16	65	John Barron

*Over 50 lbs.

Association Notes

Middlesex—Somerset, New Jersey—There are now 20 pure-bred bulls used in this association out of a total of 21. The July price for 3% milk here was $2.25 per hundred pounds. Milk retails for 12 to 15 cents and butter for 60 to 70 cents. Unicorn costs $51 to $65 per ton, according to date of purchase; Schumacher, $58 to $65; dried brewers grain, $50 to $60; oats, $60 to $70; hominy, $64; hominy feed, $54; oil meal and cottonseed meal, $60 to $65; bran, $45 to $55; corn and cob meal, $60; barley feed, $54; clover, $25; alfalfa, $30 to $35; timothy, $25 to $30; and corn silage, $7.50 to $8.

Winona County, Minnesota—Several pure-bred sires are being changed for others in the county, these sires being too good to leave the association. A great many of the scrubs are being turned off and new cows of the dairy type put in their places. Beef is high now, and a good-sized scrub will bring nearly enough to buy a fair cow. Four new milk houses are being built, three being hollow tile, with tile and concrete roofs. One modern dairy barn has been built. Only four members are feeding silage and grain. Silage is valued at $5 per ton and grain at $52. Nine new milking machines are in use and giving good success.

Walla Walla Valley, Washington—The average production of milk by the cows listed in this association for July was 616 lbs., containing 25.4 lbs. of fat. The average feed cost was $7.05 and average profit above feed cost, $5.42. In July, 1916, the average milk production in the association was 522 lbs.; in 1917, 540 lbs. This showed an increase of the average of 94 lbs. in the two years. Farmers received 40c per lb. for butterfat in July, 1917, and this year the price is 25% more, or 50c per lb. On the other hand, the increase of the cost of milk production has been considerably above this percentage.

Jesup, Iowa:—In July the creamery paid our members 49c for butterfat and retailed butter for 47c. Big Q sells for $60 per ton; oil meal, $54; and oats, $.70 per bushel.

West Bend, Wisconsin:—This association has just finished its first month testing. A Jersey owned by Richter Bros., in her tenth month of lactation, has produced 688 lbs. of milk containing 41.3 lbs. of butterfat. The members are very enthusiastic over the work and are expecting to increase their list of 40-lb. cows very considerably. They are hoping to place a goodly number of their cows in the Register of Production, which requires a production for the year of 365 lbs. of fat.

Van Buren County, Michigan—Five poor cows were sold in July. Many of our members are feeding grain, hay, or silage because the pasture is very short due to severe drought. Twenty-five cents per gallon was paid for July milk, the creamery paying 46c per pound fat. Silage is priced at $6 per ton; hay, from $15 to $20; corn, $1.60 per bushel; oats, 90c; commercial feeds, $3.25; and wheat bran, $1.50.

Pioneer, Idaho:—The number of unprofitable cows sold this year for beef to date is 39 and the number of better cows purchased to replace them, 33. Six pure-bred bulls have been purchased. In July, milk sold here for 50c per gallon, the creamery paying 46c for fat and the cheese factory, 52c. Milk retails for 12½c. Hay has a local value of $12 per ton; oats, $2.75 per hundred pounds; barley, $2.50; and bran, $1.50.

Allegan County, Michigan—In July the condensery paid our members for milk on the basis of 90 cents per pound butterfat.

Feed is priced locally as follows: Hay, $25 per ton; bran, $31; ground oats, $61; ground corn, $62; cottonseed meal, $55; oil meal, $63; beet pulp, $43; and gluten, $54.

Mason City, Iowa:—The highest herd in our association in June consisted of 10 grade cows which averaged a production of 1,072 pounds of milk containing 43.5 pounds of butterfat. These cows received no feed outside of pasture and illustrated that a grade herd may be built up, which is highly profitable. Pasture in our section has continued to be exceptionally good because of liberal rains, and but few of our members are supplying grain to their cows as yet.

Texas Has Drought

HOARD'S DAIRYMAN:—We are experiencing another year of drouth which will give us a short forage crop. In this part of the state the silage crops went into the silos in July. Some early planted corn made a fair yield of silage, but the sorghum grains and ribbon canes which grow slower and mature later were cut short and had to be cut before they were matured.

In the southern part of the state the early planted stuff perished in May but the later planted crops that got a good rain in June will make good silage by now. The dairy business was just getting a good start here but the continued drought will give it a serious setback.

Fort Worth, Texas. S. R. H.

Milk Inspectors' Convention

The Executive Board of the International Association of Dairy and Milk Inspectors have voted to hold the seventh annual convention at Hotel Sherman, in Chicago, Monday, Tuesday, and Wednesday, October 14, 15, and 16. A program covering a wide range of subjects relating to the supervision and improvement of milk supplies is now being arranged.

If sorghum syrup and sugar cane syrup is sealed to prevent fermentation, it will provide a good winter sweetener. Well made cane syrup can be used to take the place of sugar even in coffee.

Watch For Registration Day

The President of the United States will soon announce by proclamation, a Registration Day to be held as early in September as possible.

More than 2,000,000 men are needed to put our army on a 5,000,000 men basis. 13,000,000 are expected to register.

Class one is nearly exhausted. This Class must be replenished from new registrants not later than October 1st.

Who must register:

All men from 18 to 20 years of age, inclusive and
All men from 32 to 45 years of age, inclusive, should watch closely for the President's Proclamation, definitely designating who must register.

Where you will register:

In the customary voting precincts in the jurisdiction of your Local Selective Service or at other points to be designated.

Sick and non-resident registrants:

These will be furnished cards by their Local Boards. The sick will be registered by persons deputized to do so. Non-residents may register by mail through the County or City Clerk of the place at which they are stopping. Special provision will be made for felons, persons awaiting trial and others confined in jails or institutions.

The Government of the United States asks your hearty co-operation with your Local Board in making the registration a complete 100% catalogue of every man of the ages to be announced in the President's Proclamation. Selection will take place later by the usual classification method.

The penalty for failure to register is one year imprisonment and NO man can exonerate himself by the payment of a fine.

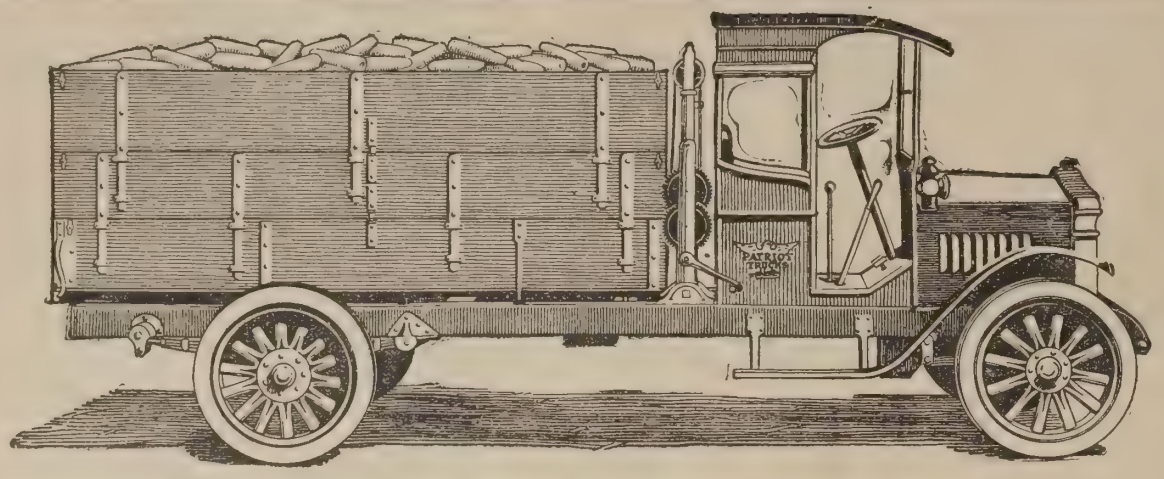
WATCH FOR REGISTRATION DAY!

Approved by Newton D. Baker, Secretary of War. E. H. Crowder, Provost Marshal General United States War Dept.

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HOARD'S DAIRYMAN



Increasing the Value of the Farm
by Bringing it Miles Nearer the Market

The value of a farm depends largely upon its distance from a good market.

Today distance is measured in minutes, not in miles.

The Patriot Farm Truck (Lincoln Model, 1½ tons capacity) readily transports much more in weight with several times the speed of a horse-drawn wagon.

It lays down at market 15,000 to 20,000 pounds in practically the same time that a team will deliver 5,000 pounds, literally bringing the farm to about one-fourth its actual distance from the market.

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Built for Country Roads
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The Patriot is the first motor truck built for farm work, and is equipped with a practical farm body, similar to what you have always used on your farm wagon.

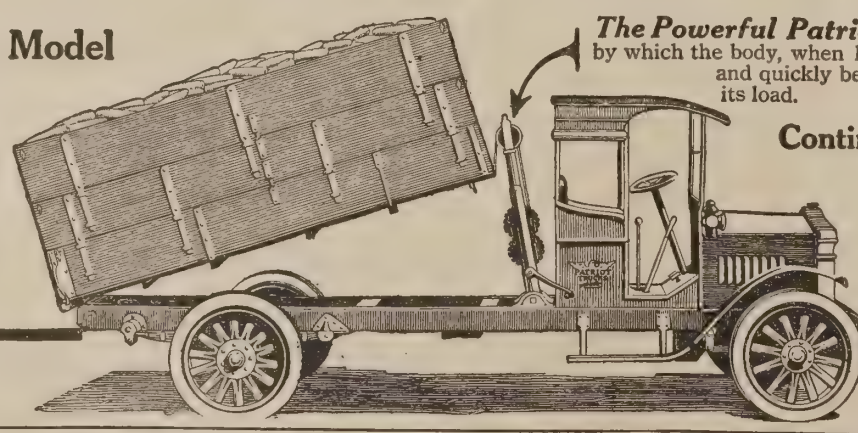
It saves horses and high-priced feed. It brings better markets nearer, for with a Patriot you can readily drive loads to a market fifty or one hundred miles distant.

Business farmers can easily see how such perfect transportation greatly increases the value of their farms, to say nothing of the convenience in being master of roads and weather. Every farmer with 160 acres or more should find out what a Patriot Farm Truck will save. Write for information.

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Manufacturers of Patriot Farm Trucks
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The Powerful Patriot Hand Hoist by which the body, when loaded, may easily and quickly be elevated to dump its load.

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(12)

Order your Saginaw Silo today. To delay is serious for farmers everywhere are going to want silos this fall and there is only a limited supply of silo material. You can get prompt delivery by ordering at once. Ask about the Liberty Silo—new Saginaw construction. Write today.

The McClure Co.
Saginaw, Mich. 14 Cairo, Ill.

SILOS
At Half Price

Ware-house needed for pressing work. Am forced to close out my entire holdings of sixty-five silos of a well-known make which I will sell at pre-war prices. Silos all new and first-class. Advise size desired.

M. L. Smith, Manufacturer's Agent,
286 Chestnut St., Meadville, Pa.

EVERLASTING SILO
Ironstone Blocks

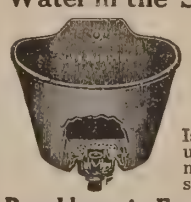
Under our special proposition, you can save $25 to $50 on an EVERLASTING SILO, guaranteed for the life of the purchaser. Blocks of ironstone, vitrified glazed tile, triple wall design, self reinforced and interlocking, with double lock cement mortar joints. Extra steel reinforcing. Built for service.

Write for complete information and prices.

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Water in the Stable a Necessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

Louisiana Dairymen's Co-operative Association Incorporates

(Continued from page 155)

the producers have the whole situation in their hands.

The board is composed of the following good men: J. P. Wallace, J. G. Prichard, Henry Vermeesch, G. L. Plettinger, W. H. Richardson, I. S. West, and Frank Fagot. Any one of the men would make an excellent president. The board will meet within the next month and elect officers.

The big task that confronts the new organization is that of getting the dairymen who were not present at the meeting to come into the association and live up to the co-operative platform set forth in the by-laws. Every shipping point in the dairy district was represented, however, and the belief was expressed by all hands that there would be no trouble in getting 99 per cent of all the farmers to join. It is realized that with only half of the producers in the association, the full purposes could not be attained. It must be a hundred per cent organization in every respect to get the best results. Work is now under way forming local branches of the main association at every place where there are ten or more dairymen. Over a dozen branches have been formed up to date. Only a little opposition is found and those at the head of the association are confident that will disappear when everybody realizes the importance of working together for the common good and in a strictly business way.

When all details have been threshed out the new association will be in control of about 200,000 gallons of milk per month. Every dairyman will pay into the treasury one-half of one per cent of all moneys received from the sale of dairy products and dairy cattle. As the farmer is getting a minimum of 35 cents a gallon, or $4.19 per 100 pounds, for milk at this time—prices will go up in November—it can be seen by a little figuring that the association will have an income of over $350 per month. Annual dues were placed at a dollar a year which will further swell the income. Still another means of obtaining funds is by assessing each member 15 cents per cow whenever the money is needed. With $4,000 or $5,000 annually it is proposed by the board to run the association as systematically and businesslike as a first class bank is run. Every dairyman at the meeting voted to give the association plenty of money to operate on. One reason why the old organization has never accomplished anything is because it never had any funds. The treasurer's report for the full year ended July 31 showed $120 had been paid in and $160 paid out.

That the association expects to carry on other good work besides fixing the price of milk is indicated in the general purpose stated in the by-laws, as follows:

"The objects of this association shall be to improve the methods of milk production, distribution, manufacture, and use; to enable its members to secure the full market value of their dairy products; to encourage the breeding and raising of better dairy stock; to foster co-operation in agriculture, especially in dairying; to buy supplies and dairy cattle in a co-operative way; to hire, buy, build, own, sell, and control such buildings and other real and personal property as may be needed in the conduct of its operations; and, in general, to improve agricultural conditions and bring about a better understanding between producers of dairy products and the consumers thereof."

The first thing the association ex-

(Continued on page 174)



A Little "Tank"—for Farm Work

The Cleveland Tractor is built on the same principle as the wonderful European battle "tanks."

It travels on its own tracks, laying them down and picking them up as it goes along.

This efficient type of construction makes the Cleveland *specially* valuable to farmers, as it enables them to work practically *anywhere*—over almost *any kind* of farm land.

They are being operated over gullies, ruts and ditches, through soft soil, wet clay, sand and gumbo—without sinking or floundering. *They do not pack the soil.*

They are working under and among small trees, close up to fence corners, on hillsides and over rough ground with much better results than can be obtained with horses or with any other type of tractor.

And they are working much *faster.*

Thousands of Cleveland Tractors are helping to increase the production of food demanded by war conditions.

The Cleveland, pulling two 14 inch bottoms—which it will do under average conditions—plows 3½ miles an hour—eight to ten acres a day. This is equal to the work of *three* men and *three* good three-horse teams.

The Cleveland steers by the power of its own engine; it requires but slight effort on the part of the driver. Only one man is required to operate it. 12 horsepower is developed at the drawbar and 20 horsepower at the pulley. It is a constant source of tractive and stationary power for twelve months in the year.

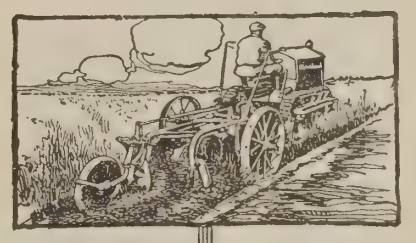
It plows, harrows, plants, reaps, cuts ensilage, runs saws and pumps, drags logs, pulls road machinery, hauls manure spreaders and does practically all the work formerly done with horses or stationary engines.

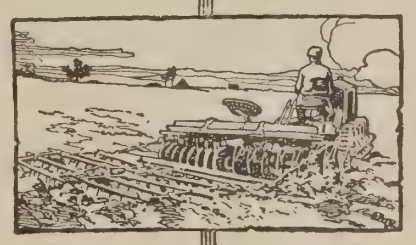
The Cleveland Tractor produces food but consumes none of it. It conserves man power, horse power, time, energy, and effort—and produces greater returns.

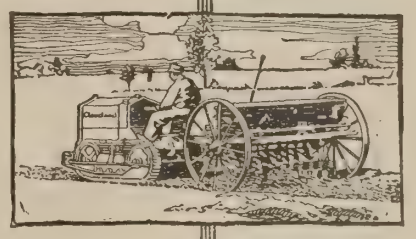
The Cleveland Tractor was designed by Rollin H. White, the well-known engineer. It is manufactured under his supervision. Gears and tracks are protected from dust and dirt. Materials throughout are of the best. The whole machine weighs only about 3200 pounds. It can be housed in less space than is needed for a horse.

Take advantage of present produce prices. Raise *more* food *now.* Help the nation and incidentally make more money yourself by using one or more Cleveland Tractors.

Write for complete information and the name of the nearest Cleveland dealer.









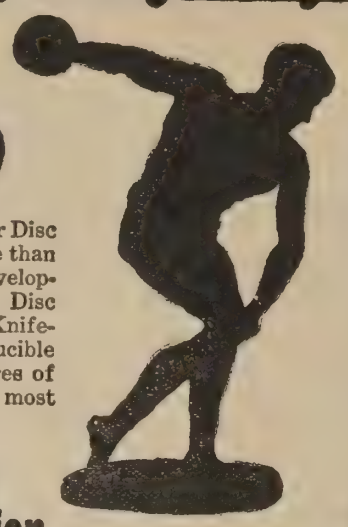
The Cleveland Tractor Co.

The largest producer of Crawler-type Tractors in the World

19005 Euclid Avenue **Cleveland, Ohio, U. S. A.**

Cleveland Tractor

FILLING THE SILO



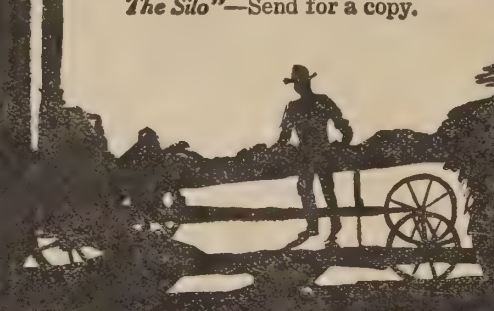
You can fill your silo with an Ann Arbor Disc Thrower Silo Filler and any engine of more than 4 H. P.—the latest and most scientific development of the silo filling principle. The Disc Thrower is of the powerful, fool-proof "Knife-on-the-Fly-Wheel Type." The one-piece crucible steel knife wheel is just one of the features of the Disc Thrower. It is the safest and most efficient cutter on the market.



Quality Construction

The *Disc Thrower* has a one-piece main frame, giving absolute rigidity. Six fans on the fly wheel combined with the disc thrower principle insure a continuous stream of ensilage without the need for an unnecessary volume of air. The Triangular Shear Bar has three cutting edges and can be quickly changed when dull. End thrust ball bearings eliminate friction and save power.

There are many other features of superiority in the *Disc Thrower* which are described in our new catalog—*"Filling The Silo"*—Send for a copy.



ANN ARBOR MACHINE COMPANY
Makers of Ann Arbor Balers "The Baler for Business"
ANN ARBOR, /// MICHIGAN.



Seven Times More Food Value

"Yes, I bought all the Liberty Bonds that I could carry. And I've found a way to pay for them out of *extra* earnings and at the same time help folks Hooverize: I make my skim into delicious cottage cheese and pack it in

KLEEN KUP

The Package of Quality for Foods of Quality

Government experts say that skimmed milk furnishes seven times as much actual human food when made into cottage cheese as it does if fed to live stock. My customers are very glad to get it on meatless days—and other days, too.

"I use Kleen Kup packages also for my private brand of butter and for farm-made buttermilk. They are neat, convenient, inexpensive. I'd hardly know how to run a dairy without Kleen Kup."

You, too, can increase your dairy profits by the use of Kleen Kup packages. Let us show you how. A postal will bring samples, selling helps and the Kleen Kup story. Write today.

THE MONO-SERVICE CO., NEWARK, N. J.

Water in the Stable a Necessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

When writing advertisers please mention Hoard's Dairyman.

EVERLASTING SILO
Ironstone Blocks



Under our special proposition, you can save $25 to $50 on an EVERLASTING SILO, guaranteed for the life of the purchaser. Blocks of ironstone, vitrified glazed tile, triple wall design, self reinforced and interlocking, with double lock cement mortar joints. Extra steel reinforcing. Built for service.

Write for complete information and prices.

LEWIS McNUTT,
29 S. Walnut St., Brazil, Ind.

New York Butter Market

NEW YORK CITY, AUGUST 20, 1918: —At the close today quotations were established as follows: Extras (92 score), 46c; higher scoring than extras (93 score or higher), 46½@47c; Firsts (88 to 91 score), 44@45¾c; and Seconds (83 to 87 score), 42@43½c.

Quotations have changed but ¼c during the past week. On Friday of last week extras advanced from 45¾c to 46c and since that time the price has remained constant. The market while yet inactive may be considered firm as all shipments of butter are being picked up by buyers quite readily. There is scarcely a sufficient supply of high grade butter while there are some accumulations of inferior grades but such accumulations as these are have no material influence on the market in general.

The ill effects of the hot weather which has prevailed for some time are still apparent. Shipments from creameries which have reputations for high quality production have in many cases scored as under-grades. Mold is yet very much in evidence as well as several other well known and easily distinguished summer characteristics. The make is decreasing rapidly as is usual during August. Not until cooler weather prevails is it expected that quality conditions will again become normal.

A thin, even coat of paraffine is much to be preferred to a heavy coat which cracks and loosens in large pieces. If air can gain access to the wood, paraffine is of no avail as a mold preventive. Paraffine should be applied only when heated to the boiling point.

The butter from creameries which use a sufficient quantity of salt on the sides and bottoms of their tubs show practically no mold.

A cheap, light-weight liner eventually proves to be dear at any price.

Some creamery managers believe it to be economical to use parchment rather than cloth top circles. A visit to the leading butter markets would convince them otherwise. High class buyers, those who will pay the price, demand cloth circles.

New York. W. B. LIVERANCE.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.



More Water?

Chippewa Steady Stream Pump

Will Produce More Water with less Power than any other Pump. For Farms, Ranches, Pressure Systems and all other purposes.

Write for information.

CHIPPEWA FOUNDRY MACHINERY CO.
Chippewa Falls, Wis.



CONSERVE YOUR STOCK

USE PERFECT EAR TAGS

The Perfect Ear Tag is being adopted by stockmen all over the United States, because it is so very light in weight—made of aluminum. It is non-corrosive and non-poisonous. There is liberal space for name and address of owner and number of animal. Attached instantly with one operation. Offers perfect identification. We own the patent and are sole manufacturers.

FOR CATTLE, SHEEP AND HOGS



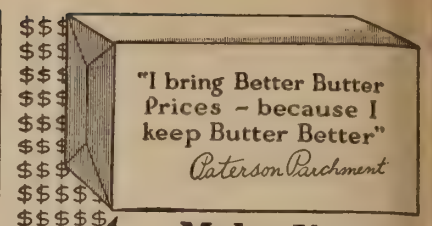
SALT LAKE STAMP CO.
SALT LAKE CITY, UTAH

SEND FOR FREE SAMPLES

Without obligation to me, please send FREE Samples of PERFECT EAR TAGS, and Price List.

Name _____

Address _____ (HD-8-30-8)



Make Your Butter Pay More Profit

Quality butter brings top prices. But it must be a quality beyond the cow and the churn. In what condition does your butter reach your customer? *That's the secret of butter profits.*

For an amount too small to consider you can wrap your butter in

Paterson Pioneer Parchment Paper

stamped with your own brand, which to your customer becomes an identifying mark of fresh butter, free from dirt, impurities and bad odors—wholesome, fine flavored butter which people gladly pay more for. Try it.

Write for free samples and book, "Better Butter". Worth money to every dairyman.

THE PATERSON PARCHMENT PAPER CO.
37 Eighth St.
Passaic
N. J.



TRADE MARK

Wyandotte
Dairyman's Cleaner and Cleanser

It Cleans Clean

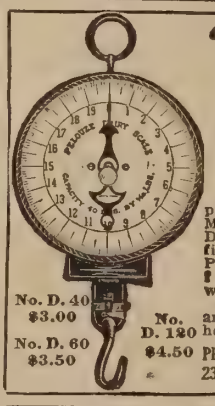
Indian in circle



in every package

Order from your dealer, or write us.

The J. B. Ford Co., Sole Mfrs., Wyandotte, Mich.



"PELOUZE" Dairy Scales

Three Sizes: 40, 60 and 120 lbs. by Tenths of a Pound.

Guaranteed Accurate

Made to comply with Departments of Weights and Measures. Large Circular Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail.

Order direct or through any leading Dairy Supply house. Specify "Pelouze".

No. D. 40 $3.00
No. D. 60 $3.50
No. D. 120 $4.50

PELOUZE MANUFACTURING CO., 233-242 East Ohio Street, Chicago.



PAINT

From factory direct to you

Save 1-2 the cost on strictly 5-year guaranteed paints.

Shipped direct, subject to trial on 90 days' time.

HOUSE PAINTS,
BARN PAINTS
FLOOR PAINTS,
VARNISHES, STAIN, ETC.
FRESH PAINT MADE
SPECIAL TO YOUR ORDER

Send for complete color cards showing full line of colors and instructions, also special FREE offer.

THE BELL PAINT CO.,
Dept. H. CLEVELAND, OHIO

REGISTERED RED ROCK WHEAT ROSEN RYE

Pedigreed varieties developed at the Michigan Agricultural College and inspected, approved and registered by the Michigan Crop Improvement Association.

Be sure and get pure Rosen as rye-cross fertilizes readily.

For list of growers write to Sec'y of the Association.

J. W. NICOLSON, East Lansing, Mich.

Green's Holsteins Average Over $800

Ohio's greatest Holstein sale and one of the most successful sales ever held was that staged by A. W. Green at his Walnut Crest Farms, Middlefield, Ohio, June 27-28. One hundred thirteen animals sold for an average price of $814 in a sale that was attended by from 4,000 to 6,000 people each day. This is a success that any Holstein breeder would be proud of and in Mr. Green's case it is little short of phenomenal. In two short years he has built up the herd that made this sale possible.

The 4-month-old bull calf, Potentate, was the feature of the sale. Sired by a 33-lb. (26.4 lbs. fat) son of Pontiac Korndyke and from Leafy Peeman Korndyke, 40.88 lbs. butter (32.7 lbs. fat) in 7 days, she, a daughter of Leafy Dawn DeKol, 3.14 lbs. butter (34.5 lbs. fat) as a 21-year-old, there were several willing to pay $10,000 for the youngster. After that mark was reached, however, the competition narrowed down until it included but 3 men,—B. E. Totten, E. P. George, and Dean Knickerbocker representing the Anna Dean Farm. Mr. George finally purchased the calf on his $25,000 bid.

Queen Hengerveld Rag Apple, an 18-lb. 2-year-old daughter of Rag Apple Korndyke 8th, headed the females, going to T. A. Denman, Ohio, for $2,025. Sixteen others brought $1,000 or more.

Haeger, Kelly, and Perry did the selling with S. T. Wood in the box.

A list of the animals sold, the purchasers, and prices follow:

John Lahner, Ohio
- Walnut Crest Aaggie Endora (twin) $200
- Walnut Crest Minkie DeVries 245
- Walnut Crest Hemlock 225
- Erma Hazel Ormsby 265

T. H. Sparling, Ohio
- Amy DeKol Beets $250
- Amy DeKol Beets Walker 350
- Lady Netherland Homestead DeKol 1,510

T. D. Fletcher, Ohio
- Barteenah Pel Hazel Pontiac $280

T. L. Easton, Ohio
- Walnut Crest Freda $235

D. H. Owen, Ohio
- Mabel Donley DeKol $200
- Prim DeKol Beets 280
- Wynga Korndyke Beauty 225

Wm. Coale, Ohio
- Hilltop Lassie 2d $305
- Walnut Crest La Polka Prilly 400

S. H. Stillwagon & Son, Ohio
- King Pontiac May $400
- Pine Lawn Queen DeKol 490
- Pet Douglas Korndyke 315
- Red Manor Tirania 570

T. A. Danman, Ohio
- Queen Hengerveld Rag Apple $2,025
- Cloverdale Rag Apple King 450
- Gold Beauty Prize 710
- Hilton Mercedes Pontiac Lady 250
- Pauline Ideal Beets 510
- Beauty DeKol Perfection 1,275
- Kingwood Lucy Cash Princess 870
- Aaggie Grace Cornucopia 4th 425
- Ottillie Josephine Ormsby 760
- Arkona Pontiac Abbekerk 450

John T. Burnside, Pennsylvania
- Queen Hengerveld Rag Apple 2d $315

Pine Grove Farms, New York
- Walnut Crest Rag Apple May $580
- Walnut Crest Rag Apple Helena Burk 1,075
- Lorenza Catalpa Korndyke DeKol 560
- May Maud Pontiac 710
- Kingwood Bergsma Johanna Segis 1,025
- Kingwood Bergsma Netherland 6th 1,600
- Madaline DeKol 610

F. M. Ryder, Ohio
- Walnut Crest Rag Apple Pietertje $445
- Hilltop Gabriel Walker 900
- Bessie of Maple Hill 2d 1,125
- Nannette DeKol Ormsby 1,150

John Stotzer & C. R. Barnes, Ohio
- Cloverdale Rag Apple Champion $600

J. E. Miller, Ohio
- Brownwood Rag Apple Champion $300
- Lenore Girl Korndyke 1,500
- Kingwood Lucy Cash DeKol Segis 925
- Rag Apple Leaflet (twin) 650
- Lulu Pontiac Korndyke 300
- Helena Hengerveld Nudine DeKol 350
- Red Manor Mary Mooie 300

E. P. George, New York
- Mollie Hartog Netherland 3d $410
- Marie King Hartog 600
- Colantha Paul Beets Dekol 500
- Potentate 25,000
- Daisy DeKol Butter Girl 3d 370

E. P. & C. P. George, New York
- Superba Ida Rag Apple $2,000

C. J. George, New York
- Queen Pietertje Beets $325

E. M. Hayes, Pennsylvania
- Segis Pride Pontiac $480
- Lorenzo Brassica Netherland 380
- Wynga DeKol Beauty 2d 460
- Hilltop Pontiac Lad 190
- Bettina of Tiffin 300
- Barteenah Pel Ormsby 2d 360
- Princess Ramona Abbekerk 370
- Pauline Beets Korndyke Segis 340

E. L. & T. J. Whetson, Ohio
- Erma Hazel Pontiac $275
- Helen Netherland DeKol 2d 425

Totten & Miller, New York
- Walnut Crest Velma Abbekerk $215

Frank Sheffel, Ohio
- Hilltop Valdessa $410
- Hilltop Viola Walker 300
- Hilltop Alberta 320

C. A. Selken, Missouri
- K. P. Pearl Ormsby Burke $1,005

N. L. Mock, Ohio
- Hazel DeKol Butter Girl $310
- Minkie DeVries Oosterdaan 510

G. T. Howe, Ohio
- Dora De Vries Kuperus $710
- Pamatuning Gretta 660

C. S. Doolittle, Ohio
- Walnut Crest Prilly Konigen $205

T. E. McShaffrey, Ohio
- Kingwood McKinley $700

F. P. Freshly, Ohio
- Kingwood Ruth Segis Fayne Nudine $450

C. S. Reece, Ohio
- Queen Fayne Mutual DeKol $610
- Betsy Bodora Netherland 525

Lawrence Paumier, Ohio
- Kingwood Hengerveld Fayne Segis $650

Abbott & Clark, New York
- Kingwood Bergsma Johanna Fayne $850

John M. Snider, Ohio
- Kingwood Lucy DeKol $1,750

Good Hold Farm Co., Ohio
- Kingwood Bergsma Segis Fayne $1,000
- Kingwood Bergsma Netherland 5th 725
- Kingwood Emma 2d
- Kingwood Gerda Boelyn Segis 800

H. J. Price, Ohio
- Kingwood Mechthilde 2d $950

Everett Bros., Ohio
- Hilltop Vesta Walker $310
- Kingwood DeKol Segis 580
- Hengerveld Korndyke Segis 565

F. B. Hooner, Pennsylvania
- Zida Texal Beets $470
- Josephine DeKol Beets 270
- Petra Oakwood Lyons 260
- Segis Aaggie Pontiac 400

A. V. Case, Ohio
- Crestholm Pontiac Butter Girl $210

W. H. Wherry, Ohio
- Countess Ormsby Beets $360

J. J. Eastlake, Ohio
- Walnut Crest Johanna $310

T. D. Scott, Ohio
- Andire DeKol of Villa Vista Farm 2d $460

C. R. Leatherberry, Ohio
- Kingwood Emma Segis Fayne $800
- Kingwood DeKol Segis Fayne 750

W. W. Gooding, Ohio
- Kingwood Bergsma Netherland 4th $725

F. L. Fobes, Ohio
- Kingwood Olga Segis Fayne 2d $305

G. L. Gates, Ohio
- Barteenah Pel Ormsby $350

S. L. Kellogg, Ohio
- Walnut Crest Rag Apple DeKol (twin) $1,350

Seiberling & Saurer, Ohio
- Walnut Crest Rag Apple Merrill $2,500

George W. Wilcox, Ohio
- Red Manor Zur DeKol $700

C. W. Campbell, Pennsylvania
- Walnut Crest Rag Apple Lyons $675

W. G. Simons, Ohio
- Walnut Crest Pontiac Lyons $165
- Butter Cup Pontiac Hengerveld 1,900

G. F. Howe, Ohio
- Pamatuning Gretta $660

Paul McNich, Ohio
- Calf $105

Karl Dodge, Ohio
- Pauline Beets Korndyke Segis 2d $400

Max Griffin, Ohio
- Aegina Clothilde DeKol Pride 2d $500

O. H. Green, Ohio
- Red Manor Alexina Maid $510

DAIRY MARKETS

CHICAGO—Aug., 22—Butter—Creamery extras, 44½c; extra firsts, 44½@46¾c; dairy, firsts, 41½@44c; seconds, 40@41¼c.

Eggs—Ordinary, 35@37½c; firsts, 38@39½c.

Cheese—Twins, 24¾@25c; Young Americas, 25@26½c.

MILWAUKEE—Aug. 22—Butter—Creamery tubs, 45@45½c; prints, 46½@47c; extra firsts, 43½c; firsts, 40@44c; dairy, fancy, 40c.

Eggs—Current receipts, cases returned, 30@37c; cases, new included, 37@38c; miscellaneous cases, 36½@37½c; dirties, 33@34c; seconds, 30@31c; checks, 29@30c.

Cheese—Twins, 25@25½c; Daisies, 26½@27c; Longhorns, 26½@27c; Young Americas, 26½c; Brick, new, 29@30c.; Limburger, new, 1 lb. 27c; 2 lbs. 26c; Swiss loaf, 45@46c; block, 34@36c.

SHEBOYGAN, Aug. 20—On the Sheboygan call board on Monday six factories offered 315 boxes of Longhorns; 280 boxes selling at 26c and 35 boxes at 26¼c.

PLYMOUTH, Wis., Aug. 20—On the Wisconsin cheese exchange twenty-six factories offered 3,325 boxes of cheese. Bids passed on 100 Longhorns. Sales were 250 squares, 27½c; 400 Twins, 24¾c; 2,000 Daisies, 26c; 225 Double Daisies, 25¾c; 50 Young Americas, 25¾c; 570 Longhorns, 26c; 20 at 26½c.

APPLETON, Wis., Aug. 20—Seven factories offered 367 boxes of cheese on local call board on Tuesday. Sales were fifty Double Daisies at 25¾c and 317 Twins at 24¾c.

SPRING GREEN, Wis., Aug. 20—Offerings of cheese on the Spring Green dairy board of trade on Tuesday was 754 boxes of Single Daisies. All sold at 26½c.

NEW YORK—Aug. 22—Cheese—Firm; state milk, common to specials, 21½@26½c; skims, common to specials, 7@21c.

Butter—Steady receipts, 12,678 pkgs.; creamery, extras, 46c; state dairy, tubs, 39@45¾c.

Eggs—Firmer; receipts, 22,579 cases; nearby white, fancy, 65@68c nearby mixed, fancy, 38@50c; fresh firsts, 42@50c.

MERIDALE JERSEYS

For Sale: Five grandsons of Spermfield Owl 57088. Two 1000-lb. cows close up in their pedigrees. Address

AYER & McKINNEY
300 Chestnut St., Philadelphia, Pa.

Pure-bred and High Grade Holsteins

CAN FURNISH CAR LOTS OR LESS.
I have a car of yearlings on hand at $50 each. Several bulls from 8 months to 14 months old from A. R. O. dams. Write me for price and photo. High grade Holstein heifer calves, four weeks old, $20 crated.
Yohn's Stock Farm, Watertown, Wisconsin.

CORN HARVESTER Self Gathering for cutting Corn, Cane and Kaffir Corn. Cuts and throws in piles on harvester. Man and horse cuts and shocks equal to a Corn Binder. Price only $25 with fodder binder. The only self gathering corn harvester on the market, that is giving universal satisfaction.—Dexter L. Woodward, Sandy Creek, N. Y., writes: "3 years ago I purchased your Corn Harvester. Would not take 4 times the price of the machine if I could not get another one." Clarence F. Huggins, Speermore, Okla.: "Works 5 times better than I expected. Saved $40 in labor this fall." Roy Apple, Farmersville, Ohio: "I have used a corn shocker, corn binder and 2 rowed machines, but your machine beats them all and takes less twine of any machine I have ever used." John F. Haag, Mayfield, Oklahoma: "Your harvester gave good satisfaction while using filling our Silo." K. F. Ruegnitz, Otis, Colo.: "Just received a letter from my father saying he received the corn binder and he is cutting corn and cane now. Says it works fine and that I can sell lots of them next year." Write for free catalog showing picture of harvester at work and testimonials.
PROCESS MFG. CO., Salina, Kansas.

FOR MILKING MACHINES



Clear and Clean as Water

B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."

General Laboratories—Madison, Wis.
279 So. Dickinson St.

CONSIGNMENT SALE

Lasting Three Days at Cuba Fair, N. Y.

Sept. 11th, 12th and 13th, '18

Ayrshires, Holsteins, Guernseys and Jerseys

None but Registered Cattle will be sold. Come to Cuba—An all Dairy Country—Large herds of the best cattle to be found here. For particulars write

L. J. Waldock, Cuba, N. Y.

Don't Wear a Truss



Brooks' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads.
MR. C. E. BROOKS

Brooks' Rupture Appliance

Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.
Brooks Appliance Co., 467 State St., Marshall, Mich.

DR. GEO. HOLLABUSH'S
SURE CURE FOR ABORTION



and General Tonic for Cows. The only genuine Sure Cure and General Tonic for Cows on the market. I guarantee and refund money if not satisfactory. Send for circulars.
DR. GEO. HOLLABUSH, Ft. Atkinson, Wis.

Big Type Poland China Boars

of noted breeding now ready to be shipped. All of March farrow. Cholera immune and guaranteed to please. I have culled them out very closely therefore have nothing but the best to offer. Sired by such noted boars as Big Ben H., Model Mastodon, Orphans Big Joe, Mow's Chief and others. Buy from a herd that has built its reputation and where you take no chances either on cholera or getting "stung" on a pig for I stand back of everything I say and sell. Write at once and mention this paper.
F. A. MOREHOUSE, LANCASTER, WISCONSIN.



SWALES PATENT MOUTH GAG FOR Horses, Cattle, Hogs, Sheep and Dogs.



"TAKING THE PLACE OF THE BALLING GUN."

Weighs under 10 oz. and is the most perfect instrument for the examination and treatment of the Mouth and Teeth, Physicking and Balling. It is applied without assistance or twitching as easily as a bit, neither frightening the most nervous, nor hurting the most sensitive animal.

No. 1. Suitable for horses or cattle, $3.00. No. 2. Hogs, Sheep and Large Dogs, $1.50. No. 3. Small dogs, $1.25.
SPECIAL OFFER: Complete set of 3 instruments, $5.00. Postage free.
SWALES SPECIALTY CO., Inc., Live Stock Providers, 28 East 42d St., NEW YORK.

ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT. REGULAR BREEDERS BY
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STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heiers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

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HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Jefferson County, Wis., Boys at Work

What are the boys in your neighborhood doing this summer besides helping their fathers with the regular farm work? Are many of them in business for themselves? Hundreds of the boys and girls living on the farms in Jefferson County, Wisconsin, are. In the four townships about Fort Atkinson there are 314 in this



ERWIN SCHIMMING, WISCONSIN

He expects to have a Holstein herd some day. This is his grade heifer.

work. Mind you, this is not in the whole county; only about one-fourth of the county.

This work was started late this spring by Mr. Henning, local agricultural teacher. It was too late to get good, efficient clubs started so it really is as if each boy were working for himself instead of as a club member. And they are working, too. Recently we had an opportunity to visit some of them and not a fellow but was right up with his work. They were all of them real business men and we predict that the end of the season will find most of them with a profit of dollars and cents as well as experience.

We found them doing different things. About eighty are raising chickens, seventeen have heifer calves, a few have pigs, and the others have corn, potatoes, or a big garden. One boy even has some bees and expects to make money on his honey. Several of them have both live stock and a garden.

At one of our most interesting stops we found three brothers, Harlow, Glenn, and Arthur Sheppert. Harlow, aged 14, is the oldest. He has been in business for himself before but this is the first time he has tried poultry. This year he has about 100 chicks, among them twelve pure-bred Barred Rocks which are to be the foundation of a pure-bred flock. He plans to sell his young cockerels this fall and keep most of the pullets for laying hens this winter.

Glenn is trying his luck with pigs. He has 4 grade Durocs that he is feeding. They gained a little less than a pound a day the first month but he expects better results in the future. He is feeding them a slop containing middlings, ground barley, and oil meal mixed with skimmilk. He finds, however, that they do not do quite as well as other pigs on good pasture. If the venture proves at all profitable this year, he is going to keep one of the pigs for a brood sow.

Arthur, who was busy in the hay field when we were there, has a pure-bred Holstein heifer. He is the only one of the three who will not realize some money on his stock this fall, but in another year his heifer should begin to prove profitable. All of the boys are paying for the feed and supplies they use and they are keeping a record of all such expenses, too. They propose to know whether their business is paying or not.

Now, what do you suppose those three boys are planning to do with any money they may earn in this way? We asked them and found that war saving stamps were to be their investment. They have been in business before and today all their savings are invested that same way. They have $250 worth now.

Erwin Schimming, another of the boys we met, has a grade Holstein heifer about nine months old. She is a good one, and he has wisely decided that, barring accidents, he will keep her for a foundation cow.

These boys and girls had some help to start with. Mr. Henning got them interested and helped them obtain their seed or stock. Since then they've been doing very well by themselves with occasional advice from their parents. Most of them are succeeding. You certainly can do as well another season if you have not started now.



HARLOW SHEPPERT OF WISCONSIN AND A FEW OF HIS CHICKENS

Junior Letters

Hoard's Dairyman Juniors:—Maybe you think I have forgotten all about the junior page but I have not.. I always read the junior letters but I have not written because we all are very busy.

We cannot get any hired man now so I have to do the work in the house while mamma helps papa in the factory. Besides doing our work here and caring for our garden we have planted an acre of corn, beans, and potatoes on our new farm which papa purchased last fall. The farm consists of 140 acres, 40 acres of it are woods. There is a mill situated on our new farm and they are cutting off the hemlocks. Papa rents the farm to the man who has lived there for quite a few years but he has reserved one acre for the garden. We do not get any time to work in our garden until after supper, then we jump into our car at 5 o'clock or a little after, go down to the farm, 2 miles below here, work until dark and then come home. We hired the land plowed, dragged, and cultivated. We also hired the corn planted but we did the rest ourselves. The potatoes have been hoed twice, the beans once, and the corn has been hoed part way across once but we broke our car and had to quit work for that week. Our potatoes look fine. The corn and beans look pretty good but they were frozen some once.

There has been an abundance of strawberries here and the red raspberries are getting ripe. We have a plot of red raspberries, (garden berries) right below the house. It has been raining about all day and the bushes are so wet that we can't pick them very well.

Papa got about 7,000 lbs. of milk a day in June and made 10 cheese and 3 tubs of butter a day. He makes 9 cheese and 2 tubs of butter now. He does not get as much milk as he did last year.

When papa tests milk now I shake the bottle to blend the milk together, empty and wash the test bottles, and put them away. I wash them with warm water and a cleaner and rinse them in warm water.

One of our sailor boys has come home for a 4 or 5-day furlough. I haven't any brothers to go but I have a cousin in a camp somewhere in Pennsylvania.

Papa has bought bonds for my sisters, mother, and myself but he got the thrift stamps.

We did not raise many chickens this year and the skunks dined on part of them.

Well, I must close and eat my supper.

I was delighted to see my letter on the junior page; hope to see this one there too.

I would like to hear from some more of the junior girls and boys. Wish all of the New York State juniors would put their addresses on the junior page.

My own address is Cincinnatus, New York.

Mary C. White.

Hoard's Dairyman Juniors:—We have our barley all out and shocked. Our oats are almost ready to cut. We have 9 Poland China pigs. We have about 75 chickens. I live on an 80-acre farm. We have an automobile. We like it very well. We have a cream separator. It is over 16 years old and it has never been broken. My little calf is doing fine. You can almost see her grow. We are having some rain here. We have two engines, one 12 H. P. and one 1½ H. P. Good luck to all the juniors.

Wisconsin. Gordon Hengstler.

Hoard's Dairyman uniors:—I received your button and fob yesterday as a member of the juniors, and take pride in the dairy work. My father has 20 Jersey cows and 10 heifers that will be fresh within 6 months, and 15 younger heifers. We also have a new registered Jersey bull that we bought last November when 26 months old. He cost $500. All we feed our cows is Japanese cane which we run through a feed cutter, then mix same with molasses. We intend building a silo this winter, of cement, 12x30. We also feed sweet potato vines and green cornstalks. We store our dry cornstalks for the winter or dry season and chop same up and feed with molasses. We also have our own refrigeration, a 2-ton plant. Also an aid life pump which gives us 400 gallons a minute for irrigation. We sell all our butter in Havanna f. o. b. Herradura at $1 per pound, our buttermilk at 60c per gallon, and cottage cheese at 20 cents per pound from all our skimmed milk except what we use for our pigs and calves. The balance of our stock consists of 2 mules, 3 horses, 2 pigs, 10 heifer calves, and about 60 chickens. We have 8 pastures that we change our stock to about every 10 days. We have 10 acres of orange trees, early and late varieties, which pay well. We have let our grape fruit grove go back, as we found it a losing game.

We came to Cuba from Minneapolis, Minn., 13 years ago. My father traveled for the Northwestern Casket Co. for years, through the Northwest. We have had some very hard times here getting the experience of how to farm and what to raise, but 7 years ago we started in the dairy business and have made a success of it. We must ship all our dairy supplies from the U. S., the expense of which means about 50% added to first cost.

I think I have written enough for this time and when we get our stock and grounds photographed will write you again. We like it fine in Cuba. Myron Goetze.



GLENN SHEPPERT OF JEFFERSON COUNTY, WISCONSIN, IS RAISING PIGS

Hoard's Dairyman Juniors:—Well, I suppose you think I am not going to write any more, but I'll drop a few lines to let you know I am still here.

The crops seem to be in good shape this year. We are hoeing our corn nowadays, there being so much quack grass in it.

My father joined the cow testing association so we have a man here every month to do the testing. I heard news today that he enlisted in the army but I don't know for sure. His brother was killed at the front so I guess he didn't like it so he enlisted to kill the one who killed his brother.

I graduated from the eighth grade. There were two Hoard's Dairyman juniors in my class.

Arthur Sorenson has two brothers in Uncle Sam's service now. His father had an auction sale on some of his stock so he could handle the farm better.

The Downing creamery burned down last winter so they haul the cream to Glenwood City, so the creamery is getting a great deal of cream.

Wisconsin. Geo. Jacobson.

Hoard's Dairyman Juniors:—How are all of you juniors? I am well and feeling fine.

My sister and I are going to keep our sheep. It is a ewe sheep and I thought I would buy it from her if she would sell it to me. If she does I will raise some lambs next year. It is not quite a year old yet so you see she is too young yet.

I like to read the Hoard's Dairyman, especially the juniors' page. I don't care so much for the letters as the rest.

We had so much rain here that we can't get corn laid by because it is so tall and when you touch it with the plow it will break off.

As my letter is getting long I will close wishing the juniors good luck.

Illinois. Albert E. Post.

Hoard's Dairyman Juniors:—Received my creed, button, and fob some time ago, and was very much pleased with them. I must apologize for not writing sooner but I have been so busy with my farm work that I didn't have time to write.

We are milking nine cows and get about twenty-eight gallons of milk a day. Our cows are all grade Holsteins.

My father is a member of the Holstein Breeding Association which was established about seven years ago.

I had success in my potato crop last year. I planted three bushels of which I received sixty bushels. I think that was a good crop. The weather is fine here and the farmers will start making hay after a week or two. We had a hard hail storm which destroyed all the cabbage and tomato plants what were transplanted before. Frost which we had awhile ago killed all the potatoes that were planted in low land. It didn't bite our potatoes as ours are on a high hill.

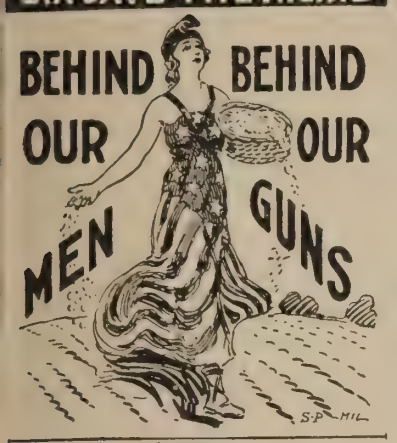
I will close this letter now and write some more another time. I wish the juniors good luck and hope also that they will write to me. My address is Paynesville, Mich.

Arthur Lassila.

Hoard's Dairyman Juniors:—Well, we are through with our hay harvest. We didn't get half as good a crop this year as we did last year. We got 20 loads this year and last year we got 37 loads which I think is quite a difference. But I think it is too dry for hay weather. And most of our clover froze, too. Our corn doesn't look very good either, but all it needs is rain. But our barley and oats look all right.

Well, my heifer is still doing fine. We kept a record and she had 38 pounds of milk per day in an average. And, of course, I have some money left over after I have paid the feed. I am satisfied with her because she freshened a long time ago and I suppose when

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SIX DAYS - FIVE NIGHTS



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NO WAR TAX.

she gets older she will get a better average. We had 9,400 pounds of milk for the month of June from our nine cows. I have a camera now and I will send you a picture of my heifer in my next letter. Well, I must close, wishing the juniors good luck.

Wisconsin. Edwin Sebildhaur.

Hoard's Dairyman Juniors:—We have all our wheat cut and our clover up. We will cut oats next week. My heifer is still giving milk. She gives about 13 or 20 lbs. a day. She is just a grade and has been fresh nearly a year. Our other 2 cows are Jerseys. I have two pet rabbits and some Rhode Island Red chickens. I think we will thrash soon. We have 40 acres of wheat, 25 acres of oats, and 45 acres of corn. I have one little turkey and 27 goslings and 4 ducks. I would like to buy a good Holstein heifer if I knew where to get one. I belonged to a corn club last year and won $7 on my corn. We have 17 little pigs. My address is Taylorville, Ill.

William Stumm.

Hoard's Dairyman Juniors:—This is my first letter to the juniors. I got my fob, button, and creed. I read my creed every day. I will write to the juniors whenever I can find time.

We have thirteen head of milk cows, we sell our milk to Mr. Krueger of Ravenna, O. We have a well drilling machine and 6 H. P. gasoline engine. I am the engineer. I start and stop the engine and keep it oiled.

I am going to try to get some of my friends to join the Hoard's Dairyman Juniors and get up a calf club. Good luck to all of the juniors.

Ohio. Carroll Boone.

Hoard's Dairyman Juniors:—It is a long time since I wrote so I thought I would write a few lines. You must excuse me. We went to Polk County in May and I had a good time there. It was 101 miles from Eau Claire. We drove in a car. It took us a whole day to drive down there and we got stuck in many places. It rained almost all day when we went up. But when we went home we had nice roads and it was nice weather. When we got home we found one of our largest pine trees had blowed down. Now I will close, wishing all the juniors good luck.

Wisconsin. Arnold Olson.

Hoard's Dairyman Juniors:—My father has given my brother and me two pigs. We have half share in another. I have a liberty bond and a war saving stamp. I am working for another. We are going to have a fine new school house. We are milking 12 cows. Papa has 10 calves and 3 colts and 7 work horses. My lamb died last winter.

Wisconsin. William Hopkins.

Hoard's Dairyman Juniors:—This is my first letter to the juniors. I am sorry that I did not write sooner, but I have been busy.

I am a Tenderfoot Scout. My Sunday School class has organized a troop of Scouts. There are 29 of the Scouts.

My father is disposing of his grade Holsteins. My brother and I each have a grade Holstein heifer. If my father can sell all his grade calves, he will sell our calves and keep the money. Then he will give us each a registered heifer calf. My father sold 6 grade cows just the other day. He bought 16 registered Holsteins this spring. We do not have much to feed them, as our silage ran out just as the grass dried up. We do not have much hay this year.

My mother tried to raise some chickens this summer. She did not have very good luck as something kept catching them.

My brother and I have some traps set for woodchucks. We caught 4 last summer and 3 so far this summer.

Well, I guess I will close for this time, wishing the juniors good luck.

Michigan. Curtis E. Keefer.

Hoard's Dairyman Juniors:—You ask me how much my cow tests and how much milk she gives. I tried to test her but the acid wasn't any good so I don't know how much she tests, but sometime I will get some new acid to test with. I will then tell you what she tests. She gives 6,000 pounds of milk in her term. She is quite a small cow so she can't give as much as the rest of the cows do. She gives 20 pounds a day. We are making hay now. Papa puts the hay on the wagon and I make the load. We have made about 10 loads so far but we have 15 loads out doors that isn't cut down. Last week I was cultivating corn. I am through with one piece and have started another. I will close for this time wishing good luck to all the juniors.

Wisconsin. Gordon Hengstler.

Hoard's Dairyman Juniors:—I live on a farm of 92 acres. We have four work horses and 3 colts. Papa always has some colts every year and sells some every year. My brother, Floyd, and I always have lots of fun teaching the colts to lead. We are most done with haying and we have got our big barn full to the top. I have a full blood Holstein cow and I raised her calf, a fine heifer, too. I have her in the calf club and may take her to the fair this fall. I always drive the horses on the hay fork and on the wagon with the hay loader behind. Well, I guess my letter is getting long so will close for this time.

Wisconsin. Roy Keuler.

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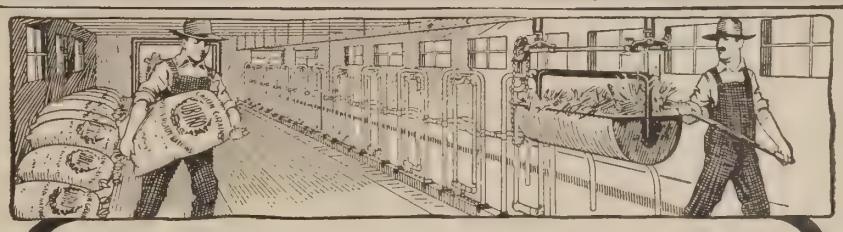
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Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—Registered bull calves five weeks to four months old. $50 to $100. MAPLE LANE FARMS, Cassadaga, N. Y. 2-tf

For Sale—One hundred high grade heavy springing Holstein cows and heifers, quality good. Also 18 registered heifers. Bred to son of Tidy Abbekerk Prince. J. A. KNORR, Blanchardville, Wis. 3-5

For Sale—150 high grade Holstein springers, cows and heifers. Call at once. FRICK & HOESLY, New Glarus, Wis. 4-5

2 Registered Holstein Bulls, 13 and 6 months old, $150.00 and $75.00 respectively. Worth your inquiry. Write for pedigrees and photos. ELMHURST DAIRY, Robbinsdale, Minn. 5-2

150 Head of high grade springers, large and mature milkers, and good producers. As choice a selection of dairy cows, as can be found anywhere. Write or wire FRANK LUHRS, South St. Paul, Minn. 5-4

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

Calves-Calves-Calves-Holsteins $25, Guernseys $20. 15-16 pure. Not ordinary calves, but good ones. Order now. A few yearlings and two-year-olds. F. L. TAYLOR, Iola, Wis. 5-4

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Carload of rarely bred registered Holstein cows, heifers and bulls. KNAPP FARM, Nashville, Tenn. 5-3

Twelve females of high producing strain, due to freshen in early spring and bred to one of the Holsteins greatest thirty-four pound bulls. Herd federally tested. Priced to sell. LILLIBERK FARM, Homer, Mich. 5-3

Dispersal auction sale pure-bred registered Holstein cattle, New Douglas, Illinois, September 25th and 26th. Hundred and thirty head, mostly heavy springers. Eight serviceable young bulls from cows with records over thirty pounds of butter in one week. Cattle federally tested and sold subject sixty-day tuberculosis retest. Write for particulars. SAM GEHRIG, New Douglas, Illinois. 5-5

Holstein bulls for sale, 15 months and under. Sire, Sir Korndyke Mercedes Ormsby De Kol No. 209932, whose sister has year butter record of 1255 lbs. E. J. ST. MARTIN, Bloomington Holstein Farm, Station F, Minneapolis, Minn. 5-2

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—100 head Holstein cows and heifers, 1 to 8 years of age. WILL H. GIBSON, Albany, Wis. 6-2

For Sale—20 head of yearling and 2-year-old Holstein heifers. High grades, from a good bull, all my own raising. GOLDEN RULE DAIRY FARM, Chas. A. Sargent, Prop., Brazil, Ind.

For Sale—26 high grade Holstein dairy cows, 6 young heifers, and herd bull. All coming fresh this fall. For particulars write LOUIS BENSON, Randolph, Mo. 6-2

Holstein bull for sale—Friend Cornucopia Lad 5th No. 92481, age 7, weight 2,000 lbs., marks perfect. Served 40 cows for 3 years. Every calf better than cow. Worth $1,500. Price $300. Guaranteed for one year. Will ship an approval. Sold out. A. N. REIS, New Hampton, Iowa.

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

For Sale—Registered Guernsey bull coming two years old. Reasonable price. GEO. S. CUCKIE, Willard, Mo.

STOCK FOR SALE

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers three splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Grade Guernseys for sale. LOUIS CLAUSING, Mequon Station, P. O. Thiensville, Wis. 3-4

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernsey bulls ready for service. One by grandson of May Rilma 1073 lbs. fat out of A. R. cow. Two by Glenwood Champion, 22 A. R. daughters, one over 800 lbs. fat. One of these is grandson of Beauty Eagle, 846 lbs. fat. Other out of A. R. cow. All splendid individuals. LaBELLE KNOLL FARM, Oconomowoc, Wis. 23-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

For Sale—Entire Registered Guernsey herd, also Governor of Chene and Yeksa bulls, serviceable age. JOHN G. BURNHAM, 2444 Lisbon Ave., Milwaukee, Wis. Phone Kilbourn 102. 5-3

For Sale—Fourteen high grade Guernsey cows two to eight years old coming fresh during fall and winter, one registered Guernsey sire serviceable age. PAUL L. LEHMAN, R. 2, Barron, Wis. 5-4

Three registered Guernsey bulls, fine ones, three, six, and eight months old. Also a fine 15-16ths pure-bred grade Guernsey bull calf two months old, out of a 50-lb. dam. Cheap. GEBHARDT BROS., Palmyra, Mo. 5-2

High grade Guernseys for sale. 5 cows, 3 freshen in October, 5 heifers to freshen this fall, 6 yearling heifers, one pure-bred bull, 4 months old. Tuberculin tested. A. O. BAYLEY, Lake Beulah, Wis.

For Sale—Guernsey bulls from six months to year and half old. Write for pedigree and prices. S. M. WHITE & SON, London Mills, Ill. 6-6

Guernsey bull born December 7, 1917, grandson of Langwater Royal A. R. and Matilda of Spring Brook, 815.44 lbs. butterfat, splendid individual, price $150.00. M. T. PHILLIPS, Pomeroy, Pa. 6-2

For Sale—Few choice young Guernsey cows, registered. Four bulls 18 months old. One 3 years old. J. N. McLEOD, Platteville, Wis. 6-2

For Sale—23 high grade 2-year-old Jersey heifers bred to freshen from October 1. Also 4 Jersey cows with first calves giving milk. Am over-stocked. Come look them over and get a bargain. I. T. SUTER, Box 242, Palmyra, Mo. 5-3

Large, solid color, yearling, grandson Jacoba Irene. Merry Maiden's 3rd son. $100 takes him. W. H. ROBINSON, St. Frances, Minn.

For Sale very reasonable—Registered Ayrshires. Heavy producing cows and heifers. Bred to freshen in September and October. Also yearling heifers sired by Jones' Captain of Hartford. JULIUS C. MOYER, Elkhorn, Wis. 5-3

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

For Sale—Two registered Ayrshire cows and two young bulls. GEO. A. BROWN, Baroda, Mich.

For Sale—Two carloads White Face heifers, being bred to registered Hereford bull. CHAS. W. O'NEILL, Bridgeport, Wis. 5-2

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

David W. Williams, Lake Forest, Ill., can buy you grades or pure-breds, any breed. 2-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Two litters of pure-bred collie pups for sale. Beautifully marked, real heelers. Prices, females $6, males $10. Also one brood bitch, perfect worker, $25. BRUCE WESCOTT, Kewaskum, Wis. 4-3

FARMS FOR SALE

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

Improved Farms—In Barron, Polk, and St. Croix counties. Near Twin Cities. For particulars address JOHN McCOY, Owner, New Richmond, Wisconsin. 3-4

For Sale—In North Rochester, 200-acre farm, Big, modern dairy barn, fully equipped; 70 milking cows. Sold at sacrifice on account of health. Apply to MR. H. P. DION, 1070 County Street, New Bedford, Mass. 5-4

Big profit in dairy business if income is not all spent for feed. Own a dairy farm near Kansas City, rich blue grass, corn, wheat land. Write for free descriptive booklet. ALLEN MANSFIELD, Ottawa, Kansas. 5-2

Money Makers—40-acre farm, $1,800; 60 nearly all under cultivation $1,500; 80 with stock, machinery and crop, $4,800; 160 with good, large buildings, $6,800; choice cut over land $15 to $20 per acre. Write for particulars. THE E. L. C. CO., M-B Dept. 31, Merrill, Wis. 5-tf

New York Farms for Sale—112 acres; 30 alfalfa, good buildings, running water in house and barn, $6,000; 66 acres—good buildings, $2,600. Easy terms. Others larger or smaller. For particulars address BOX 78, Peterboro, N. Y. 5-4

For Sale—One of the best farms in Clark County, Wisconsin, 134⅛ acres to close estate. Located just outside the city limits of county seat. Large basement barn, silo, large brick house. Particulars from MINNIE HERIAN, Neillsville, Wis.

Farm lands for sale—Suitable for dairying, stock raising and general farming; in a colony composed of northern farmers; only 65 miles from New Orleans, La.; prices and terms reasonable; write for our free booklet, "New Kingdom of Corn and Cattle". LORANGER COMMUNITY, INC., Hammond, La.

For Sale—Equipped dairy farm of 350 acres, 100 cows, heifers, team, and implements. E. CHRISTIAN, Owner, R. F. D. 1, Richmond, Va. 6-3

For Sale or Exchange—Choice, improved 240-acre farm in Waupaca County. Complete set of farm buildings, 100 acres crops, 25 acres fine timber, pasture, etc. No waste land. Do not answer unless you mean business, but a rare chance to get a farm. Answer LOCK BOX 552, Oshkosh, Wisconsin. 6-tf

For Sale by Owner—153-acre improved farm, black soil, brick house, barn room for 40 head of cattle. Two miles from Waukegan, Ill. on state cement road. One mile from high school, ¼ mile grade school, three railroads within two miles. Best of markets for farm products. $175.00 acre. Terms. D. W. WILLIAMS, Lake Forest, Ill. 6-4

Dairy—230 acres, 7-room house, two barns, orchard. Milk 36 cents wholesale. $5,000. W. E. WILLIAMS, Jackson, Miss.

Yucaipa Valley—California's leading apple district, with an altitude of 2,600 to 3 000 ft., has the soil, water and climatic conditions necessary to produce, and is producing, apples that for flavor, texture, color and keeping qualities are unexcelled. We will be glad to send illustrated matter regarding the land "Where the Big Red Apple Grows". DIKE & LOGIE, Redlands, Cal.

Big money-making farm $3,650. 14 cows, pair horses, calf, wagons, harnesses, plows, harrows, mowing machine, complete machinery, tools. Aged owner of this 180-acre farm in fine section, near schools, stores, depot, for immediate sale includes everything for $3,650, $1,000 down. Rich tillage, splendid hay meadows, 20-cow spring watered pasture, woodland, fruit. Good 11-room house, stock barn, wagon barn, poultry, milk houses, etc. Details page 15 Strout's Catalogue of this and other big mid-summer bargains, many with stock, tools, crops; copy free. E. A. STROUT FARM AGENCY, Dept. 3001, Room 312, Marquette Bldg., Chicago, Ill.

For Sale—Three improved farms of 192, 80, 80 acres. On public road. Three miles from county seat in gas belt. Might exchange for northern land. R. H. HUBBARD, Independence, Kansas.

Just Out—The finest and most complete list of improved farm bargains ever offered in Central Wisconsin; pictures of most all our farms, write today for this free list. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin. 6-spl

For Sale or Trade—Town 2 sections or 1,280 acres of fine cut-over and timber land in St. Louis County, Minnesota, which I would sell at $12 per acre. Adjoining land is sold for $15 to $20 per acre, or would trade it towards a well improved and well stocked Wisconsin dairy farm. My land is clear. Write BOX 343, Barron, Wis. 6-3

FOR RENT

For Rent—Dairy farm one mile from Beloit, Wisconsin. Excellent soil, good buildings. 425 acres. 200 acres in pasture. DON VAN WART, Agent, Parker Block, Beloit, Wis. 5-4

For Rent or Sale—100-acre farm near Brookside, Wis., fair buildings, about 70 acres under cultivation, balance pasture. WM. KIPP, Escanaba, Mich. 6-4

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

DAIRIES

For Sale—Dairy 50 Jerseys. Thoroughly equipped. Splendidly located in most thriving city in Florida. Rare opportunity. BOULEVARD DAIRY, Route 5, Tampa, Fla. 6-3

For Sale—Exclusive and well established dairy in town of 1,600. 19 head registered and high grade Holsteins, including herd bull and some young stuff. Barns and silo just outside corporation. Price $2,000, including horse, dairy wagon, bottles, etc. D. A. YOUNG, Chrisman, Ill.

MACHINERY

Two-unit Hinman Milker, complete. Good as new. HARRY PAULSON, Camanche, Iowa. 4-3

Moline Universal Tractor and two-bottom plow. Model "C", almost new, perfect condition. Only plowed 30 acres. W. H. WHITACRE, 2884 Coleridge Road, Cleveland, Oh. 5-tf

For Sale—Ensilage cutter size 15, good as new. C. A. DUTTON, Trempealeau, Wis. 5-3

Having disposed of my dairy herd, will sell my Empire milking machine at one-half price. Am sending it to factory for complete overhauling and new rubbers. Guaranteed labor saver. Write L. L. DUNMIRE, El Paso, Ill. 6-6

For Sale—Ohio Silo Filler, 19-inch, with pipe and three sets of knives, all in good condition, for quick sale $175. FRANK DeMUNN, Harvard, Ill.

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Pedigree No. 2 Winter Wheat $3.00 per bushel. FRANK DANIELS, Fort Atkinson, Wis. 5-3

Alfalfa Seed—Native, tested, recleaned, 99.96% pure, $11.50 bushel. Rye $2.50, timothy $4.75. JOHNSON BROS., Nebraska City, Neb.

AUTOMOBILES

For Sale—1916 Hupp in excellent condition, or will exchange for pure-bred Guernseys of priced moderate. LEE L. CONDON, R. 7, Mansfield, Ohio.

CREAMERIES

Wanted—A creamery to operate by two experienced men, exempt from draft. One is expert buttermaker and the other is business manager with large experience in marketing. Will operate either on salary or share basis. Best reference furnished. Address BOX 200, care Hoard's Dairyman.

PARTNER WANTED

Partner Wanted—Successful dairy farm, dairy business, southern Pennsylvania wants partner or will sell. Address BOX 195, care Hoard's Dairyman. 5-2

Wanted—A good dairyman and farmer with capital to buy half interest and take full charge of fine, well equipped 400-acre farm adjacent city limits of thriving central Michigan city. Will make big sacrifice to good man. This is a proposition of exceptional merit. No trades or triflers need apply. Address BOX 190, care Hoard's Dairyman. 5-3

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forrestville, Conn. 3-10

SHETLAND PONIES

One Shetland pony 3 years old, pretty sorrel mare Shetland pony, for $100, a thoroughbred. FERD. F. ALTHOFF, Teutopolis, Ill.

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

Clover Hay—500 tons of pure clover hay, best quality. Can fill any order. Write for prices. R. F. JOHNSON, Assumption, Ill. 6-tf

SWINE

Fine strain pure-bred, Improved Chesters. LOYD NESBIT, Barron, Wis. 3-4

Pure-bred registered Chester Whites. Sum- er prices. ARTHUR ROBERTS, West Bend, is.

Chester Whites, either sex at reasonable ices. JOHN HORLAMUS & SON, West nd, Wis. 5-4

Duroc Jersey bred sows and spring pigs. HILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. UG. NEITZEL, Bloomer, Wis. 26-tf

Big growthy registered Poland China spring gs, boars, and gilts, not related. Also bred ws. CHAS. W. O'NEILL, Bridgeport, Wis. 5-2

For Sale—300 stock pigs six to eight weeks l. $8.50 each delivered to your station. ER- EST DUTCHER, Whitewater, Wis. 6-4

HORSES

For Sale—Horses. Good farm teams cheap count putting on auto trucks. O'NEIL OIL PAINT COMPANY, Milwaukee, Wis. 5-2

For Sale—8 heavy draft horses. Can be seen our stable. JOS. SCHLITZ BREWING)., Milwaukee, Wis. 5-4

FEEDS

Feeders—When in the market for car of feed wheat screenings write for prices to SIEG. JCZYNSKI, Milwaukee, Wis. 24-13

LIGHTNING RODS

Diddie-Blitzen Rods—Quick sales; guaranteed htning protection. $250 if they fail. Agents nted. L. F. DIDDIE CO., Marshfield, Wis. 9-tf

PATENTS

Your idea wanted—Patent your invention. 'l help you market it. Send for 4 free books, t of patent buyers, hundreds of ideas wanted, . Advice free. Highest references. Pat- ts advertised free. RICHARD B. OWEN, tent Lawyer, 86 Owen Bldg., Washington, C. 2-5

POULTRY

Rhode Island Reds—Prize-winning Single mb strain. Eggs, 15 for $1.50, 45 for $4.00, for $6.00, 100 for $8. Satisfaction guaran- ed. HILDEBRANDT & VEA, Telephone 5-J3, Stoughton, Wis. 15-tf

LITTER CARRIERS

Litter Carriers—Price only $15.90. Write catalog and price list too. TORGERSON G. CO., Baldwin, Wis. 4-6

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. e pay the freight or half the express. LARI- AT BAG COMPANY, Washington, D. C. 17-tf

PRINTING

Hoard's Dairyman Art Dept. designs your ter head free. Just tell us your breeds of ck. Book of 5,000 Farm, Ranch and Cottage mes 25 cts. Ask for samples of letter heads, velopes, shipping tags, cards, milk tickets, . Poor stationery is more of a damage n a help. Address HOARD'S DAIRYMAN, t Dept., Fort Atkinson, Wis. 8-tf

MISCELLANEOUS

Yes Sir, we have a special opportunity for 1 during spare time, an opportunity to do ne good work in your neighborhood, for betterment of dairy farming, that will pay 1 in cash for the effort you put forth. Write our "Special Opportunity Getting To- her" folder. Address HOARD'S DAIRY- AN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—First class middle aged man as a working foreman on a 700-acre farm in Crow Wing County, Minn. Must have knowledge of stock raising of all kinds and be a general farmer. Address BOX 142, care Hoard's Dairyman. 2-9

Wanted—Man to help on dairy farm. Guernseys. Man taken in draft. Been here 3 years. $50 a month, board and washing to man of experience. ARTHUR A. COOPER, Elizabeth, Ill. 3-4

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Single men for dairy. Wages $45 and board. Apply at once. WHITE HORSE FARMS, Paoli, Pa. 4-3

Wanted—A dairyman who understands manufacturing butter and other by-products of milk, to take charge of a small Jersey herd. Give age, married or single, and salary expected. None but a worker need apply. Address BOX 193, care Hoard's Dairyman. 5-tf

Wanted—To hire young experienced farm hand, not in draft, for large Guernsey dairy farm. $50.00 per month and board. Railroad fare. Start work right away. HOMER RUNDELL, Livingston, Wis. 4-3

Wanted—A sober, reliable married man from thirty to fifty years of age to take charge of a dairy in Indiana. Have an old reliable milk route, the highest class of its kind in the state. Keep two men to attend thirty cows. Use Hinman Milker. Want a man to take charge of my herd and drive the wagon. Must be honest and steady. Will furnish five-room house, garden spot, milk, chickens to raise on shares and furnish feed for them and pay $75 per month cash. Address or apply to WARREN PARK FARM, Terre Haute, Indiana. 5-4

Wanted—At once, a married man without children over ten, to take charge of a few calves and 2 or 3 cows (Jerseys) and cultivate ten acres in corn and feed, etc.; 7 miles from city. Permanent job and increase in responsibility and wages. ROBT. N. BELL, Birmingham, Ala. 5-2

Wanted—A working herdsman to take charge of a high grade Holstein dairy, 150 head, in the Roosevelt Dam Project, Arizona. Good proposition for a man who can make good. State experience and wages desired in first letter. If married, state size of family. Address P. O. BOX 127, Mesa, Arizona. 5-3

Wanted—Man and wife for farm work and dairy. Steady work all year. J. S. ROSHOLT, Farmington, Minn. 5-2

Wanted—Single man general farm work, good milker. Steady job to right man. Give particulars. BOX 192, care Hoard's Dairyman. 5-tf

Wanted by Sept. 1—Good farm hand. Must be good milker. Steady job for right man, year round. J. P. MAST, Scranton, Kans. 5-2

Wanted—Boy 15 or over, wishing permanent job and good home, on southern Wisconsin farm. Reasonable wages. Advancement as earned. IRVING P. COLWELL, Helenville, Wis. 5-2

Wanted—Man to milk 20 to 25 cows with Sharples milking machine. Wages $60 first month, $75 after, if can handle job, with board and room. If married man $90 and house rent. H. C. KLOCK, Harlowton, Mont.

Wanted—Man to work in small dairy. Must understand dairying and be able to build up and improve herd of Jerseys. Good salary and splendid opportunity for right man. State salary expected, experience, and references in first letter. O. B. FITTS, Glebe Farm, Machodoc, Va.

HELP WANTED

Wanted—Single herdsman capable of handling help and managing herd of dairy cattle. Address BOX 198, care Hoard's Dairyman. 6-4

Wanted—Married man, to take charge of pure-bred Holstein herd, who has some help of his own. Location Central Kansas. BOX 199, care Hoard's Dairyman. 6-tf

Wanted—Position as herdsman; single man over draft age, life experience with cows, good feeder and calf raiser; good habits; use no tobacco. Best of references. State wages and full particulars in first letter. Address BOX 203, care Hoard's Dairyman.

Single man to do bottle washing and as assistant in bottling plant, on sanitary dairy farm located on electric line seven miles from Denver, Colorado. Modern equipment; opportunity for advancement; wages fifty dollars, board and room; man familiar with artificial refrigerator preferred; no cigarette fiends or booze fighters. BROOKRIDGE FARM, Littleton, Colorado.

Little Falls Farm, Fredericksburg, Va., needs at once a single herdsman of experience and training to take complete charge of our World's Record herd of heifers that are now beginning their work. Must be draft exempt. Salary $70 per month. Married man with boy old enough to work will be considered. 6-2

Wanted—Dairyman capable of taking full charge of herd of pure-bred Holstein cows and get results, also man to drive dairy wagon. Give references and salary expected in first letter. Position open Sept. 1st. Address J. R. SMITH, Mgr. Colver Farms, Colver, Pa.

Wanted at Once—A competent married herdsman to take charge of a herd of 25 Jerseys. Must be honest and temperate. We have a Hinman Milker. Give references and state wages in first letter. L. G. WRIGHT, New Vienna, Ohio. 6-2

Man and wife wanted. Man who can produce cleanest milk, must have a low bacteria count. Want them to board hands on farm, small dairy. Want a good man but not a "boss". State salary. M. C. KEYWORTH, Box 476, Houston, Texas.

Married herdsman wanted by October first for large Guernsey herd. Experienced feeding for records. New four-room house, close to school, milk, wood and garden. Wages $900 for year. Give age, experience and reference. HOMER F. RUNDELL, Livingston, Wis. 6-4

Farmer, dairyman wanted, married man who thoroughly understands cattle to care for valuable Guernsey herd; high wages. All privileges; advancement. SHAGBARK FARM, R. F. D. 3, Box 151, Saugerties, N. Y.

Wanted—At once, on grain and dairy farm, joining limits town 1,000 man to milk twenty-five cows and do milk room work. Woman to cook for family of ten, do laundry work for six. Will hire man and wife or anyone who can fill either position. Expect to pay first class wages and want results. State wages desired for work by the year. Address BOX 210, care Hoard's Dairyman.

Wanted at Once—Good, competent, reliable, married man to work on farm. Will furnish wood, milk, house and garden spot. Wife to board men at a specified amount per month. Most of farming, breaking and stump pulling done with tractor. No boozer, socialist nor seven-day Adventist need apply. To the person who can fill this position and furnish good reference, wages will be of the best. For further information write ALLEN T. BOUTIN, Bloomer, Wis.

Wanted—Single man or stout, healthy, 17-year-old boy for delivering, bottling and dairy room work. Must be good milker—10 to 12 cows to milk—exempt from draft, honest, reliable and capable of learning the work and to run ton truck. Steady work. Wages $50 per month, room and board. Located just outside limits city of 100,000 in Northwestern Missouri. Address BOX 207, care Hoard's Dairyman. 6-4

Wanted—Farm hands for year round work on large stock and alfalfa ranch. Wages fifty dollars per month with board, and where man stays a year a bonus of ten dollars per month is paid. Write E. L. OLWELL, Coulee City, Washington. 6-2

HELP WANTED

Cook Wanted to cook for 138 patients with the help of patients. Also laundress to wash for the same number. CHAS. W. SNYDER, Supt., Richland Center, Wisconsin.

Wanted—Experienced dry hand milker, married or single, for registered Jersey herd on official test. HUGH W. BONNELL, R. 4, Youngstown, Ohio.

Wanted—Man for dairy farm. Steady work all year. Must be good milker. J. ROSHOLT, 438 McKnight Bldg., Minneapolis, Minn. 6-2

Wanted—In state of Maryland, single man above draft age, on large dairy farm, keeping Holsteins and Guernseys, 100 head. State experience, wages you would expect in first letter. Address BOX 213, care Hoard's Dairyman. 6-2

POSITIONS WANTED

Married man wishes position as farm and dairy manager. Have held present position 7 years and given best of satisfaction. Can furnish finest of references. BOX 166, care Hoard's Dairyman. 3-4

Farm Manager—Thoroughly experienced in A. R. O. work, show and sale fitting and management of large establishment. Salary $1,800. BOX 384, Amsterdam, N. Y. 5-2

Herdsman, single, 28 years old, first class milker and buttermaker, understand milking machines, wishes position. State wages. A. LINNIG, 1720 Cleveland Ave., Chicago, Ill.

Position wanted by a reliable farmer and dairyman of successful experience on the farm. Guernseys preferred. A good calf and stock raiser, dairy buttermaker, over draft age. No boozer nor tobacco user. Address BOX 209, care Hoard's Dairyman. 6-2

Experienced, trained, modern dairy farm manager, married, 33 years old, desires high class position. Prefer Holsteins. BOX 204, care Hoard's Dairyman.

Herdsman—Open for position Oct. 1. Experienced long and short time test, fitting, showing, raising calves, handling help. Have worked in some the best herds in the country. Excellent references. BOX 206, care Hoard's Dairyman.

Situation wanted by dairyman to run a retail milk route, first class man, life experience, references if required. Can handle Ford truck if necessary. State wages. Address BOX 202, care Hoard's Dairyman.

Dairy Farm Specialist—Open for engagement. Experience has been mostly with Guernseys which breed I have specialized in both in breeding and feeding for production. Have gotten results to the limit of the herd's ability to produce. Thoroughly understand efficient farm management and modern equipment in its different departments. Can qualify in Berkshire breeding. In present position three years with results. Willing to consider herd management only for a first class herd. Married with family. Willing to go anywhere for good proposition. BOX 208, care Hoard's Dairyman. 6-2

Farm Manager, energetic, scientific, practical on large farm or estate. Experienced in modern farming, pure-bred stock, Advanced Registry, and can manage farm very economically and produce results. Large proposition desired where ability will be appreciated. Strictly temperate and reliable. 5 years present position. Excellent references. Address BOX 205, care Hoard's Dairyman.

Wanted—Position as manager pure-bred dairy farm. 15 years' practical experience in all branches farming and stock raising, advanced registry, fitting for show ring, sales, etc., also wholesale and retail milk and butter business including pasteurizing and all other details incident to big milk business. Not subject to draft, age 35, married, no children, college education, can make change Sept. 1st. Address BOX 201, care Hoard's Dairyman. 6-3

Position Wanted—By thoroughly proficient farm manager of ability, not afraid of work. Understand dairying, feeding and care of live stock of all kinds. Married man with family. Best of reference. Address BOX 212, care Hoard's Dairyman.

Position wanted as herdsman. Life experience; age 33. References. BOX 211, care Hoard's Dairyman.

Condensery "Bloats" to Hogs

A correspondent who can purchase e cans of condensed milk which are rown out of storage because of some fect in keeping quality inquires ether this milk can safely be fed hogs. He can purchase milk test- 8% fat in these "bloats" for $.60 r 100 lbs.

Professor O. F. Hunziker replies as lows:

"I presume that when you speak of ndensed milk you here refer to the called evaporated milk or un- eetened condensed milk sterilized hermetically sealed cans. The real, nuine "bloats" of evaporated lk usually are the result of a very sistent spore-bearing germ, gener- y of the species of plectridium tidum. The contents of these ats have a very intense foul odor, embling that of aggravated cases Limburger cheese or rotten eggs. is odor is so penetrating and per- tent that when it once comes thor- ghly in contact with anything dead living, it will follow it to the grave. ether or not milk of this kind uld be directly harmful to the hogs lo not know, but I would certainly afraid that the pork would be in- ted with the odor. I would therefore not recommend to feed that kind of "bloats" to the hogs.

"However, very often there are only a few bloats in each case, and the rest of the cans, while they have undergone some fermentation, may or may not show this type of spoiling. Sometimes their contents are very sour, sometimes bitter, and in most cases curdled. I do not believe that these less obnoxious fermentations would render the milk unsuitable for hog feeding, and if I were doing the feeding, I would not hesitate to try the experiment. It would be wise, however, to use a rather limited amount of this spoiled milk per day per hog.

"If the condensed milk of which you speak refers to sweetened condensed milk in hermetically sealed cans that caused the cans to bulge, the fermentation almost invariably is caused by yeast similar to baker's and brewer's yeast. I do not believe that the feeding of this kind of milk would in any way prove harmful to the hogs except that very excessive feeding of it might cause intoxication."

A rainy day job,—that heap of miscellaneous hardware in the shed may be worth sorting over.

$72 for a $200 Cow

HOARD'S DAIRYMAN:—Noting your interest in cow testing associations, I wish to give an illustration of their value to the farmer.

One cold, blustery day last March I went to an auction of grade Holstein cattle. I purchased about 10 head at prices from $125 per head down. There was a large blue cow, a 3-teater, brought into the ring. She weighed probably 1,400 lbs. I passed her by as "N. G.". She ran up to $71 when the auctioneer turned to me and said, "She's worth more than that for beef." I bid $72 and got her along with a lot of chaffing from the crowd. I took her home, dried her off, and figured I'd sell her as a "canner". However, she became too heavy with calf and I let her run practically wild on a good pasture. She freshened June 28 and, as I test all my cows or rather have them all in the testing association, to my surprise I found she was one of my best cows. During the past month she gave 1138 lbs. of milk with a test of 4.1 per cent, that is, giving 46.7 lbs. butterfat; price of her milk at the condensery was $2.80 per cwt,, and the value for the month, $31.86 without any special feed, and in spite of heat and flies.

Had her previous owner been a member of an association and had her record, instead of bringing him $72 she would have easily sold for $200. This cow shows up the value of association records. I expect this cow to land near the top of the association this month.

Wisconsin. W. P. WALSH.

Jersey Cattle Notes

For week ending Aug. 16, 1918:

Number of animals registered: Bulls, 145; cows, 557; total, 702. Number of transfers recorded: Bulls, 191; cows, 557; total, 748.

The State Government of Australia has guaranteed 83 cents per bushel for wheat, and the Commonwealth Government has allowed an additional 12 cents per bushel for the 1918-1919 harvest, making a total of 95 cents per bushel.

The importance of cereal grains and sugar in the diet of warring nations is reflected by an Australian food order in effect last April. Every farmer was permitted to buy 4.4 pounds of sugar for every four bushels of grain delivered.

You Can Unload A Wagon In Less Than Five Minutes With A JOHN DEERE ELEVATOR



No back-aching job shovelling over your head when you are most tired—you rest while the wagon is being emptied. The work is done five times as fast and ten times as cheaply. No matter what style of crib or granary you may have, there is a John Deere Grain Elevator that will do this work economically for you.

John Deere Inside Cup Elevator

Handles ear corn, rice and all small grains. Cribs a load in 4 or 5 minutes—saves 25 to 30 minutes per load.

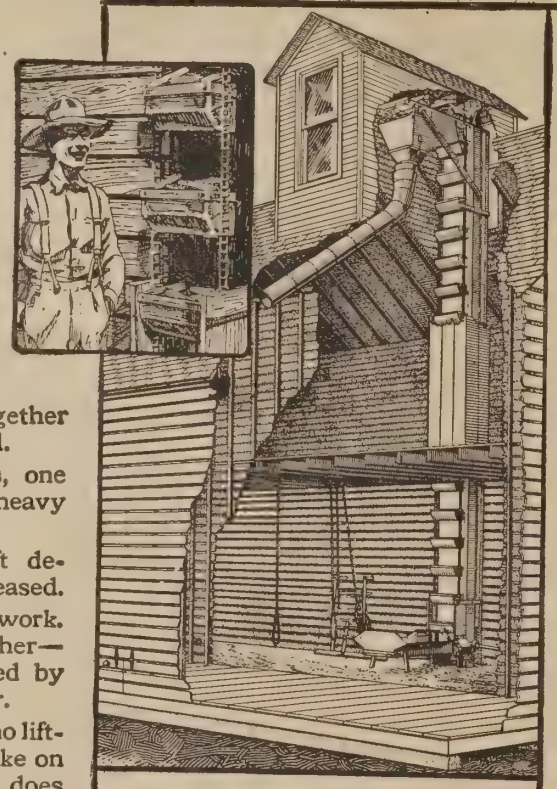
Easy to install—all intermediate sections are 8 feet long. Side timbers are bolted together with joints overlapped.

Large capacity buckets, one piece steel. Extra heavy chains.

Roller bearings—draft decreased—service increased.

Always in position for work. Not exposed to weather—lasts longer. Operated by horse or engine power.

Wagon unloads itself—no lifting, simply release brake on the dump. Gravity does the work—no strain on the horses.



Blue print plan book FREE—*"How to Build a Corn Crib and Granary in One,"* also 156 page text book on farm machinery, *"Better Farm Implements and How to Use Them."*

To get these books state the implements in which you are interested. Ask for package E 39.

John Deere Portable Steel Elevator

Unloads a load of corn or any small grain in three to six minutes with either horse or engine power.

Screen separates shelled corn from ear corn.

Smooth running. Runs on roller-bearings and has self-aligning boxes.

Does not sag—bridge trussed.

Built of steel—cannot warp or decay.

Raising receiving hopper folds inside the elevator when not in use, and when in use delivers all the grain into the elevator boot.

Furnished in lengths to suit your requirements, with horse power, speed jacks or belt attachment, and telescoping delivery spout.

JOHN DEERE, MOLINE, ILLINOIS

When a man gets to wanting real tobacco comfort and lasting quality he can go straight to Real Gravely Chewing Plug every time.



Peyton Brand

Real Gravely Chewing Plug

10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia

Cut Your Own Silage This Year



Get a one-or two-man
Silver's "Ohio"
The Logical Silo Filler

Don't wait for a silo filling crew. Fill silo when crop is right—refill again without extra cost. Get an "Ohio" to fit your needs. Variety of sizes, 4 horsepower up. 40 to 300 tons a day. Big "Ohio" features—direct drive, friction reverse, single lever control, etc. Automatic beater feed. Silverized Silage—packs air-tight—makes better food. Write for free catalog.

THE SILVER MFG. CO., Box 203, SALEM, OHIO
"Modern Silage Methods," 264-page text-book, 25c.

Louisiana Dairymen's Co-operative Incorporates

(Continued from page 166)

pects to do is settle the price question for the winter. It is not believed any trouble will be experienced in this for the consumers pretty well understand the problems the farmers are facing these days. A number of city people representing consumers' organizations have gone to the trouble of investigating the milk production proposition on the farm and for the most part have been convinced that the dairymen are not asking for unreasonable prices. No strike or even a threatened strike is anticipated this year. The board is simply going to the distributors and saying: "We have 6,500 gallons of milk per day. Our price is so much. Do you want it?" Of course they will want it. But in case they don't, there are 23 creameries in Mississippi that do. And there are a lot of 17-cent hogs to fatten, too.

Then the association will start rebuilding the dairy industry. And that will be some job! It is not necessary to discuss the lax methods employed by southern dairymen. The whole story can be grasped in these few words: Poor cows, poor equipment, poor system, and lazy dairymen. A campaign is already outlined to improve all of these conditions, and when something real has been done we may give the results in these columns.

Louisiana. R. G. MILLER.

Value in Milk Producers' Organizations

(Continued from page 156)

go elsewhere and buy cheaper milk. It is also claimed that high testing milk is not profitable to buy and this condensery was in the region where milk tests are high. It is stated that if the milk is too low in test for condensing, the fat can be advanced cheaper by the use of butter than to pay forty cents a pound for fat. I do not know about this but the statement is made. For city consumption milk is desired that tests rather low in fat. It is unsafe to skim now and so it is not wise to open the condensery as a shipping station where tests run too high. If these statements are true it is bad news for Jersey men. Perhaps some really good way may be found to standardize milk and the law passed.

New York. H. H. LYON.

Dairy Products at Cattle Congress

The executive committee of the Iowa State Dairy Association at a recent meeting decided to open the dairy products exhibit at the Dairy Cattle Congress held at Waterloo, Iowa, Sept. 30 to Oct. 6, to all states. The premium lists were materially increased over what they have been heretofore. All premiums will be given in the form of War Saving Stamps.

There will be three classes for that made from gathered cream butter, that made from whole milk, and that made at plants which are manufacturing navy butter. The navy butter class is new and is added because the sweet butter cannot be judged accurately in competition with that made from refined cream. Attractive premiums will also be offered for Cheddar cheese and cottage cheese. The Iowa State Dairy Association convention will also be held in connection with the show.



SILOS for This Year's Crop

Erected without Delay. Ready for Silage Immediately.

THIS year, of all years, you owe it to your country and to yourself to turn your corn crop into silage. Don't think it's too late to get a silo. You can have the kind of silo which 60,000 successful farmers consider the best and have it ready for your present crop. Being the largest silo manufacturers, we have your

INDIANA SILO

on hand ready to ship. You are assured of quick transportation. The silo will reach you promptly. You'll find it easy to erect. You'll have your silo up and ready in ample time.

The Indiana Silo is built of materials which are free from defects, and which do not cause or permit the ensilage to become moldy at the walls of the silo. Staves have tight mortised joints and are interchangeable, making the silo easy to erect. There is no metal spline at the joints to rust out or complicate erecting.

It doubles the feeding value of your corn crop, enables you to keep 50% more cattle on your farm, and get an increased milk flow during the feeding season.

Write to nearest address at once for catalog and full particulars showing how easily you can pay for and make money on an Indiana Silo *this* year.

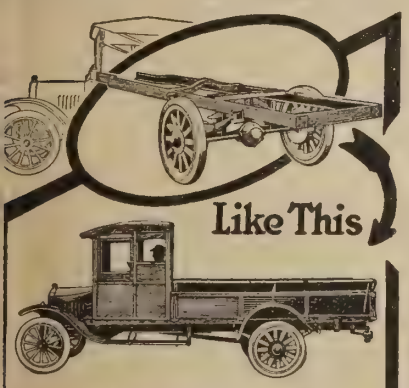


The Indiana Silo Company

501 Union Building, Anderson, Ind.
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501 Indiana Bldg., Des Moines, Ia.
501 Live Stock Exchange Bldg., Fort Worth, Texas

Bennett Brothers, Lowell, Mass.
C. K. Spaulding Logging and Lumber Co., Portland, Oregon

Make a 100% Truck Out of Your Old Car



BURLINGTON
INTERNAL GEAR - SHAFT DRIVE
BETTER TRUCK UNIT

will convert your old Ford into a big, serviceable truck that will haul heavy loads quickly and easily over all kinds of roads.

Built of STEEL for long, hard service.

The money you save over the cost of the average truck will buy a nice new pleasure car for your family.

Ask about the 7 Big Points of Super-excellence that make it better than others.

Write Today -- Ask Your Dealer

BURLINGTON MOTOR TRUCK CO.
Department B Burlington, Wis.

TABER LINED SILO

"LINED" (Pat. App. for) Acid-Proof Lining keeps air out and moisture and juices of corn away from staves. Prevents freezing and silage.

Shipped in 24 Hours

Made of *absolutely clear* Long Leaf Yellow Pine boiled in Creosote. Acid-Proof Lined, Painted outside, Double Anchored. Won't blow down.

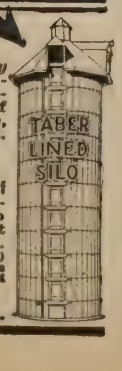
Non-Shrinkable Rot-Proof Acid-Proof

No shrinking or swelling of staves. No frozen silage. Finest circle doors and frame.

FREE BOOK (just out) on Silos and Silage. *Write for it Today!*

TABER LUMBER CO.
1204 Main St. Keokuk, Ia.

Est. 1855

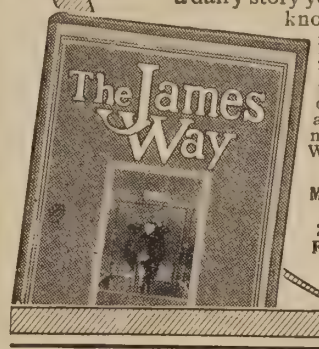


The Way to Bigger Dairy Profits

IT shows how to select the right location, tells about drainage, light, ventilation and distance from other buildings. How to build best for the small herd so you can properly enlarge later. It shows

JAMES
Sanitary Barn Equipment

which is used in many of the most profitable barns in the country. James equipment keeps the cows comfortable—makes them bigger producers, increases your profits. **The JAMES BOOK** has a dairy story you want to know. Will be mailed if you just tell us when you expect to build or remodel and for how many cows. Write today.



James Manufacturing Company
23 Cane Street
Fort Atkinson, Wisconsin

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CLIMAX Ensilage Cutter

The oil-tempered, thin, straight-edged knives with the inward shear that cut faster on less power. Many other

Exclusive Features

Investigate today

Write for FREE Catalog

Stocks carried in all different centers for quick shipment. Write us for name of nearest dealer.



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Some territory open for live dealers.

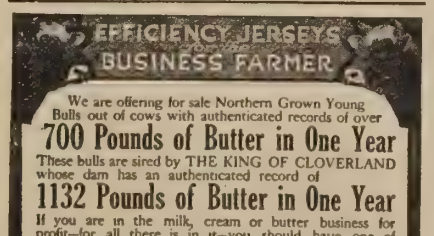
SWINE

Cedar Crest Farm Berkshires
Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.

CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

JERSEYS



We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over

700 Pounds of Butter in One Year

These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of

1132 Pounds of Butter in One Year

If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.

ROYCROFT FARM, SIDNAW, MICH.

Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.

ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE.

READY FOR SERVICE JERSEY BULLS

NOW IS THE TIME TO BUY REAL HERD IMPROVERS

Sires bred for production, type, size and constitution, with the inherited dairy ability of The Sophie Tormentor Family. The Family which has and is producing the Champion sires and the Champion producing cows. The bulls we offer are rich in the blood that produced Sophie 19th of Hood Farm, World's Champion Jersey Cow, 17,557 lbs. 12 oz. milk, 1,248 lbs. butter, World's Champion Long Distance Cow, seven years tests 91.869 lbs. milk, 6,600.8 lbs. butter; Hood Farm Pogis 9th sire of 79 R. O. M. daughters and 24 producing sons; Hood Farm Torono sire of 73 and 21 producing sons; Pogis 99th of Hood Farm at 8 years of age sire of 37, 6 with average records of over 1,000 lbs. butter, the three Champion sires of the breed. These bulls we offer are the kind that will sire hardy cows with size, production, type and prepotency.

TIME IS MONEY, it will help us to assist you in getting the bull you need, if you will write us full particulars as to your requirements and about the price you wish to pay. We can then send you descriptions of several for your consideration. We have these high class bulls to sell. We will need the room this winter and the labor shortage is making our work so heavy we want to sell with as little extra work as possible, writing letters, etc. If you need a high class sire of the leading blood of the world, you can get him at a reasonable price at . . . **HOOD FARM, Lowell, Mass.**

OWL-INTEREST

Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.

His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.

His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on retest has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address

MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

Jersey Crest Farms

are offering

Bulls and Bull Calves

which are a credit to the breed. Bred for type and production. Let us send you pedigrees and description. **Jersey Crest Farms, Oconto Falls, Wis.**

Jersey Bulls

FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.

FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917

Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.

CHAS. A. PETERSON, Rosendale, Wis.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. **E. G. Roberts, Proprietor.**

Roberts Poultry Farm, Ft. Atkinson, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.

P. G. WARMINGTON, Honey Creek, Wis.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.

Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write

FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 808 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.

R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.

J. Q. EMERY AND SON, - Edgerton, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address

ROLLIE VANDERVORT, Tomah, Wis.

Wineland Farm Jerseys

Big Milkers—Prize Winners.

100 Head - - 100 Head

A few for sale.

H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

Fairview Farms, Inc.

Sophie's Tormentor Jerseys

"Production" Our Watchword.

FOR SALE Bull Calf No. 267, an extremely good individual and excellently bred; dropped June 23d, 1918; solid color with black tongue and switch.

SIRE: Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85 per cent butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.

DAM: Rose Bosnian 352727, in the R. O. M., Class AA—480.95 lbs. 85 per cent butter in 1 year from 6,156.3 lbs. milk, at 2 years of age.

Price delivered in U. S. A. $150.

R. L. Pike, General Mgr., Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address

FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.

14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow. Prices reasonable.

Byron E. Skillings, R. No. 5, Springfield, Ohio.

The Blood and the Bull

You should head your herd with a grandson of

Gamboga Knight

His dam, granddaughter of Oxford You'll Do. She is faultless in conformation, solid golden fawn heifer giving 38 lbs. 5.4 milk as two-year-old on herd feed. This calf is right in every way, was dropped Mar. 26, 1918, will be solid dark golden fawn, has the production, size and type. He is an exceptional calf and one that you will be proud to own. First check for $150 gets him, with all papers, crated and loaded. Act now.

MEADSIDE FARMS, - Meadville, Pa.

Lookout Farm Jerseys

A Rare Opportunity Is Offered

to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.

SIRE. Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.

DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.

Henry S. Redfield, 1925 Seventh Ave., New York City.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.

The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Depraved Appetite

Please tell me what to give my cows. During the early part of the season and somewhat yet they were salt crazy, never could get enough. Now they chew old bones, but mostly gather around an old crumbling wall and eat at the broken up mortar.

Lyons, Wis. A. R. S.

Allow free access to salt and slaked lime and add wheat bran freely to the ration. If that does not suffice, mix bone meal or precipitated phosphate of lime in the feed twice daily, starting with two teaspoonfuls and increasing the dose if found necessary.

Jersey Cattle Notes

For week ending Aug. 9, 1918:

Number of animals registered: Bulls, 146; cows, 343; total, 489. Number of transfers recorded: Bulls, 124; cows, 420; total, 544.

GUERNSEYS

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

TWENTY Guernsey — TWENTY IMPORTED
GUERNSEY HEIFERS
Will be offered at a SPECIAL PRICE if taken in lots of eight or ten head.

These heifers were recently imported, are very high class individuals and of the best Island breeding.

They range in age from 11 to 30 months, about three-quarters of the number are bred, balance open.

It is getting more and more difficult to import Guernseys and it will pay anyone to investigate this offering if they wish to add a few imported heifers to their present herd.

Frank S. Peer OSCEOLA FARMS Cranford, N. J.

REGISTERED
Guernsey Bulls
For $75.00 Each
EXCEPTIONAL OFFER
Lady Helen's Mayfield Lad No. 50636
Born April 2nd, 1918.
Winona Girl's Mayfield Boy No. 50635
Born March 27th, 1918.
WRITE FOR PEDIGREES.
Mayfield Stock Farm, South Euclid, Ohio.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS
Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls
from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. L. V. AXTELL,
Old Homestead Farm, - - Perry, Ohio.

Pinehurst Guernseys Produce
with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

GERAR GUERNSEYS
Production, Reproduction, Quality
We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.
Louis McL. Merryman, Cockeysville, Md.

UPLAND FARMS
Ipswich, Mass.
Offers for sale a Bull Calf dropped February 4, 1918.
Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)
Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.
Price and full particulars on request. F. P. Frazier & Son, Props. W. K. Hepburn, Supt.

Greenway Farm Guernseys
WARE, MASS.
Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Farm
325 GUERNSEYS 325
Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM
Shrewsbury, Mass.
Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. W. A. Cloues, Mgr.

$75.00
takes the choice young bull calf R23, dropped Nov. 11, 1918.
Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.
Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.
The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from
Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS
Offers several exceptionally choice
Young Bulls For Sale
Send For Price List.
Taconic, Litchfield Co., Conn. (C.N.E.R.R.

Registered Guernsey Bull For Sale
DROPPED JULY 21st, 1917.
Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.
Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and prices write Folly Farm, Libertyville, Ill.

Bailey Falls Farm
High Class Blood Lines and Individuality.
A Few Choice Young Bulls For Sale at Reasonable Prices.
BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys

If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. August Ziesing, Deerfield, Ill.

PERGUE FARM **GUERNSEYS**
We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BUY NOW FOR SALE
Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

On Two Accredited Lists
The Hoard's Dairyman Guernsey Herd Has Been Admitted to the
WISCONSIN ACCREDITED LIST
by the State Live Stock Sanitary Board and to the
NATIONAL ACCREDITED LIST
by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years
FREE OF TUBERCULOSIS
To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.
W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

LONE TREE FARM
GREEN LAKE, WIS.
Has in its Herd 15 A. R. Guernseys and 11 R. of M. Jerseys
And Carries About 16 Cows on Test.
To inquiries for BULL CALVES we give full, honest particulars and stand behind every animal sold.
Jersey Sire—A Son of Pogis 99th. Guernsey Sire, Langwater Islander.

GUERNSEY SIRE READY FOR SERVICE
FOR SALE:—McKerrow's Bijou Governor, Born April 1916.
Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughte
Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of th
Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows wit
records up to 698 lbs. fat for sale. GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSI

ELDERWOOD FARM
offers for sale a nicely marked 2-year-old
Granddaughter of Lord Waukesha
and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. Roy Burton, Eagle, Wis.

Tratt Guernsey Herd
Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.
Bull calves for sale by him out of cows with good A. R. records.
Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

SARNIA
Imported and Home Bred Guernseys.
300 Head Imported
in 1917 are all sold. Several good cows for sale. Also young bulls from high class A. R. cows. Place your order early for bred heifers from 1918 importations. Send for sale lists.
Charles L. Hill & Son, Rosendale, Wis.

GUERNSEY
We Have a Nice Young Bull
whose dam as a three-year-old will make about 525 lbs. fat. His sire's dam made 721 lbs. fat. This calf is about 10 months old, good size, nicely marked and colored and his pedigree shows that he would do a lot of good in almost any herd. Price $200 here. Pedigree sent on request. W. R. Dunlop, Fayetteville, New York.

GUERNSEYS
Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.
Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Harbor Hill Guernseys
We Bred and Developed
The Breed's Champion Roll of Honor Cow
Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.
C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

FOR SALE
Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.
L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms
Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. F. G. Benham & Son, Canandaigua, N. Y.

KOSHKONONG PLACE
GUERNSEYS
Herd Bull: Jury of Koshkonong Plac
Sire: Jewel of Koshkonong Place A. R
Dam: Blossom of Koshkonong Plac
714 lbs. fat.
Seven Bulls six to fifteen months old
Satisfaction guaranteed with every sale
A. R. HOARD, Fort Atkinson, Wi

TILDEN FARMS
GUERNSEYS
For Sale:—Several large, well marked pure bred heifers of May Rose and Governor of th Chene breeding. These are excellent individual out of high producing A. R. stock, and price to sell. We are also offering a few pure-bre bulls ready for service, and several grade cow and heifers.
Herd on the Accredited list.
Tilden Farms, James H. Murphy, Mgr Delavan, Wisconsin.

BIRCHWOOD GUERNSEYS
We are offering some well bred and nicely marked young bulls nearly ready for service ou of A. R. dams and sired by good bulls. Also a few heifer calves. Eighty head in herd. Her on the State Accredited list. Send for sale list
M L. WELLES, - ROSENDALE, WIS

"Homestead Farm" "Guernseys"
We are offering five *Grandsons* of *Nell Jay 4th* from two to seven months of age, a from A. R. cows or on test. They are a choice individuals, sired by the highest price bull of the breed.
W. G. Jamison & Sons, Appleton, Wis

Young Guernsey Bulls
Of Good Producing Ancestry
with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding* Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wi

EDGEMOOR FARM
Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred
May Rose, Gov. of Chene and Glenwood Bull Calves
Also a few heifers bred to Edgemoor Herd Bulls
Stock guaranteed sound.

Finances of National Dairy Union

Balance on hand July 1, 1918	$4,883.12
Total receipts	153.50
	$5,036.62
Total disbursements	377.55
Balance on hand August 1, 1918	$4,659.07

This is to certify, I have today audited the books for S. B. Shilling, Treasurer of the National Dairy Union, and find the receipts from July 1, 1918, to July 31, 1918, to be $153.50, and the amount paid out for which he holds vouchers, the sum of $377.55, leaving a balance on hand Aug. 1, 1918, of $4,659.07.

F. P. COLLYER, Auditor.

RED POLLED

VALPARAISO University Farm

Few choice yearling Red Polled Bulls sired by Jean Du Luth Bonny Boy, he out of J. D. Beauty. Write for description and prices.

Duroc Jersey boar pigs. Few left, $50 each. Ship on approval. Pedigrees furnished.

Valparaiso University Farm, Wanatah, Ind.
Virgil Mood, Manager.

Our August and September RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.

JEAN DU LUTH FARM NO. 2,
Nickerson, Minn.

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Pleasant View Herd
Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.

VISITORS WELCOME.

L. W. AYERS, HONEY CREEK, WIS.

Walhalla Farms
Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

AYRSHIRES

FAYRE FARM AYRSHIRES

ST. ALBANS, VERMONT.
Advanced Register and Show Ring Records. Tuberculin Tested by U. S. Dept. of Agriculture. Calves only for sale.
Geo. H. Dunsmore, R. D. 1, Swanton, Vt.



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

World's Champion Ayrshires

SHOW CALF—Bull, born July 5th, 1918, white with red markings. Sire:—Deubler's Favorite, 15669, great breeding, son of Kate's Good Git, and Auchenbrain Favorite Beauty 8th. Dam:—Imported Auchenbrain Ada 8th, a very handsome young cow with almost perfect udder and large teats, now on A. R. test and averaged over 50 lbs. daily for first month. Price, $100 for quick sale. **Penshurst Farm, Narberth, Pa.**

Crestmont Farm AYRSHIRES

Few Choice Bull Calves

BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.

W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Van Etta's Ayrshires

10 HEIFERS FOR SALE

I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. **Jas. Van Etta, Lima Center, Wis.**

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

HOLSTEINS

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

Holstein People

of the South-West Should Get a Catalog of the

Sale at Joplin, Missouri

SEPTEMBER 18th, 1918
By Phelps Stock Farm, of Aurora, Mo.
Many strong features in one to three-year-olds, most all bred to top-notch sires.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.

F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

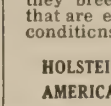


¶ Though they hold all butter and milk records, both in actual quantity and in economy of production still they are an all-round breed. When properly fattened, their beef can be distinguished from Shorthorns' only by an expert.

Strong and healthy, they thrive on coarse food and do well in any climate; they breed regularly and have calves that are easily reared. Under modern conditions they *make good in every respect.*

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont,** the **First Tuesday and Wednesday of every other month,** Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

U. S. Soldiers' Home

FOR SALE—A number of young Holstein-Friesian Bulls from a clean herd, tuberculin tested, no re-actors in last four years. All from A. R. O. sires and dams. Full information and description with prices, on request.
ADDRESS SECRETARY - TREASURER.
U. S. Soldiers' Home, Washington, D. C.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

Foundation Trio For Sale

Bull born Oct. 1917, would make a show calf, mostly white. His sire is by a son of the famous Judge Hengerveld De Kol, whose daughters are showing up great in short and long time test. The two heifers born in Dec. and March last, dandy good individuals, mostly white and sired by De Kol Goudgeld Pietertje who is siring a wonderful lot of fine individuals. Priced for immediate acceptance $250.00 F. O. B. Muncie.
RAY MEEKER, - MUNCIE, INDIANA.

Lisle Farms Co.
OWNERS
Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

MILLIONS

Of dairy cows have been slaughtered in the old world. When this war is over dairy cows and products will command unheard of prices. Now is the time to get in. Send for our free price list of 100 head of choice females or if interested in a bull ask for bull list.
WOODLAWN FARM, Sterling, Illinois.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a 2⅔d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.
ARLINGTON HEIGHTS, ILLINOIS.

5 Holstein Bulls
Ready for Business At ½ Real Value

They are from world record sire and A. R. O. dams. We are selling farm.
LONG BEACH FARM, AUGUSTA, MICH.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.
Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.
This calf is three-fourths white and weighs 686 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.
EMBLAGAARD DAIRY, Marquette, Michigan.

The Traverse Herd

This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27.18 in 7 and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices, but *hurry* for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.
Traverse City State Hospital, Traverse City, Michigan.

The Pontiac Herd
"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*
Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

Your Last Chance!

To Get a Son of The World's Greatest Sire
KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.
Geoffrey Burlingame, Cazenovia, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

Lakeside Herd
Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. **E. A. POWELL, Syracuse, N. Y.**

Springdale Farms
Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

A Rare Chance

To secure a few choice
Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

42—HOLSTEINS—42

31 Pure-Breds REGISTERED AND HIGH GRADE **11 Grades**

DISPERSION SALE

of the O. S. CASS HERD, to be held on the Farm, one Mile South of SAUK CENTRE, Minnesota, SEPTEMBER 4, 1918

Daughters and granddaughters of a son of Colantha Johanna Lad No. 116416. Altje Salo Mercedes DeKol Prince No. 39357. King Colantha Matina Segis No. 184743. 7 bull calves and the 2-year-old herd sire included.

This is strictly a breeders' sale. This herd is the result of 17 years of careful selection and breeding and all are tuberculin tested.

State Fair visitors will have time to stop between trains either way.

Sale begins promptly at 2 p. m. **O. S. CASS, Sauk Centre, Minn.**

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,360 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owa'onna, Minn.

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

3 BULLS HOLSTEINS 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb.17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 days made 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all age up to 10 months. Sired by Sir Winana Bee Segis. He has a 35-lb. daughter, a 30-l daughter, and a good number of other gre producers.

We also have sons of Dutchland Creamel Colantha Lad, one of the best bred bulls fo yearly production.

Every cow in the herd has an A. R. O. bu ter record. Come or state your wants. Addre **W. J. BOYNTON, Mgr., Rochester, Minn**

Elm Hurst Farm

Offers 2 Registered Holstein Bulls.

One born July 26th, 1917, $150.00
One born Jan. 23, 1918, $75.00

Remarkable Values. Worth Investigating
ELM HURST FARM, Robbinsdale, Minn

Buy Them Young

Buy your herd sire young and save money You can raise it as cheaply as we can.

We are offering for sale some excelle young sons of Buffalo Skylark Ames, a cham pion at two National Dairy Shows with a fi list of A. R. O. daughters, and out of A. R. O dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn

A Beautifully Marked Baby Bull o Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngste that you'll be interested in.—Yours for $150.0 Write for full information concerning hi Remember our herd is and has always bee absolutely clean. **Poplar Hollow Stock Farm P. O. Station F. - Minneapolis, Minn**

Mankato Holstein Herd

Offers you this

WONDERFUL BARGAIN

BULL born February 9th, 1918. ¾ white Large and straight—a beautifu show calf, from a 32-lb. sire and 20-lb. dam. nearest dams average 25 lbs. butter in 7 days Price $350. **Marlow and McCargar, Mankato, Min**

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is good individual, being straight over back. Hi sire is a 25-lb. bull. Write for information an photo. Price $75. **E. R. Emery, Stanton, Minn**

Bloomingdale Herd

...HOLSTEINS...

For twenty-five years have been bred fo large production and good individuality. Segi Fayne Johanna, the first 50-lb. cow, is of ou breeding and made her first 30-lb. record whil in our herd. Many of the large producers hav been bred here. Foundation stock a specialty. **A. A. Courtelyou, Somerville, New Jersey**

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, i will pay you to write.

DR. BLACKBURN, - CUBA, OHIO

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO

FOR SALE HOLSTEIN BULLS

SAFE FROM TICKS
(At One-half Price)

No. 1. Crescent Beauty Butter Boy 19th No. 172753, 2 years 6 months old, whose 6 nearest dams average 26 lbs.

No. 2. King Alcartra Nudine No. 228837, one year, 3 months old, whose 6 nearest dams average 30 lbs. butter.

No. 3. King Alcartra De Kol Ormsby No. 228838, 12 months old, whose 6 nearest dams average 31 lbs. butter.

They are as straight as a line, and beautiful individuals.

Price—$250.00 each.

Write Dr. Chas. H. Harris, Ft. Worth, Texas, for further particulars.

HERD REGISTERS Two Sizes. New, Low Price Covers.
HOLSTEIN PEDIGREES COMPILED.
Stationery, Catalogs, Circulars Printed. Send for Samples and Price Lists. LIVE STOCK PRINTING CO., La Grange, Illinois.



Entire Herd at Public Auction

of the Centralia Calf Farm

CENTRALIA, ILLINOIS

Tuesday, Sept. 17th, 1918

Consisting of

45 Registered and 20 Very High Grade Holsteins
28 Registered Cows. 9 Heifers and 8 Bulls.

In the offering are a number of A. R. O. cows. A 30-pound daughter by "King of the Pontiacs". State Fair Winners and tops of noted sales. 20 High Grades; the large, heavy 6 and 8 gal. kind recently fresh or close springers. Catalog ready Sept. 1st, 1918.

Col. Edgar C. Eells
Col. Claude P. Madden } Auctioneers.

Terms:—Cash or 90 days on approved notes.

CENTRALIA CALF FARM, Centralia, Ill.

Registered Holsteins For Sale

9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*
5 Extra good Granddaughters of King of the Pontiacs, from 9 to 14 months old.....*$800 for all*
1 Daughter of Spring Farm King Pontiac 6th. Four months old....*$150*
3 Two-year-old Granddaughters of Spring Farm King Pontiac 6th .....*From $150 to $200*
1 Extra Fine 3-year-old son of King of the Pontiacs; 27-lb. Dam; 29-lb. Grandam *$800*
1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

GEO. S. BIGELOW, BREEDSVILLE, MICHIGAN.

Milford Meadows Stock Farm

Now Offers For Sale

M. M. Rag Apple Oak Denver

A most promising young sire, born June 4, '17. Nearly half white and an exceptionally good individual.

His sire is Dutchland Creamelle Denver Prince, a 36.25-lb. grandson of Colantha Johanna Lad.

His dam, Milford Josephine Oak DeKol, made 22.82 lbs. butter as a junior 2-year-old in June. Her sire is a son of Canary Paul Fobes Homestead and from a 29.55-lb. daughter of Homestead Junior DeKol. Her dam, 31.77 lbs. butter, 616.2 lbs. milk, is a granddaughter of Dutchland Sir Pontiac Rag Apple.

The three nearest dams of this young sire average over 30 lbs., one a junior 2-year-old. His dam is one of our good prospects and is to be retested this winter.

Milford Meadows Stock Farm, - Lake Mills, Wisconsin.

R. O. Holstein

rder to make room in our barns we o sell a number of cows and heifers are backed by large official milk butter records. They are bred to CONSIN STAR STOCK FARMS,



Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to ED. M. SCHULTZ, Hartford, Wis.

A Few Good Ones For Sale

am offering yearling and bred two-year old registered heifers for sale. Daughters of King Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good hters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac cerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from . O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for self.

J. D. McDONALD, WEST SALEM, WISCONSIN.

73—HEAD—73

Holsteins At Auction

SEDALIA, MISSOURI

Thursday, Sept. 5th, 1918

AT MISSOURI STATE FAIR GROUNDS

Pettis County's First Annual Combination Holstein Sale

73 HEAD of Pure-bred and Grade Holsteins will be sold owing to the great drought and consequent shortage of feed, and to the fact that the men are closing out their grade herds to make room for pure-breds, as Pettis County has been made the center of the Pure-bred Holstein Industry of Missouri.

Included in the sale are 41 grade females from bred yearlings to mature cows part of them springers, 15 grade heifers, open yearlings and calves and a large number of pure-bred bulls and bull calves from a few months to over a year old.

Everything over 6 mos. of age will be tuberculin tested. Every animal must be just as represented or no sale.
Under the Auspices of the **Pettis Co., Missouri Bureau of Agriculture, U. S. Dept. of Agri., Missouri College of Agri., and Pettis County Court, Co-operating.**
For further information, address C. M. Long, County Agent, Sedalia, Mo. Col. C. J. Hieronymus, Sedalia, Auct.

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.

We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.

This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

King Pontiac Champion

Leads All A. R. O. Sires

King Pontiac Champion, (81 A. R. O.) has the best balanced A. R. O. record of any living bull of the breed.

He does not depend upon a few sensational daughters for his prestige but upon the high average production of his get. His daughters excel in both long and short tests as well as in milk and butter.

Last year King Pontiac Champion led the 589 sires represented in the prize list by being represented 34 times, and in respect to 30-lb. daughters, did not even have a rival. The showing of his semi-official yearly daughters in both milk and butter also far surpasses that of any other sire.

Think of the 125 daughters of King now on the Pabst Stock Farm, 81 of which have already been credited with A. R. O. records, and the fact that King Pontiac Champion is now in his prime.

Is not this the kind of a sire to line up with when selecting a herd sire? Look over our list of young bulls—prices reasonable.

PABST STOCK FARM,
Oconomowoc, Wis.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows*, safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.**

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje*, produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

JOHN HETTS, FORT ATKINSON, WIS.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.

JOHN MURPHY, R. 27, Eagle, Wisconsin

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

DR. J. A. ROBERTS STOCK FARMS, OCONOMOWOC, WISCONSIN.

Save Money On Your Herd Sire

I am now offering several fine bull calves 3 to 6 months old; all of them from dams with good A. R. O. records and sired by a grandson of Sir Pietertje Ormsby Mercedes, whose 3 nearest dams average 31 lbs. in 7 days. You can raise them as cheaply as I can and my price on these youngsters makes it a paying proposition for you to buy your herd sire now and raise him yourself. Write **W. P. Kissingor, Waupaca, Wis.**

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

Is the Grass Getting Short?



If you are not already one of the thousands of successful dairy farmers who use Krause Dairy Feed to supplement short pasturage, you will find it exceptionally well adapted to your present feeding needs.

If your pastures have dried up altogether and your supply of other green stuff is short, it can be fed alone with splendid results or easily combined with any home-grown grains or green stuffs which are available for immediate use.

Krause Dairy Feed is a complete dairy ration with a protein content of 24% to 25%. Fed alone or in combination with any other feeds it is a sure and consistent money maker that will not only increase and sustain your milk flow but will promote the steady growth of young stock and keep your entire herd in "first premium" condition the year round.

KRAUSE DAIRY FEED

Our claims for Krause Dairy Feed are based on actual results, not theory. Thousands of successful dairy farmers have been feeding it for years, and their testimony has established beyond question that Krause is a high grade reliable feed.

Krause Dairy Feed has been worked out on a scientifically correct basis. Its formula takes into consideration the great variation of feeding requirements in different sections and the necessity of its being adapted to individual needs of cows of all breeds. It's a perfectly balanced combination of nine of the best milk producing feed stuffs obtainable, namely, Distillers Grains, Gluten Feed, Cotton Seed Meal, Wheat Bran, Malt Sprouts, Hominy Feed, Linseed Meal, Brewers' Grains, Wheat Middlings and a small percentage of salt. No other dairy feed on the market is so well combined as to protein content, carbo-hydrates, fat and fibre—is so nutritious, palatable and dependable.

You will find Krause Dairy Feed a twelve-months-in-the-year ration that will completely and profitably meet your feeding requirements. Have your dealer supply you with it now and let your cows give you the testimony that counts the most. Send for free sample, also free record book and other literature.

TRADE BADGER MARK

The Badger Line of Farm Feeds

Dairy Feeds, Stock Feeds, Alfalfa Horse Feeds, Hog Feed, Calf Meal, Poultry Feeds.

Buy Your Winter Feed *Now*

WHETHER you buy Krause Dairy Feed or any other feed, we advise you to lay in your winter stock at once. You will make money because the prices of all feeds are lower now than they will be later.

Furthermore, you will be sure of getting your feed. If you wait until later, shipping delays, which promise to be even worse than last season, may make your supply very uncertain.

The farmer who is obliged to feed his high priced grains this fall and winter will be feeding real money. If he secures his winter supply now he will be saving for himself and helping to relieve the serious freight situation.

CHAS. A. KRAUSE MILLING CO

MILWAUKEE WISCONSI

MANUFACTURERS OF
THE BADGER LINE OF FARM FEEDS

W. J. FRASER
20 JUL 19
COLL OF AGR
URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI | FORT ATKINSON, WIS., SEPTEMBER 6, 1918 | Number 7

Reaching the Housewives of America

KARL B. MUSSER, Washington

HO spends your salary, Mr. Reader? Have you ever figured on is? Of course you spend some of it id you say "yes" to the requests, it some rainy day sit down and fige out just what per cent of your lary you actually spend. You will id that near seventy-five per cent is ing spent by the "Little Wife". nsidering this statement as reprentative this makes your wife and ine a part of the plan be considered in the le of all food prodts. The increasing of e amount of milk nsumed is rather peless as long as she ceives a small portion the facts regarding ilk as a food.

here Do We Find Milk Advertisements

In the face of this ct, as to who spends e salary, we find the ajority of good readg about milk in parrs that men read. ie facts about milk en reach people who ve but twenty-five r cent of the money spend. The "Big ss" in the situation the housewife. It is th her that we must more educational d campaigning work r increased milk conmption. It is the ental attitude of the usewife toward milk at will determine the antity of dairy prodts that will be conmed in the home. If mothers think substitutes are as od as butter and other dairy prods, the dairymen in general, will—they say—"go begging".

The colleges have reached many nes, but a small part of the aggre-e, and in most cases those in rge of the work, have seen the it. It is true, however, that there home demonstration agents that tinue to teach the substituting of er fats for butter. Thinking only erms of money, they may consider h advice sound, but why do these nen and others know so little ut this unexcelled food? It seems the writer that the dairymen and icultural press have expected them come to the man's paper for their wledge on the matter.

Who Consumes the Milk in Your Home?

The fact that most of the milk purchased in many homes is consumed by the children has been gratifying. Statistics show that the amount of milk purchased by families in other than very congested areas is directly in proportion to the youngsters in the family. The medical journals indicate that there are more babies fed cow's milk each year. Men who have been in the certified milk business for years have stated that the majority of their trade has been among the poor classes. Especially is this true of the foreign born. These statements seem to indicate that there has been valuable work done to show the consumer the value of milk. It appears that milk is getting its due. But in general these conditions of "favorable appearance" are of little value to the whole dairy scheme. Where families realize the value of certified milk, their doctor or some live business man in the dairy field has sold them the idea. The fact that children are responsible for the amount of milk that is purchased does not give hopes of great value. A trip through the "East Side" of many of our large cities will tell the story only too well. Malnutrition is prevalent due to a lack of food, good food for growing youngsters, milk. In many homes children are over-eating, due to a lack of proper food to meet the needs of their growing bodies. That food is milk.

There is a belief among housewives that milk is expensive. This conception of the situation is not easily changed. It is a state of mind coupled with the "I read" that we as dairymen have generally overlooked.

Women's Journals Have Been Neglected

Some of the leading periodicals edited for women have printed articles, written by apparent neutral parties, showing certain substitutes to be endowed with vitamines and other properties that we as dairymen know milk alone possesses. In other words, the men in the substitute business are putting their publicity material in the publications that our wives are reading. It is being put in these publications in a clever, but hostile, way.

We have been lecturing, writing, and talking for some time about this wonderful food, milk, to Tom, to Dick, and to Harry. Did they go home and tell their wives about it? Probably, but they told it when the wives were busy or in a hurried way as a report of the day's events. It was never made a part of the reading hour in the home. Until Mrs. Tom, Mrs. Dick, and Mrs. Harry know all the advantages of milk as a food we can not hope to increase the consumption. When your wife and my wife read, talk, and hear these things about milk they will put them into practice.

The agricultural press is so far reaching that many are lead to believe that the women are fairly well supplied with facts. If one hundred housewives are engaged in conversation about milk, there will be a consensus of opinion that milk is too high to use freely. The agricultural press has had many valuable articles regarding milk, but women don't read them. Even farm women read sparingly of such publications. City women have the daily press for their source of knowledge or the demonstrations given for educational purposes. The large number needing this information about milk the most, are those that read little and "go" less. This class generally read the papers they get free one way and another. A field ripe for educational work for the dairyman is in the publications for women. An examination of the last three issues of three journals for women shows information on milk to the extent of several condensed milk advertisements and a small amount of information on the care of milk for infant feeding.



HOGGING DOWN CORN AND SOY BEANS ON FARM OF NOAH FENTS, INDIANA

Milk Has Its Weaknesses

The common knowledge among dairymen about milk as a food causes many to think there are no weaknesses that need consideration.

No weakness is of great enough importance to cause decreased consumption provided the consumer knows the advantages. The perishable character of milk, its bulk, the readiness with which it is digested, the absorbing power, and the fact that it is about the only food coming into the home that has a separate and distinct source of supply are all factors mentioned to the writer by housewives as objections. The perishable character requires special handling; the bulk limits it as a food for adults when consumed in quantities sufficient to form the major part of the diet; the ready digestion when con-

(Continued on page 198)

Hoard's Dairyman

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Educational Features of National Dairy Show

At the National Dairy Show, to be held October 10 to 19th, representatives of the U. S. Food Administration and Department of Agriculture will co-operate with representatives of the Ohio State University, presenting to the public the latest results of science and practice in the preparation of milk and cheese as substitutes for meat; in the use of these same products in the dinner pail of the hardy worker; the lunch box of the school child and the office worker.

The European armies are using cheese because of its high nutritive value, its ease of transportation, and the lack of any preparation required in the trenches. These, and many other aspects of the uses of milk, butter, and many varieties of cheese will be staged in attractive stories at the forthcoming dairy show.

It is expected that the Bureau of Markets will present tangible and interesting evidence of the service which this Bureau is rendering to the dairy industry with its market reports, quotations, consultations, etc.

It is expected that there will be something coming from the recently organized labor board to show what has been accomplished in helping to solve the labor problem for the dairyman.

Dean Van Norman, of the University of California and president of the National Dairy Show, recently spent two weeks in Washington and Columbus, developing the war story of the dairy industry, and if present plans mature, the buildings devoted to the government's war stories will not be the least interesting points to visitors at the forthcoming show.—NATIONAL DAIRY ASSOCIATION.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Free Verse on City Gardens

I have seen a great many
Of those little city gardens
And it's only just to state
That the folks planting them
Are good intentioned and all that,
And put in queer hills of corn,
And potatoes that are not seed potatoes,
And beans that die hard,
And beets that soon lose heart,
And cabbage that get as high
As the second story windows,
And lettuce
Planted so close together
That it strangles for lack of air,
And parsley and squash
And melons and things,
All of which manage to get
Their heads above ground.
But candor compels me to add
That if all the rest fails
The nation will have enough
Pithy radishes
This year
To supply ourselves and our allies
For two seasons to come.
Bless 'em!
Radishes are the one
Fool-proof crop!

"How is your crop coming along?"

"Poorly, very poorly."

"What's the matter? Too lazy to cultivate properly?"

"No, that wasn't it. I took to reading those 'Monthly Hints to Gardeners.'"

Fables of the Farm

Once upon a time a dairy farmer in a thickly populated section took the stand that everything the Administration did was wrong. He figured that outsiders had no right to fix milk prices, and that tractors cost too much, and that the machinery people were profiteers, and that cream brought away too little in the open market, and that the sons of farmers should not be drafted, and that the income tax was an imposition, and that we should have liked the U-boats long ago, and that wheat prices were unsatisfactory. In fact, he had a list of grumbles as long as the old cow's tail. He kept this up, day in and day out, to everyone who called and everyone he met. Finally, nobody in the county would speak to him and he became the loneliest man in the world.

Moral: Right or wrong, for your government.

National Thrift Week

A week of giving the farmer his due.

A week of telling the people the food value of milk.

A week of praise for blooded stock.

A week of explaining the difficulties of the business.

A week of proving that milk is cheap at any price.

A week of honoring a great industry.

A week of winning friends for dairy farmers.

A week of glorifying the bounty of real butter.

It Does Make a Difference

"Mother, it's lovely out here on the farm. But did you see papa at the breakfast table this morning. There was something wrong with his soft boiled egg."

"What, my dear, what?"

"He didn't smell it."



"Slipping" not "Saving"

"I kept slipping back two feet every time I went ahead one." That's what the small boy gave as an excuse to his teacher for being late for school one winter day.

And that's just what is happening to the cow owner who is trying to get along without a cream separator or with an inferior or half-worn-out machine. Like the small boy he is "slipping." He thinks he is thrifty, but for every dollar he saves by not buying a De Laval he loses two through not having one.

It *isn't* economy to do without labor saving and money saving and food saving machines. It *isn't* economy to feed 40-cent butter to the calves and hogs.

It *is* economy to buy and use only the best cream separator made—and that's the De Laval.

Viewed from every standpoint—clean skimming, ample capacity, ease of operation, freedom from repairs, durability—there is no other cream separator that can compare with the De Laval.

It's real thrift and genuine economy to buy a De Laval Separator NOW.

Why not see the nearest De Laval agent at once! See a new 1918 De Laval machine for yourself. Try it to prove every claim made for it. If you don't know a De Laval agent write direct to one of the addresses below.

The De Laval Separator Co.

165 Broadway, New York 29 E. Madison St., Chicago

Seed Corn Preparedness

L. F. GRABER, Wisconsin

RIGHT now is the time to prevent a reoccurence of the seed corn famine of last year. Save seed corn not only for next year but for year after next. Save a double supply. Lay in a reserve. Don't take any chances on getting poor seed. Cure it right.

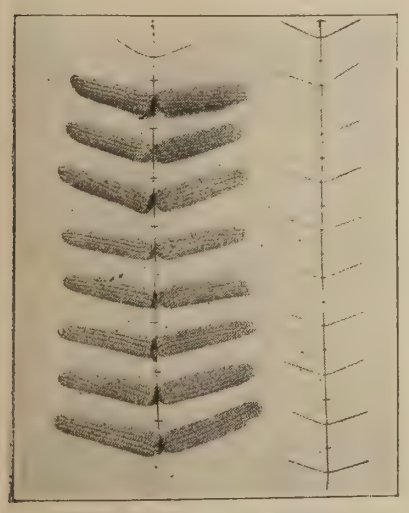
Good Seed From Near-ripe Corn

We don't know what Jack Frost has in store for us this fall, but there is a way of beating him to it. Pick your seed corn early. Ordinarily, we



SELECT SEED CORN EARLY

like to choose ripe ears for seed. They are easier to cure. But A No. 1 seed corn can be obtained from unripe ears any time after they have dented, provided they are handled right. Yes, it is true that dried immature corn is miserable looking stuff—so shrivelled and shrunken you might hesitate to feed it to hogs; but if it has been cured with heat and handled in such a way as to prevent molds, it will make fine, strong, growing seed. Pick your seed corn early, and if Jack Frost lets the rest of your corn ripen, pick more later on. Remember, this is the year to get a double supply—enough for two years. If this were done every year, there would be no seed corn famines.



KEEP EACH EAR SEPARATE

Simple Rules for Safe Seed

The A. B. C. of getting good seed corn, whether it is just dented or fully ripe, is summarized in these five statements.

1. Pick the ears before frosts are cold enough to freeze the husks onto the kernels. If you have such a freeze, chances are your corn is ruined for seed purposes. The husks protect against damage from light frosts which just nip the leaves.

2. Hang up every ear the same day it is picked.

3. Keep every ear separate. Prevent them from touching. This is the only way to escape molds, especially with unripe ears.

4. Put the corn in some well ventilated room—not outside, where it may be frozen before it has completely dried.

5. Hasten the drying with heat from a stove or furnace. This is absolutely essential where large amounts —more than 20 bushels—are cured.

Rapid Drying Pays

It is hard to say which of these rules is most important, but it is safe to say that the value of keeping the ears separate and the importance of using heat for rapid drying is not generally appreciated. If it were, you would not see seed corn decorations on the south side of barns, on windmills, and even on the old apple tree. The strongest germinating and growing seed corn is that dried with heat of a stove or furnace. True enough, good seed corn can be had by curing in well ventilated attics. Here the warmth of the sun during the day aids the drying and at night prevents freezing by frosts. The attic is a hot, dry place, ideal for curing seed corn in small amounts. With large amounts of seed corn, artificial drying with heat and perfect ventilation is absolutely essential for safety and success.



GET A TWO-YEAR SUPPLY OF SEED CORN THIS FALL



SELECT SEED EARS

How Fast Does Your Corn Grow

The importance of proper curing can only be appreciated by comparative tests of the same variety of seed corn cured under different conditions. I have seen fire dried seed corn that after planting grew with twice the vigor and rapidity as did the same seed cured on the south side of the barn. It pays to give attention to seed corn. Last year's experience should be a lesson.

Strawberries and Grease

(From the Orange County, New York, Farm Bureau News)

Let us talk of strawberries and grease.

If you were a strawberry grower in the town of Newburg when strawberries were plentiful and the price no more than sufficient to pay expenses, would you think it a good thing to sell your strawberries in toto and for your own table buy dried prunes, because the prunes happened to be a few cents cheaper? Would you, for the sake of the few cents saved, perform the act of directly undermining your business? That is just what the dairymen in considerable numbers are doing in this county and in this state today. They are producing milk for a living and selling on a market that is simply supplied and at a price that is just sufficient, and hardly that to pay some of the necessary costs of the business. Their neighbors, the dairymen in other states, manufacture their milk into butter.

Butter and its price have a direct bearing upon the price and production of fluid milk. The price of fluid milk has a direct bearing upon the price and production of condensed milk, of cheese, dried milk, and other milk by-products. One is dependent upon the other. When the dairyman in this section does anything to hurt the dairyman in Wisconsin or Indiana, he hurts himself. That is what dairymen by the thousands are doing now, they are hurting themselves. They are doing it by buying oleomargarine, butterine, nut margarine, and other deodorized grease gathered from the four corners of the earth and camouflaged under the term of a spread for bread.

Oleomargarine and its tribe are travesting upon the name of butter. Butter must be in them to make them palatable enough for sale. The grease from unknown animals, the oil from cottonseed, and the tortured fats from half a dozen industries must be enlivened and flavored with nature's own product, butter, before they can be offered to the public as endurable. Scientists tell us that these mixtures of an astute commerce contain nearly the same food value as does butter. For the matter of that, meat from the shin bone of an ox compares favorably in food value with sirloin steak. But as for digestibility, no scientist or doctor will tell you that oleomargarine should be given to the growing child. Like all grease, it is heavy and unresponsive until attacked by a vigorous,well developed digestive system.

The farmer may save a few cents for the time being, but these cents, few as they are, are taken from the pocket of his hard worked colleague in the butter producing section of this democracy. The tiller of the soil, be he dairyman, fruit grower, onion grower, or plain farmer, if he buys oleomargarine or any of its nutty clan for use on his own table, is taking bread from the hands of his family and digging a hole under his business.



CURING SEED CORN CN THE SOUTH SIDE OF A BARN IS RISKY



WISCONSIN SEED CORN CURING HOUSE

It has a capacity of 800 bushels and is equipped with furnace and special ventilating fans for rapid drying.

The Illinois State Fair

ONE hundred years ago Illinois was admitted to the Union as a state. She celebrated her hundredth birth year August 9 to 26 in the Illinois Centennial State Fair and Industrial Exposition. The live stock exhibits were made during the week of August 19 to 24.

Since 1818, Illinois has made an agricultural development almost beyond measure. Her contribution to the world's food supply one hundred years ago was insignificant; her pioneers did well to secure food and clothing for themselves though some little produce was sent out of her borders. For the most part her acres were untouched and her storehouse of soil fertility unopened

In 1918 Illinois has an agriculture with a total value, when her acres, equipment, and improvements are considered together, of about $4,000,000,000. Her 1917 production of grain crops and live stock constituted a wealth of more than $840,000,000. The U. S. Department of Agriculture in its estimates for last year gave Illinois rank as the premier food producing state of the Union, the total value of her farm output excelling that of any other commonwealth.



MINERVA BEETS, SENIOR AND GRAND CHAMPION HOLSTEIN COW AT THE ILLINOIS STATE FAIR
OWNED BY R. E. HAEGER, ILLINOIS

Illinois' cornfields cover 10,000,000 acres and produce 400,000,000 bushels of grain; her 4,500,000 acres of oats yield annually 200,000,000 bushels; from her 1,500,000 acres of winter wheat, 30,000,000 bushels of the bread cereal are harvested; a cut of 4,500,000 tons of hay is cured from 3,000,000 acres.

Illinois counts her live stock worth $400,000,000. Her dairy cows are valued at $75,000,000 and are credited with an annual milk production worth $50,000,000.

Of the agricultural virtues of this farm of Uncle Sam's, stretching from Indiana to the Mississippi and from Wisconsin to the Ohio, H. E. Young of the Illinois Farmers' Institute well says, "The Almighty might have made a better land but He didn't".

Illinois is deserving of an agricultural fair given more largely to farming interests than has been the case, though in many particulars the 1918 fair and exposition was an improvement over the previous exhibitions. Politics has thrived so well about Springfield that it has encroached too much upon things of more importance agriculturally. The excuse and reason for holding fairs at this time is that agriculture may be further stimulated by them. Nothing should be allowed to interfere with this purpose.

Those who have labored to make the Illinois State Fair more truly reflect the agricultural progress of the state, report with much satisfaction the action of the 1917 legislature which did away with 119 commissions, taking the state's administration work out of politics and placing it under 7 departments, one of which will direct the policies of the state fair. Another year, these men say, a live stock man will have charge of live stock exhibits and a dairy farmer will supervise the exhibit of dairy cattle. This may have the effect of increasing the number of exhibitors.

University Exhibit

Many a farmer pondered over a choice between two cows selected from Illinois cow testing associations to illustrate the necessity of the test in judging productive capacity. And as many decided on the wrong animal, one which made 3,788 lbs. milk, 197 lbs. of fat in a year, as on the higher producing cow with a year's credit of 9,138 lbs. milk, 413 lbs. fat. To make certain that the conditions under which the records were made were fair to each cow, the two were taken into the university herd and given similar care. In 140 days after freshening the cow selected as the better one of the two by fair attendants made 3,821 lbs. milk containing 179 lbs. fat. The other in a like period produced 6,430 lbs. milk, 264 lbs. fat. The same two cows were used at the 1917 fair.

The statement was made that in the last year Illinois associations have discovered 1,000 "slacker" cows, indicating that without the test the same mistakes are made in the selection of cows on farms as were made at the fair.

Four bull calves and four cows were exhibited as typical specimens of the four main dairy breeds.

The Carterville Jersey Breeders' Association, which has the first bull association in the state, brought its lesson of co-operative bull ownership to the fair—that others might profit also. Three grade cows and their three heifer calves, sired by bulls owned and managed co-operatively by the several association members, were shown. Two of the sires now used in the association were exhibited. The value of the lesson would have been much clearer if the production of the dams and their daughters in such an association could have been indicated—proving an increase through the use of pure-bred sires and showing the low cost of sire service to small herds under the working of a bull association. A chart comparison of daughters with their dams was given which well illustrated the increased returns through having the dairy herd sired by a pure-bred bull. Figures for two years were given of results from the use of three bulls. The first bull's daughters in the first year, 1916, averaged 62.2 lbs. fat more than their dams, and in the second year, 39 lbs. more. Similar figures on the second bull were 52.2 lbs. and 55.8 lbs. and, on the third bull, 115.5 lbs. and 93.8 lbs.



LESSONS IN COW TESTING AT THE ILLINOIS STATE FAIR

A dairy cow was displayed in the dairy building with the following inscription on the wall beside her: "Do you know me? I am a dairy cow. I am the foster mother of the human race. It is my business to eat corn silage, hay, and grain, and convert these feeds into milk and butterfat, nature's most perfect food. Last year I produced 18,000 lbs. of milk which contained more digestible food than the carcasses of five steers, each weighing as much as myself. This year I expect to do the same thing. My sisters and I are more economical producers of human food than any other class of live stock. Use more of this valuable food we produce. We will help win the war."

A rather complete set of comparisons of the value of milk and its products with other foods was made. Demonstrations of manufacturing processes were made. The showing of dairy products was very small, less than fifty samples of butter came in and but a few of milk. The quality partly made up for the lack of number of entries.

Every dairy farmer at the fair should have studied carefully a chart captioned: "Herd cost of producing 100 lbs. of milk". It gave the following figures from actual surveys made. It cost these Illinois dairymen whose farms were studied: for the 6 summer months, 2.36 hours labor, 32.8 lbs. grain, 18 lbs. hay, 6 lbs. dry forage, and 148.9 lbs. silage; and for the winter 6 months, 2.78 hours labor, 53.9 lbs. grain, 67.8 lbs. hay, 60.5 lbs. dry forage, and 233.1 lbs. silage. Even though these data represent the present farm practice they are clearly at great variance with the best of dairy practices. A second chart gave the basis for the price setting for milk produced until January 1, 1917. This is for the production of 100 lbs. milk: 20 lbs. home grown grain, 24 lbs. of purchased grain, 100 lbs. hay, and 3 hours labor.

Live Stock Show

All in all, the live stock exhibit was fully up to standard, both in quality and numbers, in spite of labor shortage and high freight rates and feed costs. The horse show was very light and sheep were below normal. Beef cattle were represented strongly and hogs were exhibited in good numbers.

The showing of dairy cattle was considerably above average. Not only were there more animals of the dairy breeds on the grounds but the quality was better than has usually been the case. A few unworthy individuals were led into the ring but the ribbons of high value went to well fitted animals of approved type.

Two judges, L. S. Gillette of Iowa and A. C. Oosterhuis of Wisconsin, placed the five breeds very satisfactorily to onlookers and to exhibitors.

Holsteins

Exhibitors: R. E. Haeger, O. P. Hopping, and J. H. Diehl, all of Illinois.

Judge: A. C. Oosterhuis.

Whenever Paul Calamo Korndyke and Minerva Beets are led out, there's a Holstein show. Alone, they make a notable exhibit for the black and white breed. At Illinois, they were shown with 19 others from the Haeger herd, 13 owned by Mr. Diehl, and 10 by Mr. Hopping, making a total of 44.

The old show ring veteran, Paul Calamo Korndyke, starts the season in splendid condition and will make stiff competition for the best brought out. At this first exhibition he met no close contender on his way to grand championship. The record of this bull is made especially noteworthy by the



PAUL CALAMO KORNDYKE, SENIOR AND GRAND CHAMPION HOLSTEIN BULL AT THE ILLINOIS STATE FAIR
OWNED BY R. E. HAEGER, ILLINOIS



CAVALIER'S LORD STUART, SENIOR AND GRAND CHAMPION
AYRSHIRE BULL AT THE ILLINOIS STATE FAIR
OWNED BY ADAM SEITZ & SONS, WISCONSIN



CAVALIER'S KILNFORD DOROTHY, SENIOR AND GRAND CHAMPION
AYRSHIRE TWO-YEAR-OLD AT THE ILLINOIS STATE FAIR
OWNED BY ADAM SEITZ & SONS, WISCONSIN

winnings of his get in the younger classes. In the junior bull classes the Haeger herd was represented by an unusually showy junior calf, King Segis Pontiac Calamo. A threatening droop back of the shoulders made him a loser and gave Mr. Diehl a purple on Rag Apple Korndyke Segis Echo.

This is Minerva Beets' sixth round of the circuit. She was grand champion at the 1913 National and ever since, when shown in milk, has maintained her place as leader of the females. She is every inch a show cow and well deserves the premier ribbon awarded her at her first 1918 show. Prilly Clothilde DeKol, her stable mate, freshened the day before being shown and evidenced the effects. She will finish into a very able supporter of Minerva Beets later in the season, however, and is fully qualified for the championship in strong competition, if the old ribbon winner is left in her stall. Calamo Nancy Spofford, a yearling from the Haeger herd, was made junior champion.

Of the three Holstein herds exhibited, the Haeger cattle were splendidly fitted and shown. A larger number of animals would have much better indicated the herds in Illinois.

The list of awards follows:

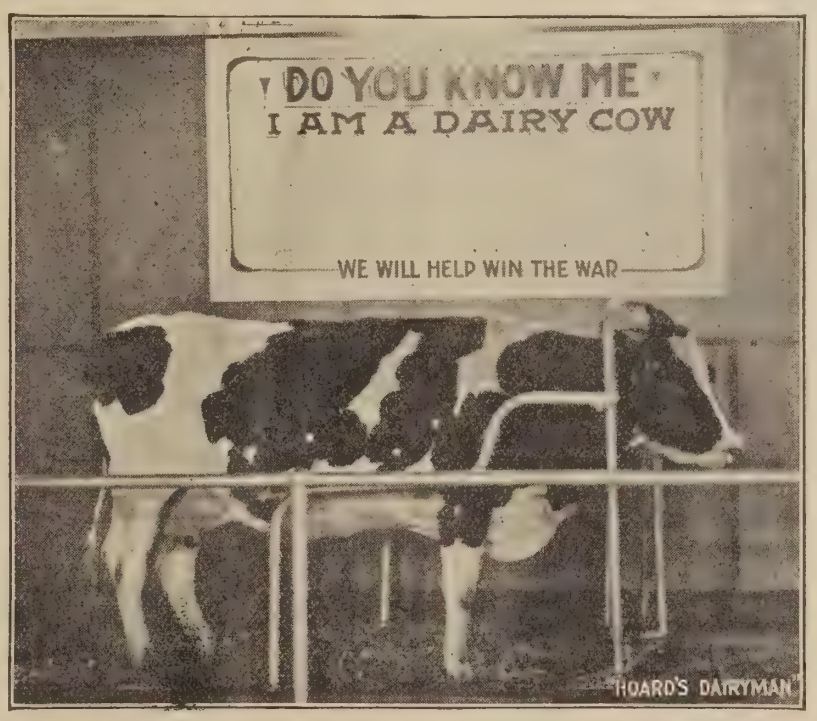
Bull three years or over:—1 and 2, Haeger on Paul Calamo Korndyke and Johanna McKinley Segis 4th. Bull 2 years and under 3—1 Haeger on Pearl King Segis Pontiac. Bull 1 year and under 2—1, Diehl on Rag Apple Korndyke Segis Echo; 2, Haeger on Aconeth King Segis Pontiac; 3, Hopping on Case King Acme Pontiac. Bull calf 6 mos. and under 12—1 and 2, Haeger on Paul Minerva Korndyke and King Segis Pontiac Cassie; 3, Hopping on Walker Pontiac DeKol. Bull calf under 6 mos.—1, Haeger on King Segis Pontiac Calamo; 2, Hopping on Crest DeKol Butter Boy; 3 and 4, Diehl.

Cow 3 years or over—1 and 2, Haeger on Minerva Beets and Prilly Clothilde DeKol; 3 and 4, Hopping on Model Aaggie Pontiac and Alta Wagner Burke Inka. Cow 4 years and under 5—1, Haeger on Aconeth Lady Hengerveld; 2, Hopping on Case Grace Walker. Cow 3 years and under 4—1, Haeger on Nancy Calamo Korndyke; 2, Diehl on Diehl DeKol Pontiac. Heifer 2 years and under 3—1 and 2, Haeger on Lady Calamo Hengerveld and Tantalus Calamo Korndyke; 3 and 4, Hopping on Case Princess Pontiac and Case Abbie Pontiac; 5, Diehl on Diehl Segis Pauline DeKol Korndyke. Heifer not in milk, 1 year and under 2—1, 2, and 3, Haeger on Calamo Nancy Spofford, K. S. P. Evelina, and K. S. P. Bridget Korndyke; 4 and 5, Diehl on Diehl Segis Korndyke DeKol Cornie and Diehl Segis Pontiac Pauline. Heifer calf 6 mos. and under 12—1 and 2, Haeger on K. S. P. Beets Jessie and Calamo Aconeth Korndyke; 3 and 4, Hopping on Mucilage Bertha Hengerveld and Lady Constance Pontiac; 5, Diehl. Heifer calf under 6 mos.—1 and 2, Haeger on K. S. P. Lady Calamo and K. S. P. Tantalus Calamo; 3, Diehl.

Dairy Herd:—1, Haeger. Exhibitor's Herd—1 and 2, Haeger. Breeder's Young Herd—1, Haeger; 2, Diehl. Calf Herd—1, Haeger; 2, Diehl. Get of Sire—1 and 2, Haeger; 3, Diehl. Produce of Cow—1, 2 and 3, Haeger.

Senior and Grand Champion Bull—Paul Calamo Korndyke. Junior Champion Bull—Rag Apple Korndyke Segis Echo.

Senior and Grand Champion Cow—Minerva Beets. Junior Champion Cow—Calamo Nancy Spofford.



HOLSTEIN COW KEPT BEFORE THE STATE FAIR VISITORS OF THE DAIRY BUILDING

The inscription on the wall above the cow added a great deal to the value of the display. It read as follows: "Do you know me? I am a dairy cow. I am the foster mother of the human race. It is my business to eat corn silage, hay, and grain, and convert these feeds into milk and butterfat, nature's most perfect food. Last year I produced 8,000 gallons of milk which contained more digestible food than the carcasses of five steers each weighing as much as myself. This year I expect to do the same thing. My sisters and I are more economical producers of human food than any other class of live stock. Use more of this valuable food we produce. We will help win the war."

Brown Swiss

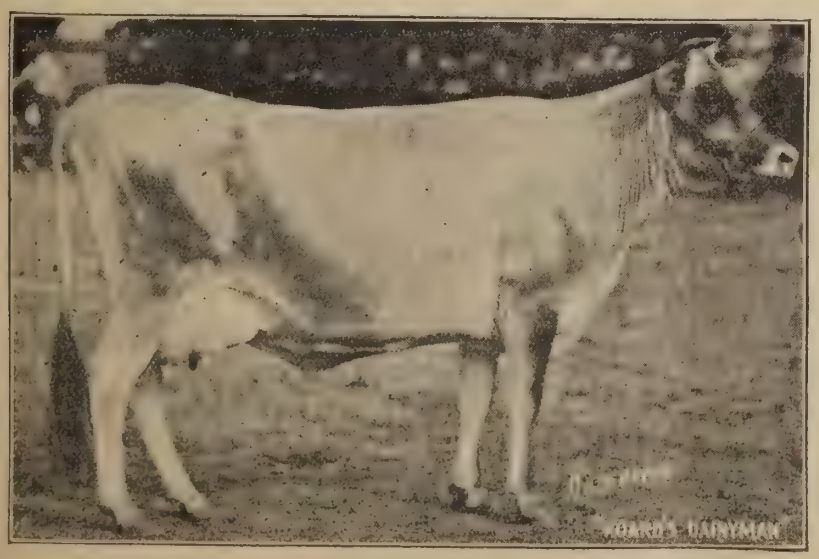
It may be said of the two Brown Swiss breeders whose animals were passed on by L. S. Gillette that the 26 head they showed made up the best exhibit of dairy cattle at the fair in fitting and show conditioning. Every entry was brought out in show shape. The advertising done for the breed was praiseworthy.

Hull Bros. with twenty head won the bulk of the prizes, being awarded all firsts and, consequently, all championships. Their aged bull, Dick of Lake View, was in splendid form and was given his customary grand championship. Swiss Valley Girl 7th was shown dry and therefore did not have her usual strength against contenders. She was awarded grand championship after defeating a very worthy rival among the milk classes and a splendidly put together junior calf, Cinderella of Lake View, a popular junior champion.

Ayrshires

Two Wisconsin exhibitors, Adam Seitz and Sons and Jas. Van Etta exhibited thirty-eight Ayrshires as a representation of the red and white dairy cattle. A. C. Oosterhuis acted as judge.

Wherever the Seitz herd is led out an Ayrshire show is assured. They went it alone at Springfield in 1917 but had very worthy competition this year from the Van Etta line-up, which the week before battled the veteran herd at the Missouri State Fair in company with C. H. Peverill of Iowa.



HATTIE'S ROSEBUD QUEEN, SENIOR AND GRAND CHAMPION
JERSEY COW AT THE ILLINOIS STATE FAIR
OWNED BY W. S. O'HAIR & SONS, ILLINOIS



SANS ALOI'S NIECE'S KING, SENIOR AND GRAND CHAMPION
JERSEY BULL AT THE ILLINOIS STATE FAIR
OWNED BY M. E. & E. F. PYLE, OHIO



Barrett Everlastic Roofings

For *Every* Kind of Steep-Roofed Building—

The name "Barrett" is known wherever roofing and roofing-materials are used.

Our most famous product in this line is Barrett Specification Roofs. *They cover most of the large permanent flat-roofed structures of America.*

Equally satisfactory in *its* field is our Everlastic System of Roofings, for *steep-roofed* buildings of every kind, including residences, garages, factories, and farm-buildings of every kind.

The Everlastic System includes roll-roofings in the popular "rubber" type, or with a beautiful crushed-slate surface in either red or green. Also individual and strip-shingles, slate-covered, in colors.

The Everlastic Roofings are all low in price and economical to lay.

Below follows a brief description of each. Don't fail to read it—and more important, don't fail to see this famous line at your dealers.

Everlastic "Rubber" Roofing

This is our most popular line and thousands upon thousands of buildings all over the country are protected from wind and weather by Everlastic "Rubber" Roofing. It is tough, pliable, elastic, durable, and very low in price. It is also easy to lay, no skilled labor being required.

Everlastic Slate-Surfaced Roofing

This is the most beautiful and durable roll-roofing made. It is manufactured of the same materials as Everlastic "Rubber" Roofing but has a beautiful surface of real crushed slate, either red or green. Fire-resisting and very durable.

Everlastic Multi-Shingles

This is the newest thing in roofing, being *four shingles in one.* When laid they look exactly like individual shingles and make a roof worthy of your very best buildings. Being four shingles in one, they save a great deal of time in laying and require fewer nails. Red or green surface of real crushed slate.

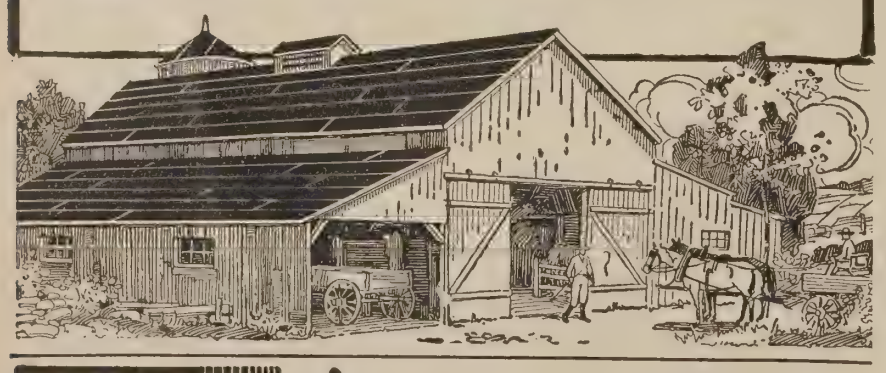
Everlastic Tylike Shingles

These are made of the same material as the Multi-Shingles (red or green) mentioned above but come in individual shingles. The finished roof is far more beautiful than one of ordinary shingles, and costs less per year of service.

BOOKLET FREE Write for booklet describing these roofings and also other Barrett Specialties that you constantly need.

The Barrett Company — New York, Chicago, Philadelphia, Boston, St. Louis, Cleveland, Cincinnati, Pittsburgh, Detroit, Kansas City, Minneapolis, Nashville, Birmingham, Salt Lake City, Seattle, Peoria

THE BARRETT COMPANY, LIMITED: Montreal, Toronto, Winnipeg, Vancouver, St. John, N. B., Halifax, N. S., Sydney, N. S.





Apollo Roofing Products

Full weight—Galvanized

Metal makes the most satisfactory roofing for farm buildings or city construction.

APOLLO-KEYSTONE Copper Steel Galvanized Sheets are unexcelled for Culverts, Tanks, Silos Roofing, Spouting and all exposed sheet metal work. Look for the Keystone added to brand. Sold by leading dealers. KEYSTONE COPPER STEEL is also superior for Roofing Tin Plates. Send for "Better Buildings" booklet.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.

When Writing to Advertisers, Mention Hoard's Dairyman

Both herds are in good condition and show good promise of developing on the circuit into strong competition at the later exhibitions. The weakness of the Seitz herd in the lack of a high class aged cow, due to the death of four different animals on which plans were laid, one dying two weeks before the circuit began and one, the last one fitted, overeating and dying at Sedalia.

Cavalier's Lord Roseberry and Cavalier's Lord Stuart led the males, finding their strongest competition between themselves, as it is prophesied they will throughout the circuit. Judge Oosterhuis favored the younger bull, Cavalier's Lord Stuart, for grand championship. The greater scale and development, superior lines about the rump, and thinner, cleaner thighs of the older animal would influence many to reverse the decisions. However, it is agreed that the bull which beats either of them this year will need to be a good one. The Seitz senior calf, Cavalier's Netherall Chancelor, was selected to top the juniors.

Van Etta showed Mayflower of Rock Ridge Farm among the aged cows and won first. This cow is a splendid dairy type and is an unusually "milky" animal. The Seitz herd was successful again in capturing first in the younger female classes and was awarded the championships. Cavalier's Kilnford Dorothy, a two-year-old, was made senior and grand and Cavalier's Kilnford Lily was selected to lead the "under twos".

The list of awards follows:

Bull 3 years or over—1, Seitz on Cavalier's Lord Roseberry; 2, Van Etta on Bargenoch Rising Star. Bull 2 years and under 3—1, Seitz on Cavalier's Lord Stuart. Bull 1 year and under 2—1, Seitz on Cavalier's Goldfinder; 2, Van Etta on Madison of Cloverdale. Bull calf 6 mos. and under 12—1, Seitz on Cavalier's Netherhall Chancelor; 2 and 3, Van Etta on Cloverdale's First Choice and Cloverdale's Choice Goods. Bull calf under 6 mos.—1, Seitz on Cavalier's Rising Surprise.

Cow 5 years or over—1 and 3, Van Etta on Mayflower of Rock Ridge Farm and Cavalier's Violet; 2, Seitz on Bargenoch's Silver Pet. Cow 4 years and under 5—1, Seitz on Willowmoor White Lola 4th; 2, Van Etta on Favorite. Cow 3 years and under 4—1, Seitz on Cavalier's Lady Mary Stuart; 2, Van Etta on Aldebaron Rosemary. Heifer 2 years and under 3—1 and 3, Seitz on Cavalier's Kilnford Dorothy and Cavalier's Lady Bountiful; 2, 4, and 5, Van Etta on Cloverdale's Lady Bountiful; Cavalier's Flukie, and Beatrice Douglas of Orchard Home. Heifer not in milk, 1 year and under 2—1, 2, 4, 5, Seitz on Cavalier's Kilnford Lily, Cavalier's Kilnford Bell 3rd, Silver Dream, Cavalier's Lady Bountiful; 3, Van Etta on Beauty of Cloverdale. Heifer in milk 18 mos. and under 24—1, Van Etta. Heifer calf 6 mos. and under 12—1, 2, 3, Seitz on Cavalier's Rosebud, Cavalier's Buntie Bell, and Cavalier's Queen; 4 and 5, Van Etta on Jane of Cloverdale and Cloverdale's Confidence. Heifer calf under 6 mos.—1, 3, and 5, Seitz on Cavalier's Silver Actress, Cavalier's Lady Betty, and Cavalier's Lilian Walker; 2 and 4, Van Etta on Cloverdale's Fashion Plate and Cloverdale Bit of Fashion.

Dairy Herd—Van Etta. Exhibitor's Herd—1, Seitz; 2, Van Etta. Breeder's Young Herd—1, Seitz; 2, Van Etta. Calf Herd—1, Seitz; 2, Van Etta. Get of Sire—1, Seitz; 2, Van Etta. Produce of Cow—1, Seitz; 2, Van Etta.

Champion and Grand Champion Bull—Cavalier's Lord Stuart. Junior Champion Bull—Cavalier's Netherall Chancelor.

Champion and Grand Champion Cow—Cavalier's Kilnford Dorothy. Junior Champion Cow—Cavalier's Kilnford Lily.

Premier Champion Breeder—Seitz.

Guernseys

Exhibitors: John, Ebels, Michigan; Goodhand Kingston and Son, Wisconsin; O. W. Lehman, Illinois.

Judge: L. S. Gillette.

Three herds from as many states made up the Guernsey show, the forty-one animals led out constituting a larger exhibit than Illinois usually draws. Two herds were of good quality and were fitted for exhibition. They divided the money evenly and were well worthy of the awards given them. The Michigan herd, however, materially detracted from the appearance of the classes. They were in lower flesh than is ever profitable with breeding animals and were badly prepared for showing. In several classes, the individuality of the exhibits would have improved their ranking; in one case would have brought a blue ribbon, if the vitality and appearance of the animals had not been injured through poor caretaking.

Lehman's aged bull, Pinecrest King France, led the mature sires but found strong competition in the championships from Hopeful of Edgemoor, Kingston and Son's two-year-old, junior champion at the last National. He is an improvement over the older bull in rump, clean cut thighs, and in lines and gives promise of growing into a spendid bull. Just now he shows his Columbus fault of being a bit off the ground and not well filled down in the middle too plainly to entitle him to place over the Lehman bull made grand champion by Judge Gillette. Kingston and Son received the purple in the junior males on Trestan's Golden Glory. The bull classes were quite well filled and were of much better average quality than were those for females.

Imp. Princess Du Braye 2nd, owned by Kingston and Son, was placed at the head of the aged cows. She did not have the lines or the showy appearance of Rag Apple from the Illinois herd, a cow shown dry, but was favored by the judge because of her freedom from excessive fleshing and because of her milkiness.

The next good one was Raymond's Princess from the three-year-olds, owned by Lehman. She is plain headed but has a nicely developed middle and udder besides being well lined. She was the best the exhibit offered and was made grand champion. A bright, sturdy senior calf from the Wisconsin herd was made champion of the juniors.

Bull 3 years or over—1, Lehman on Pinecrest King France; 2, Goodhand Kingston & Son on Moss Raider of Muskego; 3, Ebels on L'Aiglon of Bon Ayre. Bull 2 years and under 3—1, Kingston & Son on Hopeful of Edgemoor. Bull 1 year and under 2—1, Lehman; 2, Hyzer on Beauty Eagles Emperor of Riverdale; 3, Ebels on Olive King Duke. Bull calf 6 mos. and under 12—1 and 3, Kingston & Son on King Elder Lawn and Muskego Princeling; 2 and 4, Ebels on Olive Red Rose and Olive Don. Bull calf under 6 mos.—1 and 3, Kingston on Muskego Stars and Stripes and Muskego Moss Raider; 2, Lehman on King of Chesney Farms; 4, Ebels on Don of Olive.

Cow 5 years or over—1, Kingston on Imp. Princess Du Braye 2nd; 2, Lehman on Rag Apple; 3 and 4, Ebels on Nancy of Lyndon Heights 2nd and Imp. Lizette III of the Hall. Cow 4 years and under 5—1, Lehman on Gold Speck; 2, Ebels on Lizette of Butternut Hill. Cow 3 years and under 4—1, Lehman on Raymond's Princess; 2, Kingston on Chywoone Lassie of Muskego L. Heifer 2 years and under 3—1, Kingston on Trislete Ave of Sunny Slope; 2, Ebels on Nancy of Butternut Hill; 3, Lehman on Lilly Bell of Chesney Farms.

Heifer not in milk, 1 year and under 2—1 and 2, Kingston on Queen of Waukesha Stock Farm and Radier's Minnie of Muskego; 3 and 4, Lehman on Speck of Chesney Farms and Lilla of Chesney Farms; 5, Ebels on Nettie of Butternut Hill. Heifer calf 6 mos. and under 12—1 and 4, Kingston on Trestan's Golden Glory and Muskego Hope; 2 and 5, Lehman on French Maid of Chesney Farms and Top Maid of Chesney Farms; 4, Ebels on Muriel of Bon Ayre. Heifer calf under 6 mos.—1 and 2, Lehman on Faith Maid of Chesney Farms and Pride Maid of Chesney Farms; 3 and 4, Ebels on Lona of Hazel Bank and Princess of Olive.

Dairy Herd—1, Lehman; 2, Ebels. Exhibitor's Herd—1, Kingston & Son; 2, Lehman; 3, Ebels. Breeders' Young Herd—1, Kingston; 2, Lehman, 3, Ebels. Calf Herd—1, Lehman; 2. Ebels. Get of Sire—1, Ebels; 2, Lehman; 3, Kingston. Produce of Cow—1, Kingston; 2 and 3, Ebels.

Champion and Grand Champion bull—Pinecrest King France. Junior Champion bull—Hopeful of Edgemoor.

Champion and Grand Champion cow—Raymond's Princess. Junior Champion cow—Trestan's Golden Glory.

Jerseys

Exhibitors: W. S. O'Hair and Sons, J. K. Dering, and W. A. Brewerton, all of Illinois, and Myrtle E. and Earl F. Pyle, Ohio.

Judge: L. S. Gillette.

Jerseys more than maintained the standard of previous exhibits, both in quality and numerically. No outstanding individuals were found but, of even greater significance than the

presence of a few extra good ones, no unworthy animals were led in. The younger classes especially were well filled with first class animals. The breed is not strongly established in Illinois but interest is said to be increasing steadily in the little fawn cow, particularly in "Egypt" and other parts of the south end of the state. A number of beginning breeders about the ringside gave a good bit of attention to the pedigrees of the animals shown and were gratified that a goodly number had records back of them. Many of the new adherents of the breed have started their herds by using production bred sires.

Four breeders brought out a total of 67 head. Winnings were fairly well divided, a championship going to each herd.

Judge Gillette found a blue ribbon bull among the aged sires in Rosebud's Champion Lad, owned by W. S. O'Hair and Sons, preferring him to W. A. Brewerton's Raleigh's Acland, a three-year-old with the carriage and growth of a winner but lacking the depth and fullness another year or two will give him. The Pyle entry was badly handicapped by lack of scale, and was placed third.

The senior and grand champion bull was the two-year-old, Sans Aloi's Niece's King, owned by M. E. and E. F. Pyle. He was a showier, cleaner cut bull than his aged competitor and found favor with onlookers. Peter the Great, owned by W. A. Brewerton, was well qualified for the junior championship awarded him.

Manser's April Flower was an easy leader for the W. A. Brewerton herd among the aged cows. She had freshened lately and was milking heavily which brought her into the ring a bit thin. She lost later in the awards to Hattie's Rosebud Queen, from the O'Hair exhibit, which was then made grand champion over Dering's yearling heifer, Eagle's Chief's Eulinda, an entry of type and vigorous but being a bit too heavily fleshed to be pleasing to the judge. Hattie's Rosebud Queen was a deeper, stronger cow than the aged winner and had the distinction of a noticeable resemblance to the famous long distance Jersey champion, Sophie 19th of Hood Farm.

The list of awards follows:

Bull 3 years or over—1, O'Hair & Sons on Rosebud's Champion Lad; 2, Brewerton on Raleigh's Acland; 3, Pyle on Angelica's King. Bull 2 years and under 3—1, Pyle on Sans Aloi's Niece's King; 2, O'Hair on Sophia 19th's Tormentor 5th. Bull 1 year and under 2—1 and 4, Pyle on Financial Richmond and Rosa Sans Aloi K; 2 and 5, Brewerton on Jap's Interested Boy and Legacy's Jolly; 3, Dering on Rose's Big Chief. Bull calf 6 mos. and under 12—1, 3, and 5, Brewerton on Peter the Great, Virginia Fox Sultan, and Rubaiyat Raleigh; 2, Pyle on King's Rosa's Sans Aloi's E.; 4, O'Hair on Sophie's Rosebud's Tormentor. Bull calf under 6 mos.—1 and 4, Pyle on Stockwell's Niece's King and Martell's Sans Aloi; 2 and 3, O'Hair on Sophie's Domino Tormentor; and 5, Dering on Cedar Crest's Jolly Tar.

Cow 5 years or over—1, 3, and 4, Brewerton on Manser's April Flower, Pennithorpe's Lass and Elinor Pennithorpe; 2, Pyle on Sultan's Eminence; 5, Dering on Yolande's Fairy. Cow 4 years and under 5—1, O'Hair on Hattie's Rosebud Queen. Cow 3 years and under 4—1, Dering on Fairy Boy's Violette; 2 and 3, Pyle on King's Columbine F. and Financial Mary K.; 4, Brewerton on Thornbury Pennithorpe. Heifer 2 years and under 3—1 and 4, Pyle on Financial Maria P. and Rochette's Jolly Sultana; 2, O'Hara on Guenon's Fern Rosebud; 3, Dering on Eagle Chief's Fairy; 5, Brewerton on Cowslip's Gentle Sultana. Heifer not in milk, 1 year old and under 2—1, 2, and 3, Dering on Eagle's Chief's Eulinda, Eagle's Christina, and Eagle's Yolande Girl; 4, Brewerton on Etta Brookhill; 5, Pyle on Lady Silver You'll Do. Heifer 6 mos. old and under 12—1 and 2, Dering on Blue Bell of Cedar Crest and Eulinda of Cedar Crest; 3, Brewerton on Thornbury's April Flower; 4 and 5, O'Hair on Rosebud's Ellen and Tormentor's Star Sophie. Heifer calf under 6 mos.—1 and 5, Dering on Fairy Boy's Crown and Venner's Fairy Maid; 2, Brewerton on Puggy Thornbury; 3, Pyle on Sans Aloi's Golden Diploma; 4, O'Hair on Golden's Rosebud's Beauty.

Dairy Herd—1, Brewerton; 2, Pyle; 3, Dering. Exhibitor's Herd—1 and 4, Pyle; 2, O'Hair; 3, Brewerton. Breeder's Young Herd—1, Dering; 2, O'Hair; 3, Pyle. Calf Herd—1, Dering; 2, Brewerton; 3, O'Hair; 4, Pyle. Get of Sire—1 and 2, Dering; 3 and 5, Pyle; 4, O'Hair. Produce of Cow—1 and 3, O'Hair; 2 and 5, Dering; 4, Brewerton.

Senior and Grand Champion bull—Sans Aloi's Niece's King. Junior Champion bull—Peter the Great.

Senior and Grand Champion Cow—Hattie's Rosebud Queen. Junior Champion Cow—Eagle's Chief's Eulinda.

Valuable Exhibit at Dairy Cattle Congress

"The day may yet come when the child life of the world will be in the hands of the dairymen of America. He is a part of the world's reserve army that may, at any moment, be called into battle for our existence and the existence of the next generation." This is a statement recently made by Herbert Hoover, the man chosen to guide the food supply of the nation during the war.

Mr. Hoover further stated that "the dairy industry must not only be maintained but that the production of milk, butter, and cheese must be increased". In following out the food conservation campaign so admirably planned, we are asked to conserve principally wheat and meat. These two items are selected because they are staple foods that are easily transported. Milk and other dairy products are the best and cheapest substitutes for meat and therefore their increased consumption is encouraged.

From Europe comes the report that more than three-fifths of the dairy cattle have been slaughtered. The extreme shortage of milk was one of the first problems to receive the attention of the Red Cross Relief Commission when it entered Belgium and Northern France after these unfortunate countries were invaded by the Hun.

There has been scarcely a child born in the north of France and many in Belgium, whose continued life has not been dependent during the past four years upon American condensed milk. For this purpose condensed milk has been shipped not in single cans but in scores of thousands of tons. Every American would be thrilled could he but see the gratitude which French mothers daily express over the pitiable ration which enables their children to survive.

European conditions are not the only reason why the dairy industry must be fostered. Dr. McCollum, one of the greatest American scientists, has proven conclusively that milk contains a certain life giving element essential to normal human development and that this essential is not contained in any other food except in limited amounts in the leaves of plants.

It has been found that children denied milk, no matter what their ration might be, become weak and puny; that after a few weeks they develop skin diseases and in many instances become blind. It is for this reason that every mother should fully understand and appreciate the value of milk to not only the infant, but to the growing child as well.

These facts and many more will be embodied in a mammoth exhibit to be made at the Dairy Cattle Congress and Industrial Exposition to be held at Waterloo, Iowa, September 30th to October 6th. It is an exhibit that will be of vital interest to every one whether they live in town or the country. It will be a complete new feature in addition to the many other attractions of this great national exposition which has been the center of attraction for the dairy world during the past eight years.—PUBLICITY DEPARTMENT.

"Either the civilian must go short of many things to which he is accustomed in times of peace, or our armies must go short munitions and other things indispensable to them."
—LORD KITCHENER.

A little thing that means a lot to you



Drilling a little hole in the top of the Sharples tubular bowl revolutionized the mechanical separation of milk, saving millions of pounds of butterfat yearly for dairymen.

This Suction-feed principle is an exclusive patented feature; it "drinks" the milk only in proportion as it can be perfectly separated.

Through the fixed-feed separator being turned under speed there is a cream loss averaging ten pounds of butter *per cow* yearly and tests show that 95% of all separators are turned under speed most of the time. Sharples *skims clean at any speed.*

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It is your duty to yourself and to the country to use every precaution for saving butterfat—to yourself, because prices are at their highest; to your country because fats are "victory munitions".

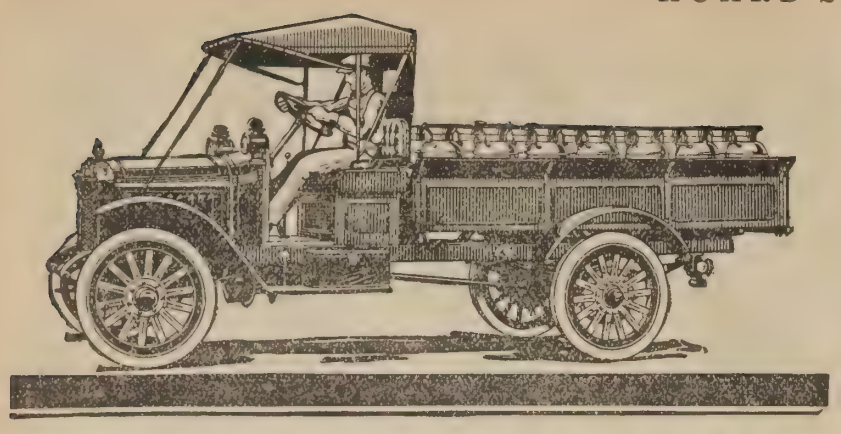
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Sharples Milkers—used on half a million cows daily

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Dairymen have found that a Republic Truck is not only a convenience but a money maker.

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Republic Trucks meet every requirement of the dairy farmer. Country roads, deep mud, steep hills, only serve to show the power and dependability of these rugged trucks.

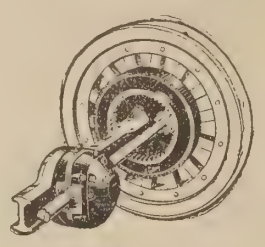
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Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Pa.	Meadville	R. E. Wakely	July	367	11	53.1	Lee Brawley
Wis.	Sheboygan Falls	E. P. Lindow	"	424	15	45.6	A. C. Wunsch
Minn.	Fergus Falls	H. Buran	"			58.4	H. Telkamps
Vt.	Benson	R. T. Abbott	June	344	19	55.1	J. K. P. Pine
"	Benson	R. T. Abbott	July	360	12	67.1	Frank Martin
"	Craftsbury	P. E. Bassett	"	351	4	42.3	Alton White
"	Charlotte	I. A. Slocomb	"	412	12	73.4	John Lewis
"	Chittenden (No)	C. N. Howe	"	495	6	62.5	Urban Woodbury
"	Chittenden (So)	H. H. Russell	"	550	6	61.5	R. L. Howe
"	Champlain Valley	Everett Easton	June	500	58	54.6	Wm. Noonan
"	Champlain Valley	Everett Easton	July	510	21	58.0	H. W. Day
"	1st Addison	B. E. Russell	June	653	21	50.2	H. Dow
"	1st Addison	B. E. Russell	July	625	11	51.2	G. Bristol
"	North Randolph	W. H. Wheatley	"	335	4	50.3	F. L. Flint
"	Orwell	L. C. Glover	"	505	15	54.8	Eugene Lenard
"	White River	W. E. Parsons	"	312	22	84.1	Quechee Fells Farm
"	Washington Co.	R. W. Pike	June	503	21	57.9	A. T. Smith & Son
"	Washington Co.	R. W. Pike	July	494	9	49.4	A. T. Smith & Son

Association Notes

Meadville, Pa.:—One member purchased his first pure-breds this month, a two-year-old heifer and a well-bred heifer calf. In July market milk sold for $2.25 per hundred pounds. The average test required was 3.5 per cent and for each pound above, 5 cents were paid. Milk retails for 12 cents per quart, butter for 45 cents per pound, and cheese for 40 cents per pound. The following are the local prices of feed: Pasturage, $1.50; oil meal, $63.00 per ton; cottonseed meal, $60.00; and bran, $35.00 to $48.00. The feed dealers in some places are not keeping a variety of good feeds in stock which makes it hard for our members to feed balanced rations.

Sheboygan Falls, Wis.:—Four poor cows were sold during the month and many more poor ones will be culled out as the pasture is too short and feed too high priced to keep them. The farmers receive from $2.00 to $2.08 per hundred pounds for milk while those selling to a cheese factory receive from 60 to 64 cents per pound fat. The local prices for feed are: Corn silage, $6.00 per ton; hay, $20.00; oats, $25.00; Arcadia feed, $48.00; oil meal, $60.00; Victor feed, $54.00; bran, $41.00; and corn, $1.55 per bushel.

Wisconsin Association

The summary of July reports for Wisconsin Associations gives records for 44 out of the 110 or more associations in that state. The number of 40-lb. cows ranged from as low as one up to 113 for the New Holstein Association. The high cow for the state is a grade Guernsey owned by L. McIlrath of the Chilton Association. This cow produced 84 lbs. of fat during the month of July. The high herd for the month consisted of 14 grade Holsteins owned by William Rann of the Medford Association. These cows averaged 1,578 lbs. milk containing 62.8 pounds fat.

The following are selected quotations from reports of a few of the testers for the various associations:

Barneveld: We have 27 members, 15 of whom are using milking machines. Feeding is the greatest question here and am getting them interested in feeding during the summer on pasture.

Burnett Co.: We have purchased a whitewashing machine and the tester does most of the work. Also bought a barrel of fly dope that proved quite popular at 65c a gallon. The C. T. A. picnic was held July 26th at Wood Lake and was pronounced a success.

Chilton: Four registered cows added to the list. Sixteen members now own milking machines.

Cross Plains: Most members are feeding grain with pasture. One member installed a milking machine.

Dodge County: One of our members bought a pure-bred bull. Some of them are talking about building more silos so they can feed silage in the summer when pasture is down, thus keeping up the flow of milk.

Dodgeville: One separator found that was losing about 50c per day in a herd of ten cows. Ten farmers feeding grain on pasture.

Dunn Co. No. 1: Six cows sold as unprofitable. One separator found skimming unsatisfactory. Eleven cows were killed by lightning in one tested herd.

Geneva: Carload of bran bought. The farmers that are feeding grain are the ones that seem to be making the most success.

Mondovi: Found two separators that were not skimming clean. Our association is being reorganized and the prospects look good for it to continue. Highest cow for year made 452 lbs. butterfat.

New Holstein—Kiel: Twenty-two of the 27 members in this association are weighing the milk daily. Many of the members are feeding grain or silage in the barn owing to the short pasture, heat, and flies, which are quite bad at this time and yet the cows have gone down considerably in milk flow. Nevertheless, 113 cows produced 40 lbs. or more of fat out of 424 on test and 27 cows made more than 50 lbs.

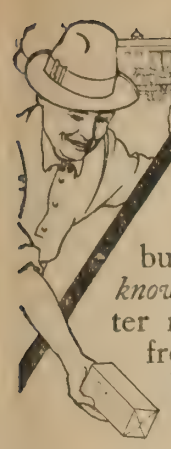
Rice and Cedar Lake: Fourteen low producers have been sold and will be replaced with better ones. One poor separator has been found and one milking machine installed.

Spring Green: Have sent for carload feed, also two carloads lime stone.

Barneveld: When I am ready to fill the bottles I place the bath tank filled with hot water on the tester or other convenient object and using a small rubber tube (such as may be purchased at the drug store), siphon the water into the bottles while in the tester. The same method is handy for washing bottles as the water is forced into them and I avoid getting acid in the bath tank. A small part of a broken pipette inserted in the discharge end of the tube together with pressing or kinking the tube will regulate the water flow.

Illinois Association

Lake County No. 2: During the month of July 451 cows were on test. Five unprofitable cows were sold and thirteen pure-breds were purchased. During the past four months more than forty pure-breds have been purchased. The honor of having the highest producing and most profitable cow in the association goes to Rouse Bros., their 4-year-old pure-bred



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Holstein cow producing 1,984 lbs. of milk containing 83.32 lbs. fat.

Highland—St. Jacob: Two hundred and twenty-four cows were tested during July. Five cows produced over 40 lbs. of butterfat. Fred Hollard had the high herd average for the month. A pure-bred Holstein cow owned by Emil Fricker was the high cow in the association. She produced 1,231 lbs. milk containing 49.24 lbs. fat.

Jacksonville—Springfield: Twenty-six cows produced more than 40 lbs. of fat. Five hundred and eighty-one cows tested. There are nine milking machines in the association and all are proving their worth at the present time with a shortage of labor.

Rockford: Ray Pfeil's herd of Holsteins produced an average of 31.4 lbs. of butterfat. Frank Davis owned the high cow, a grade Jersey. She produced 943 lbs. of milk and 50 lbs. of butterfat.

Jo Davies Co.: Mr. M. Y. Graham of E. Dubuque again has the high cow for the month. She produced 1,872 lbs. milk containing 69.2 lbs. fat. Her feed cost was $12.35 and she returned a profit of $23.21. She was fed a grain mixture of oil meal, bran, ground oats, and ground corn.

First Lake Co.: F. K. Kennedy has high profit cow; profit over feed,



Professor H. H. Kildee, who for the past two years has been head of the Dairy Department of the Minnesota College of Agriculture, has now taken up his duties as head of the Animal Husbandry Department of the Iowa State College.

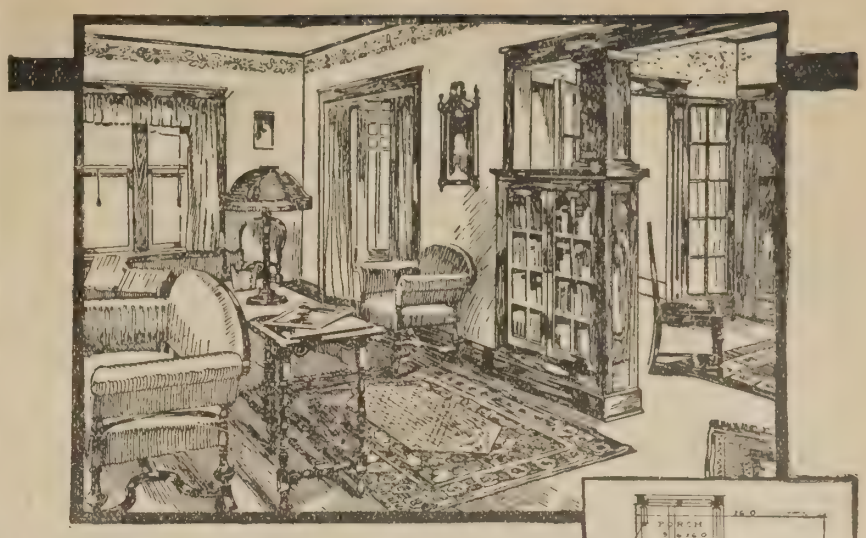
$25.98. Alex Hughes has high herd; Milk, 813 lbs.; fat, 27.6 lbs. Four hundred and sixteen cows were on test during the month.

McHenry—Nunda: Twenty-one cows produced more than 40 lbs. of butterfat during July. The herd of Mr. M. B. Weaver averaged for July 28.7 lbs. of milk per day. Wingate and Hale are second with 24.1 pounds of milk per cow. Steve H. Freund has high butterfat cow for the month, 63.7 lbs.

Boone Co. No. 1: One Durham bull was replaced by a pure-bred Holstein. High herd for the month was owned by J. Herbert. F. William Blake had the high cow for the month, a 2-year-old heifer producing 1,230 lbs. milk containing 46.74 lbs. butterfat. At a meeting held July 20 the members decided to purchase 10 carloads of No. 1 alfalfa.

The War Trade Board last month issued orders forbidding the importation of flaxseed from Argentine and in addition has permitted the exportation of linseed oil cake or meal to Canada. It is perhaps too early to know what effect this will have on the oil meal market, but it would indicate that higher prices will prevail this winter unless the domestic production of flaxseed exceeds the anticipated supply.

Eat thou honey because it is good. Proverbs XXIV—13.



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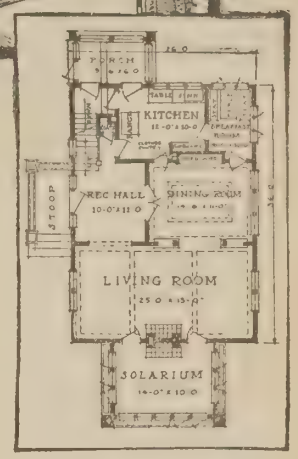
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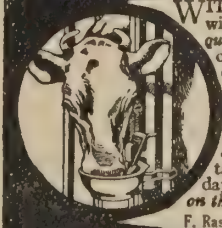
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These books each contain floor plans, exterior and interior views of thirty well-planned homes finished with CURTIS Woodwork. They teem with ideas for prospective home builders. "Better Built Homes," Vol. II, range lower than $3,150. More expensive homes are shown in Vol. III. Tell us which book you want.

20 to 25% Bigger Winter Milk Yields

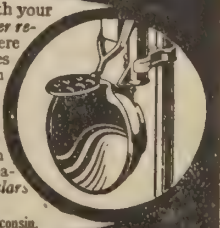


WITH pure, rich milk analyzing 87% water—and with your winter herd *getting only ¼ to ⅓ of their natural water requirement from icy outdoor tanks*, you can see where cold weather cow-thirst is one of the biggest causes of your year-after-year winter milk shortages. With

Simplex Improved Water Bowls

your cows drink "to their hearts' content" day and night. Result—*20 to 25% more milk from every cow all through the housed-in season.* And no more frozen tanks—no tank-heater makeshifts—no more twice-a-day "herding out" periods. *Write for Full Particulars on the Only Drop-Down Water Bowl on the Market.*

F. Rassmann Manufacturing Co., 31 Mill Street, Beaver Dam, Wisconsin.



The Only "Drop Clean" Water Bowl Made

ORDER YOUR FALL AND WINTER FEED SUPPLY NOW



Don't run the risk of a possible feed shortage next winter due to shipping difficulties—be on the safe side—order your feed NOW and be sure that you order feeds that meet your requirements best. Actual feeding results and low cost make it decidedly to your advantage to stock up on the "old reliable"

SCHUMACHER FEED AND BIG "Q" DAIRY RATION

SCHUMACHER FEED has time and time again proved its merit in record making, record breaking long distance milk and butter production tests—it has to its credit (fed with high protein concentrates) more World's Champion Milk and Butter Records than all other feeds combined. SCHUMACHER FEED is a grain ration that supplies ENERGY — STRENGTH — STAMINA and ENDURANCE that cows must possess if they are to be big producers. SCHUMACHER FEED is also an ideal feed for dry cows, horses, hogs and growing stock.

15 Cents Apiece for Jute Sacks
Your dealer will pay you 15 cents apiece for empty jute sacks of our brands returned to him in good condition.

BIG "Q" DAIRY RATION is a protein ration of the highest quality made on the modern idea of "highest quality" of protein content—a wonderful milk producer.

By having a liberal stock of SCHUMACHER FEED and BIG "Q" DAIRY RATION you will be independent of a feed shortage and be assured of best results from all your stock because SCHUMACHER FEED and BIG "Q" are splendid result-producing feeds.

Also as a price consideration it is to your advantage to stock up on these feeds. Our liberal allowance of 15c each for jute sacks of our brands makes SCHUMACHER FEED $20 to $25 per ton cheaper than good corn and many dollars per ton cheaper than hominy feeds.

Don't delay — order NOW. Your dealer can supply you NOW — he may not be able to later. "A WORD TO THE WISE IS SUFFICIENT."

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Comfortable Cows Produce "Plump" Profits

Comfort is such an important item towards securing maximum production of milk from dairy cows that thousands of dairymen, in recognition of this fact, have paved their stalls and runways with



Stalls in Dairy Barn on Edgewater Stock Farm, Ft. Atkinson, Wis., Paved with Circle A Cork Brick

Circle A Cork Brick
For All Stall Floors

Stalls floored with these brick **are genuinely** comfortable for cows to either stand or lie upon. They are warm to the touch, summer and winter, and require little bedding. They do not chill the animals like cold, hard concrete.

All genuine Armstrong Cork Brick bear the Circle A trade-mark

"Three years ago, I installed a cork-brick floor in my dairy barn * * * * * and I am satisfied that the cows are very much more comfortable than they would be if the floor were concrete.
ROBT. F. MACKENZIE, Hudson, Ohio.

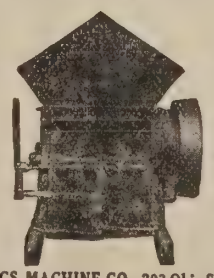
"Better Stall Floors" is an instructive book that should be read by every dairyman interested in the protection of his herd. It's free—send for a copy today.

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DO YOUR OWN CONCRETE WORK WITH A MINSTER BATCH MIXER

When most convenient with your own men.

Build rat and fire proof barns and other buildings.



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Let us tell you what other men are doing with our machine.

WRITE TODAY.

THE CUMMINGS MACHINE CO., 203 Ohio St., Minster, O.



B. C. Dairy News

HOARD'S DAIRYMAN:—Municipal authorities in Vancouver are trying to bring about an amalgamation of the milk distributors, as a counter to conditions which are boosting the price of milk. In an investigation made a year ago the city authorities found that an estimated $75,000 to $100,000 a year was lost in milk distribution owing to duplication in equipment and labor. When in early August the Fraser Valley Milk Producers' Association, the farmers' organization which wholesales 90 per cent of the milk entering Vancouver, announced a ten per cent increase in price, and the dealers followed with a statement that they must get 14c instead of 12½, Mayor R. H. Gale and his council got into action. The newly-forgotten findings of the 1917 investigation were recalled, and a conference to consider amalgamation quickly convened at City Hall.

To Combine Milk Distributors

The producers were the first to point out the great economic loss in the milk distributing system of Vancouver, and would welcome formation of one distributing concern. In fact, they have even considered attempting the work themselves. There does not, however, appear to be especially good prospects of success in the present agitation. The three largest concerns, it developed at the conference, would join a merger, but many of the smaller dealers, who, in frequent cases, work on their own outfits, are chary of the deal. They do not care to put their capital in a concern in which they would have little control. Some would be glad to sell out. A committee of dealers, producers, and civic officials is at present working out a plan of amalgamation.

The city hall meeting was an interesting commentary on changes recent years have wrought. It is something new for a community to lend all possible assistance to the formation of a monopoly. It is refreshingly novel for producers to be the strongest party at a conference of milk farmers, middlemen, and consumers. It is almost startling for middlemen to defend loyally, as they did at this Vancouver meeting, an arbitrary price advance by producers. Mayor Gale of Vancouver is outspoken in his opposition to the producers, declaring they now have a price-dominating organization, but he gets no sympathy from the dealers, who say the wonder is the farmers' price is not higher.

On the production side this has been an unfavorable season in Southern British Columbia, as it has in most parts of Western Canada. The hay crop has been estimated at 70% of normal. Fraser Valley farmers handle deep alluvial soils and only rarely does drought seriously reduce yields. They usually ship out large quantities of baled hay. The shortage in the present crop, however, is so apparent, that the first hay sold in the field brought $35 a ton, and so many farmers are endeavoring to reduce their herds that there has been a precipitate drop in dairy cattle prices. Oats command $65 a ton and there is a serious shortage of mill feeds.

Hay Crop Short

It is possible, of course, that the hay shortage is over-calculated. Hon. E. D. Barrow, minister of agriculture, is now on a trip which will take him through the principal hay-producing sections of both dry and wet belts, with the special purpose of ascertaining the true situation.

Chinese and Hindus have been depended on largely in the hay harvest.

They have commanded unprecedented wages—$4.75 a day with one meal furnished, or $5 straight. Women and girls have worked in the field on many farms.

Community Breeding

Kelowna, in the dry Okanagan Valley, is the first British Columbia district to start community breeding. Dairymen there picked the breed already the favorite, the Holstein. Arrangements have been made for a first importation of young foundation stock. The local co-operative creamery has loaned $500 to the breeders' association, stipulating it shall be used for the purchase of a pure-bred bull.

This interior locality, formerly devoted entirely to fruit and vegetables, has only been on the British Columbia dairying map about three years. The local market for whole milk was small, and there was no creamery within shipping distance, but the farmers had courage. They built a creamery and started out to produce enough cream to make it profitable. The venture has been very successful. The production during the last business year was about 100,000 lbs., a substantial increase over the preceding year. The creamery is now receiving cream from all parts of the Okanagan Valley, paying 48 cents for butterfat, f. o. b. The dairy farmers are prospering, and silos are being built faster than in any other B. C. district.

Kelwona held a dairymen's picnic in June at which the community breeding plan took form. Professor J. A. McLean of the University of British Columbia was a leading spirit in the project. He gave a lecture on dairy cattle type at the picnic, demonstrating with good stock from local farms. Other experts lectured on pertinent subjects, and there was a tractor demonstration.

JOHN PAWTUCKAWAY.

Babies at the Dairy Show

How and why milk and butterfat are essential to the growth of babies and young children, will be shown in the most graphic way at the National Dairy Show, Columbus, Ohio, October 10th to 19th.

One entire building will be devoted to the interest which mothers have in the use of dairy products.

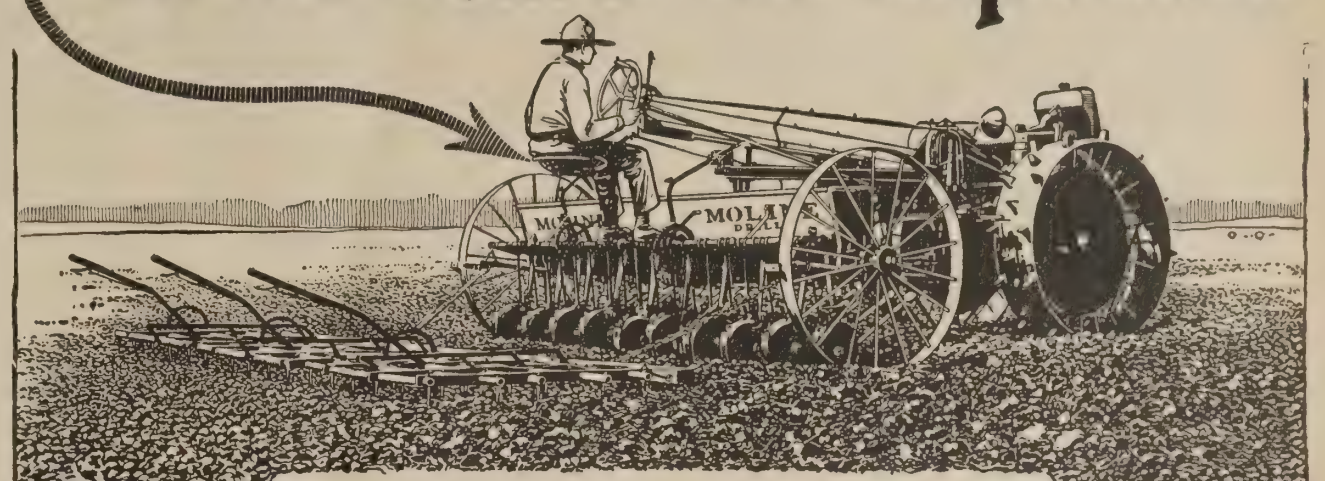
A large enclosure will be provided for a well babies' clinic to be held, and the co-operation of the Children's Bureau of the U. S. Department of Labor; state, local, as well as National Children's Welfare Workers are being enlisted in this great movement that is designed to emphasize the importance of keeping children growing by supplying them all that they need.

Science has shown that growing children not only require the usual proteins and carbohydrate foods, but that proper mineral matters must be supplied, that their bones may grow, and that they must have that unknown protective something which is secured only in the mother's breast milk or in the milk of man's foster mother—the dairy cow.

In addition to the portion of the building devoted to the children and their examination, a section will be devoted to the home preparation of milk for infant feeding.

The part which the visiting nurses' associations, day nurseries, milk stations, mothers' clubs, parent teachers' associations, summer camps, and infant hygiene divisions of our state and city boards of health will take will be in a campaign for healthier children to take the place of the flower of our youth who have gone abroad, and will be a wonderfully interesting feature at the next dairy show. —NATIONAL DAIRY SHOW.

You Sit Where You Always Sat On the Seat of the Implement



MOLINE UNIVERSAL TRACTOR

It Solves The Farm Help Problem

YOU wouldn't think of riding on the back of one of your horses while at work in order to guide your team. If you did you would require another person to operate the implement, because implements require constant attention.

Then why attempt to operate a tractor in a manner which your experience has proven impractical? It is just as illogical to ride on a tractor in front of the implement and expect to operate the implement from that position as it is to operate the implement from the back of your horse.

Any way you look at it you are working at a disadvantage with the ordinary tractor. To do the best work two operators are required, one on the tractor and one on the implement. In these days of extreme labor shortage this is a tremendous handicap. With the operator on a tractor in front of the implement it is manifestly impossible for him to give the implement attention and make adjustments for varying field conditions without losing time.

Just Like Driving Horses

With the Moline-Universal Tractor you sit on the seat of the implement and have perfect control of both implement and tractor. You are in the best position to observe the work, make adjustments and manipulate both tractor and implement. This holds true regardless of the work being done—plowing, discing, harrowing, planting, cultivating, mowing, harvesting, both grain and corn.

A Time Tried Principle

There is nothing new about this, we simply apply a principle which millions of farmers have demonstrated to be sound. The Moline-Universal gives one man control of greater power than is possible with horses, with the same method of handling and as much versatility. With the Moline-Universal one man can farm more land. It is a six-horse unit—easier to control than one horse and capable of doing the work of from 6 to 8 horses.

Works Day and Night

The One-Man feature is just one of many advantages the Moline-Universal has over other tractors. It is the only tractor which will do all farm work, *including cultivating.* It is the only tractor regularly equipped with self starter and electric lights. Non-robust labor can operate the Moline-Universal successfully. and it can be worked day and night.

No detail has been overlooked to give the new Moline-Universal Model D Tractor positive reliability. The perfected, overhead-valve 4-cylinder engine develops unusual power, and is economical in operation. It is conservatively rated at 9-18 H. P. Oil is forced to crankshaft bearings under 35 lbs. pressure. Gears are steel cut, drop forged, and heat treated. All shafts are splined. Every working part is easy to get at, and every moving part is enclosed.

Valuable Information for You

Our catalog tells how you can operate your farm with less help and expense by using a Moline-Universal Tractor. A post card will bring the catalog to you.

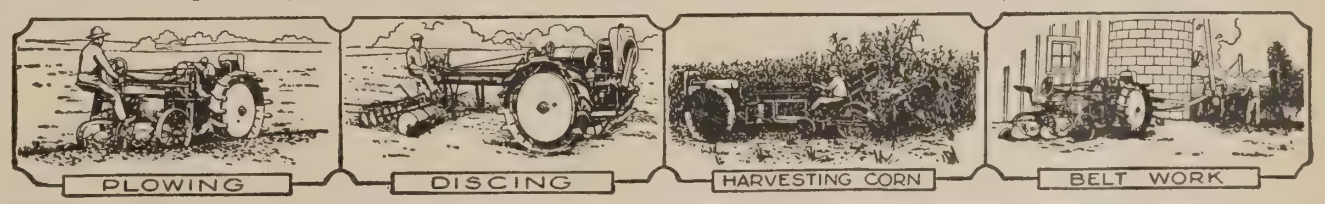
Since 1865 we have been making farm machinery, and now offer a complete line of both tractor and horse drawn implements. Information on any of the Moline implements listed below will be gladly furnished on request.

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Manufacturers of Quality Farm Implements Since 1865

Plows, (steel and chilled)	Hay Rakes	Scales
Harrows	Hay Loaders	Grain Binders
Planters	Hay Stackers	Corn Binders
Cultivators	Grain Drills	Wagons and
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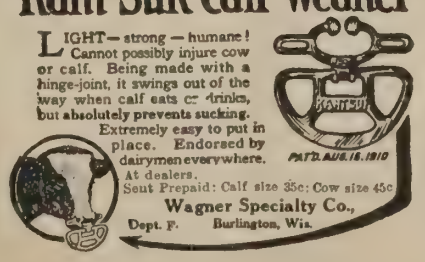
"Kant-Suk" Calf Weaner

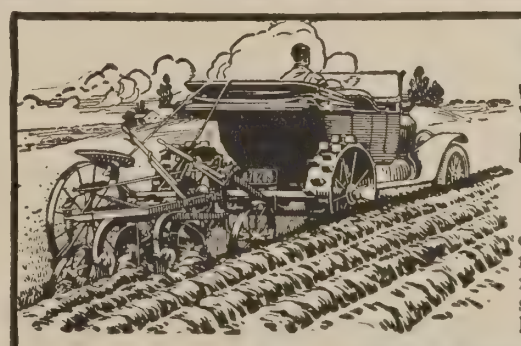
LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but absolutely prevents sucking.

Extremely easy to put in place. Endorsed by dairymen everywhere.

At dealers.
Sent Prepaid: Calf size 35c; Cow size 45c

Wagner Specialty Co.,
Dept. F. Burlington, Wis.

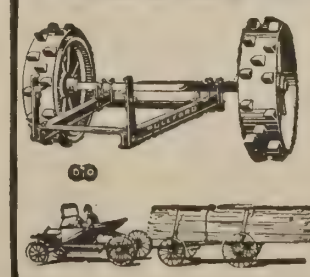




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Pullford $155 F. O. B. Quincy, Ill.

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Hundreds WORKING NOW for Satisfied and Enthusiastic Owners

Pulls plows, harrows, drills, mowers, binders, hay loaders, road graders, wagons, trucks, etc. Steel wheels with roller bearings and tires 10 inches wide, two pairs of hardened Vanadium steel pinions, one for plowing and one for hauling speed. A tractor with the reliability and durability of the Ford car. Prompt shipment. Write for catalog.

It was the Pullford attached to Ford cars pulling two 12-inch plows running on Kerosene, equipped with new fan device, that made a most successful demonstration at Fremont, Nebraska.

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Coming Events

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

Sept. 16-21. Southwestern Jersey Cattle Show, Kansas City, Mo., H. E. Colby, Sec.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

Sept. 15 to 21. Illinois—Indiana Fair, Danville, Ill. G. M. McCray, secretary.

Sept. 16 to 21. Interstate Live Stock Fair, Sioux City, Iowa. Joe Morton, secretary.

Sept. 9 to 14. Kansas Free Fair, Topeka. Phil Eastman, secretary.

Sept. 14 to 21. Kansas State Fair, Hutchinson. A. L. Sponsler, secretary.

Sept. 9 to 14. New York State Fair, Syracuse. T. D. Ackerman, Jr., secretary.

Fixing Milk Prices at Condensery

A new plan of fixing prices to producers delivering milk to a condensery has been adopted at the Middleton Condensery of Wisconsin. The plan is simple, easily understandable, and is based on the economic law of a competitive market.

At this condensery, as well as others, there has been controversy over prices to be paid producers. To arbitrate the question the Wisconsin Food Administration appointed a committee consisting of C. E. Lee, Assistant Dairy and Food Commissioner, Professor J. L. Sammis of the College of Agriculture, and W. W. Powers of the Food Administration. This committee made the following recommendations, which were accepted by the producers as a body and by the officers of the condensery:

"The value per pound of butterfat shall be based on the average Chicago market price for the month for 92 scoring butter. A differential of 6 cents shall be used as an additional value of butterfat, as this is the approximate difference between the average price of this grade of butter on the Chicago market for the month of July and the prices paid by several creameries in Wisconsin.

"In addition to the fixed price per pound butterfat, patrons shall be paid for their skimmilk on the basis of the value of corn; namely, each hundred pounds of skimmilk shall be valued at one-half the price of a bushel of corn for the month. To determine the amount of skimmilk that a farmer shall be paid for, 85 per cent of the total amount of milk delivered shall be considered skimmilk.

"The price of corn shall be that given in the report of the Wisconsin Department of Agriculture. The price of butter as given in the report of the Bureau of Markets, Chicago, shall be considered official."

On the basis of this agreement the August price to these producers will be $2.63 per hundred for milk testing 3.9%, the average test of all farmers delivering at the Middleton Condensery. This price is based on the market price of 44 cents for 92 scoring butter on the Chicago market, making the value of butterfat 50 cents per pound after adding the 6 cents differential. The August 1 price of corn according to the State Department of Agriculture was $1.60, thus making 100 lbs. skimmilk worth 80 cents, or 68 cents for the 85 lbs. of skimmilk in every hundred pounds of whole milk.

The following table, giving the test of milk from 3 to 4.5%, shows the price the farmers of Middleton territory would have received for the milk had they accepted the prices offered by the condensery, and the price they will receive for August milk on the basis of 44 cents for 92 scoring butter and corn worth $1.60 per bushel:

Per cent fat	Old price offered	New price offered	Per cent fat	Old price offered	New price offered
3.0	$2.09	$2.18	3.8	$2.33	$2.50
3.1	2.12	2.23	3.9	2.36	2.63
3.2	2.15	2.28	4.0	2.39	2.68
3.3	2.18	2.33	4.1	2.42	2.73
3.4	2.21	2.38	4.2	2.45	2.78
3.5	2.24	2.43	4.3	2.48	2.83
3.6	2.27	2.48	4.5	2.51	2.88
3.7	2.30	2.53	4.5	2.54	2.93

San Francisco Abandons Zone Plan

HOARD'S DAIRYMAN:—After spending several weeks in devising and perfecting a zone system of milk delivery in order to keep down the price of milk, the federal food administration and the representatives of the milk producers and distributors have suddenly announced that all the zone plans have been dropped, and that on September 1, 1918, the price of milk to the consumer will go up from 12 cents to 14 cents a quart. Certified milk has already gone up to 20 cents. Producers will receive 31 cents per gallon instead of 25.

The decision to abandon the zone plan came from the federal food administration and was as much of a surprise to the milk producers and distributors as to the public, every effort having been made to educate the housewife to the proposed zone plan.

The producers have been trying to solve the problem of increased cost of labor, feed, etc.; and the distributors have had to contend with a raise in the price of bottles and an increase in the wages of milk wagon drivers. A raise in the price of milk to the consumer seemed imminent. The zone system, which aimed to do away with duplication of routes, limiting two companies to each zone, was devised to reduce the distributor's costs and thereby keep down the price to the consumer.

Federal Food Administrator Ralph P. Merritt would not discuss the matter but it is believed that while he favors the zone system of delivery, and believes that it should be put into practice, he does not think that it should be brought about by his office, but rather by the enactment of a state law. He pointed out, however, that his organization, being maintained only for the duration of the war, could hardly put through a matter involving such radical and permanent changes as the zone system of milk delivery. That ends the matter for the present, as far as San Francisco is concerned.

California. L. L. DEBRA.

Sale Announcements

Sept. 11—Holsteins. Consignment Sate at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 11—Holstein Dispersal Sale. Springdale Farms, Fishers, Ind., Dr. S. P. Scherer, Owner.
Sept. 12—Ayrshires. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 13—Guernseys and Jerseys. Consignment Sale at Cuba, N. Y., Fair. L. J. Waldock, Mgr., Cuba, N. Y.
Sept. 12—Holsteins. Hogarty Holstein Farm, Aniwa, Wis.
Sept. 17—Holsteins. Centralia Calf Farm, Centralia, Ill.
Sept. 18—Holsteins. W. F. Phelp's Holstein Sale, Joplin, Mo.
Sept. 25-26—Holsteins. Absolute Disperison of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.
Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.
Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.
Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.
Oct. 4—Guernseys. Dispersion of Sylvanite Guernsey Herd at Baraboo, Wis. Richard F. Klemm.
Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.
Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.



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(INCORPORATED)
374 Broadway, New York City

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Four Cows and a $10,000 Hide!

There's a farmer in Ohio whose name is Peter Small. Peter Small made a mighty big mistake a few years ago. The mistake cost him over $10,000! And all he has to show for it is a bump of experience and a lifeless hide.

Peter Small will never make the same mistake again.

Peter Small did not swallow his loss, and selfishly keep his story to himself. He was big enough to tell the dairy world, so that you and I and others would not lose as he had lost. He took his hide to the National Dairy Show last year and told the story of his mistake.

In the Peter Small exhibit there were five stalls. Four contained cows placidly chewing their cuds. In the fifth there hung the hide of the bull that had sired these cows. He had been slaughtered before Peter Small knew what his daughters could do. That was Peter Small's mistake.

He knows now. He kept a record of his cows after the bull was killed. He found out that they averaged 25,210 pounds of milk and 977.3 pounds of butterfat! And he had killed the bull that had sired them! He had killed for meat a bull that was worth at least $10,000. He had found that out too late.

It was a lesson in cow testing that cost Peter Small $10,000.

But the National Dairy Show gave it to the thousands of wide-awake farmers, who attended the show at Columbus last year, for nothing.

There were many farmers at the show last year who took the lesson of the $10,000 hide to heart, and many a good bull was saved to the dairy world. It may be that there'll be something equally as valuable for you at the show this year. You won't get it unless you come.

Most men learn best by experience. But the school of experience is a long school and a dear school. So, if you can learn at someone's else expense of time and money, you'll be that much ahead, won't you?

The National Dairy Show this year will be brimful of the thousand-dollar experiences of earnest men in the dairy industry. Why should you go over the same costly ground over which they have plodded in order to arrive at the same result? Why should it be necessary for you to make the same costly mistakes that they have made? Why not profit by their experiences?

Why not? October 10 to 19—the dates of the show—will find you with your corn in the silo, and with nothing pressing to keep you on the farm. Take a week off. You'll become the possessor of a veritable gold mine of valuable information, and you'll come back to your farm work with a stock of stored-up energy and enthusiasm that you'll draw on every day next year.

Wisconsin. RUDOLPH KREBS.

New York Butter Market

New York City, August 27, 1918:—The last week in August shows a marked change for the better in the marketing of butter. There has been more active buying during the past few days than at any other time during the month. That is contrary to the usual run of things as the last week in August is looked upon as the worst week of the year. There continues to be, however, a marked scarcity of high grade butter and an accumulation of medium grades, but firsts and seconds are moving much more freely than was anticipated. The hot weather that has prevailed throughout the central west of late still shows its mark in the quality of the butter that is being received. Many makes which ordinarily are graded as strictly fancy are selling as firsts. In addition there is a great shrinkage in quantity of output. With many creameries the shrinkage amounts to fully 50% of their June make. With the passing of the summer months, with their heat and flies, there will undoubtedly be a gradual increase over the amount produced at present.

Demand continues strong for extras and higher scoring butter. Because of that demand there has been an increase in quotation of one cent since last week. Extras which at that time were quoted at 46c have now reached 47c and the market is firm. The increase in price during the week has been gradual. On Thursday of last week there was an increase of one-half cent; on Monday there was a further increase of a quarter cent; and today the 47c quotation was established. There is a strong demand for unsalted butter with a very limited supply. Usually a shortage of unsalted butter is followed by a great influx, hence that condition will probably be improved during the next few days.

Quotations other than those mentioned above are: Higher scoring than extras (93 score or above), 47½@48c; firsts (88 to 91 score), 44½@46½c; and seconds (83 to 87 score), 42 to 44c. Quotations on unsalted butter are at a differential of one to one and a half cent above corresponding grades of salted butter.

W. B. LIVERANCE.

Index Ready

The index for volume 55 of Hoard's Dairyman is ready for distribution. Those desiring this index may secure it for the asking. Address a postal to Hoard's Dairyman, Ft. Atkinson, Wis., and state: "Send me index for volume 55." Sign your name and address plainly. There is no charge for the index.

The government has requested that all publications be saving of paper. This is the reason why we are not mailing the index to each one of our subscribers as has been the custom. We shall, however, send the index to very one desiring it.

Manure from Army Remount Depots

Endeavoring to secure proper utilization of manure from Army Remount Depots, the War Department calls attention to fertilizer topics of timely interest to American farmers.

At prevailing market prices the principal fertilizing elements in a ton of stable manure are now worth about $6.65; yet much of the manure is being sold at camps for less than $2 per ton. Hitherto, only farmers near large cities could secure manure in quantity, but the establishment of Army Remount Depots near the army camps and cantonments now makes large supplies of manure available to districts which hitherto have suffered a serious disadvantage.

The U. S. Food Administration calls attention to the fact that every army camp and cantonment now has a reclamation officer whose duties include not only the salvage of kitchen waste and a great variety of supplies, but also the satisfactory disposition of stable manure. This source of fertilizer should be of interest to farmers both from the standpoint of good farm management and of the nation's future food supply.

Dairying is one of the largest of the agricultural enterprises of this country and the war demands upon it will be in proportion to its importance.

CHANDLER SIX

FAMOUS FOR ITS MARVELOUS MOTOR

You Need the Very Best of Motor Cars

YOU men of the farms who are doing big things, bigger things in these days than ever before, and *getting more* for doing them, must demand the highest efficiency in all your equipment.

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The Chandler, famous for its marvelous motor, now in its sixth year without radical changes but with such constant refinement that the whole mechanism of the chassis approximates perfection, is the type of car you want and need and will get the most out of.

And there is no other car of this type so good at such fair price.

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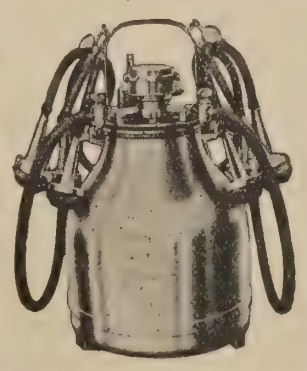
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The Burrell proved a great economy during peace times. Now, because of the increased cost of labor, it is doubly profitable and will pay for itself in a very short time.

Write for our pamphlets which tell all about the modern features of the Burrell which make it the most profitable milker.

D. H. BURRELL & CO.
501 Albany St., Little Falls, N. Y.
Makers also of "Simplex" Cream Separators and other "Simplex" Specialties—the Best in the World.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. HOARD'S DAIRYMAN, Ft. Atkinson, Wis.

EDITORIAL COMMENT

IN reply to a notice of expiration one of our subscribers writes: "Why, God bless you, there is so much good in Hoard's Dairyman that we must have concluded it was a part of the great system of salvation which we understand to be free the world over, from heaven above to all below.

"Sure, send it along."

THERE are sections of country this year that have learned a new lesson concerning the value of the silo. Drouth has injured the corn crop in some areas of the corn belt and the Southwest. If it had not been for the silo little feed would have been gathered from these drouth sections. In Texas some corn was ensiled in July and now other sections farther north are ensiling corn because the drouth cut the crop short.

A BAD fashion seems to have taken possession of many of our friends who write us letters. They use a lead pencil instead of a pen and ink. This, when letters are closely written, is very trying on the eyes, especially old eyes like those of the Senior Editor. The sharp contrast between black ink and the white paper makes all writing, and especially poor writing, a great deal more legible. The pencil may do for newspaper work if clearly written, but it is unbusinesslike to use it in writing private or business letters.

EVERYBODY is interested in the subject of alfalfa winter-killing. In favorable winters it does not matter how the field of alfalfa is treated in the fall,—it will come through in good condition. But since no one can foresee the kind of winter that is before us, it is well to follow the splendid suggestions made by L. F. Graber in Hoard's Dairyman, page 155, concerning the handling of a field of alfalfa.

It should be noted that if it is desirable to keep alfalfa from winter-killing, it should not be pastured or cut later than September 5th.

THERE is a better demand for butter now than a year ago and the price is about four cents higher. The navy and army are requiring large amounts of butter, the navy contract amounting to 500,000 lbs. for September. The allies would use large quantities of butter if they were able to get it. The shipping capacity is short at present. The home demand for butter is very good and June butter is being sold from storage.

The brisk demand for butter from all sources promises a good price for this commodity this winter. There is less butter in cold storage now than one year ago. The condition of the butter market should be encouraging to those who sell their milk or cream to the creamery.

THERE is no danger of any shortage of dairy products in this country if the consumer will buy them at a fair price. It is unfortunate that the prices of dairy products have not advanced in the same proportion as other farm products. There is no reason why the dairy farmer should sell his products relatively cheaper than other farm crops. Milk is still the cheapest animal product on the market.

Those who know the importance of milk to the welfare of the nation should ever bear in mind that dairy products will be adequately supplied if the prices paid for them are in keeping with the prices of other farm products. Dairymen can easily increase the production of their herds by a better system of feeding their cows. At the present time there is a shortage of market milk, but advance the price and there will be an increased supply.

SINCE the outbreak of the war we have had those interested in the welfare of dairying claim that dairymen were selling their cows and going out of the dairy business. There are instances where dairymen have done this, but we can gather no information which leads us to believe this practice is at all general. The present demand for cattle and the high prices being paid for them for dairy purposes do not indicate many dairymen are sacrificing their cows to the butcher.

Recently a buyer came to Wisconsin for dairy cows and paid $110 for very common grade Guernsey heifers weighing less than 900 lbs. and offered as high as $200 for good grade Guernseys. He could not buy the best grades for $200 apiece.

We believe as long as the prices for dairy cows for dairy purposes are higher than for beef purposes, there is no danger of dairy cows being sacrificed to the butcher. The high prices of feed and the shortage of labor may lead to selling more of the poor dairy cows. This step would improve dairy conditions.

WHEAT AND PHOSPHORIC ACID

One of the essential elements of plant food is phosphorus. Wheat particularly needs it. Soils which have been cropped for many years are very likely to be deficient in available phosphorus. The government is asking for a larger acreage of wheat for 1919 than it did for 1918. One of the most effective and sure ways of securing a larger yield of wheat is through the application of phosphoric acid. This compound contains phosphorus in a form that the plants can use it the first year. It is in, what is termed, the available form.

The price of phosphoric fertilizers has advanced the past few years, but upon this point Chas. J. Jones, county agent of Indiana, says:

"In the year 1914 it took 22.7 bus. of wheat selling for 75c per bushel to pay for one ton of 16 per cent phosphate costing $17. In the year 1918 it will take 13½ bushels of wheat selling for $2 per bushel to pay for one ton of 16 per cent acid phosphate costing $27. Fertilizer is far cheaper today in proportion to the value of wheat than before and no man should consider an application of less than 200 lbs. per acre and he will find if he makes a 300-lb. application that his crop will go into the winter in better shape, will be more resistant to insect pests and disease, and will make a bigger yield and net considerably more profits than otherwise."

It may be said that for spring wheat this fertilizer should be applied just before seeding.

TRACTOR AND FOOD

One of the duties of this country is to produce more food. The tractor this year helped to lighten the heavy burdens of the farmer and to increase his service. The great advantage of the tractor, on the average farm, is that it helps admirably in doing heavy work rapidly. In the spring horses are soft and cannot be forced to do a big day's work without danger of permanent injury. It is highly desirable that crops be planted in season and this is not easy to do unless extra horses are kept for unusual conditions.

Where a tractor is owned it can be worked early and late. If necessary, plans can be made so that two men can keep it in the field 15 to 18 hours a day. The extra work which can be done with the tractor and the need of doing spring's work on time makes the tractor highly desirable. Most farmers keep more horses than is needed for steady work, because every farmer knows there are times in rush seasons when he must have extra power Those owning a tractor find they can get along with fewer horses, because it will stand crowding and works as well on a hot day as on any other.

It will not only save horses in this respect, but it prevents the horses from being drilled down to a low physical condition. In being able to carry extra loads when most needed it also saves man power, making it possible for a man to do more.

Getting crops in the ground on time invariably means a larger yield. We used a tractor on Hoard's Dairyman Farm this year and found it very satisfactory for getting work done quickly and it saved our horses and mules. In these times of shortage of farm labor farmers may well consider the use of the tractor to help them, especially through the rush seasons. It should be remembered that the engine may be used for threshing, filling silos, shredding corn, and other belt purposes.

FUTURE OF DAIRYING

In the past year we have mentioned the factors which we consider will provide a bright future for dairying. The times are trying the souls of all men, and especially those owning large herds of cows. The shortage of labor and the increased burdens of the farmer make his task unusually hard. But there is a silver lining to every cloud. Carl Vrooman, assistant secretary of agriculture, has brought a cheerful message to the dairymen of America, even though it points a dark picture of Europe. He says:

"The dairy herds of the old world are depleted to an appalling degree. There is not a country in Europe where the people have enough dairy products, and this process of depletion is going on every day, and every week, and every month, and will continue to go on so long as this horrible war lasts. When this war is finished we will find the world with a demand for dairy products two-fold, four-fold, ten-fold greater than the supply. Europe will come to us with outstretched hands—every country in Europe—and say to us: 'We must have milk; give us canned milk; give us dry milk; give us butter; give us cheese; give us dairy cattle; give us animals to build up our dairy herds again.' Unless America has stimulated the production of dairy products, and increased our supply of dairy animals far beyond anything in the past, we shall be utterly unable to supply this demand. We will supply as much of it as we can, because they are going to be willing to pay practically any reasonable price for our live stock; and we will supply so much of it that our own resources will be exhausted. Then this country will be without sufficient dairy products."

Our dairymen everywhere should lay plans now to meet the demand for dairy products and cattle that is bound to come after the war.

J. H. McVay, a soldier "over there", writes us his opinion about dairymen raising cows:

"Before I left home, I heard farmers say: 'Oh I'm going to sell my cows—feed is too high and my income too small, etc.' If these same farmers could only look ahead and realize what their herd is going to be worth as soon as we knock the war ideas out of Kaiser Bill, they would change their tune and would scratch and pinch to increase the herd.

"There is going to be an unheard of demand for *good* cows and the fellow who is foresighted enough to raise calves now is going to reap his harvest as soon as peace is declared.

"You see I haven't read a copy of Hoard's Dairyman for some time, so don't know what you are doing along these lines. But—if you will permit a suggestion from a soldier from Wisconsin—tell the cow man to prepare now for what is coming very soon,—peace and a call for good cows and more cows."

SWISS CHEESE AND QUALITY

For years Wisconsin has been making a fine grade of Swiss cheese. The best grade has been equal to the imported Swiss which is sought by those fond of fine Swiss cheese. Because of its reputation, imported Swiss has invariably sold for higher prices than domestic Swiss. Up to the time when the pure food laws went into effect much of our domestic Swiss was sold for imported. This could not have been done successfully unless it was of high quality.

Dr. H. L. Russell, who has been serving for the past year in the United States Food Administration, warns the Swiss cheese industry regarding the present practices of selling new cheese. He in part says:

"Since the discontinuance of the importation of Swiss or Emmenthaler cheese from Switzerland into the United States by reason of the embargo on shipping, an exceedingly keen demand has developed for the domestic product which is so largely made in Southwestern Wisconsin. The result has been that the price of round or tub Swiss cheese has advanced so rapidly within the last year or two that its wholesale price now is more than twice what it normally was under pre-war conditions. Under these exceedingly active market conditions a very keen competition has developed among the buyers with the result that the cheese is taken from the curing shelves at a relatively earlier date than formerly.

"The buyers now in their scramble for the product on an advancing market are taking the uncured cheese and when this uncured cheese is placed in cold storage, or not cared for as is possible in the factory, the result is that the quality of the cheese is to a greater or less degree adversely influenced.

"We may rest assured in Wisconsin that after the close of the war when commercial relations are resumed with Switzerland, that country will use every effort to regain its trade here in America by the shipment of high quality product and if the quality of our domestic Swiss cheese declines by virtue of this injurious trade practice of buying closer to the press, we will be put in a disadvantageous position to compete with the better imported type."

In other words, now is the time for the Swiss cheese industry of the United States to establish a reputation for its product. This can be done by placing on the market a high quality of Swiss cheese. Selling cheese before its grade can be determined and before it is properly cured will not secure and hold the best market for our domestic Swiss cheese.

Tail Holding Device

In your issue for July 12th you published a series f pictures of a "Holland Certified Dairy". I otice in one of these views the cows are shown ith some kind of a tail holding device. I have pent a good deal of time on the matter of control- ng the tails and would like to have the details of ne arrangement shown in the photo explained. understand most of the animals in the better class f stables in Holland are thus equipped so it must e a practical sort of device.

Amherst, Mass. R. H. W.

With the exception of a few dairymen, we find in Holland the cow's tail is tied up with a string dur- ng stable time, that is, from October to May, a eriod in which the cow never leaves the stable. he purpose of this holding up of the tail is to revent the cow from soiling herself by switch- ng with the tail in the gutter. Behind and above he cows is stretched a wire with iron rings and o the iron ring is attached a string at the end of hich is a small leather strap. In the tail itself special kind of straw is twisted to a knot and bove this the leather strap is attached. The tring is made long enough not to bother the cow hile she lies down. The cow's tail is, moreover, hortened a little during stabling time, the comb- ngs being carefully saved for making strong opes, filling of harnesses, etc. Much care is taken f the tails as these are considered an ornament f the animal, and it cannot be denied that the egular washing and combing of the tails makes a ood look in the barn.

In summer time the cow's tail is left at liberty, f course; first, because they are in the pasture and econdly, because most of the Holland dairymen onsider their animals rather as family members nd would not allow any torture purposely done to he animals. They endure switching of the tail uring milking time with patience.

However, some sanitary dairies tie the tails dur- ng milking time but only for the sake of prevent- ng dust falling into the pail by the switching and o not disturb the milker. These dairies use a imple tailholder of aluminum or tin, resembling a air of long handled pincers. The end is provided vith a removable buckling, the top part is com- osed of two small blades with points on the inside urface and between these blades part of the cow's ail hairs are pinched. As it is a custom in Hol- and that during summer time the cows are milked n the pasture, never in the stable, some dairy- nen tie the hind legs with a rope and tie in that nanner at the same time the tail between the eg and the rope. On our farm we have never and vill never practice this method. The cows are nilked absolutely free in the pasture or corral.

Colorado. L. DIJKSTRA.

Winter Wheat Queries

We have two acres of land in barley now and as oon as barley is off will plow it and put in winter vheat. What variety would you say for this lo- ality? Could we use a fertilizer to good advan- age? We intend to use this land for pasture and vill seed it down in the spring. If we could use a ertilizer, tell us how much per acre and what kind. We thought we could put the fertilizer in the grass eeder attachment or mix it with grain. Tell us vhich is the best way to apply it. How many pecks per acre do you think best with a drill? Give us ny information you can in regard to growing vheat as soon as you can.

Through reading the Hoard's Dairyman we've ot two cows in the Register of Merit this year, one aving 2 calves in the year and the other having er second calf. Good for beginners, we say.

Edgar, Wis. H. BROS.

Winter wheat does well in Marathon County. his is especially true of the pedigreed winter va- ieties that can be secured through the growers of he Wisconsin Experiment Association. We would uggest the use of Wisconsin Pedigree 2 or 408. he land should be plowed as early as possible after he crop of barley is taken off. The land for fall rops should have sufficient time to settle before utting on the crop. By plowing early the ground ettles down to its natural condition, thus getting he proper air and moisture circulation. This will nsure rapid germination. Where fall grains are put n to ground that has been recently plowed it re- uires two or three weeks occasionally before the rains will sprout and grow properly.

No commercial fertilizer will give the excellent eturns that barnyard manure will. We are en- ouraging the use of barnyard manure whenever it an be secured. A topdressing of barnyard ma- ure after plowing the land would give excellent esults for wheat. This manure could either be isked in, or, if applied with a manure spreader nd it was well rotted, could be left on the surface fter seeding. Whether applied before seeding or fter seeding would depend upon the coarseness of the manure. It will be preferable to leave it on top if the manure is well rotted, sowing the wheat first. If barnyard manure cannot be obtained the wheat usually would be materially helped by using 200 lbs. of acid phosphate per acre. This can be put on immediately after the land is prepared for the grain. Do not think it advisable to use grass seeder attachment for putting on commercial fertilizer. For small acreages this can readily be sown by hand if no fertilizer machine is upon the farm.

The wheat, if put in with drill, should be sown at the rate of 1½ bushels per acre. If broadcast seeder is used put in one peck extra.

If this particular tract of land is to be left for permanent pasture our advice would be to sow pedigreed rye instead of wheat. Put in the rye the first week in September, and sow one bushel and 3 pecks per acre. Rye makes an excellent fall pasture for all classes of live stock. If snow is not deep stock can be pastured well down into the winter. In early spring the grass mixture can be sown on top of the rye crop. If sown before the frost is out of the ground no dragging will be necessary. However, a light dragging will not materially injure rye. We find rye one of the most desirable crops to sow grass seeding with. For permanent pasture we would recommend 1 quart alsike clover, 2 quarts medium red clover, 3 quarts timothy, and from 4 to 6 pounds of Kentucky blue grass seed per acre. The rye field can again be pastured in the spring down to the middle of May. The stock should then be taken from the field and the rye will ripen and can be harvested in the usual way. As soon as the rye is taken from the field the grass seeding will have made such an advance that it can be pastured lightly during the remainder of the summer and fall. R. A. Moore.

Wisconsin College of Agriculture.

Sorghum Bagasse Silage

There is a sorghum and syrup factory being built within a short distance of me and they are building a silo to put the crushed cane in after having the sugar removed. What data have you as to its probable feeding value? Would it be practical to buy it for 6-month-old calves and 2-year-old heifers?

Ottawa, Kans. R. G. B.

Sugar cane or bagasse may be ensiled and will make a fair grade of silage. The cane tops and the leaves, which are removed before running the stalks through the mill, will also make good silage if run through the usual silage cutter. This material should not be wasted, particularly when we consider the high price of other feeds and the danger of shortage of feed.

A year ago, Professor C. E. Mauldin of the Louisiana Experiment Station sent us the following discussion of the use of bagasse:

"During the winter of 1916—17 at the Iberia Live Stock Experiment Farm, four lots of native steers were fed on sugar cane bagasse with cottonseed meal, and cottonseed meal and molasses. The results, however, were not encouraging as the steers did not consume sufficient bagasse to make satisfactory gains. The average composition on the dry basis of bagasse from four analyses was as follows: Crude protein, 2.31; fat, 1.2; carbohydrates, 46.66; crude fibre, 45.24; water 1.84; ash, 2.45.

"The practical feeders who have used cane top silage report profitable returns. Cane top silage has been fed at the Iberia Live Stock Experiment Farm in comparison with corn; corn and soy beans; corn and sorghum; corn, sorghum, soy beans, and cowpeas; Japanese cane; and whole sugar cane silages with satisfactory results when supplemented with cottonseed meal.

"During the past winter at this station silage made from frost bitten cane tops showed a profit of $9.00 per ton when fed to native steers with cottonseed meal and molasses, molasses being used only as an appetizer. The value of the tops in this instance for silage was almost twice that of cane for sugar—and there are four million tons of cane tops wasted in the sugar cane producing district of Louisiana annually. The dairyman who has free tops available will find it very profitable to ensile them for his producing cows, as well as his growing stock. Cowpeas or soy beans mixed with the tops will add to the feeding value of the silage."

This somewhat discouraging report brought out the following expression of opinion from one of our subscribers located in the state of Georgia:

"My experience with feeding sugar cane bagasse has been most favorable, warranting the conservation of this heretofore waste in the South.

"As I understand, the Louisiana Live Stock Experiment Farm in 1916—17 did not handle the material the way that appeals to me as the best. As soon as the juice of the cane is expressed I shred the remaining cane stalks and all the tops and run them promptly in a silo. A load of dry cornstalks direct from the shocks in the field is shredded and alternated with the cane, i. e., a load of bagasse and a load of cornstalks. Sufficient water is sprayed on the shredded material, as it is blown into the silo, to dampen the whole to proper wetness.

"Dairy cows eat this sugar cane bagasse greedily when mixed, as I feed it, with peanut meal. A better flavored milk I have never tasted than that produced from the above described feeds.

"It is not to stop spending money for comforts and conveniences that the best friends of southern agriculture desire, but senseless waste should be avoided by all true economists."

Other readers who have had experience with sugar cane bagasse will confer a favor by writing us of their opinion of this feed and how they handle it.

Salt—Poison from Nightshade

Please advise me if young heifers one or two years old, living on blue grass and timber pasture, will die if not provided with salt. Will the 50-lb. pressed blocks provide sufficient salt?

Will they eat nightshade? If so, will it poison them, and cause death?

Sterling, Ill. S. K. G.

Animals which are not supplied with salt may not show any immediate bad effects. However, their bodies are constantly being run down in vitality and after a period of time they suffer very greatly and will perhaps die unless salt is supplied in some form.

There is considerable variation in the mineral content of vegetation from different soils. It is possible that animals on some particular pasture might survive a good while without showing ill effects from the lack of salt. However, salt is so cheap that it is out of reason to experiment on this point. The best practice is to keep a liberal supply before animals on pasture at all times. Cattle are altogether too valuable at this time to take any chances when so slight a cost will make the ration safe on this point.

Rock salt or pressed salt in blocks is satisfactory. The waste will be very much lessened if some protection can be provided for the salt so that rains do not dissolve and wash away a large part of it.

There are many different kinds of nightshade. A few of them are poisonous but the great per cent of them are not poisonous. Normal animals will not eat plants of the nightshade family if they are fed liberally. If a part of a pasture has a great deal of nightshade, it would be wise to take special pains to eradicate it. However, if a pasture supplies abundant feed or if it is supplemented liberally with other feeds, there is relatively little danger that cattle will be poisoned from eating nightshade.

Potatoes to Sows

We have two young bred sows and were recently advised by a rancher to not feed old potatoes that have sprouted. We have a bunch of old potatoes and which we had intended feeding these sows, but if they would have any ill effects in any way whatever, would not think of feeding them.

If you will kindly give me your views on this above matter, I will much appreciate the favor.

Denver, Colo. W. A. W.

Potatoes do not contain suitable food nutrients that they may constitute the entire ration for hogs. Potatoes should be fed in conjunction with concentrates and should always be cooked before feeding to hogs.

At the Wisconsin Experiment Station potatoes were cooked in an open kettle with a small amount of water and with corn meal added so that a thick mush was formed. This feed mixture was compared with results secured when hogs were fed corn meal soaked in water. Seven hundred and eighty-six pounds of potatoes made a saving of 178 pounds of corn, and 442 pounds of potatoes were made to take the place of 100 lbs. of corn meal.

In some experiments which were carried on across the sea it was found that on the average it took about 400 pounds of potatoes to replace 100 pounds of mixed grain. In a few experiments the quantity of potatoes necessary to replace 100 pounds of mixed grain has run down as low as 340 pounds.

As long as potatoes are mixed with concentrates and no attempt is made to supply the entire ration with potatoes, and so long as the potatoes are cooked before feeding, we recommend that good returns may be secured from feeding potatoes to hogs.

Keep Your Liberty Bonds

HOLD to that bond. You invested to help send the boys across. They are over now, at grips with the German monster. You expect them to hold on—hold on till the last vestige of autocracy is crushed out of him. Then you, too, must hold on—must keep your enlisted dollars invested on the fighting line.

It isn't the hooray of a campaign that wins a war. It's the will to hang on, to make sacrifice today, that tomorrow may bring victory.

And your investment. Those bonds are the safest investment you ever made. Don't be lured into exchanging them for the "securities" of some suave get-rich-quick operator. Big returns may be promised but the bigger the promised returns the bigger the risk.

If you have to have money, take your bond to any bank and use it as collateral for a loan. There is no security the banker would rather have—nothing on which he will lend more willingly.

Don't use bonds to buy merchandise. The average merchant, accepting your bond in trade, sells them immediately, thus tending to lower their market price and taking away from the buyer of your bond the ability to lend a corresponding amount of money to his Government. Liberty Bonds are meant to help your country at War; are meant for investment and to provide an incentive for saving and a provision for the rainy day.

Hold fast to your Liberty Bonds. Hold fast for the sake of the boys "Over There." Hold fast because it is good business.

UNITED STATES TREASURY DEPARTMENT

Contributed through Division of Advertising

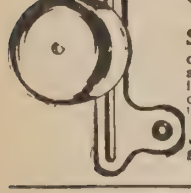
United States Gov't Committee on Public Information

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HOARD'S DAIRYMAN



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The 1916 Improved
STANCHION
Is giving thorough satisfaction, write to
"HUMANE STANCHION WORKS,"
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BY USING A
Simple Speed Indicator
on your cream separator. Fits any make of separator. Attached in two minutes; easy to adjust; controls speed of machine; absolutely accurate; can't get out of order. Price $2.00. Agents wanted. Splendid proposition.
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The "STAY THERE"
Aluminum Ear Markers
are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalog and prices mailed free. Ask for them.
Address Wilcox & Harvey Mfg. Co., 568 W. Randolph St., Chicago, Ill.

Have you talked with your neighbors about subscribing for Hoard's Dariyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Children Tell How to Banish Cattle Fever Tick

How children are interested in the campaign to banish the cattle fever tick from the United States was shown in a recent prize essay contest among the school children in Bowie County, Texas. Interest was stimulated by prizes offered by the Texarkana Chamber of Commerce, members of which are strong advocates of tick eradication and appreciate the need of lining up all ages in support of the campaign. Similar essay contests are being planned in a number of other communities where tick eradication is in progress.

Of the large number of essays submitted in the Bowie County contest, that written by Miss Mabel Hatcher was judged to be the best and the writer received the first prize. Her essay follows:

Tick Eradication

"We have a pest called the cattle fever tick. The exact origin of this pest is not known. It is, however, quite probable that they were introduced into our country with the importations of cattle by the Spaniards during the early colonization of Mexico and the Southern States. Since then they have spread rapidly. At first the fully developed female lays from 1,500 to 3,000 eggs. These eggs are of a waxy brown in appearance. The time required for the development of these seed ticks varies from 13 days to 6 weeks. Much depends on the moisture, temperature, and soil.

"The seed ticks are very small and six-legged parasites and resemble the egg in color. They are about three-sixteenths of an inch in size. These crawl about in large numbers, forming an ambush on grass blades, shrubs, or other convenient plants, and here await the approach of a horse or cow. After fastening themselves to the cow they draw the blood from her. After living thus for one week they shed their covering. Then we have an eight-legged tick. The female tick is much larger than the male. The male after satisfying his greedy appetite falls off. The egg-laying tick, who had by this time turned an olive green, drops off also to lay her eggs in the grass, and thus starts a new tick family. These ticks, having completed their short but harmful lives soon die.

"Perhaps we have never thought of the harm and continual loss they cause our country year after year. Yes; they are very harmful indeed, but only to cattle. They, the cattle, are infected with the terrible tick fever by being bitten by the fever tick, and death is certain to follow. Therefore you lose a fine cow when you could have prevented it. You wish to sell the hide after you lose the cow, but find that it too has been damaged; therefore, because of the roughness of the hide, you do not get as high a price as you otherwise would have gotten.

"This loss is preventable. Why not prevent it? The cost is not great either. Thanks to the Department of Agriculture we now have a medicine which will kill all ticks which are wet with it. The best and easiest way to dip the tick is to dig a long, deep trench—line this with concrete and cement so as to hold water. This is a dipping vat. Fill this with water and put in the arsenic and other necessary medicine. The cattle are then made to swim through this arsenical dipping solution. This kills the tick without injury to the cattle.

"The cattle are driven back to the pasture and there become traps for other ticks. In two weeks longer they are again dipped. This dipping is kept up all spring and summer. The ticks are then destroyed. When your country is tick free do not allow any ticky cattle to be shipped into your tick-free country. Tick eradication is just one of the many ways in which the farmers can show their patriotism and serve their country well. If you can't carry a gun you can at least eradicate the tick and thus aid in the production of meat for our boys who are fighting so gallantly in the trenches for us and their country."—U. S. Weekly News Letter.

Cows in a Potato County

The Stockton Boys' and Girls' Calf Club, a section of the Portage County, Wisconsin, Junior Calf Club, held a live stock institute on August 8, that proved to be a notable success. The young people exhibited their live stock and the neighbors brought in their pure-bred live stock, a little community fair being held that was a credit to the neighborhood and a source of education to the entire community.

On farm after farm in Portage County can be seen the old hop houses once used for the curing and drying of hops. Now they are invariably used for housing a silo. Silos are springing up rapidly in Portage County. This has long been known as one of the big potato counties of the state. The pure-bred sire is also making a good showing. The well bred dairy cattle and the numerous silos are pretty much responsible for the fine looking crops to be seen.

This splendid meeting originated at a business meeting of the Stockton Calf Club, an organization of eight boys and girls who are expert calf feeders and are very much interested in club work. They planned the meeting as a place to exhibit their calves. Last winter with the help of their leader they each secured a good heifer calf. A number of them bought their calves from the best dairy section of the state. They have kept a very businesslike record of the cost of feed, labor, and the gain of their calves. They have been holding club meetings at which such practical problems as proper rations, proper feeding, care, diseases, treatment for lice, etc., were discussed in a very practical way. These boys and girls are going right after the dairy cattle business, and in a very practical way. They are sure of two things. It pays to feed and care for a well bred dairy calf, and it does not pay to raise a dairy calf that is not well bred.

J. M. COYNER, County Agent.

Dysentery

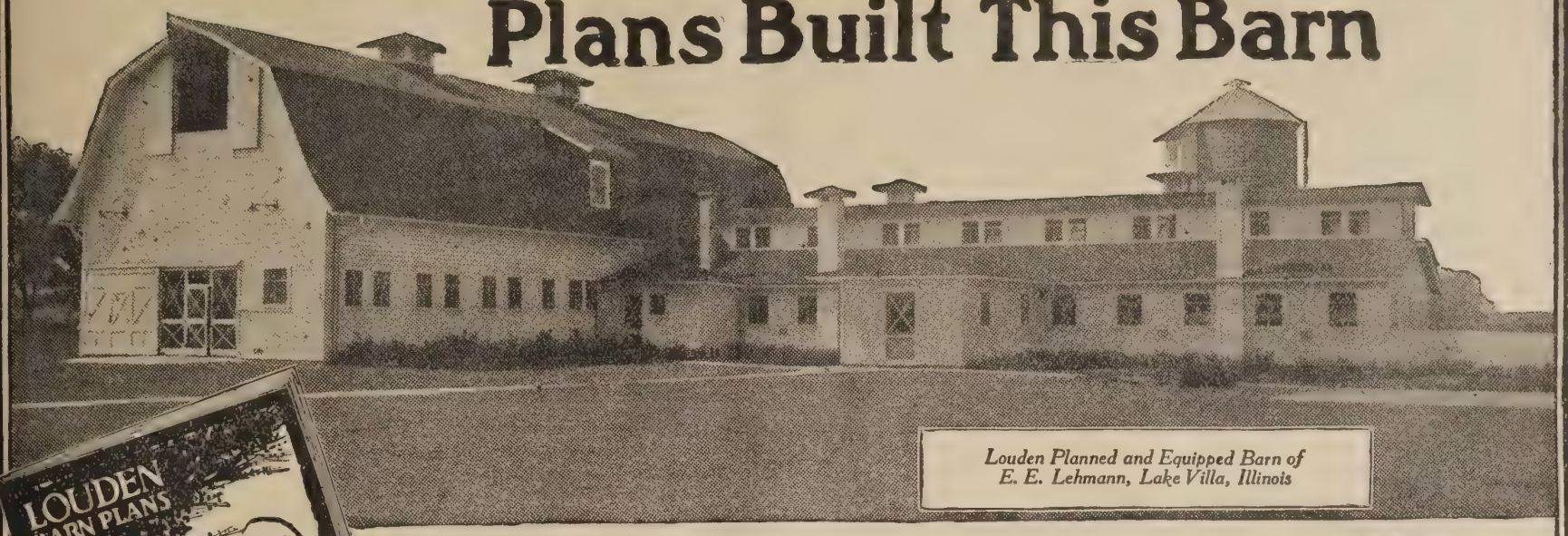
I have a Jersey bull 15 months old. For the past few months he has been bothered with looseness of the bowels, seems strong, eats well, and is in fairly good flesh, but is dobbed up around the vent all the time. Can you prescribe something to stop it? He pays little, if any, attention to a cow when in season. Would the looseness have anything to do with this?

Decatur, Mich. W. S. F.

It is quite likely that the young bull is afflicted with chronic bacterial dysentery (Johne's disease) which is contagious and incurable. The disease might be definitely diagnosed by a microscopic examination of scrapings of membrane from the rectum. Take the matter up with Veterinary Department of the State Agricultural Experiment Station. Meanwhile isolate the bull and cleanse, disinfect, and whitewash the place he has occupied. There are many other causes of looseness of the bowels, but it is well to be on guard lest Johne's disease be present. Give the bull boiled milk freely two or three times a day and add cottonseed meal to his ration. If looseness persists and Johne's disease is not diagnosed, give a full dose of physic under veterinary direction and follow with doses of triple sulphocarbolate tablets which the doctor will prescribe.

LOUDEN

Plans Built This Barn

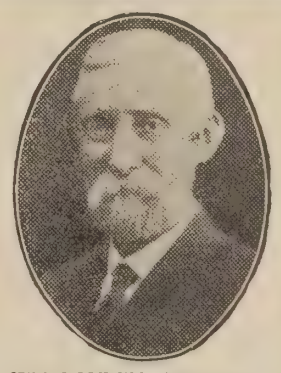


Louden Planned and Equipped Barn of E. E. Lehmann, Lake Villa, Illinois



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If You Expect to Build or Remodel a Barn

Louden Planned Barns represent the most advanced type of barn for convenience, economy and profitable operation. They embody ideas in construction, arrangement and equipment which are proven by practical experience to meet every requirement for maximum efficiency.



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does away with guess work in planning your barn—gives you a barn which will exactly meet your particular needs for all time—the most for your money in housing and storing capacity, in proper lighting, ventilation and drainage, in labor-saving conveniences, in health and comfort for your live stock.

We Make No Charge for carefully considered advice and preliminary plans, made to suit your particular needs. Give us some idea of what you have in mind, state the number and kind of stock you wish to care for, and our experts will work out a plan that will save you time, worry and money—without cost or obligation on your part.

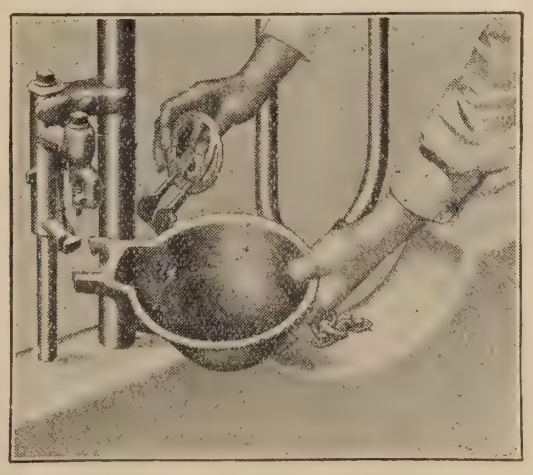
Get This Book Before You Build

Louden Barn Plans is written especially for farmers and dairymen who contemplate building or remodeling barns. It is not a catalog. Its 112 pages are devoted entirely to barn building—a complete, simple, practical guide, written in a manner which any one can understand, with numerous illustrations—printed in type large enough to be easily read. Here is a partial list of contents:

74 illustrations of barns of all styles and sizes and other farm buildings, with estimated cost and full description of each, including floor plans.
Concrete work—foundation, floor materials necessary, cost.
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Superstructure with details of framing.
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Supplying cows daily with plenty of fresh, pure, even-tempered water is a man's job and a big one—absolutely necessary to quantity and quality milk production. Milk is 87% water; the average cow needs ten gallons of good water per day to keep up her milk yield.

Louden Improved Water Bowls cut out fully 90% of the labor. Waters cows regularly, automatically, whenever they need it—without attention.

Only Bowl That Can Be Easily Sterilized

The Louden Bowl is firmly held in place, but can be removed and reset in less than a minute's time. By simply raising the nose piece into a vertical position, it can be lifted from its fastening. Has no set screws to rust, no supporting lever necessary, no collar connection, or other trouble-making fittings that require adjustment.

The Louden Bowl represents the most definite improvement for indoor watering that has ever been offered you.

Any ordinary help can install the Louden Bowl in any barn.

Let us send you Illustrated Literature giving full information on this great labor saver.

You Need Louden Labor-Saving Barn Equipment

Louden Labor-Saving Barn Equipment is a necessity in the dairy barn. Saves man-power—enables you to clean the barn, feed and water the stock and do other chores with less help, in less time. Distinctive in simplicity, strength, convenience, safety and comfort for live stock. Easily installed in any barn—as profitable in the smallest as in the largest barns.

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I expect to build (remodel) a barn about (date)

.....for.....cows..... horses.

Name.....

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1241 Court St. (*Established 1867*) Fairfield, Iowa

Branches: St. Paul, Minn. Albany, N.Y. Chicago, Ill.

COOL IT QUICK

With a C-P Dairy Conical Cooler

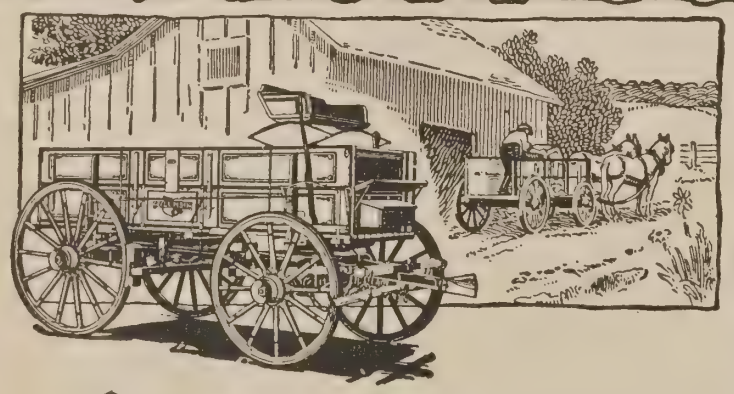


As soon as it comes from the cow or the separator is the time to cool your milk. Immediate cooling makes the milk stay sweet longer. You can do this without extra trouble by using the

Dairy Conical Cooler

This rapid cooler reduces the temperature of the milk in ONE MINUTE to nearly the temperature of the cooling medium. Not only cools the milk but completely aerates it, removing all feed and stable odors.
THIS IS HOW IT WORKS: The C-P Conical Cooler is made of tin or copper in the shape illustrated above. The inside of the drum is filled with ice water or cold running water (a hose can be attached). The milk to be cooled is poured in the bowl and trickles slowly from this over the sides of the drum in a thin sheet. The thin sheet of milk flowing over the cold drum surface is cooled very quickly. The top is removable so that ice may be put directly into the cooling drum.
The Dairy Conical Cooler is automatic in the way it works; is simple in construction and can be as easily cleaned as a common milk pail. Costs so little and works so well that you cannot afford to be without it.
Tin coolers made of the best quality tin with galvanized bottom. Copper coolers are made entirely of copper.
Made in three sizes—the smallest size with a capacity to handle the milk from ten to twenty-five cows—and the work of three milkmen COST ONLY $7.00 in tin. Shipping weight 25 lbs. Prices of copper cooler and larger sizes on application.
Get your order in before we have to advance these prices. Our Dairyman's Catalog on request.

THE CREAMERY PACKAGE MFG. COMPANY,
68 W. Kinzie Street, Chicago, Ill.



Capacity Guaranteed

TELL the dealer you want a wagon that the manufacturer will guarantee to carry your biggest load. If he is up to date, he will show you a **Weber** or **Columbus** wagon with its capacity stenciled in plain figures on the rear bolster. That is the new idea for protecting you in your purchase of a wagon.

When you bought by skein size, you could not be sure that you were buying the most economical wagon. Now you can be sure. Every **Weber** and **Columbus** wagon that leaves the factory is guaranteed by the manufacturer to carry a known load over the roads that you have to travel.

Nor is that all you get when you buy a **Weber** or **Columbus** wagon. The folding end gate and link end rods save you a world of time. The fifth wheel, which only **Weber** and **Columbus** wagons have, makes your wagon run easier and last longer. Write us for complete information about these wagons. You'll be surprised at the number of good features they have.

International Harvester Company of America
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CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne

Reaching the Housewives of America

(Continued from first page.)

sumed by adults has been termed by one person as not "sticking to the ribs" until the next meal; the absorbing power of milk requires in many cases special handling in the home. The argument for using only such products as can be purchased in cans has been the elimination of the care of the bottles, extra bill collector, daily placing of tickets, souring of supply, and worry about the quantity required. These statements apply largely to liquid milk.

Milk has inherited a peculiar place in the American home. In many homes it is purchased to supply a little cream for the cereal and coffee, to have a little "bottom" milk for cooking or some to sour for griddle cakes.

The fact that milk is worth as much as thirty-five cents per quart on some markets when its food value is compared with some other staple foods has not been very convincing argument. Many will say "I'll take the eggs" or "give me the steak". In hay pitching time most of us will agree with these statements. The fact that milk should be a part of the diet rather than *the* diet has not been made clear in all cases.

Teach the Housewife More About Milk

When the housewife knows that milk must be kept in the diet as long as possible to insure the proper development of her child it will be kept in the diet. This fact is substantiated by the way the women of the nation have responded to the calls of the Food Administration. Go into any home and if you are fortunate to be "asked" for a meal you will find in many homes original "dishes" for the conservation of the foods needed for the proper conduct of the war. When our women realized that corn bread meant better rations for the fighters, we had corn bread. When they heard the "boys" needed sweaters, they made them. Many just got one sweater made when the word came that the boys needed sox instead of the sweater and immediately they started to learn to knit sox. When they know the full value of milk as a food there will be a healthy increase in the milk business. The cost will be the last consideration. "Thrift" has made the kitchen rule, "buy nothing that can be dispensed with". The ignorance of many, coupled with the increased price of milk, has made the milk bill one of the first "sectors" of attack.

One Way to Reach More Homes

In millions of homes today pints of milk are being delivered when there should be quarts. With the pint of milk might be included a statement regarding the food value, the vitamines, the disease resisting character, the growth producing power, and many other beneficial characteristics of milk. The material delivered with the milk must be considered in the same light as the newspaper man considers his news. It must not be old, worn-out comparisons, or stale news about milk. The recent discoveries about milk give to every salesman of dairy products a field ripe with material for advertisement. The chief motive of the whole plan must be to get the information into the home in such a way that the women that buy the food will become interested.

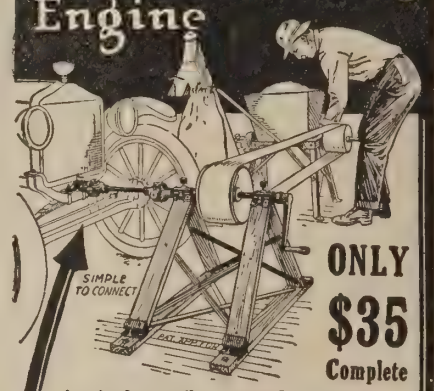
Some Advertising is Harmful

Some dairymen have used as advertising matter the hard luck story of their oppression by large concerns. The American public expects to find a cripple when such material is used for selling points of any article on the market. The only successful selling

FILL YOUR OWN SILO

SAVE $200

Use Your Auto As A Stationary Engine



ONLY $35 Complete

A simple, easily attached, equipment—makes a powerful engine out of your car. Positively no trouble to connect. You don't need any other power engine when you have a Lawrence Auto Power Equipment—it goes wherever your work is—good for 14 H. P. and is economical to operate.

LAWRENCE AUTO POWER EQUIPMENT

Fits—Ford, Dodge, Overland, Reo, Chevrolet 490 and others.
Operates—Silo fillers, feed grinders, grain cleaners, pumps, saws, cream separators, bean hullers and all other farm machinery.
Sold only on an absolute money-back guarantee of satisfaction.
Only $35. Write today for big free circular.
LAWRENCE AUTO POWER CO.
202 W. 3rd St., St. Paul, Minn.

8 FEET MORE SILAGE

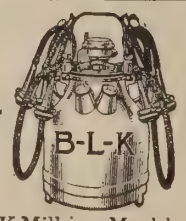


Send at once for FREE INFORMATION on Buckeye Extension Silo Roof. Greatest ever—25% more capacity—protects silage from snow, rain, birds, etc.—no second filling—pays cost first year—many patented features—operates from ground—numerous testimonials—cut shows roof open.

AGENTS WANTED

We can make a good proposition to present silo agents, or others, to handle our line of metal roofs, cribs, bins, etc. If interested, write at once to

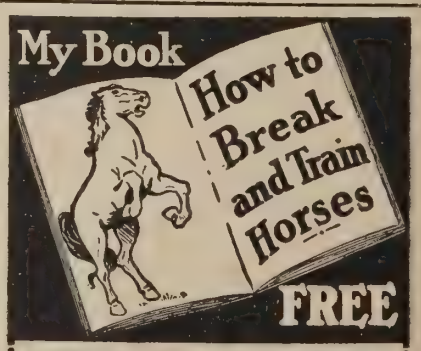
THE THOMAS & ARMSTRONG COMPANY - Dept. 13 LONDON, OHIO

BURRELL  MILKERS

The B-L-K Milking Machine will solve your labor troubles. Write for free booklet and information.

We handle a full line of supplies for the Dairy and Dairy Farmer. Highest grade goods at lowest prices. Prompt shipments.

N. A. Kennedy Supply Co., Kansas City, Mo.



BIG MONEY IN "ORNERY" HORSES

MY free book will amaze you. See the big money that is being made by those I taught my famous system of horse breaking and training! Wild colts and vicious, unmanageable horses can be picked up for a song. By my methods you can quickly transform them into gentle, willing workers and re-sell them at a big profit. You can also earn fat fees breaking colts and training horses for others.

Write! My book is free, postage prepaid. No obligation. A postcard brings it. *Write today.*

Prof. JESSE BEERY, 49 Main St., Pleasant Hill, Ohio

the basis mentioned above is that the peddler of shoe strings or the nd organ man. The publishing of orts of the Food Administration d its attitude toward milk, and the t that five hundred or a thousand nilies are using a product regard- s of cost is, in the mind of the iter, much better advertising.

Knowing the facts about milk and ching them to the housewife and nsient consumer is an effective y to meet the "as good as butter" npaign that has been rampant for ne time. The truth about milk in agricultural press will do its part, per legislation will help, but the cess of the dairy business lies in ching the housewives. When the itude of the housewife has been de favorable, little trouble will be nd in increasing the milk con- nption.

Advocates Oats, Peas, and Barley for Silage

HOARD'S DAIRYMAN:—I note that re has recently been a discussion to the use of oats, peas, and vetch silage, and my experience in St. uis County, Minnesota, may be of erest. I have tried oats, peas, and ch but do not like it as well as oats, as, and barley. This latter mixture an cut with the binder with less or and the material goes through cutter in better shape. In cutting other material with a mower and ing it up there is so much dirt and nes gathered that it is difficult to a good job.

I sow two bushels of Swedish Se- t oats, one-half bushel Canadian d peas, and one-half bushel Oder- icker barley. This is sown on rich, ll prepared land and it makes a d, heavy crop. The barley will en when the oats and peas are just dy for the silo. I do not like to these in too green and prefer to e the oats when they begin to turn little yellow. The cutter should e sharp knives and be set to cut in inch lengths. I run water onto the material and see that it is well ked in the silo. This will make a ge that is not acid and that con- ns a large quantity of grain, mak- what I think is the best silage for northern sections where corn can be relied upon.

I feed this silage to cows and sheep, l have had good results. I find that ch will not yield as well as peas do e. For eighteen years I have tried erent crops for silage but like the s, peas, and barley best of all. rn is all right but I cannot depend n it. However, I would caution r readers to see that the knives kept sharp and are set to cut rt lengths. Every pound will e out in fine shape if it was well mped and a little water added en it was ensiled.

Eveleth, Minn. W. F. H.

The War Mother

A mother's heart! Ah! Who can tell
The pangs of grief it knows?
Or sense the aching void that's left
When forth her soldier goes?

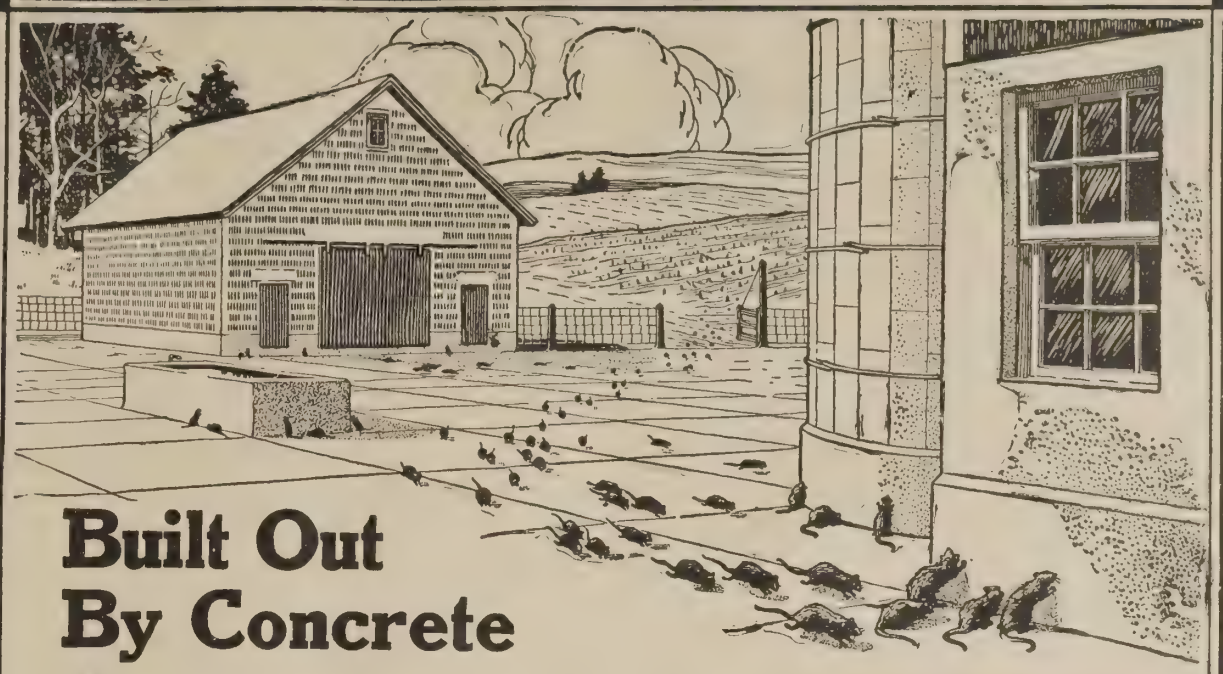
And yet a smile lights up her face,
Tho' tears suffuse her eyes;
Bravely she says the last farewell,
That breaks her dearest ties.

For well she knows her boy goes forth
To fight for truth and right;
That hour of pain and sacrifice,
Freedom shall rise in might.

And so she nobly gives her son,
She prays, by night and day,
That war may cease, but surely end
The ruthless tyrant's sway.

God bless the brave war mother's boy,
And keep him to the end;
Lord God of Hosts! Be with Her, too—
To both the victory send!

Wisconsin. A. S. ALEXANDER.



Built Out By Concrete

No chance to get into these farm buildings!

Concrete foundations, concrete walls, concrete barnyard pavements, concrete feeding floors provide no home for this army of rats seeking winter cover.

No Rat Can Gnaw Through Concrete

There are no nesting places under concrete floors, no chance of entrance through concrete foundations. Waste caused by rats is enormous. If you house them, you must feed them, and this is no time to feed an army of rats. We must feed our soldiers.

Build Out the Rats with Concrete

Write our nearest office for your free copy Bulletins 131 and 141. They will tell you how you can make your farm ratproof.

W.S.S. WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT

PORTLAND CEMENT ASSOCIATION

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CONCRETE for PERMANENCE

SILOS
At Half Price

Ware-house needed for pressing work. Am forced to close out my entire holdings of sixty-five silos of a well-known make which I will sell at pre-war prices. Silos all new and first-class. Advise size desired.

M. L. Smith, Manufacturer's Agent,
286 Chestnut St., Meadville, Pa.

Winner Opening Silo Roof



Fits any silo—wood, cement, tile, or iron. Makes silo filling convenient and easy. Increases your silo capacity eighteen to thirty-five tons. Easy to install. Write for prices and full particulars. **Agents wanted for this profitable line.**

Satisfaction Guaranteed.

SILO SPECIALTY MFG. CO.
185 19th St., Clinton, Iowa

The Dairyman's Real Problem

How to overcome Loss of Man Power and To Lower Cost of Production—To Keep Things Going at Home

After Our First Year at War, Necessity Has Produced Many Answers to These Problems, at the

National Dairy Show

COLUMBUS, OHIO, OCT. 10th to 19th, Inc.

You Can Learn What Has Been Done for You. There Will be Labor-Saving Devices—Machinery to Take the Place of Man Power—Improved Methods of Operating. The United States Government is Bringing to Your Show, Helpful Ideas and Suggestions.

To Win the War Must be Our One Great Thought, and the Government wants to Co-operate with You to this end

The Show this year will be a real patriotic getting together of the whole Dairy Industry to work out its problems.

You can give and receive help by mingling with your fellows a few days at the Show.

Four Departments of Government are bringing to the Show, the meaning of our Industry to the people of the world.

The Greatest National Exhibit of Milk, Butter and Cheese Ever Assembled.

Creamery Men—Cheese Makers—Ice Cream Manufacturers—Cattle Breeders—Milk Dealers.

Dairy Farmers Will Hold Big Conventions

There is a duty and an opportunity in why you should not miss this Show this year. We must feed the world, and restock Europe with Dairy Cows.

Machinery Exhibits—Infant Welfare Demonstrations—Dairy Products Manufacturing Demonstrations—Home Economics School—Best Bred and Most Practical Cattle in the World.

Horse Show—Cattle Judging—Competitive:—Students' Products Judging—Bull Clubs—Calf Clubs. Cow Testing Associations—Lower Cost Feeds—Practical Farm Herds of Cattle.

Read your paper closely for stories of the valuable events to take place at this year's Show.

FIRST WINONA COUNTY
Dairy Breeders' Sale
ST. CHARLES, MINNESOTA
OCTOBER 2d and 3d

HOLSTEINS
Wednesday, October 2d
THIRTY PURE-BREDS
INCLUDING

KAYEWOOD GERALDINE KORNDYKE 20266, one of the seven 20-lb. daughters of Colonel Douglass Korndyke, sire of 21 A. R. O. daughters. Her dam made 16.3 lbs. butter in 7 days.

DAISY JOHANNA PRIDE DEKOL, 325586, whose sire carries 75% of the blood of Johanna De Colantha Champion, sire of 26 A. R. O. daughters, eight of them making two-year-old records above 600 lbs. butter.

3 YOUNG DAUGHTERS OF KING KORNDYKE PONTIAC VEEMAN 2D, whose eleven nearest dams average 27.47 lbs. butter and 601 lbs. milk in seven days.

SIR INKA DEKOL BEETS 139444, a 28.7-lb. son of Hengerveld DeKol Beets, the sire of Johanna Hengerveld Beets, 33.19 lbs. butter in 7 days. Also three of his daughters from A. R. O. dams.

Other pure-bred cows and heifers from A. R. O. dams.

A number of young bulls of splendid breeding.

GUERNSEYS
Thursday, October 3d
FIFTEEN PURE-BREDS
INCLUDING

BEULAH OF CLOVER LAWN 81050, with average A. R. record of dam and sire's dam 540.24 lbs. B. F.

BRIGHT EYES OF CLOVER LAWN 81048, and her full sister *TOPSY OF CLOVER LAWN 52239*, with average A. R. record of dam and sire's dam 524.80 lbs. B. F.

GLENDETTE'S QUEEN OF CLOVER LAWN 51732 and her full sister, *MINNA OF CLOVER LAWN 73588*, with average A. R. record of dam and sire's dam 468.9 lbs. B. F.

SPOTSWOOD'S BUTTERCUP 33569, with A. R. record of 8,983 lbs. milk containing 484 lbs. B. F.

All except one of the *CLOVER LAWN* female offerings are bred to Gloriana's King Masher 27645, a winning son of King Masher 11084 A. R. whose seven best daughters average 623 lbs. B. F.

Five beautiful young bulls of fine breeding and serviceable age.

55 GRADE HOLSTEIN COWS and HEIFERS
AND
40 GRADE GUERNSEY COWS and HEIFERS
From the Largest and Best High Grade Dairy Herds in Winona County

CATALOG OFF PRESS SEPTEMBER 10th
Apply FARM BUREAU OFFICE, Lewiston, Minnesota

Is Your Jersey Herd All That it Should Be?

Are You Handling Your Dairy So As to Get the Greatest Profit?

Every dairyman, no matter what his experience, needs to keep himself posted concerning the progress made by other successful breeders and dairymen.

The Southwestern Jersey Cattle Show

Which Will Be Held in Convention Hall, Kansas City, Sept. 16 to 21, is the place to get this information.

COME to the SOUTHWESTERN SHOW and see what is being outlined in the way of upbuilding and promoting Jersey interests.

Here will be gathered the *choicest individuals* of the breed.

The Southwestern Jersey Cattle Show Sale

Will Be Held Friday, Sept. 20th, 1918.

A SALE WILL BE MADE OF JERSEYS FROM THE MOST FAMOUS HERDS IN AMERICA. Among the consignors are: E. C. Lasater, Longview Farm, White City Jersey Farm, Belleview Farm, Waterloo Jersey Farm, and other well known herds.

For sale catalog, address Mr. B. C. Settles, Palmyra, Mo.

For particulars regarding the Show address

SOUTHWESTERN JERSEY CATTLE SHOW

H. C. Colby, 421 Dwight Bldg., Kansas City, Mo.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall; ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go. **EDGEWATER STOCK FARM, Fort Atkinson, Wis.**

The Will to Win

HOARD'S DAIRYMAN:—The farmers of this country have done their best in response to the appeal of the government to raise larger crops of wheat and other cereals. Adverse weather conditions have cut down the yields of grain to materially below the quantity expected to be produced, but the total crops are large enough to provide insurance against any food shortage for the allies the coming season.

The products of the American farms this year assure the allied nations of Europe a comfortable margin of safety in their food requirements, whereas a year ago there was the gravest concern over the food situation. That the present situation is as favorable as recently outlined by Herbert C. Hoover, United States Food Administrator, at the London conference with the food commissioners of the allied nations, is due to the industry and patriotism of the American farmer, who has triumphed over big obstacles in the way of labor shortage and adverse weather conditions.

The farmers have made the assurance positive that our boys at the front and in camps in this country are going to be fed and fed right. There is going to be no lack of wholesome food, either for our soldiers and sailors or for those of our allies. To have the fighting forces well fed is indispensable. It is equally vital that the government be supplied promptly with the necessary sinews of war. The government will shortly ask for more billions of dollars with which to carry on the war, and keep the Kaiser's hordes on the move towards the Rhine.

The farmer will now turn in and do his share toward making the Fourth Liberty Loan as big a success as he did in solving the food problem. The boys fighting for us in the trenches are not going to be obliged to worry over the way the folks back home support the government. "The Will To Win" for the farmers as for everybody else will be expressed in buying the Fourth Liberty Bonds to the limit.

Illinois. GEO. A. KING.

Canada has gone us one better on the sugar ration and is down to one and one-half pounds a month.

Mammitis

I have a Jersey cow that is very valuable that has her udder all swelled up on one side and she doesn't eat very much. She was giving a good flow of milk but dried up in just a few days after her udder began to swell. I thought of a snake bite and probably she had bruised it, but there is no indication of either that I can see. Can you give me cause of her udder swelling and will she come back to her milk and will she be of any future use as a dairy cow?

Illinois. J. C.

In some way or another infective matters have gotten into the udder and have caused acute mammitis from which perfect recovery is rare. If the quarters are giving a bad smelling fluid or milk containing pus, you should isolate the cow and fit her for slaughter. Meanwhile strip out the fluid three times a day and once daily inject lukewarm water containing a teaspoonful of boric acid to the pint. Also rub the udder twice daily with camphorated oil.

Mammitis

Kindly advise me treatment for the following trouble: First, lumpy milk, natural color; second symptom, watery, yellow color and thin; third, thick, clotty, and at intervals ropy. This trouble seems to be at any stage of lactation and most of the cows when fresh; the next period milk is O. K. and some will lose a teat or sometimes two.

Manassas, Va. J. B.

The cows are affected with mammitis (garget) which results from many different causes, but chiefly from germ infection in all severe cases. You should at once isolate all affected cows and then cleanse, disinfect, and whitewash the stables. Afterward isolate every cow the moment anything goes wrong with her udder, milk her every two hours, massaging the udder thoroughly each time and two or three times a day bathe the udder with hot water. At night rub in thoroughly a mixture of one part each of turpentine and fluid extracts of belladonna and poke root and five parts of lard, lanolin, sweet oil, or soft soap. At the outset of an attack give a full dose of physic, such as a pound of Epsom salts and half a cupful each of salt and blackstrap molasses in three pints of warm water, as one dose, very slowly and carefully from a long necked bottle. Cleanse the udder and teats of each cow before milking. Milk regularly and strip clean. Protect udders against chilling, bruising, and filth. If the stall floors are constructed of concrete, cover the back portion of each with planking or put in cork brick floors.

DAIRY MARKETS

CHICAGO, Aug. 29—Butter—Creamery, extras, 45½c; extra firsts, 45¼c; dairy, firsts, 43@44c; seconds, 41@42½c.

Eggs—Ordinary, 36½@38c; firsts, 39@40c.

Cheese—Twins, 24¾@25c; Young Americas, 25@26½c.

MILWAUKEE, Aug. 29—Butter—Creamery, tubs, 45@45½c; prints, 46½@47c; extra firsts, 44@44½c; firsts, 41@43c; dairy, fancy, 42@43c.

Eggs—Current receipts, cases returned, 36½@37½c; cases, new included, 38@38½c; miscellaneous cases, 37@37½c; dirties, 33@34c; seconds, 30@31c; checks, 29@30c.

Cheese—Twins, 25½@26c; Daisies, 26½@27c; Longhorns, Brick, 21@32c; Limburger, new, 1 lb., 27c; 2 lbs. 26c; Swiss loaf, 45@46c; block, 34@36c.

APPLETON, Wis., Aug. 27—Seven factories offered 364 boxes of cheese on the call board; sales, 324 Twins at 25½c; 40 Double Daisies, 26¼c.

SPRING GREEN, Wis., Aug. 27—Offerings of cheese on the Spring Green dairy board of trade on Tuesday were 741 boxes Single Daisies and all sold at 27c.

NEW YORK, Aug. 29—Cheese—Firmer; state milk, common to specials, 21½@27½c; skims, common to specials, 7@21½c.

Butter—Firm; receipts, 8,658 pkgs.; creamery, extras, 47c; state dairy, tubs, 39@46½c; imitation creamery, firsts, 39@40c.

Eggs—Steady; receipts, 15,216 cases; nearby white, fancy, 65@68c; nearby mixed fancy, 38@52c; fresh firsts, 44@52c.

AUCTION
Hogarty HOLSTEIN Farm
Aniwa, Wis.,
HAS BEEN SOLD

10 Registered 10 HOLSTEINS

headed by a two-year-old 32.51-lb. grandson of **Pontiac Korndyke**, will be offered for sale on

THURSDAY, SEPT. 12th

——ALSO——

5 GRADE COWS 5
All bred to this great young sire.

5 HORSES 5
including the splendid three-year-old Registered Belgian Stallion—FINCH'S PERFECTION, 1916.

BUICK "Light Six"—FARM MACHINERY—DE LAVAL SEPARATOR, ETC.

LIVE STOCK Will be Sold After 2 P. M

Ear Tags FOR STOCK 515 F. S. BURCH CHICAGO

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 136 W. Huron St. Chicago

One County's Efforts

The Farm Bureau of Allegheny County, Pennsylvania, has worked ut three distinct projects adapted to he peculiar conditions of the county ecause of it being a great industrial enter.

The county has a population of over ne and one-half million people lo- ated on the farms, villages, and cities. 'his fact, together with the great in- ustries of the county producing more han 33 per cent of the ammunition sed by the allies and more than 60 er cent of the ship building materials, vershadows the agriculture of the ounty.

The county is accredited with hav- ng over 5,000 farms, a great percent- ge of which ought to be made more roductive and be supplied with better ve stock.

The members of the Pittsburgh 'ield Club can now sit on their front eranda and view 150 head of sheep razing on their golf links. They were elected from farms in Green County nd placed on the links for the pur- ose of grazing and for increasing the mount of sheep in the county.

Another proposition of interest is he fact that 400 hogs are being fed aily by garbage supplied to them rom the city of Pittsburgh. The gar- age is placed in large tanks and is eated under pressure for eight or en hours, thus making the garbage ree from poison and foreign material, hich precipitates to the bottom of he tanks. In the neighborhood of 150 ushels of garbage are fed daily. At he cost of transporting the garbage nd equipping the farm with the roper facilities for feeding, it is stimated that the pork can be pro- uced in the neighborhood of 10 cents ve weight. Of course they will be nished with corn in the fall.

The third proposition which origin- ted on account of the great amount f farm produce being produced this ear which might otherwise have been asted, is being taken care of by send- ng a truck into the country districts, quipped with a complete canning out- t and six or seven experienced ladies o do the canning of the surplus fruits nd vegetables. The work is being one by the Woman's Committee of he Council of National Defense. The 'arm Bureau aids them in arranging or the schedule and advertising the lan in the rural districts. The outfit s used on a great many farms, and he work will be continued through- ut the season.

N. S. GRUBBS,
County Agriculturist.

Christening the Holstein Calf

HOARD'S DAIRYMAN:—I like to read he advertising in the "Dairyman". 'articularly do I enjoy looking hrough the pages where the breeder's hoicest product is offered for sale. But I must confess that my pleasure s somewhat marred by a consider- tion of the names some of these nembers of bovine aristocracy are equired to bear.

Supposing, Mr. Editor, you were a Holstein bull, mostly white, but in- lined to be morose in disposition and ruculent in manner. Would you be oothed and pacified by being ad- ressed as "Sir Posch Skylark Rag pple"? I know if I were a black and hite cow with hopes of having a undred thousand dollar son and with ride in my ancestry, instead of giv- ng a man uncountable buckets of milk would prefer to administer to him n energetic kick if he should call me Pontiac Segis Piebe Gehunna". Evidently there is an attempt to re- ate the names to the associations of he breed but many of them outrage uphony, disregard history, and asten on an innocent calf a name y which no mother could call him. You wouldn't call even a securely caged Irishman, "Wilhelm O'Brien", would you?

Let met for a moment clear the rep- utation of the herd of all stigma as to its ancestry. I have heard of a man with more zeal than intelligence in his patriotism who sold his Holstein herd because they were of "Dutch" origin, which this misguided soul believed to be the same as German. "Dutchmen" are properly Hollanders and no more German than are the Belgians, and if they are neutrals it is with the same sort of neutrality the innocent bystander feels who stands with hands elevated while the gang of bandits goes through the bank.

Let us give credit to whom it is due. The rich meadows and the patient breeders of the Netherlands are re- sponsible for one of our mainstays of dairying and there can be no harm in recognizing it in the naming of their product. And there is a wealth of suitable names too. "Colantha" is good and "Johanna" is better, but why not also a "Grada", "Jacoba", "Beren- dina", "Theodora", "Dienie", "Jeana", "Maria", "Geezina", or "Aaltje" as well. And instead of "Duchess", never heard of in the Netherlands, why not "Arouw" the equivalent of the Eng- lish "Mrs" or "Juffrow" a title of somewhat added distinction?

And for bulls there is another list fully as appropriate. Instead of "Sir" and "king", which do not flatter a self- respecting Dutch bull, why not "Myn- heer" (Mr.), "Held" (hero), "Konig" and "Meester" (master), as well as the "Hertog" we sometimes see? Then to give variety we might add the names of the Dutch towns or provin- ces. Wouldn't it make a bull feel proud to be known as "Konig van Gelder- land" or "Oueryssel" "Orenthe", or "Friesland"? "Hengerveld" and "De Kol" are good but by no means ex- haust the possibilities. Why can't we have an Oldenbarnveld family or Westerveld or Oosterveld for that matter? There is no limit to the vari- ations along this line. A reference to a map of the Netherlands and a work on general history might greatly enrich the "Who's Who" of the breed. Surely this is a matter that goes beyond mere levity. A sentimental pride in his cattle is one of the dairyman's great- est assets. They are to him not a herd but the individuals of a family. Every one of my cows knows her name and mends her ways when sternly addressed by the same. But it seems most pleasant to sort of make the names fit.

Idaho. J. F. BRUINS.

Obstructed Teat

I have a 30-month-old Jersey heifer, two months fresh, giving 46 lbs. of 5.7% milk per day, that has a growth just inside the opening of right fore teat. Neither teat nor udder is inflamed and apparently there is no pain, even at milking as the cow does not flinch. I have used a milking tube but it does not seem to remedy matters much and there is no veteri- narian within 60 miles.

Center, Wash. H. E.

The milking tube will in time be certain to cause ruinous infection of the quarter. If the growth is high up in the teat, dry off the milk secre- tion. If it is at the tip of the teat, buy a teat bistoury and with it slit down through the obstruction in four different directions; then strip away a little milk every two hours. Steril- ize the instrument by boiling for 20 minutes before use. Apply tincture of iodine to the tip of the teat be- fore operating and once every other day afterward until healed.

Under normal conditions corn is, in nearly all parts of the United States, the cheapest poultry feed. But at times like the present oats are to be preferred. When corn is worth $1.50 a bushel, oats should be $0.75, and barley $1.20 a bushel to give the same value for the money, when fed to poultry, as corn.



DELCO-LIGHT
INCREASES FARM EFFICIENCY

Delco-Light Helps With The Chores

It provides an abundance of bright clear electric light.

It supplies running water to the house and barn.

It furnishes power to operate the washing machine, churn, cream-separator and other light machines.

It pays for itself in time and labor saved.

It betters living conditions—lightens the burden of the housewife and helps keep the boys and girls on the farm.

Delco-Light is a complete electric light and power plant for farm or country home. It is self-cranking, air cooled; ball bearing. Has thick plate, long lived storage battery. No belts.

RUNS ON KEROSENE

There is a Delco-Light man in your locality. Write for his name and for the new Delco-Light book.

The Domestic Engineering Company
Dayton, Ohio, U. S. A.

What counts most

Merely because you already have a certain method of doing a neces- sary chore, you certainly would not object to its being made to yield you a greater profit.

Suppose, therefore, you check up the two costs of cleaning your utensils with the thougnt of how it may be made more profitable.

The first cost is that of time, labor, and cleaning material spent in the Mechanical process of cleaning, and how perfectly this is done decides the extent of the second cost. This second cost represents the differ- ence between the original food value of your product and the food value that remains after improperly cleaned utensils have exacted their regret- table toll of quality.

To enable you to reduce the first cost to a minimum and entirely remove the cause of the second regrettable cost is the purpose of

Wyandotte
Dairyman's
Cleaner and Cleanser

Indian in circle



in every package

And also the secret of its success.

In order then to be positive that your effort to keep things clean is spent more profitably, you have but to order this cleaner from your supply house, and prac- tice its use. It Cleans Clean.

The J. B. Ford Co., Sole Mnfrs.,
Wyandotte, Mich.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Pabst Stock Farm's Way of Meeting Farm Labor Situation

The Pabst method of utilizing the energy of young America during the summer months is both patriotic and unique. It offers boys of high school age an opportunity to serve their country in the fields at home and also gives them an agricultural training that will be invaluable to them in later years. At the same time they are liberally compensated for their summer's outing. These boys in the pictures are city lads from Milwaukee and are under the direction of Professor Brunner whom Mr. Pabst has procured to accompany the boys to the fields. Professor Brunner has an agricultural education and is, therefore, in a position to impart much agricultural information to the boys while at work. During periods of rest Professor Brunner lectures on various phases of agriculture.



RIGHT ABOUT FACE AND THE BOYS ARE OFF FOR ANOTHER ROW ON THE PABST STOCK FARM

In addition to these advantages Mr. Pabst has further provided for the welfare of these lads on his farm. He has opened the men's club house to them where suitable agricultural literature may be found. Furthermore, he has thrown open his private boat house and bathing beach for the boys to enjoy during the evenings after work. Is not this an ideal place for parents to send their boys during the summer? We prophesy Mr. Pabst's plan will be more generally adopted another year. The boys have still another privilege which cannot be overestimated. They have the opportunity of seeing all phases of farm work done according to the latest and most scientific methods.

Each boy is paid a dollar a month for each year of his age. A boy 17 years old would, therefore, get $17.00 a month plus a bonus which is determined by his willingness and aptitude in picking up farm work.

Wisconsin. J. R. GARVER.



A SNAPSHOT OF THE BOYS AT THE NOON HOUR JUST OUTSIDE THE CLUB HOUSE ON THE PABST STOCK FARM

Knox County Holstein Calf Club

HOARD'S DAIRYMAN JUNIORS:—About one year ago two of the bankers in Edina became interested in the calf club movement which had been worked out in other communities, and proposed to furnish money to boys and girls with good security at 7% interest and return the interest in cash prizes at the end of one year. The calves were to be sold at that time at public auction and the judging to be done before the sale. Fifty-three boys and girls between the ages of eight and sixteen years were enrolled and signed an agreement that was gotten up by a committee composed of a member of each of the banks, an editor from the local paper who contributed the advertising, and the county agent who was made chairman. This agreement contained articles on the age to breed the heifer, kind of bull to breed her to, the care, and the keeping of records, etc.

With all arrangements made the county agent and the editor made a trip to Michigan and selected fifty-three high grade Holstein calves and heifers and one registered bull. On the day for distributing the calves all the club boys and girls were notified and were at a meeting in the court house where North and South side clubs were organized and officers elected. In the afternoon the numbers were drawn and each boy or girl took the calf corresponding to his or her number and took it to its new home. Every one of the fifty-three club members were at the meeting.

On April 26th, 1918, the calf club show and sale were held, just a little over a year after they were taken out. At this time about two-thirds of the heifers were giving milk and many of them had heifer calves at foot. In spite of the bad weather most of the calves were at the show and sale. Two of the calves had died during the year and three had been sold, due to members leaving the county. A few of the heifers could not be brought due to being heavy with calf. The calves brought a total in the sale of $3,117.50 or an average of $97.47 per head for thirty-three head. A large crowd attended the sale and much interest was shown.

A very marked increased interest in dairying is shown which can be traced to the calf club. A number of men have started in the dairy business within the last year whose boy or girl owned one of these heifers. One car load of Holstein cows and heifers was sold in the county, being shipped in by a Wisconsin firm as a result of the calf club. Separator men say that their sales have doubled within the last year and attribute the increase largely to stimulation of the dairy calf club.

Missouri. C. E. CARTER.



TAYLOR SMITH OF MISSOURI WITH HIS HEIFER AND CALF WHICH SOLD FOR $250 AFTER WINNING $58 IN PRIZES

Junior Letters

Hoard's Dairyman Juniors:—I did not get time to write sooner because I was busy helping papa and then two weeks ago I took sick with spotted fever. I am beginning to be able to walk around and go out doors a little. Spotted fever is not contagious so I thought I would write.

When I last wrote you I told you about papa going to give my brother and me a steer calf. My brother got his steer calf, but when the next cow freshened she had a heifer calf so papa gave me a heifer calf too. She is growing fine now. My calf is a cross between a Brown Swiss and a Durham. We have twelve tame rabbits. We have three big ones, one buck, and two does. The buck and doe are the New Zealand Reds. The other doe is a Belgian hare. We have nine young rabbits.

Papa and my brother started to put up our rye hay a few days ago. I am expecting to go out and help them in a few days. My brother went swimming in the Ochoco today. Three weeks ago, when mamma and I were coming home from town, we killed a rattlesnake. It had six rattles and a button. Papa and my brother saw one the same day. We are milking eighteen cows and feeding eleven calves.

Oregon. Victor O. Freund.

Hoard's Dairyman Juniors:—I received your letter of July 17. I was much pleased to hear from you. I am thinking of getting a bicycle. Could you tell me where I could get a cheap one? I like to trap very much. I have been on the trap line over 2 years. When I was 12 years old I began trapping. I first had a 22 calibre rifle, then I thought I would get a shotgun so I bought a 20-guage shotgun last year. I couldn't trap just in the fall because I was sick. I sold 1 muskrat. I got $.50 for it. I sold 4 skunks and 1 muskrat for which I received $5. I am working on trying to get subscriptions. If any of the juniors would like to write me about trapping, my address is N. Scituate, R. I.

We had a calf freshen yesterday. It is an Ayrshire heifer. She is almost thoroughbred. We are going to raise her. I favor the Holsteins very much. My letter is getting long so I will close, wishing the juniors good luck.

Alston Spencer.

Hoard's Dairyman Juniors:—I received your watch fob, button, and creed yesterday and I thank you very much.

The crops look good in North Dakota. We have 4 pigs and 46 sheep and 16 horses and 2 colts. We milk nine cows. Yesterday we took 12 gallons of cream and it came to $25.47.

We are making hay now. We are going to leave the rest of the hay till after harvest. We are not going to get a hired man to shock grain. We children are going to shock. Papa is going to give us 50 cents a day.

North Dakota. Leonard Chance.

Hoard's Dairyman Juniors:—I have been busy putting our wheat up. We are milking 12 cows now. We run 24 cows in the winter. Our cows are Holstein and we have one registered cow and one bull. We have a milking machine. We have five big pigs and twelve little ones. We have four iron gray horses and one bay driving horse. I believe I will close as it is getting bed time. Wishing the juniors good luck.

Pennsylvania. Paul N. Kilgore.

Hoard's Dairyman Juniors:—I received the fob, creed, and button, and thank you very much for them. I got your letter yesterday. I am a farm boy 13 years old and live on a farm of 154 acres. We did milk 6 cows, but 2 of them died. The veterinarian said they were poisoned from eating green apples.

I have a registered Jersey cow, but she is about dry now. We have 5 calves. We sell our cream to a creamery. My father is dead, so my mother and I do all the work.

This year we put out about 30 acres of corn, 8 acres of peas, 10 acres of oats, and put up about 30 acres of hay and about 2 acres of cane. I would like to hear from some of the juniors who have registered stock of their own and would like to know what they feed them and how they care for them. I will write again and send you the picture of my cow and tell you how I got her.

Illinois. Chester Hungate.

Hoard's Dairyman Juniors:—I received my fob, creed and button. I like them very much. I have seven Guinea eggs I am going to set. I have two hens and a rooster.

I live on a 93-acre farm. We have thirteen cows, two calves, four horses, and a pony. Our pony's name is Bonny. We have two barns and a silo. We have a large Scotch Collie named Caesar and a Persian cat named Tiggy. They are about the same color.

I have a war savings stamp. My two sisters and myself have five thrift stamps.

We have 100 little chickens. Will some of the juniors please write to me? My address is Juda, Wis. Wescott Patton.



LEONA THOMPSON OF MISSOURI AND HER HEIFER WHICH SOLD FOR $150

Hoard's Dairyman Juniors:—Hello, juniors! How is everybody? I have not written now for a long time as I have been busy with haying. Hay is quite scarce around here as all the clover froze out. I received a letter from Arthur Brady. In my last letter I said I was going to raise tomatoes, but father gave me a patch of tobacco and so I did not plant any tomatoes. I think our hired man will go to camp soon and so if anybody wants a position write me. My brother is also enclosing a letter in the same envelop as we have to be saving in these war times. My address is Hixton, Wis., R. F. D. No. 1. Leonard Ols.

Hoard's Dairyman Juniors:—I have not been able to find out what caused the death of my rabbits. I had them in a pen built on the side of the wall. The wall had plaster on it. I fed them oats hay, milk once in a while, some water, cabbage leaves, and sometimes a piece of mangel. They were free from dogs and cats and no rats got at them cause they were not chewed. They lived until they were 6 months old, were as healthy as could be, and all of a sudden died after a day's sickness.

We sold all our little pigs because we got enough big ones. During May we had quite a little rain and no rain in June, until the last

WISCONSIN STATE FAIR

MILWAUKEE

SEPT. 9, 10, 11, 12, 13 AND 14

SIX DAYS - FIVE NIGHTS



FIFTY ACRES OF MACHINERY; THIRTY MAKES OF TRACTORS.

GREATEST AUTOMOBILE SHOW IN AMERICA: 100 1919 MODELS.

20,000 SQUARE FEET OF EXHIBITS SENT BY U. S. GOVERNMENT.

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STATE FAIR EDUCATES, INSPIRES AND ENTERTAINS ON BIGGEST POSSIBLE SCALE.

DAYS 50 Cts. NIGHTS 25 Cts.
NO WAR TAX.

few days we had showers up the 4th of July. We had cold weather all spring except a few hot days. The hay and grain and potatoes and also the garden is coming fine since the recent rain. We intend to start haying in a few weeks. We planted about 1,500 cabbage plants this year. The strawberries are not so good this year on account of the cold weather.

Michigan. Ardell Zurcher.

Hoard's Dairyman Juniors:—I guess you think I'm a dandy junior, not writing before this, but I am not a good letter writer.

I live on a 132-acre farm. We have 18 milk cows but half of them are dry. We have four calves tied, and feed them from a bucket, and one which isn't away from the cow. Last summer dad gave me a Holstein bull which he said, if I would help tend to the other stock, he would give to me. I raised him and sold him at a sale here at our place for $76.50. Dad gave one to my sister but it died so he said I should divide with her, so it left me $28.25. He gave me a calf again this year; he gave my sister one, also.

I also have a hen with peeps, 14 in all. One crept through the pen I made for them and a guinea rooster picked it to death, but I still got 13.

We have 2 old sows and each had a litter of pigs. One of them had 6 and the other 7. Out of the litter of 6 one of them was a runt and then dad gave it to me. It is a thoroughbred and also a sow. I am going to try to raise it and then raise young ones. I wish some of the juniors would write to me. My address is R. D. No. 1, Box 132, Lewisburg, Pa.

Clarence Groover.

Hoard's Dairyman Juniors:—I have not written to you since last summer. My calf is growing fine. I have her in pasture with some other calves. I am raising Mallard ducks, but I didn't have good luck this year. I hatched about 25 little ducks but the rats got all but 12. I have 3 White Plymouth Rock pullets and one rooster. I didn't raise any little chicks this year, though. The fair is coming soon and I am going to take some of my ducks.

I am 13 years old and a Freshman in high school. I milk 3 cows night and morning. They give a half a pail of milk apiece. We have two full blooded Holstein calves (twins) and I call them Mike and Pat. I wish some of the juniors would write to me.

Wisconsin. Allan Stanchfield.

Hoard's Dairyman Juniors:—I am sorry that I did not write before. I have 30 hens and 9 little chickens. I only get half of the eggs. I have $15.61 from the eggs. Maybe I am going to buy some pigs. We milked 26 cows. I milk one cow night and morning. My brother and sister and I have to watch the cows so they do not get into the oats field. We got 14 loads of hay for the first crop. My father has 28 acres of corn. I will be in the sixth grade next fall. I am 10 years old. We live 2½ miles north of Monroe, Wis. I wish all the juniors good luck.

Wisconsin. Gilbert Dettvider.

Hoard's Dairyman Juniors:—I have not written to the juniors for a long time so I thought I would write a few lines.

We are milking 11 cows now. We got two horses and seven calves. I milk 3 cows nights and mornings.

We have about 150 laying hens and get about 120 eggs a day.

We have one pig.

We got about 18 acres of land. We have 2¼ acres in berries, 2 acres in barley, 3 acres in oats, and one acre in pole beans and the rest in pasture and hay.

As it is getting bed time I will close, wishing the juniors success.

Washington. Willie Bronsemo.

Hoard's Dairyman Juniors:—I have a colt. The way I got my colt was by joining a calf club.

The goats are doing fine now. Papa is plowing for wheat.

We are getting about a hundred pounds of milk a day. We have six cows. We let the calves have half of the milk that we get from the cows. I help milk nights and mornings.

There is a picnic at Stoutland, Mo.

I like to go to school. Alta Mitchell is our teacher. There are 30 scholars coming to our school.

Our apples have been ripe since the first of June. We will have apples until fall. We have seventeen different kinds. They begin to get ripe by the first of June and last until fall.

I will close wishing the juniors good luck.

Missouri. Carl Killhouse.

Hoard's Dairyman Juniors:—I have not written for a long time so I think I will write now to show that I am still a good member of the Hoard's Dairyman juniors.

We have 11 cows, but we are milking only nine. They are the Holsteins. My pig is getting fat. We have him on the alfalfa now. Papa got done plowing yesterday. He plows with the tractor. Our tractor pulls two fourteen-inch plows.

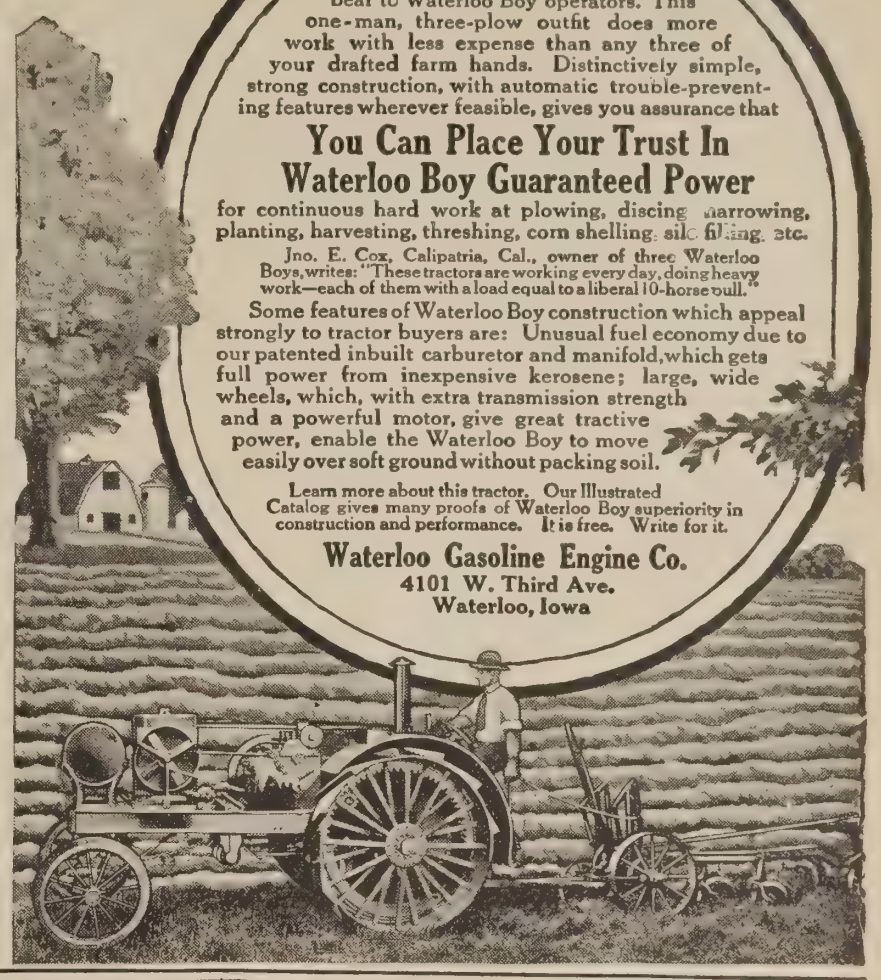
I am 10 years old and will be in the sixth grade this fall. I have to walk about two miles to school every morning. Our school will start in September.

My letter is getting long so I will close for this time, wishing all the juniors good luck.

Kansas. Carl F. Folger.

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Dispersal auction sale pure-bred registered Holstein cattle, New Douglas, Illinois, September 25th and 26th. Hundred and thirty head, mostly heavy springers. Eight serviceable young bulls from cows with records over thirty pounds of butter in one week. Cattle federally tested and sold subject sixty-day tuberculosis retest. Write for particulars. SAM GEHRIG, New Douglas, Illinois. 5-5

For Sale—Fifty registered Holstein cows and heifers. Forty registered bulls two to eighteen months old. Two hundred fifty head of choice grade cows and heifers. GIROD & ROBISON, Towanda, Kans. 25-tf

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—One hundred high grade heavy springing Holstein cows and heifers, quality good. Also 18 registered heifers. Bred to son of Tidy Abbekerk Prince. J. A. KNORR, Blanchardville, Wis. 3-5

For Sale—150 high grade Holstein springers, cows and heifers. Call at once. FRICK & HOESLY, New Glarus, Wis. 4-5

150 Head of high grade springers, large and mature milkers, and good producers. As choice a selection of dairy cows, as can be found anywhere. Write or wire FRANK LUHRS, South St. Paul, Minn. 5-4

Calves-Calves-Calves-Holsteins $25, Guernseys $20. 15-16 pure. Not ordinary calves, but good ones. Order now. A few yearlings and two-year-olds. F. L. TAYLOR, Iola, Wis. 5-4

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Carload of rarely bred registered Holstein cows, heifers and bulls. KNAPP FARM, Nashville, Tenn. 5-3

Twelve females of high producing strain, due to freshen in early spring and bred to one of the Holsteins greatest thirty-four-pound bulls. Herd federally tested. Priced to sell. LILLIBERK FARM, Homer, Mich. 5-3

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—100 head Holstein cows and heifers, 1 to 8 years of age. WILL H. GIBSON, Albany, Wis. 6-2

For Sale—26 high grade Holstein dairy cows, 6 young heifers, and herd bull. All coming fresh this fall. For particulars write LOUIS BENSON, Randolph, Mo. 6-2

Registered Holstein bull, ready for service; two younger bulls; choice breeding. Splendid individuals; description on request. Prices reasonable. ARTHUR C. DAILY, Springfield, Mo. 7-2

For Sale—15 months old pure-bred Holstein-Friesian bull (line bred) with 10 world and state records in his pedigree. King Segis and Hengerveld De Kol breeding intensified. Price $500. DR. W. J. SOUTHEY, Bridgeport, Conn. 7-2

For Sale—A very choice 7-month-old Holstein bull. Dam's record: 931 lbs. of butter 22,043 lbs. of milk a year. Sire's five nearest average 1,070 lbs. of butter, 23,809 lbs. of milk a year. JOHN PULS, Hartford, Wis. 7-2

Save! Save! Save! On heifer calves. Holstein $20; Guernseys $18. We raise them. Buy from us and save commission. Springing cows and heifers for sale. Our sires are of World's Record breeding. FRED JOHNSON, Iola, Wis. 7-3

Fourteen choice grade Holstein cattle, twelve three-year-old, two five-year-old, fresh and springing. As choice a selection of dairy cows as can be found anywhere. Write or wire. FLOYD HANSBROUGH, Monroe City, Missouri. 7-2

Twenty registered Holsteins, $2,000. H. S. MARTIN, Fayette, Ohio. 7-2

For Sale—Carload milking cows. CHAS. W. O'NEILL, Bridgeport, Wis. 7-2

Two carloads Holstein and Durham springers at Norwalk, Wis. Prices $90 to $110. Inquire MEL. SCHWARZ.

Registered Holstein bulls. Two months old, well marked, by 31-lb. sire, $50. WARD BROS., Fort Atkinson, Wisconsin.

STOCK FOR SALE

Grade Holsteins—Nineteen years of breeding, backed by A. R. O. sires. Seven bred heifers, seven fifteen months old heifers, ten heifer calves from five weeks to five months old, one pure-bred bull calf born June 29th. All guaranteed as represented. Write your wants. WOODLAND DAIRY FARM, Tomahawk, Wis. 7-2

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers three splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernsey bulls ready for service. One by grandson of May Rilma 1073 lbs. fat out of A. R. cow. Two by Glenwood Champion, 22 A. R. daughters, one over 800 lbs. fat. One of these is grandson of Beauty Eagle, 846 lbs. fat. Other out of A. R. cow. All splendid individuals. LaBELLE KNOLL FARM, Oconomowoc, Wis. 23-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

For Sale—Entire Registered Guernsey herd, also Governor of Chene and Yeksa bulls, serviceable age. JOHN G. BURNHAM, 2444 Lisbon Ave., Milwaukee, Wis. Phone Kilbourn 102. 5-3

For Sale—Fourteen high grade Guernsey cows two to eight years old coming fresh during fall and winter, one registered Guernsey sire serviceable age. PAUL L. LEHMAN, R. 2, Barron, Wis. 5-4

For Sale—Guernsey bulls from six months to year and half old. Write for pedigree and prices. S. M. WHITE & SON, London Mills, Ill. 6-6

Guernsey bull born December 7, 1917, grandson of Langwater Royal A. R. and Matilda of Spring Brook, 815.44 lbs. butterfat, splendid individual, price $150.00. M. T. PHILLIPS, Pomeroy, Pa. 6-2

For Sale—Few choice young Guernsey cows, registered. Four bulls 18 months old. One 3 years old. J. N. McLEOD, Platteville, Wis. 6-2

For Sale—The only known Polled herd of 6 registered Guernseys in the world; also 3 registered yearling heifers, bred to the Polled bull. CHAS. A. GROFF, Skippack, Pa.

Guernsey bull 4 months old by grandson May Rilma, $100. KARPINSKI, Oswego, N. Y.

Dispersion sale. 50 registered Guernseys, Glenwood, Mainstay, Yeksa breeding. Ask for catalogue, Sept. 19, 1918. O. E. PERRY, Gilman, Iowa.

One Carload Grade Guernsey springers. Prices $90 to $110. Also four registered cows and heifers at from $150 to $175. MEL. SCHWARZ, Norwalk, Wis.

For Sale—23 high grade 2-year-old Jersey heifers bred to freshen from October 1. Also 4 Jersey cows with first calves giving milk. Am over-stocked. Come look them over and get a bargain. I. T. SUTER, Box 242, Palmyra, Mo. 5-3

For Sale—15 months old Jersey bull "Mailands Wyandotte" H. R. 152868 by a son of "Imp. Oxford You'll Do" A. J. C. C. 111860 and "Imp. Noble Star" A. J. C. C. 288716. Look him up. No better bred young bull in the U. S. Price $500. DR. W. J. SOUTHEY, Bridgeport, Conn. 7-2

For Sale—Registered Jersey bull calves from herd averaging 5½% butterfat—forty to seventy-five dollars. DR. COLBY, Hillsboro, Ill.

Registered Jerseys—Six months old bull calves for sale. WALTER E. RATLIFF, Montpelier, Ind.

Herd of eight registered Jerseys for sale. Young, healthy, acclimated. Price reasonable. HARLIS TIMBER CO., Box 8, Harlis, Minn.

STOCK FOR SALE

For Sale very reasonable—Registered Ayrshires. Heavy producing cows and heifers. Bred to freshen in September and October. Also yearling heifers sired by Jones' Captain of Hartford. JULIUS C. MOYER, Elkhorn, Wis. 5-3

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

STOCK WANTED

Wanted—On shares, pure-bred Holsteins. HARVEY BARTLESON, Medford, Wis.

Wanted on Shares—Fifteen registered Guernsey cows, coming fresh September to October, not over 6 years old; 3 to 5 years' contract. Address BOX 223, care Hoard's Dairyman. 7-2

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

David W. Williams, Lake Forest, Ill., can buy you grades or pure-breds, any breed. 2-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

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Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

SWINE

Chester Whites, either sex at reasonable prices. JOHN HORLAMUS & SON, West Bend, Wis. 5-4

Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 6-4

Registered Hampshire pigs, of champion blood, at popular prices. SPRUCEHURST FARM, Clarksboro, N. J.

Big growthy registered Poland China spring pigs, boars and gilts, not related. Also bred sows. CHAS. W. O'NEILL, Bridgeport, Wis. 5-5

HORSES

For Sale—8 heavy draft horses. Can be seen at our stable. JOS. SCHLITZ BREWING CO., Milwaukee, Wis. 5-4

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. KUCZYNSKI, Milwaukee, Wis. 24-13

Old Process Cocoanut oil cake meal; velvet bean meal feed; ton lots or car lots. NEUSTADT & CO., 294 Ninth Ave., New York City. 7-4

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Your idea wanted—Patent your invention. I'll help you market it. Send for 4 free books, list of patent buyers, hundreds of ideas wanted, etc. Advice free. Highest references. Patents advertised free. RICHARD B. OWEN, Patent Lawyer, 86 Owen Bldg., Washington, D. C. 7-spl

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Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

LITTER CARRIERS

Litter Carriers—Price only $15.90. Write for catalog and price list too. TORGERSON MFG. CO., Baldwin, Wis. 4-6

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

We are not quoting prices but paying all we can for merchantable second hand bags. Ship today. DANVILLE BAG CO., Danville, Ill. 7-tf

MACHINERY

For Sale at a Bargain—One 2-unit Sharples Milker. Used only as a demonstrator. JOHN BURMANIA, Byron Center, Mich.

For Sale—Ensilage cutter size 15, good as new. C. A. DUTTON, Trempealeau, Wis. 5-3

Having disposed of my dairy herd, will sell my Empire milking machine at one-half price. Am sending it to factory for complete overhauling and new rubbers. Guaranteed labor saver. Write L. L. DUNMIRE, El Paso, Ill. 6-6

For Sale—De Laval cream separator, 1,000 lbs. capacity, in good condition at a bargain. N. A. COLE, 39 Westminster Ave., Detroit, Mich.

For Sale—L-13 Blizzard ensilage cutter. Good as new. JOSEPH HOGAN, Edwardsville, Ill.

For Sale—Number fourteen Rowell ensilage cutter with blower pipe and distributor for 37-ft. silo. New last fall. Only fifty loads corn put through. Perfect condition. Farm sold. $215 takes it. WALTER C. SMITH, Wauwatosa, Wis.

EXCHANGE

Will trade income property ($3,200) for grade Holstein cows and calves. CHIEF FARMER, National Military Home, Ind.

Wanted—Farm with stock for duplex flat and cash. WALTER MILLER, 320 Brumder Bldg., Milwaukee, Wis.

SHETLAND PONIES

For Sale—A sorrel Shetland pony with harness and Phaeton top buggy, in good condition. Anyone can ride and drive the pony. For particulars apply to OTTO A. KLEIN, Burlington, Wis.

FARMS FOR SALE

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—In North Rochester, 200-acre farm. Big, modern dairy barn, fully equipped; 70 milking cows. Sold at sacrifice on account of health. Apply to MR. H. P. DION, 1070 County Street, New Bedford, Mass. 5-4

Money Makers—40-acre farm, $1,800; 60 nearly all under cultivation $1,500; 80 with stock, machinery and crop, $4,800; 160 with good, large buildings, $6,800; choice cut over land $15 to $20 per acre. Write for particulars. THE E. L. C. CO., M-B Dept. 31, Merrill, Wis. 5-tf

New York Farms for Sale—112 acres; 30 alfalfa, good buildings, running water in house and barn, $6,000; 66 acres—good buildings, $2,600. Easy terms. Others larger or smaller. For particulars address BOX 78, Peterboro, N. Y. 5-4

For Sale—Equipped dairy farm of 350 acres, 100 cows, heifers, team, and implements. E. CHRISTIAN, Owner, R. F. D. 1, Richmond, Va. 6-3

For Sale or Exchange—Choice, improved 240-acre farm in Waupaca County. Complete set of farm buildings, 100 acres crops, 25 acres fine timber, pasture, etc. No waste land. Do not answer unless you mean business, but a rare chance to get a farm. Answer LOCK BOX 552, Oshkosh, Wisconsin. 6-tf

For Sale by Owner—153-acre improved farm, black soil, brick house, barn room for 40 head of cattle. Two miles from Waukegan, Ill. on state cement road. One mile from high school, ¼ mile grade school, three railroads within two miles. Best of markets for farm products. $175.00 acre. Terms. D. W. WILLIAMS, Lake Forest, Ill. 6-4

For Sale or Trade—Town 2 sections or 1,280 acres of fine cut-over and timber land in St. Louis County, Minnesota, which I would sell at $12 per acre. Adjoining land is sold for $15 to $20 per acre, or would trade it towards a well improved and well stocked Wisconsin dairy farm. My land is clear. Write BOX 343, Barron, Wis. 6-3

A Small California farm earns more money with less work. Raise the crops you know about—alfalfa, wheat, barley, etc.,—also oranges, grapes, olives, and figs. Ideal for dairying, pigs, and chickens. No cold weather; rich soil, low prices; easy terms; good roads, schools and churches. Enjoy life here. Newcomers welcome. Write for our San Joaquin Valley, also Dairying and Poultry Raising illustrated folders free. C. L. SEAGRAVES, Industrial Commissioner. AT&SF RAILWAY, 1800 Railway Exchange, Chicago. 11-spl

Choice 80-acre farm. Splendid improvements. Well watered. 2 acres timber. Close splendid school, church. Priced right for immediate sale. Heirs wish to divide. Write for description and descriptive booklet. MANSFIELD LAND & LOAN CO., Ottawa, Kansas.

278 acres $4,400; with crops, pair horses, 13 cows and 3 heifers, 2 bulls, 4 calves, hogs, wagons, harness, machinery, tools, etc. Mile to sawmill, mile and half to railroad town. Estimated 275,000 ft. timber, 200 cords pulp wood, 4,000 cords wood. Productive loamy tillage for corn, potatoes, grain, meadows for many tons prime hay, wire-fenced 40-cow pasture, 100 good apple trees. Good 9-room house, big stock barns, good condition, new horse barn, carriage, poultry, corn, hog houses, only $4,400 for everything, small cash payment. Details page 9 Strout's Catalogue of this unsurpassed bargain and others, many with stock, tools, crops; free copy. E. A. STROUT FARM AGENCY, Dept. 3001, 312 Marquette Bldg., Chicago, Ill.

Free! Free! Free! To every homeseeker. Our new fall land list showing pictures of a large number of choice Central Wisconsin dairy and grain farm bargains. Write today. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin. 7-spl

Land will be higher. Provide against this. Make your selection without delay. Investigate Aitkin County. Richer soil, better conditions, more chances for profit, pleasanter living, less investment required, than anywhere else. No wonder those who come to Aitkin County send back for their relatives and friends. Descriptive literature free. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

For Sale—An eighty-acre, level, fully an modern equipped dairy farm, a short distance from one of the best markets in northwest Iowa. Address BOX 222, care Hoard's Dairyman.

FARMS FOR SALE

War Conditions place the State Street Dairy of Clyde, Ohio, on the market. This farm is under a high state of cultivation, splendidly equipped and stocked. Ten-room brick house with modern conveniences, barn for 25 cows, two silos, granary, milk house, garage, etc. Farm is on electric line one mile from town of 3,000 and operates only milk route supplying city. Milk sells for 12 cents per quart. Herd consists of 10 pure-bloods and six grades. Quota of tools and equipment is complete. Will sell farm alone or with all stock and equipment. This is a rare opportunity for a man who wants and can handle a proposition of this kind. For further particulars write H. L. PERSING, Prop., Clyde, Ohio.

300-acre dairy and grain farm in best dairy region of New York, 5 miles from R. R., 2 miles from state road, extra improvements, modern conveniences. $2,000 cash and $5,000 on long time at 5%. Owner, BOX 641, Delhi, N. Y.

Southeastern Oklahoma—Where winters are short and mild; rainfall is ample for all crops such as corn, wheat, oats, cotton, peanuts, clovers, alfalfa, sweet potatoes, melons, berries and fruits; 300-acre farm for sale; located on beautiful stream and bordering state highway; two miles from county seat; two sets improvements; 100 acres in cultivation; balance pasture; some timber, oak and hickory; barn 30x42; good water and ideal climate; price $30 per acre; will also sell small herd pure-bred Holstein cattle. This property is owned by a professional man about to enter the government service. Address H. L. WESTPHAL, Antlers, Okla.

WANT TO RENT

Want to Rent—An equipped farm on shares or work for man who wants a good man to run a farm for him. Have 4 boys; could run good sized farm. American. Good worker; do not use tobacco or booze. Open for engagement Sept. 26. Can give references. ALBERT BANNISTER, Arlington, South Dakota.

Wanted to Rent—Fully equipped, medium sized farm. BOX 216, care Hoard's Dairyman.

FOR RENT

For Rent—Dairy farm one mile from Beloit, Wisconsin. Excellent soil, good buildings. 425 acres. 200 acres in pasture. DON VAN VART, Agent, Parker Block, Beloit, Wis. 5-4

For Rent or Sale—100-acre farm near Brookside, Wis., fair buildings, about 70 acres under cultivation, balance pasture. WM. KIPP, Esanaba, Mich. 6-4

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

DAIRIES

For Sale—Dairy 50 Jerseys. Thoroughly equipped. Splendidly located in most thriving city in Florida. Rare opportunity. BOULEVARD DAIRY, Route 5, Tampa, Fla. 6-3

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Pedigree No. 2 Winter Wheat $3.00 per bushel. FRANK DANIELS, Fort Atkinson, Wis. 5-3

Certified Michigan Red Rock wheat and Rosen rye. Fine seed from high yielding crop. $3 per bushel. FRED A. LUTHER, Hart, Michigan.

PARTNER WANTED

Wanted—A good dairyman and farmer with capital to buy half interest and take full charge of fine, well equipped 400-acre farm adjacent city limits of thriving central Michigan city. Will make big sacrifice to good man. This is a proposition of exceptional merit. No trades or triflers need apply. Address BOX 90, care Hoard's Dairyman. 5-3

Successful dairy farm, dairy business, southern Pennsylvania wants partner or will sell. Address BOX 195, care Hoard's Dairyman. 5-4

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forestville, Conn. 3-10

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

Clover Hay—500 tons of pure clover hay, best quality. Can fill any order. Write for prices. R. F. JOHNSON, Assumption, Ill. 6-tf

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf

Leaf tobacco, homespun, two years old, aged in bulk, best chewing or smoking. 20 pounds sent express collect, $7.00; 10 pounds sent postpaid, $4.50. W. G. ADAMS TOBACCO COMPANY, Paris, Tenn. Reference, The Commercial Bank.



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—A dairyman who understands manufacturing butter and other by-products of milk, to take charge of a small Jersey herd. Give age, married or single, and salary expected. None but a worker need apply. Address BOX 193, care Hoard's Dairyman. 5-tf

Wanted—A sober, reliable married man from thirty to fifty years of age to take charge of a dairy in Indiana. Have an old reliable milk route, the highest class of its kind in the state. Keep two men to attend thirty cows. Use Hinman Milker. Want a man to take charge of my herd and drive the wagon. Must be honest and steady. Will furnish five-room house, garden spot, milk, chickens to raise on shares and furnish feed for them and pay $75 per month cash. Address or apply to WARREN PARK FARM, Terre Haute, Indiana. 5-4

Wanted—Two men to work in dairy barn to run milking machine, feed cattle and do general barn work. Best of wages will be paid right men. MILFORD MEADOWS STOCK FARM, Lake Mills, Wis. 7-2

Wanted—Married man not subject to draft to do general farm work in dairy barn. Wife to board other farm help. Good wages will be paid to right people. A separate house, food, fuel, etc., furnished free. A real opportunity to save money and have permanent position. Address BOX 225, care Hoard's Dairyman. 7-tf

Wanted—A working herdsman to take charge of a high grade Holstein dairy, 150 head, in the Roosevelt Dam Project, Arizona. Good proposition for a man who can make good. State experience and wages desired in first letter. If married, state size of family. Address P. O. BOX 127, Mesa, Arizona. 5-3

Wanted—Single man general farm work, good milker. Steady job to right man. Give particulars. BOX 192, care Hoard's Dairyman. 5-tf

Wanted—Working farm manager to run 100-acre farm on practical basis, largely devoted to supporting registered herd, 20 head also young stock. Require ability to handle and raise stock properly and feed cows on test. Buildings, land A-1. Location pleasant, convenient to electrics, near city. Here is an opportunity for good man. KIRKBRAE FARM, Box 1385, Providence, R. I. 5-spl

Wanted—Single herdsman capable of handling help and managing herd of dairy cattle. Address BOX 198, care Hoard's Dairyman. 6-4

Wanted—Married man, to take charge of pure-bred Holstein herd, who has some help of his own. Location Central Kansas. BOX 199, care Hoard's Dairyman. 6-tf

Little Falls Farm, Fredericksburg, Va., needs at once a single herdsman of experience and training to take complete charge of our World's Record herd of heifers that are now beginning their work. Must be draft exempt. Salary $70 per month. Married man with boy old enough to work will be considered. 6-2

Wanted at Once—A competent married herdsman to take charge of a herd of 25 Jerseys. Must be honest and temperate. We have a Hinman Milker. Give references and state wages in first letter. L. G. WRIGHT, New Vienna, Ohio. 6-2

Married herdsman wanted by October first for large Guernsey herd. Experienced feeding for records. New four-room house, close to school, milk, wood and garden. Wages $900 for year. Give age, experience and reference. HOMER F. RUNDELL, Livingston, Wis. 6-4

Dairyman, single, to take charge of small herd of Holsteins and do creamery work. Board and room furnished. State wages desired, age, references and experience in first letter. S. F. BITTNER, Mgr., Firestone Farm, Medina Rd., Akron, O.

HELP WANTED

Wanted—Single man or stout, healthy, 17-year-old boy for delivering, bottling and dairy room work. Must be good milker—10 to 12 cows to milk—exempt from draft, honest, reliable and capable of learning the work and to run ton truck. Steady work. Wages $50 per month, room and board. Located just outside limits city of 100,000 in Northwestern Missouri. Address BOX 207, care Hoard's Dairyman. 6-4

Wanted—Farm hands for year round work on large stock and alfalfa ranch. Wages fifty dollars per month with board, and where man stays a year a bonus of ten dollars per month is paid. Write E. L. OLWELL, Coulee City, Washington. 6-2

Wanted—Man for dairy farm. Steady work all year. Must be good milker. J. ROSHOLT, 438 McKnight Bldg., Minneapolis, Minn. 6-2

Wanted—In state of Maryland, single man above draft age, on large dairy farm, keeping Holsteins and Guernseys, 100 head. State experience, wages you would expect in first letter. Address BOX 213, care Hoard's Dairyman. 6-2

Wanted—Working dairy foreman for herd of fifty Holsteins. Salary or profit sharing. Wholesale only; present contract forty-five cents per gallon, three and half per cent. Can use electrical milking machines. A bonanza for the right man. Single man or man and wife preferred. If interested wire. ARLES PLANTATION, Americus, Ga.

Wanted—Middle aged man and wife to work on up-to-date dairy farm in Vermont, beginning October first. Man to do general work with team on farm or work in cow barn. Wife to take charge of farm boarding house where about ten men are boarded through the winter. A good cook and manager required. One girl furnished to assist with work, also man to run washing machine Monday mornings. All fuel and found furnished by the farm. Only people desiring steady work and of clean habits need apply. Preferably those who have lived in the New England states and are accustomed to the climate. An excellent opportunity. Address RAY L. WILLIAMS, Quechee Fells Farm, Quechee, Vt. 7-2

Wanted—Working dairyman. Must be good milker, feeder, and calf raiser. Married man preferred. No drinker or cigarette smoker wanted. Wholesale business only. Write proposition, give references, etc., in first letter. JAMES L. KEITH, Beaumont, Tex.

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—Single man for general farm work. Wages, $45 per month, board and washing. Good home and steady work for right kind of man. Address BOX 217, care Hoard's Dairyman.

Wanted—A high class dairyman, who understands the business, and willing to work as herdsman for 50-cow dairy, retailing high grade bottled milk. Everything new and modern. Ability to manage men, raise stock and oversee grain farming. Give age, nationality, and reference. PLAUT DAIRY FARMS, Box 174, Danville, Ill.

Wanted—Single man to work in dairy, to do bottling, separating of milk and butter making. Good position for right party. PINEHURST DAIRY, Sheboygan Falls, Wis.

Wanted—Good man for up-to-date dairy farm. Registered Holstein cattle. Yearly position. State age, weight, experience and wages. JOHN PULS, Hartford, Wis. 7-2

Herdsman wanted on a Massachusetts farm, qualified to look after a large herd of milking cows and to raise calves. It is a man's job if properly done. No liquor and preferably no tobacco. Small cottage furnished for married man, or board for single man. Salary seventy-five dollars per month up, depending on value of service. Address with particulars as to experience, etc. BOX 215, care Hoard's Dairyman.

Wanted at Once—Single man for general farm work by the month or year where Holsteins are kept and A. R. O. records are made. Must be a good milker and take interest in the work. Please state wages in first letter. ONARINE FARM, Salem, Ill.

Wanted—Single or married man as assistant herdsman. Chance to handle milking machines and learn A. R. work. Everything modern. State salary and reference. Address BOX 214, care Hoard's Dairyman.

Help Wanted—Married man for farm work. Wife to do housework. Good wages all year round. Present couple been with me 9 years. Give particulars. DENNIS SHEA, Melvina, Wis. 7-2

Wanted—Farmer. Working foreman on hundred-acre farm milking twenty cows. Only experienced farmer dairyman, hard working, with neat, competent wife, need apply. Must board one to three men. Liberal rate allowed. Men sleep in separate building. All modern conveniences in house but only two bed rooms. Wages one hundred dollars per month with fuel, light, milk, potatoes and garden spot. Bonus in addition for results. Give full particulars in first letter. STRAWBERRY HILL FARM, Birmingham, Mich. 7-2

Wanted—Foreman to improve herd of forty pure-bred cows. Single man to make his home with owner. Sixty dollars a month to begin. HENRY NICOLL, Pennington, Va.

Working farmer wanted on a fifty-acre farm having Ayrshire cows and Berkshire hogs: concrete barns, running water; farmer's house of six rooms and bath; two miles from town of Red Bank, N. J.; desire experience with animals and general crops; reply with all details and salary desired; might consider shares. P. O. BOX 237, Red Bank, N. J.

Assistant herdsman wanted for high class pure-bred Holstein herd. Must be good milker. Married men need not apply. Please state age, nationality and wages expected in first letter. T. H. SKREI, Glyndon, Minn. 7-2

Wanted at Once—Men for official test work in Minnesota. A wonderful opportunity to see good herds and gain experience. Good salary and all expenses. Must have had some experience with dairy stock and operating the Babcock test. Write E. O. HANSON, Division of Dairy Husbandry, University Farm, St. Paul, Minn.

HELP WANTED

Wanted—Competent working superintendent on modern farm near Chicago. Must understand hogs, cows, buttermaking, and field work. In answering state age, whether married or single, past experience, references and terms. Best of living conditions. Good future for right man. Address BOX 221, care Hoard's Dairyman.

Wanted—Experienced herdsman on a modern dairy farm on electric car line five miles from Denver, Colorado. Must be single, over thirty years of age, a good milker and feeder. Able to take entire charge of a herd of 130 cows producing milk under certified conditions. This is a permanent position for man who can qualify for the work. Wages $75 a month with room and board. Can also use an experienced helper in bottling plant. Address BROOKRIDGE FARM, Littleton, Colo.

Man for general farm work, $40 per month, milking done by machine. AUG. HERMAN, Tomahawk, Wis. 7-2

Wanted—Man for farm work and milking. Good home. $40 and board. JOSEPH HOGAN, Edwardsville, Ill.

Best wages and shares to reliable married dairyman and farmer who will rough it a little in getting place ready for dairying, put on fifteen cows next spring. Must be high class man who wants something good for term of years. WOODBINE STOCK & SEED FARM, Limon, Colo.

Wanted—Working foreman or superintendent for combination dairy farm and summer home preferably familiar with registered Guernseys. Would have to attend to transfers, etc. Herdsmen employed. Please state full particulars first letter. If married, size of family, salary expected, etc. BOX 1601, Milwaukee, Wisconsin. 7-2

Wanted—Married man for general dairy work. Pure-bred Holsteins. Wife to board help. HOLMES DAIRY CO., Whiting, Iowa. 7-3

POSITIONS WANTED

Position wanted by a reliable farmer and dairyman of successful experience on the farm. Guernseys preferred. A good calf and stock raiser, dairy buttermaker, over draft age. No boozer nor tobacco user. Address BOX 209, care Hoard's Dairyman. 6-2

Dairy Farm Specialist—Open for engagement. Experience has been mostly with Guernseys which breed I have specialized in both in breeding and feeding for production. Have gotten results to the limit of the herd's ability to produce. Thoroughly understand efficient farm management and modern equipment in its different departments. Can qualify in Berkshire breeding. In present position three years with results. Willing to consider herd management only for a first class herd. Married with family. Willing to go anywhere for good proposition. BOX 208, care Hoard's Dairyman. 6-2

Wanted—Position as manager pure-bred dairy farm. 15 years' practical experience in all branches farming and stock raising, advanced registry, fitting for show ring, sales, etc., also wholesale and retail milk and butter business including pasteurizing and all other details incident to big milk business. Not subject to draft, age 35, married, no children, college education, can make change Sept. 1st. Address BOX 201, care Hoard's Dairyman. 6-3

Position wanted as cook on large farm. Widow with one child. Experienced. MRS. MARY NORRIS, 57 So. Water St., New Haven, Conn.

Middle aged married man, no children, desires position as farm manager, Wisconsin or Eastern Minnesota. Life experience as practical farmer, stock raiser and dairyman. Excellent references. Ready October 1st. BOX 218, care Hoard's Dairyman.

Can you use a man, 46 years of age, college graduate, experienced in feeding and showing cattle? Wire DOUGLAS DEMMON, 52nd and Sansom Sts., Philadelphia, Pa. 7-4

Farm manager, scientific, practical, energetic, capable and reliable, strictly temperate, reliable references, wants position on large modern farm or estate. R. JOHNSON, 4808 Sheridan Road, Chicago, Ill.

Herdsman, single, good on records, seeks position. State particulars. I. KREAMER, Hotel Clark, Cleveland, Ohio.

Wanted—Position as working foreman on stock or dairy farm by young farmer experienced in stock raising, dairying and general farming. Good dry hand milker. Prefer southern or eastern states. State wages in first letter. MacDONALD, Box 76, R. 2, Norfolk, Va.

Position wanted as herdsman, single, 38. 25 years' experience. State wages first letter. WILLIAM MOJE, 547 West Madison St., Chicago, Ill.

Position wanted on up-to-date model dairy and farm by experienced man. References. JOHN GREEN, 1208 West University Avenue, Urbana, Ill.

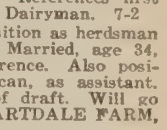
Wanted—Position as herdsman manager; life experience in dairying, A. R. O., show ring, veterinary; competent as to values, etc.; would consider partnership or share proposition. Present position 5 years. References first class. BOX 224, care Hoard's Dairyman. 7-2

Wanted—November 1st, position as herdsman or manager by Scotchman. Married, age 34, life experience, best of reference. Also position for single man, American, as assistant. 11 years' experience. Out of draft. Will go anywhere. Herdsman, SWIGARTDALE FARM, Petersburg, Mich.

Position wanted as herdsman or farm manager. Graduate of school of agriculture, married, and have experience in A. R. O. work, also certified dairy work. Address BOX 220, care Hoard's Dairyman. 7-2

Wanted—Position as school teacher, or accountant. Box 219, care Hoard's Dairyman.

THE AIREDALE



The Most Useful Dog on Earth

Will do anything any other dog can do, and do it better. As a **Watch Dog,** no dog approaches him. **Will help yard and herd your stock, and bring home your cows better than a Shepherd or Collie. He is an inveterate ratter.** Pedigreed puppies for sale at farmers' prices. Descriptive circular free.

P. H. SPRAGUE, Maywood, Illinois

Why the cost of producing cattle does not determine their selling price

TO produce a steer for meat purposes requires, as you know, a period of from one to three years.

The prices the producer has to pay for feed, labor and other items during this period, together with weather conditions, determine what it costs to produce the steer.

But the price the producer receives for the steer depends on conditions existing at the time it is sent to market.

If the supply of cattle coming on the market at this time is greater than the consumer demand for dressed meat, the prices of meat and live stock go down.

On the other hand, if the number of cattle coming to market is less than enough to supply the consumer demand for meat, the prices of meat and live stock go up.

Not only do the receipts of animals vary from week to week but the consumer demand for meat also fluctuates.

The rise and fall of prices results from an economic law that operates in every business. It is the packer's task to turn live stock into dressed meat and by-products, and distribute them to the consumer under control of this law.

Market conditions and competition establish the prices the producer gets for his cattle. When meat prices go up or down, so do cattle prices.

The packer can't pay out more money for animals than he takes in from the sale of meat and by-products.

Swift & Company will gladly co-operate in the carrying out of any national policy that will tend to steady the prices of live stock and meat.

Swift & Company, U. S. A.

A nation-wide organization with more than 20,000 stockholders

Water in the Stable a Necessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

FOR MILKING MACHINES

"Clear and Clean as Water



B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."

General Laboratories—Madison, Wis.
280 So. Dickinson St.

SILO HEATER

The new sensible cover for silage
Places natural heat at walls.
Artificial heat when needed.

PREVENTS FREEZING

Write for free descriptive leaflet.

SILO HEATER COMPANY
McKnight Building, - Minneapolis, Minnesota.

National Dairy Show

In addition to the wonderful exhibit of machinery used by the dairy industry, which will occupy four o the immense buildings on the stat fair grounds and the coliseum a Columbus; shows and parades an the judging rings of cattle an horses; the students' judging con tests of cattle and dairy products; th mammoth exhibit of dairy product under refrigeration; and the activ farm machinery and tractor exhibits there will be this year many feature of world interest replete with sug gestions for war work. As 1918 i children's year in America, one of th outstanding features of interest to b presented is the work for infant wel fare that is being performed unde the guidance of the Infant Welfar Bureau of the U. S. Department o Labor. Miss Julia Lathrop is th chief of this bureau and Drs. Grac Meigs and Dorothy Reed Mendenha are in charge of the work for babie and children. These women have en tered into the spirit of using the sho to visualize to the dairy industry a well as to the mothers and the whol people of America who must b brought to the show or the sho carried to them, the real vital plac that milk occupies, and the necessit of it for the continuance and prope maintenance of the human family Babies and children of tender year will be there to give evidence of th need of milk for full nutrition and t demonstrate the necessary care an feeding of babies for health. Thi will be a glimpse of the gloriou work the women of America are s ably advancing this year to save th babies.

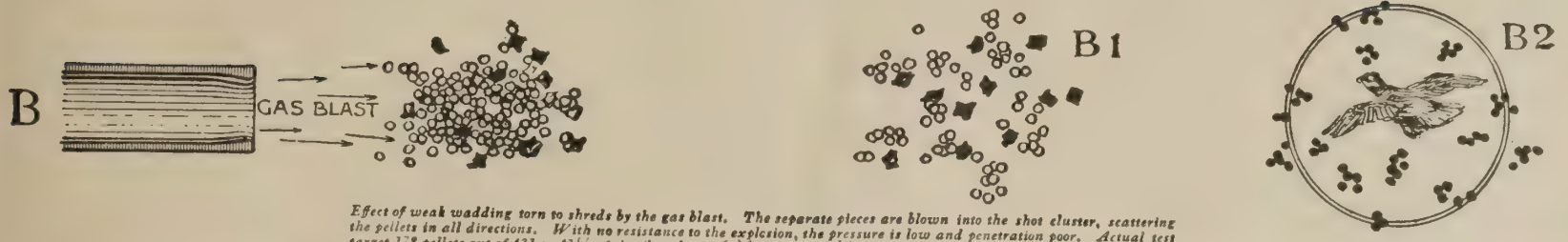
The Dairy Division and States Re lations Service of the U. S. Depart ment of Agriculture are to occupy big place in the show. First, the me in the Dairy Division who have ha in charge the many things for dairy ing that this division gives to th world from time to time will under take to present a concrete picture o the vast and ramifying interests tha come under their care, embracing th work of calf clubs, bull clubs, co testing associations, cheese manu facture, milk and dairy products re search, and the all and several line of dairy farm activities that they ar directing. The States Relation Service will give an elaborate ex position of the whole scheme o Home Economic Work that is be ing advanced by 2,500 women lead ers now preaching the gospel o food all over this country. Most o these leaders will be in attendanc upon the show, and the U. S. Foo Administration will present a mes sage of infinite importance for pro ducer and consumer. These education al and highly interesting events wi all be under immediate care of Dea Van Norman, whose services hav been loaned to the Government an the Dairy Industry by the Universit of California.

Three large buildings 100x200 f will house these educational feature and glass rooms for the Babe and In fant Demonstrations will be erecte therein and the lecture rooms par titioned off and demonstratio kitchens erected in various units t suit the work to be shown. The bes talent obtainable will be in charge an lecturers of national and internation al reputation will make of this th most perfect dairy or food show eve held—filled with interest from th hour of opening until the hour of clos ing.—J. A. WALKER, Chairman Exec utive Committee, National Dairy As sociation.

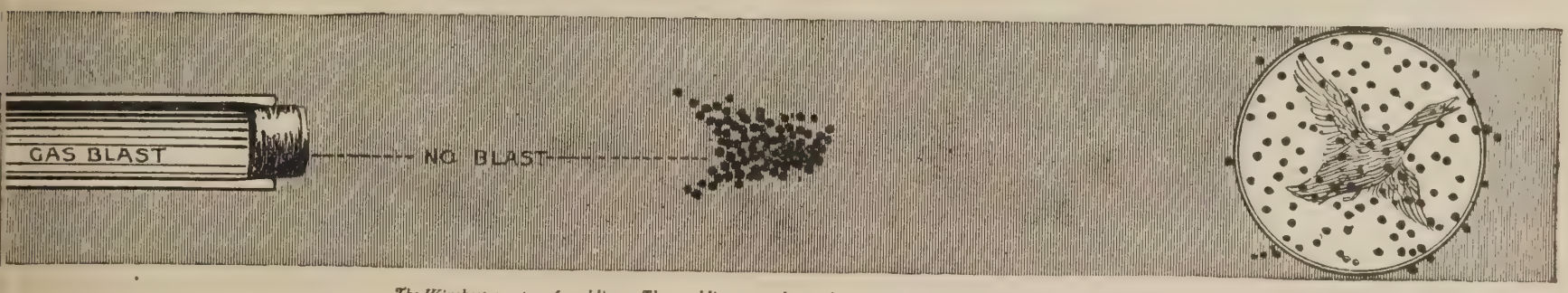
As to food the Allies have no reaso to fear the future, while the enem dare not look into the coming winte without a shudder.



Effect of hard wadding that fits the barrel loosely. Unchecked by friction or muzzle choke, it is blown through the shot cluster, scattering the shot charge. Actual test target, 221 pellets out of 431 or 51% of the shot charge (1¼ oz. of 7½ chilled) inside a 30-in. circle at 40 yds



Effect of weak wadding torn to shreds by the gas blast. The separate pieces are blown into the shot cluster, scattering the pellets in all directions. With no resistance to the explosion, the pressure is low and penetration poor. Actual test target 178 pellets out of 431 or 41% of the shot charge (1¼ oz. of No. 7½ chilled) inside a 30-in. circle at 40 yds



The Winchester system of wadding. The wadding expands evenly, sealing in the gas blast all the way to the muzzle, where it is checked by the "choke" or constriction. Shot cluster travels on ahead unbroken. Actual test target, 320 pellets out of 431, or 74% of the shot charge (1¼ oz. of 7½ chilled) inside a 30-in. circle at 40 yds

Effect of wadding construction on shot patterns

Poor wadding responsible for more faulty patterns and lost birds than all other gun and shell troubles combined

A strong uniform shot pattern depends upon how perfectly the *wadding* in your shells controls the five-ton gas blast behind it.

The wadding, like the piston head of a gas engine, must give the explosion something solid to work against so that the shot may be *pushed* out evenly.

It must expand and fill the tube of the barrel, completely sealing in the gas behind it. No gas must escape to scatter the shot.

It must offer just the right amount of resistance so as to develop uniform pressure and high velocity without danger of jamming the pellets out of shape at the "choke" or muzzle constriction.

The illustrations at the top of this page show actual test patterns, 50% to 70% faulty, the result of poor wadding.

The Winchester system

Winchester wadding is the result of repeated experiments to determine the most efficient control of the gas blast.

The special construction of the *Base wad* gives what is known as *Progressive Combustion* to the powder charge.

Combustion spreads instantly through the powder charge. By the time the top grains of powder become ignited the *full* energy of the burning powder behind is at work. Though the explosion is almost instantaneous, it is none the less *Progressive,* the final energy and maximum *velocity* of the completely burned powder being developed at the *muzzle*, where it is most needed.

Meanwhile, under the heat of combustion, the tough, springy Winchester *Driving Wad* has expanded to fill the barrel snugly all around. No gas escapes. It is completely sealed in. The wadding *pushes* up the shot evenly.

At the muzzle the shot pellets slip out without jamming, while the wadding is checked for a brief interval by the constriction of the muzzle. *It follows some distance behind the shot pattern.*

The shot cluster travels on unbroken by gas blast or wadding and makes the hard hitting, uniform pattern for which Winchester shot shells are world famous.

Fish Tail Flash All Winchester smokeless shells are made with the new Winchester Primer—the quickest and most powerful shot shell primer made. Its broad *fish tail* flash gives even and thorough ignition. Every grain of powder is completely burned up before the shot charge leaves the muzzle.

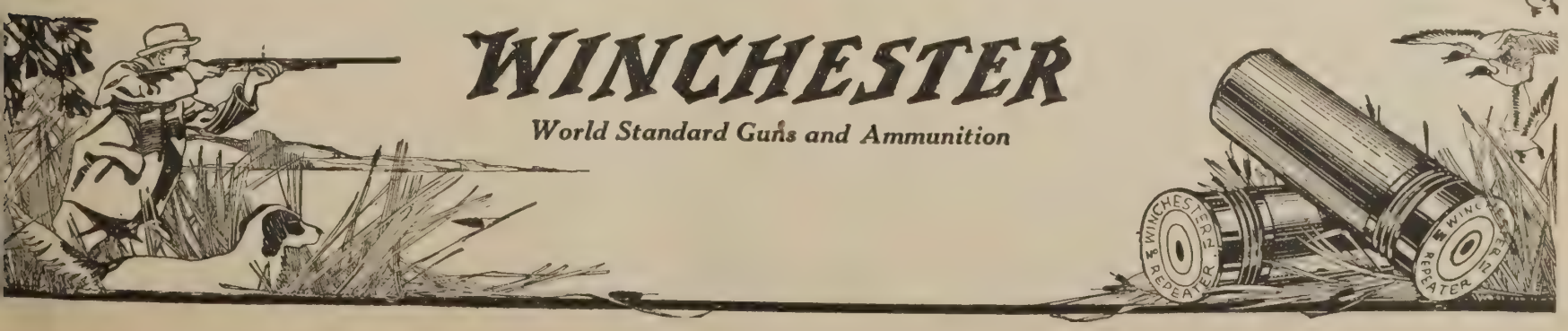
The Crimp The required degree of pressure necessary in seating the driving wads is worked out in combination with the *hardness* or the *softness* of the *crimping* required for any particular shell.

Water-proofing and Lubrication In the cold, damp air of the marshes, or under the blazing sun at the traps, Winchester shells will always play true. Winchester water-proofing process prevents them from swelling from dampness. Special lubrication of the paper fibres prevents brittleness and "splitting" in dry weather.

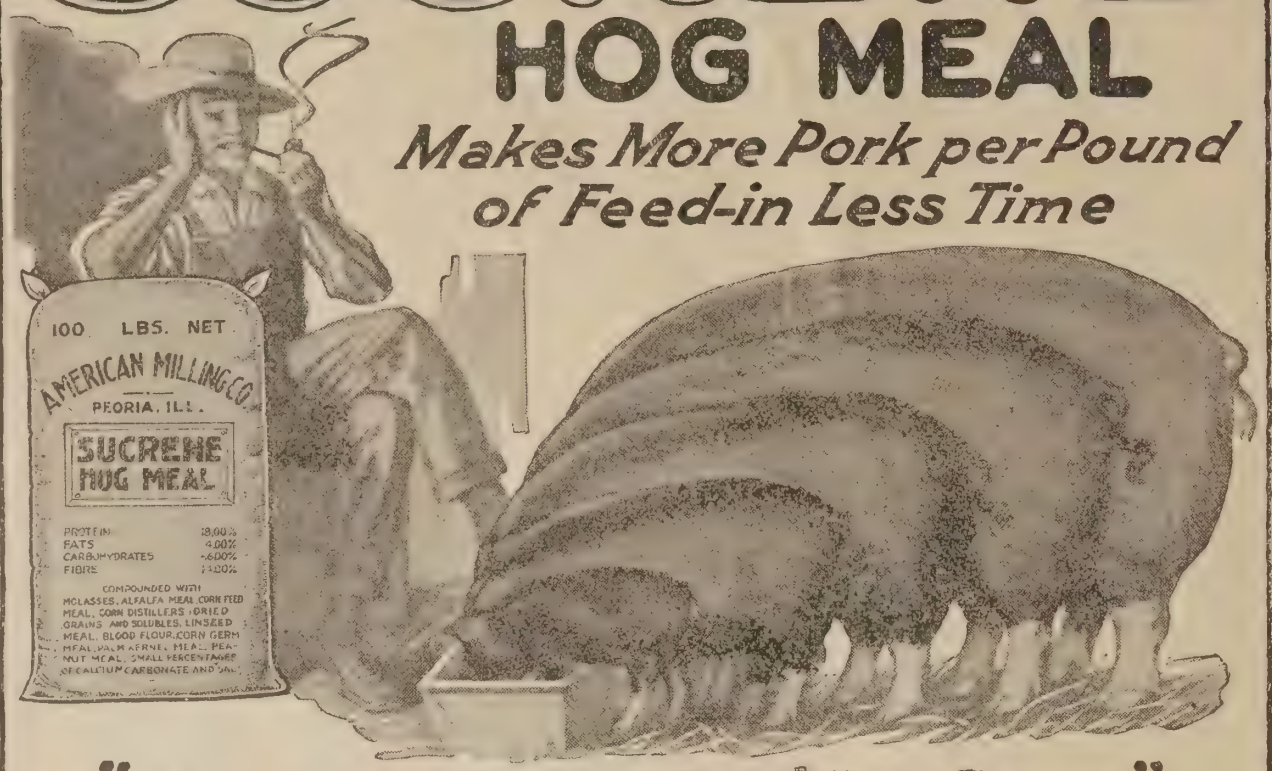
Uniform Shells From primer to crimp, Winchester shells are constructed to insure the maximum pattern possible from any load and under all conditions. $100,000 is spent annually in the inspection and testing of finished shot shells. 25,000,000 rounds of ammunition are fired every year in testing guns and ammunition.

Clean hits and more of them

To insure more hits and cleaner hits in the field or at the traps, be sure your shells are Winchester Leader and Repeater for Smokeless; Nublack and New Rival for Black Powder. Write for our Free Booklet on Shells. **Winchester Repeating Arms Co., Dept. E-11, New Haven, Conn.**



SUCRENE
HOG MEAL
Makes More Pork per Pound of Feed-in Less Time



"You Can Fairly See 'Em Grow"

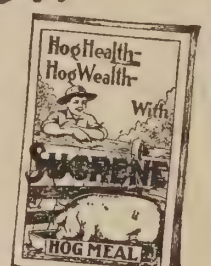
Sucrene Hog Meal speeds up pork production far beyond any ordinary hog feed; eliminates all uncertainty about feeding hogs for healthy, vigorous, rapid growth and quick, high-grade finish; produces more and better pork per pound of feed, because:

1—It is a complete, correctly balanced pork-making ration, composed entirely of standard quality feeding materials.

2—It is so appetizing that hogs relish it keenly—eat more in excess of their daily maintenance needs, which means gaining weight rapidly.

3—It is so easily digested that hogs get the full benefit of all they eat—no 25% waste as in feeding corn.

4—It contains health promoting materials—Blood Flour and Molasses—which, besides having highest feeding value, possess strong corrective qualities for stomach and bowels, reducing to a minimum the chances of set-backs and loss by disease.



Get This Free Book On care and scientific feeding of pigs and hogs. Reliable information, indispensable to successful hog raising. Tells about diseases of hogs—prevention and cure.

Please send me illustrated literature on feeds checked below: (4)

- ☐ Sucrene Dairy Feed
- ☐ Sucrene Calf Meal
- ☐ Sucrene Hog Meal
- ☐ Sucrene Poultry Mash
- ☐ Amco Fat Maker for steers
- ☐ Amco Dairy Feed (25% Protein)

My Dealer's Name.....

P. O...... *State*.....

My Name.....

P. O...... *State*.....

No Corn or Tankage Needed When Feeding Sucrene Hog Meal

You can not raise or buy higher grade feeding materials than are contained in Sucrene Hog Meal: Corn Germ Meal, Corn Feed Meal, Alfalfa Meal, Corn Distillers' Dried Grains and Solubles, Peanut Meal, Palm Kernel Meal, Old Process Linseed Meal, Blood Flour, Pure Cane Molasses and small percentages of Calcium Carbonate and salt.

We guarantee every sack of Sucrene Hog Meal to analyze 18% protein, 4% fat, 46% carbohydrates and 14% fiber.

Miller Bros., Carlos, Ind., famous raisers of Poland Chinas, write: "We consider Sucrene Hog Meal the best we ever fed for raising fine healthy hogs."

Sucrene fed hogs are not just "lard hogs." They have firm, solid flesh, lean and fat, with large, strong frames—bring highest market prices. Save all your corn this year. Sucrene Hog Meal brings you bigger, surer and quicker hog profits. Feed it dry or slopped—hogs enjoy it either way. Give your dealer a trial order. If he does not handle Sucrene write us his name and we will see that you are supplied.

Fill out and mail us the coupon for books and folders on care and feeding of live stock.

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Real Gravely Chewing Plug
10c a pouch—*and worth it*

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Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.



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31 Elm St., Quincy, Ill.

Advantages of a Silo

The following advantages of a si are given by F. B. Mumford, dean the University of Missouri College Agriculture:

1. The silo provides a means saving a larger percentage of the nu trients in the corn crop, especially case of drouth, early frost, or failu to mature.

2. The silo conserves the nutrien of the entire corn plant in a palatab form.

3. Silage is succulent and provid conditions in winter similar to sum mer pasture.

4. The silo insures a saving of tim and labor in winter feeding. Th farmer does not have to wade throug snow and mud to haul feed from th fields in stormy weather.

5. Silage furnishes a unifor quality of feed and puts bloom an good coats on live stock in winter.

6. More feed can be stored in th form of silage than in the form fodder or hay.

7. Acre for acre, silage is mo efficient as a feed than fodder.

8. Silage can be used profitably a a supplement to pastures in summe

9. Silage properly made is a goo feed for horses, cattle, and sheep. increases the flow of milk in winte when prices are highest, thus loweri the cost of production, and increasi the profits.

10. Silage reduces the cost of bee production, is economical for mai taining breeding animals, and kee young stock thrifty and growing a winter.

Army Food Prices

Prices paid by the subsistence div sion of the Quartermaster Corps fo the most important articles of fo supplies to the camps and canto ments in the month of July were follows:

The base price for army beef July was $23.05 per hundred poun at Chicago. The army cut of beef worth $1 per hundredweight mo than the standard cut. Hams we purchased at 31 cents per pound, d livered at camps, and bacon at 43 cents per pound, delivered at camp

July purchases of butter were ma on an average of 42½ cents p pound f. o. b. Chicago, and 43 cents delivered at camps. July pric for oleomargarine were 26¼ cen per pound, f. o. b. Chicago, and on a average of 27½ cents per pound d livered at camps. The price for la was 26½ cents delivered at cam and for lard substitutes 21¾ cen per pound delivered at camps.

Flour was purchased at $11.10 p barrel of 196 pounds, packed in 9 pound sacks, f. o. b. Chicago. T average price for sugar was $7. per hundred pounds, f. o. b. seaboa refineries. Potatoes were purchas at an average cost of $2.84 per hu dred pounds delivered at camps a the average price paid for onions July was $2.97 per hundred poun delivered at camps.

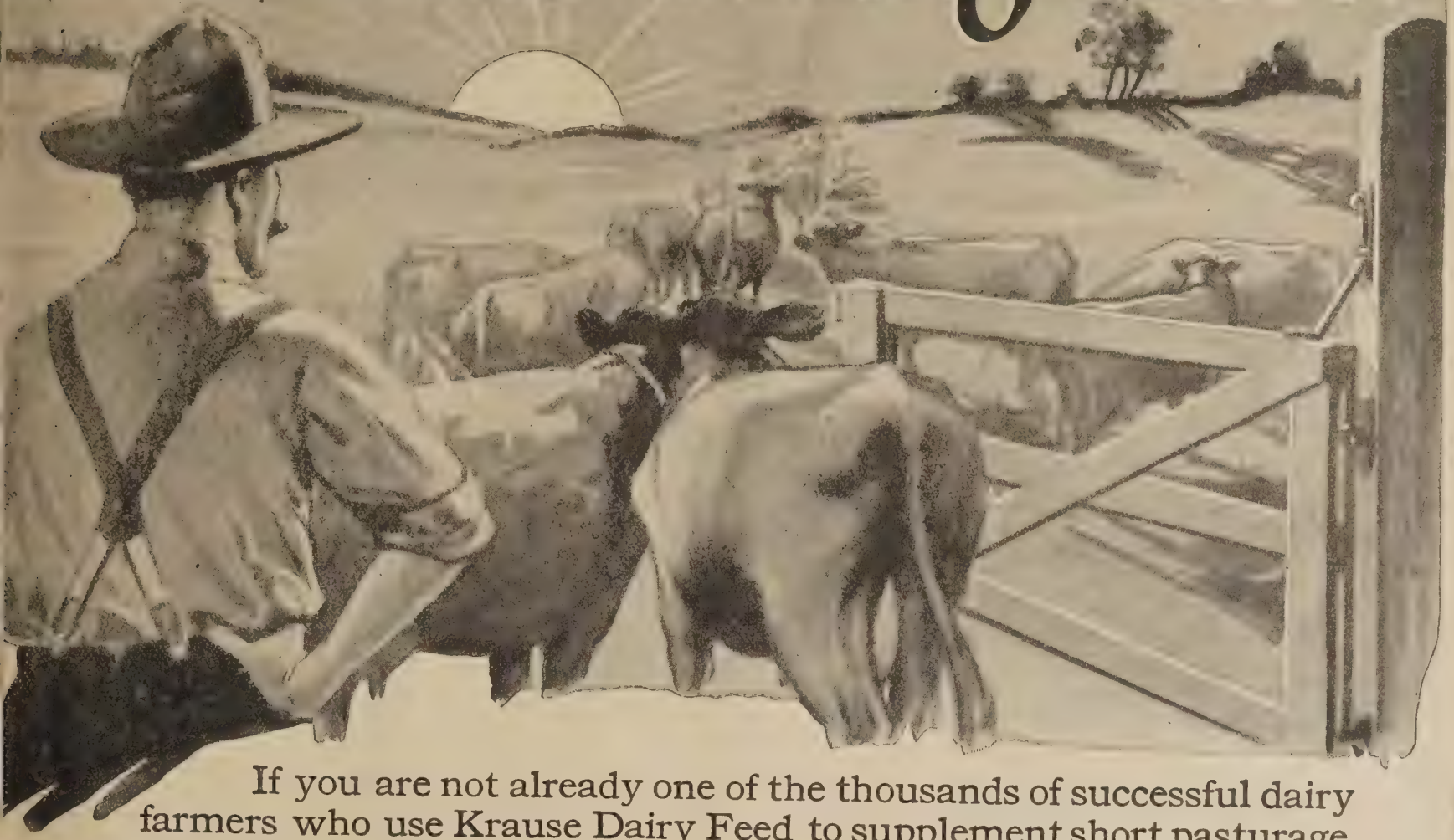
Barrenness

Please let us know what is the best tre ment for cows that fail to come in heat, ca ing being normal.

Fennville, Mich. J. B.

The best treatment is to have t ovaries massaged by a qualified vete inarian who has had special trainin and experience in such work. It is do to break down ovarian cysts, som times the cause of barrenness, and will also treat the womb, if he fin that necessary. Meanwhile it m help if you syringe out the vagi two or three times a week with luk warm water containing one teaspoo ful of coal tar disinfectant to t quart.

Is the Grass Getting Short?



If you are not already one of the thousands of successful dairy farmers who use Krause Dairy Feed to supplement short pasturage, you will find it exceptionally well adapted to your present feeding needs.

If your pastures have dried up altogether and your supply of other green stuff is short, it can be fed alone with splendid results or easily combined with any home-grown grains or green stuffs which are available for immediate use.

Krause Dairy Feed is a complete dairy ration with a protein content of 24% to 25%. Fed alone or in combination with any other feeds it is a sure and consistent money maker that will not only increase and sustain your milk flow but will promote the steady growth of young stock and keep your entire herd in "first premium" condition the year round.

KRAUSE DAIRY FEED

r claims for Krause Dairy d are based on actual re-s, not theory. Thousands successful dairy farmers e been feeding it for years, their testimony has es-lished beyond question t Krause is a high grade able feed.

Krause Dairy Feed has been worked out on a scientifically correct basis. Its formula takes into consideration the great variation of feeding requirements in different sections and the necessity of its being adapted to individual needs of cows of all breeds. It's a perfectly balanced combination of nine of the best milk producing feed stuffs obtainable, namely, Distillers Grains, Gluten Feed, Cotton Seed Meal, Wheat Bran, Malt Sprouts, Hominy Feed, Linseed Meal, Brewers' Grains, Wheat Middlings and a small percentage of salt. No other dairy feed on the market is so well combined as to protein content, carbo-hydrates, fat and fibre—is so nutritious, palatable and dependable.

You will find Krause Dairy Feed a twelve-months-in-the-year ration that will completely and profitably meet your feeding requirements. Have your dealer supply you with it now and let your cows give you the testimony that counts the most. Send for free sample, also free record book and other literature.

Buy Your Winter Feed *Now*

WHETHER you buy Krause Dairy Feed or any other feed, we advise you to lay in your winter stock at once. You will make money because the prices of all feeds are lower now than they will be later.

Furthermore, you will be sure of getting your feed. If you wait until later, shipping delays, which promise to be even worse than last season, may make your supply very uncertain.

The farmer who is obliged to feed his high priced grains this fall and winter will be feeding real money. If he secures his winter supply now he will be saving for himself and helping to relieve the serious freight situation.

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ADE
BADGER

The Badger Line of Farm Feeds

airy Feeds, Stock Feeds, Al-lfa Horse Feeds, Hog Feed, alf Meal, Poultry Feeds.

CHAS. A. KRAUSE MILLING CO.

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MANUFACTURERS OF
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PAIGE

The Most Beautiful Car in America

The "Preferred Investment"

The wise man selects his motor car investment in much the same way that he selects a first mortgage bond or any other high grade security.

He looks for permanent, enduring *quality*—not mere surface veneer. He looks to the integrity of the manufacturer, the critical expressions of the average owner and the history of the product over a period of years.

It is on this basis that we would have you consider the Paige.

From the standpoint of initial cost, ours is not a cheap motor car. There are many cars on the market that sell for less money than the Paige and we could readily build them ourselves if we considered that the best policy. But we don't.

We firmly believe that self-respect, comfort, and enduring satisfaction have an actual market value. So we build those things into our product.

We take just a little more time—just a little more care in the selection of materials—just a little more pride in our work. And the result is a real motor car—not a makeshift or compromise.

In brief, while we agree that first cost is an important consideration we are convinced that *Ultimate* cost is vastly *more* important.

We believe that the only true test of economy is twelve months of hard, gruelling service on the road.

We believe that freedom from repair bills and excessive depreciation are infinitely more desirable than a mere catch-penny list price.

These are our convictions. We have held to them staunchly during many fitful periods in the motor car industry. So long as the Paige Company is a factor in the making and distributing of motor cars, we shall continue to adhere to them.

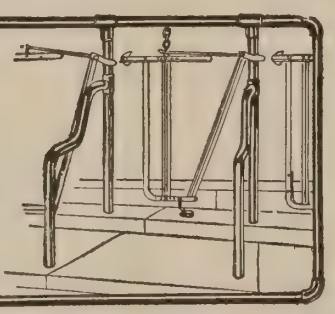
And it is because of these convictions, and their practical application to manufacturing, that the Paige car is regarded as a "Preferred Investment" in every automobile mart of the world.

Prices subject to change without notice.

PAIGE-DETROIT MOTOR CAR COMPANY

210 Mc KINSTRY AVENUE DETROIT, MICHIGAN

$7.60 Buys this Harris Sanitary Cow Stall



complete with Stanchion. The Stanchion has adjustable neck space—will fit anything from a small calf to a big bull. Wood-lined—no cold steel touches the neck. It is equipped with Sure Stop Bar and absolutely cow-proof latch. The Stalls are made of genuine, large-size (1½ in. inside diameter) steel pipe. Complete—any width—$7.60. Write today for descriptive folders.

Harris Mfg. Co., 540 Main St., Salem, O.

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PREVENTED AND CURED PERMANENTLY. FOUR COWS MADE PROMPT, REGULAR BREEDERS BY

STERILOID

Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY

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ABORTION



Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.

Dr. George Hollabush, Fort Atkinson, Wis.

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Approximately 10,000 cases are successfully treated each year with

Fleming's Fistoform

No experience necessary; easy and simple; just a little attention every fifth day. Price $2.50 a bottle—your money refunded if it fails. Send for free copy of FLEMING'S VEST-POCKET VETERINARY ADVISER

Valuable for its information upon diseases of horses and cattle. 197 pages, 67 illustrations. Write today.

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Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

VETERINARY

Advice is given free in this department. Inquires must be signed by the writer and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Blood in Milk

Kindly give me remedy for cow giving occasional bloody milk. Don't think it is from injury.

Culpeper, Va. F. P.

There are several different causes of blood in milk and the exact cause should, if possible, be determined that intelligent treatment may be given. When blood appears in the milk from all quarters of the udder just after calving, the cause is congestion, which brings on rupture of small blood vessels. This condition usually subsides in a week or two. An attack of mammitis (garget) also may cause blood staining of milk, more especially when the disease has become chronic. Other common causes are injury and bleeding of growths in the teats irritated by the act of milking. Growths sometimes may be removed by operation but when high up in the udder often necessitates drying off of the milk secretion. In other cases bathing the udder with cold water three time daily and once daily giving a teaspoonful of powdered copperas and three of salt in the feed sometimes proves effective. Copperas should not however, be given to a cow that is heavy in calf. If our inquirer care to send full particulars we shall be glad to give special advice.

Paralysis

I have a registered Holstein heifer, 2 months old, that had a calf June 30. The calf was very large and she lost it. The afterbirt came all right but the heifer is weak in th back and can not get up. She can't use he hind legs, that is, can't stand on them. He bowels and kidneys act all right; she has good appetite and seems all right in ever other way. She prefers to lie on her left sid most of the time. She tries to get up an moves herself around at will, that is, with he front feet. I have been bathing her with sa and water and feeding her bran twice a day with all the alfalfa hay she will eat up clear three times a day. Ought she to be gotten u with pullies? Is there anything that I ca give her or put on her?

Stafford, Kans. F. Mc.

We suspect that the pelvis wa split at calving time or there ma simply have been an injury to th nerves of the pelvic region. Do no allow the cow to lie upon her side Keep her propped upon her chest an pull out and forward the opposit hind leg every three or four hours t give her a change of position. Kee her bowels active. Add whole oat and oil meal to the bran. Slingin will do no good but it would be wel for the veterinarian to give stimu lants including nux vomica.

Leaking Teat

Please let me know what will cure a two year-old, high grade Holstein heifer tha leaks her milk in the pasture.

Chateaugay, N. Y. T. E. C.

We do not know of any way to cur a cow of leaking her milk, but it i possible to stop it for as long as th remedy is practical. One way is t put fairly wide rubber bands aroun the teat to be worn between milking These should not be tight enough t stop the blood flow. Wide pieces o tape can be used in place of the rub ber bands.

Another method is to put a littl collodion on the end of the teat afte milking. It must, of course, be re moved at the next milking.

Fruits can be preserved in grap juice or apple juice in place of a sug ar syrup. Extract the juice from ver ripe fruit and boil down to one-ha the volume to form a thin grape o apple syrup.



JERSEYS *The* PROFIT BREED



The pump has been blamed for much watered milk that really came from poor cows. Why waste feed on cows that skim their own milk when Jerseys will produce the highest percentage of butter fat at the lowest feed cost? **Raise the standard of your herd to the highest degree with Jerseys.** The man who begins with one Jersey is never satisfied until he has a herd. He can see the profit without close figuring. Start now. Write to Breeders for pedigrees and prices. Let us send you the Jersey facts that will open your eyes to the possibilities of this money-making breed.

THE AMERICAN JERSEY CATTLE CLUB, 351 WEST 23rd STREET, NEW YORK CITY

Lookout Farm Jerseys
A Rare Opportunity Is Offered

o secure a fine young bull carrying a large ercentage of *Sophie's Tormentor* blood. Solid olor; dropped May 9th, 1917.
SIRE. Raleigh's Lookout Torono, 136362, who as 37½% of the blood of Hood Farm Torono, nd whose dam, grandam, and great gran-am are all in the Register of Merit; and each f them has given over ten thousand pounds of nilk in a year.
DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, nd great grandam are also in Register of Merit. Price reasonable considering quality.
Henry S. Redfield, 1925 Seventh Ave., New York City.

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over

700 Pounds of Butter in One Year

These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of

1132 Pounds of Butter in One Year

If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.

ROYCROFT FARM, SIDNAW, MICH.

Registered Jersey Calves

om large milking dams and of the most fash-nable breeding, either sex. Prices $50.00, $75.00 nd $100.00 each.
ASHLAND FARM DAIRY, Inc.
LTON PARK, - TENNESSEE.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
00 Head - - 100 Head
A few for sale.
. C. YOUNG, 33 and O Sts., Lincoln, Neb.

HILLCREST JERSEYS

Write me for descriptions and prices on sev-al head of officially tested cows. Also bull lves out of tested dams. Address
OLLIE VANDERVORT, Tomah, Wis.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson Hood Farm Torono and by a grandson of Jacoba ene. Dam made 435 lbs. butterfat in 1 year and has ver been defeated at the fairs. This is an excellent dividual and guaranteed right. Write Ed. A. Mo-lvea, R. 2, Box 99, Baraboo, Wisconsin.

Jersey Bulls
FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

OWL-INTEREST

Our calf No. C 2, dropped Dec. 25, 1917, is the result of 31 years of careful breeding and selection. He has 25% blood of Interested Prince, 58224, sire of Passport, the champion Jersey milker, 19,694 lbs. milk, 839 lbs. fat, and grandsire of Interested Jap's Santa, 13,308 lbs. milk, 805 lbs. fat, and The Owl's Princess May, 12,213 lbs. milk, 744 lbs. fat.
His sire:—Sibley's Interested Prince, has 6 daughters in the R. of M., one that has made over 70 lbs. fat in 1 month as a 3-year-old.
His dam:—Owl's Tones is entered in the R. of M. with 9,839 lbs. milk, 465 lbs. fat. Now on re-test has given in 6 mos., 7,042 lbs. milk, 327 lbs. fat. For pedigree and price address
MOOSE HILL FARMS, SPENCER, MASSACHUSETTS.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.
14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow.
Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

The Blood and the Bull

You should head your herd with a grandson of

Gamboga Knight

His dam, granddaughter of Oxford You'll Do. She is faultless in conformation, solid golden fawn heifer giving 38 lbs. 5.4 milk as two-year-old on herd feed. This calf is right in every way, was dropped Mar. 26, 1918, will be solid dark golden fawn, has the production, size and type. He is an exceptional calf and one that you will be proud to own. First check for $150 gets him, with all papers, crated and loaded. Act now.
MEADSIDE FARMS, - Meadville, Pa.

GRANDDAUGHTER OF NOBLE OF OAKLANDS



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

Fairview Farms, Inc.
Sophie's Tormentor Jerseys

"Production" Our Watchword.

FOR SALE Bull Calf No. 267, an extremely good individual and excellently bred; dropped June 23d, 1918; solid color with black tongue and switch.
SIRE: Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85 per cent butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.
DAM: Rose Bosnian 352727, in the R. O. M., Class AA—480.95 lbs. 85 per cent butter in 1 year from 6,156.3 lbs. milk, at 2 years of age.
Price delivered in U. S. A. $150.
R. L. Pike, General Mgr., Geneva, Ohio.

We Offer An Exceptional BULL CALF
Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

RED POLLED

VALPARAISO University Farm

Few choice yearling Red Polled Bulls sired by Jean Du Luth Bonny Boy, he out of J. D. Beauty. Write for description and prices.

Duroc Jersey boar pigs. Few left, $50 each. Ship on approval. Pedigrees furnished.

Valparaiso University Farm, Wanatah, Ind.
Virgil Mood, Manager.

Our August and September RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.
JEAN DU LUTH FARM NO. 2,
Nickerson, Minn.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

AYRSHIRES

FAYRE FARM AYRSHIRES

ST. ALBANS, VERMONT.
Advanced Register and Show Ring Records. Tuberculin Tested by U. S. Dept. of Agriculture. Calves only for sale.
Geo. H. Dunsmore, R. D. 1, Swanton, Vt.



ALTA CREST FARM AYRSHIRES

CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Ridgewood Farms

WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

World's Champion Ayrshires

SHOW CALF—Bull, born July 5th, 1918, white with red markings. Sire:—Deubler's Favorite, 15689, great breeding, son of Kate's Good Git, and Auchenbrain Favorite Beauty 8th. Dam:—Imported Auchenbrain Ada 8th, a very handsome young cow with almost perfect udder and large teats, now on A. R. test and averaged over 50 lbs. daily for first month. Price, $100 for quick sale. Penshurst Farm, Narberth, Pa.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Van Etta's Ayrshires
10 HEIFERS FOR SALE

I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.

Crestmont Farm AYRSHIRES

Few Choice Bull Calves

BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.

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Cedar Crest Farm Berkshires
Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

Big Type Poland China Boars

of noted breeding now ready to be shipped. All of March farrow. Cholera immune and guaranteed to please. I have culled them out very closely therefore have nothing but the best to offer. Sired by such noted boars as Big Ben H., Model Mastodon, Orphans Big Joe, Mow's Chief and others. Buy from a herd that has built its reputation and where you take no chances either on cholera or getting "stung" on a pig for I stand back of everything I say and sell. Write at once and mention this paper.
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Ear Tags, Bull Staff and Rings. Description and prices sent on application. 300,000 of these ear tags have been sold without adverse criticism. 500 of these BullStaffs are used by the best breeders in the business. H. A. Moyer, Syracuse, N. Y.





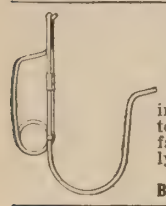
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catches easily and locks firmly. Has straight pull—no twisting. Your bull will respect the

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Shepherd's crook, automatic latch, easy to release, taper socket riveted fast to 5-foot heavy ash handle.

Guaranteed.
Write for free circular.
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BLANKE'S COW TAIL HOLDER

Simple, Effective, Durable.

A patented device for holding a cow's tail when milking to prevent switching of tail in face or eyes of milker. Instantly and easily adjusted.

Price 25c, Postpaid.

Blanke Mfg. & Supply Co., St. Louis, Mo.

DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

GUERNSEYS

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893 Maxim of Linda Vista 42270

24 completed records, all ages, average 516 09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.

"McLERAN OF MINN. WRENSHALL"

TWENTY Guernsey — TWENTY IMPORTED

GUERNSEY HEIFERS

Will be offered at a SPECIAL PRICE if taken in lots of eight or ten head.

These heifers were recently imported, are very high class individuals and of the best Island breeding.

They range in age from 11 to 30 months, about three-quarters of the number are bred, balance open.

It is getting more and more difficult to import Guernseys and it will pay anyone to investigate this offering if they wish to add a few imported heifers to their present herd.

Frank S. Peer OSCEOLA FARMS Cranford, N. J.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

RAEMELTON FARM QUALITY BREEDING VALUE GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

$75.00

takes the choice young bull calf R23, dropped Nov. 11, 1917.

Sire: Raymond's Pioneer of Lewison 19103 with 35 daughters in the herd, two now on test and making splendid records.

Dam: Stockbridge Mabel 33310, half sister to Stockbridge Edith who has just completed a test of 690 lbs. fat in Class A.

The calf is an unusually promising youngster, right in every way and should do some herd a world of good. Full particulars from

Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

PERGUE FARM **GUERNSEYS**

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.** Medill McCormick, Owner. R. S. Hulce, Supt.

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.

Louis McL. Merryman, Cockeysville, Md.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, - - Perry, Ohio.**

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

LONE TREE FARM

GREEN LAKE, WIS.

Has in its Herd 15 A. R. Guernseys and 11 R. of M. Jerseys

And Carries About 16 Cows on Test.

To inquiries for BULL CALVES we give full, honest particulars and stand behind every animal sold.

Jersey Sire—A Son of Pogis 99th. Guernsey Sire, Langwater Islander.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughte Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of t Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows wi records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSI**

HERD SIRE

2½ YEARS OLD

Well Bred, Fine Type, Gentle, Vigorous.

Sire: Golden Noble of Craigamoor 29215 a royally bred May Rose-Golden Noble bull.

Dam: An imported daughter of Alderney II that made 568.04 lbs. fat with first calf.

He is getting us some fine heifers but one of the owners is going to war and we must reduce our herd. Price $400 for immediate sale.

We also offer several bull calves for sale.

Franklin Land & Timber Co., Janesville, Wis.

A. P. Lovejoy, Pres. H. S. Lovejoy, Sec'y.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. **Roy Burton, Eagle, Wis.**

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. **His Dam** is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. **The Bull** himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Fostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

KOSHKONONG PLAC GUERNSEYS

Herd Bull: Jury of Koshkonong Pla

Sire: Jewel of Koshkonong Place A. I

Dam: Blossom of Koshkonong Pla 714 lbs. fat.

Seven Bulls six to fifteen months ol Satisfaction guaranteed with every sal

A. R. HOARD, Fort Atkinson, W

TILDEN FARM GUERNSEYS

For Sale:—Several large, well marked pu bred heifers of May Rose and Governor of t Chene breeding. These are excellent individu out of high producing A. R. stock, and pric to sell. We are also offering a few pure-br bulls ready for service, and several grade co and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mg Delavan, Wisconsin.

BIRCHWOOD GUERNSEYS

We are offering some well bred and nic marked young bulls nearly ready for service of A. R. dams and sired by good bulls. Also few heifer calves. Eighty head in herd. H on the State Accredited list. Send for sale l

M L. WELLES, - ROSENDALE, W

"Homestead Farm "Guernseys"

We are offering five *Grandsons* of *Ne Jay 4th* from two to seven months of age, from A. R. cows or on test. They are choice individuals, sired by the highest pri bull of the breed.

W. G. Jamison & Sons, Appleton, W

Young Guernsey Bul

Of Good Producing Ancestry

with advance registry records. Good, str individuals of the celebrated *Yeksa Breedi* Send for price list.

Helendale Farms, 702 Cedar St., Milwaukee, W

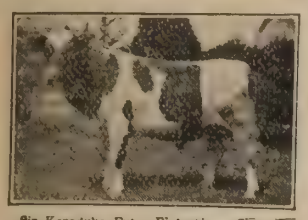
EDGEMOOR FARI

Santee, San Diego Co., Calif.

Offers at moderate prices choicely bred

May Rose, Gov. of Che and Glenwood Bull Calv

Also a few heifers bred to Edgemoor Herd Bu Stock guaranteed sound.



Sir Korndyke Fytje Pietertje. Sire: Sir Korndyke Hengerveld De Kol. Dam: A 23.15-lb. junior 2-year-old daughter of Sir Pietertje Ormsby Mercedes 783 lbs. butter in 1 year as a 2-year-old.
Owned by Chas. J. Will, Menomonee, Falls.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to

W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown.
Write MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A. R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old.
J. C. WILTON, EAGLE, WIS.

Bonair Farm Holsteins

Sir Korndyke Fytje Pietertje 132719

The Only Bull whose sire, dam and full brother have all been first prize winners at any National Dairy Show heads our herd. His sons up to 6 mos. out of cows up to 26.76 lbs. for sale.
C. J. Will, Prop. Menomonee Falls, Wis.

Ready For Light Service

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

For Sale—Several Young Bulls

5 to 8 months old. Sired by a 30-lb. son of Rag Apple Korndyke, some are from A. R. O. dams and priced very reasonable. Wm. F. Mielenz, 312 First National Bank Bldg., Milwaukee, Wis.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

CHAS. BURBACH,
Waukesha, Wis.

MEADOW LANE HOLSTEINS

Get your next herd sire here from cows with 7-day and yearly records by our bull whose seven nearest dams average 33.77 in 7 days and over 1000 lbs. in a year.
AITKEN BROS., WAUKESHA, WIS.

SIR PIETERTJE ORMSBY MERCEDES 43rd heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25. - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull Maplecrest King DeKol 2nd. A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

FINE BULL CALF

We offer a bull calf born Nov. 19th, 1917. A very fine, straight, growthy individual ¾ white; dam has 7-day A. R. O. of 24.6 lbs. butter and 567 lbs. milk. He is by a sire whose two nearest dams average 22.3 lbs. butter and 520 lbs. milk at 3 years. Price $125.00 if taken at once.
Miller Bros., R. No. 25, Oconomowoc, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

KING SUPERBA

Meet his sons and daughters on exhibition in the Waukesha County Live Stock Exhibit, at the Wisconsin State Fair. Combine individuality with production. For Sale—Sons of King out of our best cows. (See Baird Bros. ad.)
W. J. Mann & Sons, R. 2, B. 16, Waukesha, Wis.

MORE MILK—MORE MONEY

Get a grandson of this great cow, Milanhurst America DeKol, 143441, that produced an 8-gallon can and a ½ of milk per day equal to 13 tons, or more than her own weight each month for a whole year. If her milk was sold at 10c a quart her years production would amount to $1,300. A few choice bulls for sale, some of breeding age.
Dr. David Roberts Stock Farm, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

King Pontiac Champion

Leads All A. R. O. Sires

King Pontiac Champion, (81 A. R. O.) has the best balanced A. R. O. record of any living bull of the breed.

He does not depend upon a few sensational daughters for his prestige but upon the high average production of his get. His daughters excel in both long and short tests as well as in milk and butter.

Last year King Pontiac Champion led the 589 sires represented in the prize list by being represented 34 times, and in respect to 30-lb. daughters, did not even have a rival. The showing of his semi-official yearly daughters in both milk and butter also far surpasses that of any other sire.

Think of the 125 daughters of King now on the Pabst Stock Farm, 81 of which have already been credited with A. R. O. records, and the fact that King Pontiac Champion is now in his prime.

Is not this the kind of a sire to line up with when selecting a herd sire? Look over our list of young bulls—prices reasonable.

PABST STOCK FARM,
Oconomowoc, Wis.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows*, safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.
Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Pure-bred and High Grade Holsteins

CAN FURNISH CAR LOTS OR LESS.

I have a car of yearlings on hand at $50 each. Several bulls from 8 months to 14 months old from A. R. O. dams. Write me for price and photo. High grade Holstein heifer calves, four weeks old, $20 crated.
Yohn's Stock Farm, Watertown, Wisconsin.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. His Dam: Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4-year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.
L. K. LUSE, SUPERIOR, WISCONSIN.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
C. A. SCHROEDER & SONS, West Bend, Wis.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. FAIRVIEW STOCK FARM,
W. G. Marshall, Prop., Whitewater, Wis.

Bloomingdale Herd

...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.
A. A. Courtelyou, Somerville, New Jersey.

HERD REGISTERS Two Sizes. New, Low Price Covers.
HOLSTEIN PEDIGREES COMPILED.
Stationery, Catalogs, Circulars Printed. Send for Samples and Price Lists. LIVE STOCK PRINTING CO., La Grange, Illinois.

Milford Meadows Stock Farm

Now Offers For Sale

M. M. Rag Apple Oak Denver

A most promising young sire, born June 4, '17. Nearly half white and an exceptionally good individual.

His sire is Dutchland Creamelle Denver Prince, a 36.25-lb. grandson of Colantha Johanna Lad.

His dam, Milford Josephine Oak DeKol, made 22.82 lbs. butter as a junior 2-year-old in June. Her sire is a son of Canary Paul Fobes Homestead and from a 29.55-lb. daughter of Homestead Junior DeKol. Her dam, 31.77 lbs. butter, 616.2 lbs. milk, is a granddaughter of Dutchland Sir Pontiac Rag Apple.

The three nearest dams of this young sire average over 30 lbs., one a junior 2-year-old. His dam is one of our good prospects and is to be retested this winter.

Milford Meadows Stock Farm, - Lake Mills, Wisconsin.

...R. O. Holstein Cows and Heifers

...order to make room in our barns we ...st sell a number of cows and heifers ...t are backed by large official milk ...d butter records. They are bred to ...SCONSIN STAR STOCK FARMS,

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.

A Few Good Ones For Sale

...am offering yearling and bred two-year old registered heifers for sale. Daughters of King ...is Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good ...ghters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac ...ngerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from ...R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for ...rself.
J. D. McDONALD WEST SALEM, WISCONSIN.

A Bull That Will Suit You

...He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, ... whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna ...Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show ...,—took ... as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is ...ked b... ...ort and long time records. Individually he's a dandy, nearly half white, just the kind you've been ...king ... Other young bulls by the same sire and from A. R. O. dams for sale. Write
...AYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

"NO HORNS"

...aturally Polled Holstein-Friesian bull calves, ...d by a son of the World's Record senior 4-yr.-old, ... lbs. butter in 365 days, at $100 and up. Descriptive ...logue for stamp.
...O. E. STEVENSON & SONS, Clarks Summit, Pa.

Holstein Bull Calves

One 27-lb. dam at 2 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 10 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje*, produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.
DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

HOME FARM HOLSTEIN FRIESIANS

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owa'onna, Minn.

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address

W. J. BOYNTON, Mgr., Rochester, Minn.

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

---

3 BULLS — **HOLSTEINS** — **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Mankato Holstein Herd

Offers you this

WONDERFUL BARGAIN

BULL born February 9th, 1918. ¾ white. Large and straight—a beautiful show calf, from a 32-lb. sire and 20-lb. dam. 5 nearest dams average 25 lbs. butter in 7 days. Price $350. **Marlow and McCargar, Mankato, Minn.**

Holstein Pedigre

To Holstein breeders who appreciate pro ness and accuracy in pedigree work, the *consin Live Stock Advertising Co.* will re a genuine service.

We make a specialty of *sale catalogs.* price is $2.50 a page including pedigree fo of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. C 413-14-15-16 Pioneer Bldg., Madison,

---

Bull Calf, Born Jan. 6, 1

Sire—Colantha Johannn Champion 45674. 39 A. daughters. Son of Colantha 4th's Johanna, lbs. butter in 7 days, 1,247.82 lbs. butter in 30

Dam—Emblagaard Colantha Mahomet 279872 by antha Johanna Champion 45674. Record at 2 2 months, 9 days: Butter, 7 days, 14.67; milk, butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 66 11 months. The price of this bull is exceedingly We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Mich

---

5 Holstein Bul

Ready for Busines At ½ Real Value

They are from world record sire and A. dams. We are selling farm.

LONG BEACH FARM, AUGUSTA, MI

The Traverse Her

This is the chance you have been ing for. We wil a few, good A. R. O. cows. One with 27 18 and 110.85 in 30 days. Three others above 2 Come and see them or write for description prices, but *hurry* for they will go quickly. a few bull calves for sale, the kind you w proud to own. Pedigrees and prices on a cation. State age desired.

Traverse City State Hospital, Traverse City, Mic

The Pontiac He

"Where the Champions come from"

Offer Bull Calves sired by sons of *Po Korndyke, Hengerveld DeKol, Pontiac D land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac,

Service Bulls

5 bulls from 1 to 2 years old. One a son of tiac Korndyke. One a son of King Segis Pon The others and several not of service ag grandsons of these two great sires. Also a daughter of King of the Pontiacs and on Pontiac Korndyke. Priced to sell. Writ full information.

WM. N. OSBORNE, WANATAH, I

Foundation Tri For Sale

Bull born Oct. 1917, would make a show calf, n white. His sire is by a son of the famous Judge gerveld De Kol, whose daughters are showing up in short and long time test. The two heifers b Dec. and March last, dandy good individuals, n white and sired by De Kol Goudgeld Pietertje v siring a wonderful lot of fine individuals. Price immediate acceptance $250.00 F. O. B. Muncie.

RAY MEEKER, - MUNCIE, INDIA

Holstein Breeders, Attention! Buy your bull young, 2 to 6 mos. old, good individuals, nicely m from A. R. O. dams. Sire: King Segis De Kol Fayr whose dam has 7-day A. R. O. butter record of 25. His grandsire is the sire of Segis Fayne Johann world's record butter cow for 7 days. 1 service b sale.

C. I. Reamer, North Liberty, Ind

REGISTERED HOLSTEINS

25 cows due to freshen soon.

25 bred heifers. Also a few bull

If you want the best at reasonable pric will pay you to write.

DR. BLACKBURN, - CUBA, O

I ALWAYS HAVE HOLSTE FOR SALE

Write me before buying elsewhe

L. E. CONNELL, FAYETTE, O

FOR SALE HOLSTEIN BULL

SAFE FROM TICKS (At One-half Price)

No. 1. Crescent Beauty Butter Boy 1 No. 172753, 2 years 6 months whose 6 nearest dams average 26 lbs.

No. 2. King Alcartra Nudine No. 228 one year, 3 months old, whos nearest dams average 30 lbs. butter.

No. 3. King Alcartra De Kol Orm No. 228838, 12 months old, wh 6 nearest dams average 31 lbs. butter.

They are as straight as a line, and bea ful individuals.

Price—$250.00 each.

Write Dr. Chas. H. Harris, Ft. Worth, Tex for further particulars.

Quality Heifers For Sale

I offer twelve head Granddaughters of Colantha Johanna Lad and Dutchland Creamelle Korndyke Lad.

They are large, beautiful markings and perfect specimens of the breed. Not a cull in the lot. They are from 14 to 18 mos. old, are all open but arrangements can be made to breed them to a 32.55-lb. bull whose dam has beaten 31 lbs. in three consecutive years. They are out of a tuberculin tested herd that is entirely free from abortion or any known disease and the heifers will be tested to go anywhere. They will be sold as one bunch. Price $3000.00. **THOS. L. J. REESE, Montoursville, Pa.**

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a better combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.

We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.

This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 12 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Hazelhurst Stock Farms

Offer a Yearling Son of King Segis Pontiac Canary

Who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.

J. H. Wickwire & Son, Hubbardsville, N. Y.

Your Last Chance!

To Get a Son of The World's Greatest Sire

KING OF THE PONTIACS

We have only a few left. Here is a beauty born April 20, 1918, about three-quarters white, out of an 18.82-lb. three-year-old whose sire is a $4,000, 40-lb. grandson of King Segis. Think of this combination of breeding. King of the Pontiacs and King Segis. First check for $500 takes him.

Geoffrey Burlingame, Cazenovia, N. Y.



A Pure-bred HOLSTEIN for your HERD SIRE

is the short cut to bigger production and better profits. Read this report from Iowa Experiment Station concerning recent tests—and be convinced. "The average of all records made by first generation heifers sired by a pure-bred Holstein sire, show an increase of 3058 lbs. or 94 per cent in milk and 100 lbs. or 62 per cent in fat, at an average age of three and one-half years, over the record of their scrub dams at an average age of six years."

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

BROWN SWISS

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.

Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.

Farm 25 miles West of Chicago C. B. & Q. R. R.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a ⅞d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.

ARLINGTON HEIGHTS, ILLINOIS.

PREPARE

For the greatest demand, highest prices the world has ever known for dairy cattle.

Send for our free price list of 100 choice females, also bull list on request.

WOODLAWN FARM, Sterling, Illinois.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. **E. A. POWELL, Syracuse, N. Y.**

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**



Entire Herd at Public Auction

of the Centralia Calf Farm

CENTRALIA, ILLINOIS

Tuesday, Sept. 17th, 1918

Consisting of

45 Registered and 20 Very High Grade Holsteins
28 Registered Cows. 9 Heifers and 8 Bulls.

In the offering are a number of A. R. O. cows. A 30-pound daughter by "King of the Pontiacs". State Fair Winners and tops of noted sales. 20 High Grades; the large, heavy 6 and 8 gal. kind recently fresh or close springers. Catalog ready Sept. 1st, 1918.

Col. Edgar C. Eells, Col. Claude P. Madden } Auctioneers.

Terms:—Cash or 90 days on approved notes.

CENTRALIA CALF FARM, Centralia, Ill.

75 Head Pure-bred Holsteins

to be sold at

Joplin, Missouri, Wednesday, Sept. 18, '18

Nearly All Are Bred Heifers of Quality.

This will be the best and greatest opportunity yet offered Dairymen, Farmers and Breeders of the Southwest to attend an auction sale of real QUALITY Holsteins.

Nearly all of these are 1 to 3 years old, those old enough bred to males of outstanding quality. The buyers get these young beauties at just the time when he can realize quickest profitable results—just the time when they are growing INTO money. A sale of this kind ought attract every man interested in Holsteins within a day's travel of Joplin. A prominent feature will be the sale of

Sir Sadie Cornucopia 18th, 187302

born Nov. 23, 1915, from 30-lb. dam. His sire has 45 A. R. O. daughters, 4 from 31 to 34 lbs. butter in 7 days. There is too much in his favor to say in this space—see it in the catalog.

There are many top-notch heifers in the list—true and straight, a number of them bred to our 30-lb. bull, a son of the $50,000 bull; he has a half-sister who sold at Milwaukee sale for $13,000; another at $4,200—all denoting QUALITY.

Catalogs ready Sept. 5th. Get one and come. Address

PHELPS STOCK FARM, Aurora, Missouri.

Auctioneers—Perry and Mack. Mr. Wood in the box.

Registered Holsteins For Sale

9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*

5 Extra good Granddaughters of King of the Pontiacs, from 9 to 14 months old.....*$800 for all*

1 Daughter of Spring Farm King Pontiac 6th. Four months old....*$150*

3 Two-year-old Granddaughters of Spring Farm King Pontiac 6th .....*From $150 to $200*

1 Extra Fine 3-year-old son of King of the Pontiacs; 27-lb. Dam; 29-lb. Grandam *$800*

1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

GEO. S. BIGELOW, BREEDSVILLE, MICHIGAN.

BARGAINS

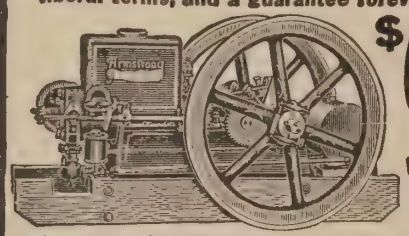
CHICAGO HOUSEWRECKING CO

Special Value Price Wrecker Bulletin

Famous Armstrong Kerosene Engines Now Built for Harris Brothers!

The one and only real successful kerosene engine is now offered at reduced prices for the first time in 51 years. The builders of these celebrated engines have turned to us to distribute their product. Like many other leading manufacturers they have made the necessary price concession in order that we might use our wonderful sales organization to acquaint our many thousand friends and customers with the most simple, reliable and economical engine ever offered—"Built for Service Since 1867". Get all the facts—here's the chance you've been hoping and waiting for. Learn all about the many improved, superior, exclusive features of the Armstrong construction.

Your old engine taken as part payment on any Armstrong Engine you select. Free trial—most liberal terms, and a guarantee forever.



$66 Buys the 2 H.P. Size!

Armstrong engines are now ready for quick shipment in the sizes below: Order No. JB-330—2 H.P. $66.00, 3 H.P. $85.00, 5 H.P. $165.00, 7 H.P. $240.00, 12 H.P. $420.00, 16 H.P. $540.00.

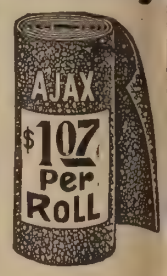
Buy Your Roofing Needs Now—Don't Delay

These Low Sale Prices Prevail

This is your big chance to buy prepared roofing, metal roofing and siding at prices that will not be equalled in economy for some time to come. But you must not delay. Quick action is necessary, for the supply of these bargain lots is limited. Read them carefully, mail order quickly, to insure yourself against disappointment.

SPECIAL for This FALL SALE!

Ajax high grade rubber surfaced roofing; put up 108 sq. ft. to the roll. Complete with nails and cement No. JB-302. 3-ply, per roll $1.27. 2-ply, per roll $1.17. 1-ply, per roll $1.07.



$1.07 Per Roll

Rawhide stone faced Gold Medal Roofing, guaranteed 15 years. Rolls contain 108 sq. ft., nails and cement included. No. JB-303, per roll $2.20.

Our Famous Rawhide Rubber Roofing, 3-ply, guaranteed for 12 years; a high grade covering. Rolls contain 108 sq. ft., nails and cement included. No. JB-304, 3-ply per roll $1.64; 2-ply, per roll $1.44; 1-ply, per roll $1.20.

10,000 rolls of extra heavy high grade roofing; red or gray slate coated, rock faced, brown pebble coated, double sanded, mineral or mica surfaced. No. JB-305, per roll of 108 sq. ft., nails and cement included $1.94.

Look at These Big Savings in Metal Roofing!

28 gauge painted 2 1/2 in. corrugated, overhauled siding sheets; 6 1/2 ft. long. No. JB-306, per 100 sq. ft. $2.00.

26 gauge painted 2 1/2 in. corrugated, overhauled roofing sheets. No. JB-307, per 100 sq. ft. $3.00.

24 gauge extra heavy painted, 2 1/2 in. corrugated overhauled sheets for roofing barns, granaries, etc. No. JB-308, per 100 sq. ft. $3.50.



WATTS CORN SHELLERS

Now Sold Exclusively by Us!

$77.10 now buys the Watts' No. 4 Corn Sheller, built for the man who shells for himself and a few neighbors. Cleanly shells 75 to 125 bushels per hour with a 2 H.P. to 6 H.P. engine. Shells, cleans and loads all the corn—stacks the cobs. **Order No. JB-901.**

Here's Big News for America's Corn Growers—Our First Announcement and your best chance to own a World's Famous Watts Corn Sheller in any size—small, medium or large capacity to meet the needs of every farm. In taking Watts entire factory output and the exclusive sale of these machines, we are able to offer them at big cut prices in all sizes, under most liberal terms, with a 30-day Free Trial and a guarantee of complete and lasting satisfaction.



All Other Sizes are now offered at equally big reductions.

Watts No. 1 Corn Sheller for the man who shells corn only for his own use. Capacity 50 to 75 bushels per hour with a 3 H.P. engine, now **$39.80. Order No. JB-900.**

Watts No. 7 Corn Sheller with standard equipment including wagon box, grain elevator, cob stacker, type "R" feeder, on steel trucks. Capacity 200 bu. per hour, now **$300.00. Order No. JB-903.**

Watts No. 8 Double Cylinder Corn Sheller for custom work, with standard equipment, wagon box elevator, swivel cob stacker and feeder on steel trucks. Capacity 600 bu. per hour, now **$436.50. Order No. JB-905.**

Buy on Your Own Terms

Write for prices on different equipment.

$86 Bath Room Outfit Now $65.00

Consists of porcelain enameled 5 ft. bath tub, half circle lavatory, size 18x21 ins., and low down closet outfit with golden oak, heavy copper lined tank and syphon wash down vitreous china closet bowl; seat and cover of closet finished to match the tank. The outfit is furnished complete with all nickle plated fittings above the floor line, bath cock, faucets, supply pipes, etc., ready to install.



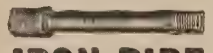
No. JB-1742—Bath-room outfit, $65.00. No. JB-1743—Bath-tub with fittings, $31.50. No. JB-1744—Half circle lavatory with fittings, $13.50. No. JB-1745—Closet outfit complete, $22.50.

Complete Heating Plants At Big Savings

Hot Water, Steam and Warm Air heating systems, guaranteed to the last fitting, high grade and thoroughly efficient are offered by us now at unusually low prices. Simply send us a rough sketch of the lay out of the rooms in your home. Let our experienced engineers relieve you of all worry and assist you in deciding upon the best plant for your particular building, and the most economical way to install it.



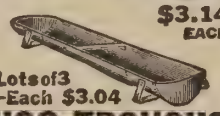
$3.14 EACH



IRON PIPE

1 In., Per Foot 7c

Good Iron Pipe in random lengths complete with couplings, all sizes. Order No. JB-204, 1" per foot 7 cents. Order No. JB-205, 1¼" per foot 9 cents.

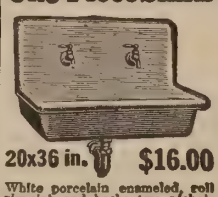


Lots of 3 —Each $3.04

HOG TROUGHS

Non-Tip Hog Troughs made of heavy galvanized iron, painted black. Heavy bar iron cross brace and legs, strongly riveted; capacity 20 gallons. Size 14" wide, 6 ft. long. JB-208 each $3.14. In lots of three each $3.04. In lots of six each $2.94.

One-Piece Sinks



20x36 in. **$16.00**

White porcelain enameled, roll rim sink and back; two nickel-plated faucets and strainer; lead P trap. 6 JB-6529, 20x36 inch. $16.00. All other sizes.

"Presto-Up" Garages

$83



23 different sizes, both single and double styles. Patented—sectional—put up in a few hours. Made of best lumber. Quality and construction guaranteed. Mail coupon for complete descriptive catalog of "Presto-Up" Garages and Houses.

Ford Radiators

$23 as built by Ford Motor Co.



JB-1507. Latest Honeycomb pattern. Large water capacity and cooling surface. Finished in black Japan. For 1909 to 1916 models, $23.00. For 1917 and 1918 models $25.00.

Sharples Cream Separators



You must act quick, or be disappointed. A limited number of these World's famous original and genuine Sharples Tubular "A" Cream Separators can still be had in all sizes. Our previous announcements have brought a flood of orders from wise, posted farmers everywhere, and our entire remaining stock will soon be gone.

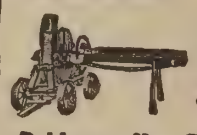
We will accept your old separator as part payment. Send your new Sharples on 30 days Free trial—give you four months to pay for your machine, and guarantee satisfaction forever. Order direct from this advertisement. No. JB-20 Sharples No. 2, now $42.50. Sharples No. 3, now $47.50. Sharples No. 4, now $55.00. Sharples No. 6, now $67.50. Sharples No. 9, now $75.00.

Electric Light Plant $210.00

75 Light Rumely-Falk Electric Light Outfit complete with Willard rubber jar storage batteries, 30 volts. No. JB-213. Complete $210.00.



Advance Ensilage Cutter $120



Enormous capacity—15 to 20 tons per hour. Cuts any silage as fast as you can feed it. Order No. JB-214. Now only $120.00.

Robinson Hay Baler $225

Best made, biggest capacity. Built to run from large tractor, or small gas engine. Hand feed size 16 in. x 18 in. No. JB-215. Now $225.00.

Other sizes proportionately low.



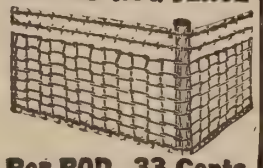
Ready Mixed Paint



Per Gallon $1.77

Our guaranteed house paint of best formula spreads farther, wears longer and costs less. 28 non-fading colors to choose from. Order No. JB-206, per gallon $1.77. Guaranteed quality Barn Paint, a lasting preservative, 6 colors. Order No. JB-207, per gallon $1.00.

BARBED HOG FENCE



Per ROD, 33 Cents

Special barbed bottom galvanized hog fencing. Strong and durable. Made of No. 11 top wire and No. 14 intermediate line and stay wires. Stays spaced 6 inches apart. No. JB-209—26 inches, per rod 33c. No. JB-210—32 inches, per rod 39c.



$18.00 Indoor Closet, only $11.75

Improved chemical indoor closet, fitted with regular shaped closet seat and cover, finished in birch mahogany. Cast metal frame and base, steel casing enameled in azure blue, complete with exhaust pipe and chemical, ready to install. No. JB1816 each $11.75.

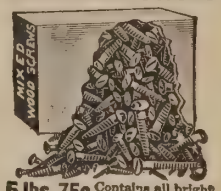
$2.50 Cobbler Outfit

$1.65



Complete cobbler outfit consisting of reversible iron stand, lasts, hammer, knife, sewing awls, hafts, needles, rivets, heel plates, leather and rubber cement, clamp, punch, soldering copper, thread and wax. Order No. JB-54. Complete $1.65.

Mixed Wood Screws



5 lbs. 75c Contains all bright new screws—round and flat heads from small to large sizes. You need them every day about the farm. No. JB-8042—5 lbs. 75c. 10 lb. box $1.40. 25 lb. box $3.25.

ANTI-GLARE LENSES Per Pr. 95c



Regular $5.00 extra fine Anti-glare auto lens. 2000 prisms cut on the inner side with bull's eye pointing down below center, floods the road ahead with soft light. Supply limited, order quick. Fits any car, meets all anti-glare laws. Give size of your lenses. No. JB-212. Per pair 95c.

Mail This Coupon Now

HARRIS BROTHERS CO., Dept. JB38, Chicago, Illinois

Mark an X in the square below to show which books you want. They are FREE and sent postpaid.

- ☐ Building Material and Supplies
- ☐ Roofing, Siding and Ceilings
- ☐ Harris Home Book of Plans, Barns, etc.
- ☐ Sharples Cream Separator Book and Sale Particulars
- ☐ Wire and Fencing Catalog
- ☐ "Presto-Up" Portable Houses and Garages
- ☐ Watts Corn Sheller Catalog
- ☐ Plumbing and Heating Book
- ☐ Paints—Varnishes and Supplies
- ☐ Furniture—Rugs and House Furnishings

*Name*_____ *Town*_____

*R. F. D. Box No. or Street*_____ *State*_____

Direct dealing with us means more than just a big money-saving. It means guaranteed satisfaction as to quality, and the fair, square-deal treatment which has been the cornerstone of this business for a quarter of a century. You must remember in all your dealings here that we insist upon satisfaction for you. That is why this business, founded in 1892, has grown through 25 years' honest public dealing to its present large proportions. Each year has marked our steady growth in power to serve our growing host of regular customers. Our increasing cash buying power has brought us added ability to control the sources of those tremendous bargains that have made our name famous from ocean to ocean. And remember, each purchase, no matter how small or large the amount involved is accepted by us and sent to you under the protection of our $10,000,000 guarantee—backed by our entire institution. **YOU MUST BE SATISFIED IN ALL YOUR DEALINGS HERE.**

HARRIS BROTHERS CO. *OWNERS*

35 and Iron Streets CHICAGO, ILLINOIS

We Suggest That You Order Promptly from This Advertisement, As All Articles Offered Are Subject to Stock on Hand

Mail Coupon-Price Wrecking Catalog FREE

W. J. FRASER
20 JUL 19
COLL OF AGR
URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., SEPTEMBER 13, 1918 — Number 8

ncreasing Consumption of Dairy Products

ERNEST KELLY, In Charge of Market Milk Investigations, United States Department of Agricu'ture

' it not necessary to spend time in arguing the fact that the consumpon of dairy products should be ineased. Anyone who has studied the od situation and the needs of the man race must admit the truth of e assertion. There is much talk at rtain times about a "surplus" of iry products. While there may be apparent surplus e to high production d low demand, there in reality, no true rplus. Even at the ight of our produce periods we, as a tion, do not raise ore dairy products an we should properconsume. Obviously en, something must done to increase nsumption to keep ace with production; nd even to stimulate reater production. hen supply exceeds emand, prices fall, and here is little encouragement for the proucer to enlarge his usiness.

Let us consider for a oment the quantity f dairy products used y the population of his country. It has een estimated that in 917, the average citien consumed approxiately the following mounts yearly:

ilk	170 quarts
utter	17½ pounds
heese	3¾ pounds
e cream	2 gallons

This would give a daily allowance f:

ilk	less than 1 pint
utter	about ¾ of an ounce
heese	about ⅛ of an ounce
e cream	less than ½ ounce

You could put all this butter, heese, and ice cream on a big spoon nd swallow it in one mouthful, washng it down with the milk. It would e laughable were it not so pitiful. Something like a dose of medicine to e gulped down in one dose.

What can be done to ameliorate his ridiculous condition? How can he consumption of dairy products be rought up to a sensible level? Three hings occur to me as being the basic actors in increasing demand:

1. Maintain the highest quality of product.
2. Keep prices as low as is consistent with quality.
3. Advertise: Educate the consumer to food value of products of milk.

The application of these principles involves the teachings of two old sayings. The first has been credited to Ralph Waldo Emerson, and is as follows: "If a man preach a better sermon, write a better book, or build a better mousetrap than his neighbor, though he hide himself in the wilderness, the world will make a beaten pathway to his door". The second maxim is shorter—"It pays to advertise". In modern business neither one of these mottoes will stand alone; but together they will turn the trick. It is true that superior goods will find a market but the rapidity with which they get into commercial channels depends upon advertising. Again, it does not pay to advertise goods that will not satisfy the consumer.



HARVEST TIME IN THE AMERICAN CORN BELT

Keeping in Quality

No matter how low the price, a permanent market cannot be established if quality of goods is not maintained. I do not wish to be misunderstood on this point. First sales and new customers are important because they serve as an introduction between producer and consumer. But if you meet another man, you do not accept him because of the introduction, but size up his qualities before making him your friend. However, introductions are useful, and many firms consider them so important that they make special offers to meet new people; for example, trial subscriptions to periodicals and samples of various commodities.

But, after all, it is the subsequent sales that build up a paying business; and no one will continue to buy if he is disappointed in the quality of the product. There is no doubt that poor quality in dairy products has often limited sales. The housekeeper who receives sour or strongly flavored milk will either reduce or discontinue her order. It is a well known fact that people will eat more of good butter than they will where a poor quality is set before them.

Certainly dairymen have much food for thought regarding this situation.

Maintaining a Fair Price

A good article is worth a fair price and should not be sold for less; neither should it be sold for more. The producer of reputable goods is entitled to receive cost of production and marketing plus a reasonable profit; otherwise, he must go out of business and an essential industry is thereby crippled. If the goods are sold at more than a fair profit, it wrongs the industry and the consumer as well. Generally speaking, the lower the price the greater the volume of sales. Consumers have the right to expect producers and manufacturers to apply such business methods to their work that wasteful practices are eliminated. Applied to the dairy industry, this means that individual dairymen and milk dealers should put production and distribution on an economical basis, then they should get a price as low as is consistent with quality and reasonable profits.

There are three classes of buyers. The first is relatively small, and is composed of those who are able to disregard price. The second and largest class are those persons who most carefully consider the relative questions of price and quality. The great bulk of purchasers of dairy products are in this class. The third class, fortunately a small one, includes those who buy the cheapest thing that is offered, regardless of quality. Dairymen can sell certain specialized products to the first class. The second class is the important one to reach. Reputable dairymen will do well to ignore the third class.

Many people, when convinced of the value of certain articles, cheerfully pay the higher price. On the other hand, there are many who realize that the articles are valuable; but when prices are high they cut down their consumption.

Therefore, high prices, even when plausibly explained, tend to reduce demand. On the whole, however, the public are becoming better educated. They are learning the real value of milk.

Advertising

Everybody is familiar with the advertising man's explanation of the fact that hen's eggs are more in demand than duck's eggs; the reason being that after laying an egg the duck waddled silently away while the hen cackled,—ergo, "It pays to advertise".

In the dairy industry, advertising is in its infancy. There have been some very good examples of individual and co-operative advertising; but the work must be pushed to the limit, and we don't know yet just where the limit will be. Certainly we haven't

(Continued on page 240)

Hoard's Dairyman

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Subscription in United States and Mexico $1.00 per year; 6 months, 50 cents; 3 months, 25 cents. Canada, $1.50 per year.

FOREIGN SUBSCRIPTIONS may be sent through Wm. Dawson & Sons, Cannon House, Breams Building, London, S. C., Eng., or their agents, including the news dealers and book sellers in all foreign countries.

Subscription agents for New Zealand—Bray Bros., Agricultural Hall Building, Dunedin, New Zealand. Also—The New Zealand News Co., 150 Wakefield St., Wellington, N. Z.

Subscription agents for Australia—Australasian News Co., 226 Clarence St., Sydney, Aust.

All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

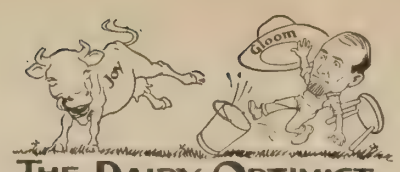
Entered at Fort Atkinson, Wis., as second class matter.

Sweeten up with Sorghum

Sorghum was introduced into this country from China and Africa a little more than fifty years ago and the culture spread rapidly. Many a little home learned to depend on sorghum syrup to replace sugar both on the table and in preserving. When the Civil War cut off Louisiana cane sugar, the North developed a liking for sorghum syrup. The present world sugar shortage has again raised sorghum from the ranks.

Sorghum is not like molasses, a sugar-house by-product, but an unmixed syrup made directly from sorghum cane by crushing and boiling. The grade and color of the syrup will depend on the making. If the syrup is allowed to caramel or burn on the side of the pan, a dark, strong syrup will result. Lime is used by some makers to overcome the acidity of the raw juice. Where this has not been done in the making, housekeepers frequently heat the syrup with a pinch of soda before using it.

When a well-made, light syrup has been produced the next point is to prevent fermentation, for after all the tang of sorghum syrup is mostly due to fermentation. Syrup that has been thoroughly sterilized by boiling will not ferment if poured hot into sterilized containers and sealed immediately. The tin quart can is the most convenient container for family use. Store in a cool place and you have a good all-winter table syrup and a fair substitute for sugar in desserts and jam making. When recipes call for sugar use half and half sorghum and corn syrup or sorghum and sugar or use sorghum alone.—U. S. Food Administration.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

In Blackberry Time

The patter of a boy's bare feet along the country road;
A little song—a happy song, he always liked to sing.
A meadow and a chummy stream that gurgled as it flowed.
The perfumed air of summer time, still mellow-like, from spring,
And, Oh, the freedom of the world—the mysteries of earth!
The haunted paths of fern and leaf, inviting you and me!
Fair memories of youth come back—its gladness and its mirth.
The heart-throb of your yesterdays—and mine—that used to be!

We push through realms of scented shrub and where the dogwoods grew;
We pass the shrine of violets that sleep a little while.
The honey suckle's past and gone, and flags are missing, too,
The slim, young trees are more mature along each gypsy mile.
But, Oh! the pungent berry-smell. The clusters of them there—
The reds and blacks and amber-gleam! The freckled hand outspread.
And you staked off a berry-claim in some dim-shadowed lair,
And I, with pitter-patter heart, swooped on a treasure-bed.

Each bucket tinkled to their fall—the berries, one by one;
The growing hoard of wildwood sweets that stained our fingers red.
A catbird, in a thicket, called—(He, too, enjoyed the fun)
Whilst tiny shafts of golden light stole down from overhead.
And, Oh! the wonder of it all! The silence—half a prayer.
The twilight on the country road—the last home-going bee,
The berry pails, the growing dusk, the shy stars, everywhere,
The spirit of the Infinite that sang in you and me!

"How does your new hand make out with the tractor?

"Fine, he used to be a city chauffeur. It keeps him busy every second trying to find somebody to run over."

Fables of the Dairy

Once upon a time there was a dairyman who built up quite a sizable place. Every time he saw a cow for sale—cheap—he bought it and added it to his herd. "The thing figures out easy," said he, "the more cows the more profit. If I keep adding them fast enough, I can retire in a few years."

In the meanwhile, he was astonished and aggrieved to find that the chap across the road from him, with only ten cows, made more profit than he did at the end of the first year.

Moral—The other fellow bought only good stock.

"Got a butter trier on your place?"

"That's th' trouble—everybody workin' fer me is one."

If Women Run the Farms

(It has been suggested, that if the war lasts long enough, women folks will run the dairy farms. A mad wag puts these down as possible styles.)

Flowered wall paper in all barns.

When not working, blue ribbons on teats.

All fat hawgs made to wear corsets.

Farm hands in evening dress after six.

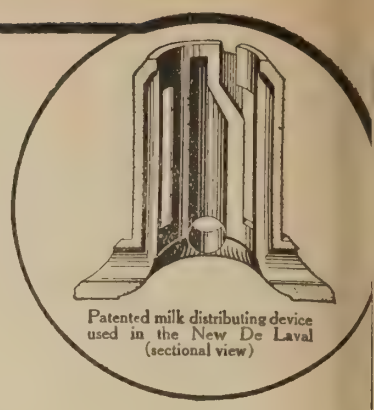
Tractors supplied with three speeds and orchid holders.

Roses planted in all manure piles.

Layettes for calves.

Dandelion, rabbits, and taxes will never be exterminated, no matter how long the war lasts.





Patented milk distributing device used in the New De Laval (sectional view)

Some big advantages that you can obtain only in the

NEW DE LAVAL
CREAM SEPARATOR

GREATER CAPACITY: Without increasing the size or weight of the new bowl, its capacity has been increased.

CLOSER SKIMMING: The improved bowl design, together with the patented milk distributor, gives greater skimming efficiency.

EASIER TO WASH: Simpler bowl construction and discs, caulked only on the upper side, make the bowl easier to wash.

HAS SPEED INDICATOR: Every New DeLaval is equipped with a Bell Speed-Indicator, the "Warning Signal" which insures full capacity, thorough separation, proper speed and uniform cream.

EASIER TO TURN: The low speed of the De Laval bowl, the short crank, its unusually large capacity for the size and weight of the bowl, and its automatic oiling throughout, make it the easiest to turn and least tiring to the operator.

WEARS LONGER: Due to its much lower bowl speed, high grade of materials used, and careful and exacting workmanship, the De Laval outlasts and outwears other makes by far.

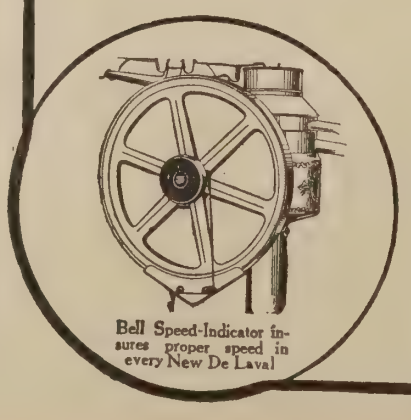
ASSURED SERVICE: In almost every locality there is a De Laval representative, able and ready to serve De Laval users.

If you haven't the spare cash right now, that need not stand in the way of your getting a New De Laval at once. We have an arrangement with De Laval agents which makes it possible for any reputable farmer to secure a De Laval on the partial payment plan—a small payment at the time of purchase and the balance in several installments—so that your De Laval will actually pay for itself while you are using it and getting the benefit from it.

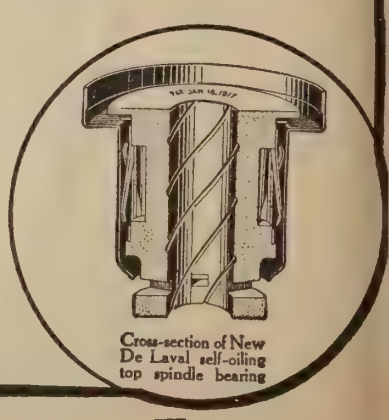
Why not see the nearest De Laval agent at once? If you do not know him, write to the nearest office for new catalog or any desired information.

The De Laval Separator Co.

165 Broadway, New York **29 E. Madison St., Chicago**



Bell Speed-Indicator insures proper speed in every New De Laval



Cross-section of New De Laval self-oiling top spindle bearing

Bread-'n-Butter-'n-Jam

WM. H. CRAWFORD, New York

VERYBODY admits that the Amer- ican soldiers overseas are just ›ut the greatest fighters in the rld. But when it comes to meal ıe the valiant warriors turn back o little boys. They want jam on ir bread and butter. They simply ist upon all the sweets they can

Several thousand American boys er in France were demanding ad-and-butter-and-jam. It was easy enough matter for the army supply them with the bread and tter, of course, but the men in ıki wilfully insisted that it was the n that made the other foodstuffs atable.

The matter came to the attention Roy John, one of the divisional retaries of the Y. M. C. A.

'If the men want jam on their ad and butter they have got to e it," he declared.

'But there isn't any jam!" object- the army officials.

'I'll find some jam, or make it," mised Mr. John.

As it turned out, he had to make The district in which he was sta- ned was rich in fruits, and at last unearthed a jam factory which had en closed down because of the war. e Y. M. C. A. went on a still hunt for sugar, and within a few days had turned out 12,000 three-franc pails of jam, underselling the local market by fifty centimes or ten cents on each pail. Another 25 centimes was to be returned to each soldier when he returned the pail, but he never did return it. Nowadays you can see the boys in khaki going about with jam pails fastened to their belts, and on their faces the expressions of small boys who have been rifling the top shelf.

The demand for candy was even more urgent, if possible. Mr. John discovered a candy factory that had been closed because of the war, but at first thought this didn't seem to help much, since he hadn't any sugar. He went to the army officials.

"I'll give you two pounds of candy for every pound of sugar you'll furnish me from the commissary," he said. "Will you do it?"

"Will we?" said the army.

Chocolate was secured from a local manufacturer, and now the "Y" is turning out for American soldiers in that locality 600 lbs. of first class chocolate cream candy every week.

In the same way, the Y. M. C. A. and the army have co-operated in the making of cookies and macaroons and cakes for American soldiers.

The commissary furnished the sugar and the flour and the "Y" turned out the finished product. The Y. M. C. A. is able now to furnish macaroons two francs under the market price, and it makes real American biscuit, and glazed fondant and cookies that would make the mouth of any fighter water. Eight tons of cake have been turned out already, and more is in the oven baking.



EARL BALLEU, Y. M. C. A. WORKER, GIVING CHOCOLATE AND SMOKES TO SENTRIES IN ADVANCED LISTENING POST. THIS IS THE EXTREME ADVANCED POSITION ON THE ACTIVE FRONT

MAKING CHEESE AT HOME

ROSE SEELYE MILLER, South Dakota

OR many years we have made cheese at home for home consumpn and at one time for commercial rposes. The method used is one of simplest possible. Any one who ı follow instructions can make eese acceptably, and add to the nu something rich in nutrient val- as well as appetizing. This is no oretical recipe, but one tried out generations.

Only the most common utensils are uired. About the only things one eds to buy is a cheese hoop, cheese or, and rennet tablets, and even cheese hoop may be made from a pail or can by cutting off both top l bottom to leave a smooth edge, that the cheese may be turned and moved from either end. We had a eese hoop made from galvanized n and it has lasted through many ars. We think a heavy, unrusting would be better, as the galvanized n is not easy to keep looking well. follower is needed for the hoop, l we use one cut from wood, just slip in the hoop readily, with a han- fixed to it to make removal pos- le.

The utensils we use are a large cop- boiler for holding the milk, a bowl dip whey, and a kettle to heat the ey for the finish. If one has more k than enough for a boiler, a clean sh tub is all right.

Rennet tablets can be bought at al- st any drug store. Ask for se for cheese making. There are lets made for making junkets and se are not strong enough for ese. The tablets come in different es; we prefer the ones for one hun- d pounds of milk. Cheese color ts the same as butter color and is up by the butter color companies. you cannot get these things at the ne druggists, it will be perfectly e to send to any dairy supply house large city druggist.

We use from two to three milkings a cheese, depending upon how ch milk we have or how much ese we want to make. A small ese cures quicker, and so comes to use sooner than a large one. Save the night's milk in a utensil which is open and stir the milk as often as convenient; do not cool rapidly, as rapid cooling causes the rising of the cream. The object is to keep the cream in solution in the milk. In the morning bring the night's milk to about eighty degrees by a dairy thermometer and add the milk direct from the cows, which will probably be ninety degrees. The milk for the cheese should be just eighty-five degrees Fahrenheit. A greater degree of heat causes the cheese to be tough, and a less degree causes the curd to be soft, the whey to be difficult in dipping off, and releases too much of the butterfat. Do not skim the night's milk. If managed right, by cooling slowly and stirring often, only a little cream rises; stir this in as much as possible. Keeping the milk covered will help to keep the cream from rising and being thick.

Having the milk at eighty-five degrees, place it in whatever receptacle you wish it for cheese making. For one hundred pounds of milk dissolve one of the rennet tablets in water. Add it to the milk and stir well. Any cream dipper or long handled spoon or even a bread knife will do to stir it. Add the cheese color in the proportion of one tablespoonful for a hundred pounds of milk, making the measure scant rather than otherwise. Stir this in and put a cloth cover over the product. Nothing more to do to this for an hour, and the usual run of housework can be done while the cheese is "setting".

In an hour press the thumb into the milk, and if it is resilient, thick like clabbered milk, and a little whey exudes as you break the surface, it is ready to cut. We use a common, long bread knife and cut the thick milk into squares about an inch or more in size. Cut to the bottom of the milk. Let stand a few minutes, when the whey begins to come to the top. Wet a cheese cloth, or a thin cotton flour sack will do; spread this cloth over the top and let it sag into the whey, and with a bowl dip off all that exudes. Dip carefully. All work should be done gently in order that the cream may not be released. Move about from place to place over the surface of the curd, and when you have dipped as much as can be removed, either let it stand a little while, or else reach the hands into the curd and break it carefully. This will release more whey. Usually two breakings of the curd will release all of it, or as much as can be dipped off.

When nearly all of the whey has been eliminated, we sometimes put the curd into the cloth and let it drain a few minutes. Put back in utensil, have about four quarts of whey heated to ninety degrees ready and pour this over the curd, breaking it gently with the hands. Pour this off, and if the curd squeaks a little as you break it, it is ready for the salt; but if it is soft and does not cling tenaciously together heat another kettle of whey and pour over, breaking the curd as before. Pour off and add salt in the proportion of about four tablespoonfuls to six or seven pounds of curd. Put a clean, wet cloth in a milk pail, lift the curd on to this cloth, and your cheese is made with less work and bother than a churning of butter.

Now for the press. We have an improvised way of pressing that gives good results. A two by four is nailed to an outbuilding three or four feet from the ground. A box is placed under this, and the cheese hoop upon the box, the curd is lifted into the hoop right in the cloth; it is levelled some with the hands, and the corners of the cloth are folded over as smoothly as may be, which isn't very smooth as a general thing. Put the "follower" on and slip it down till it touches the curd. If the curd fills the hoop, no blocks will be needed on the cover. Take a second two by four, and put one end under the two by four nailed to the building, forming a lever with cheese hook as the fulcrum. Let the weight of the two by four rest down upon the cover of the cheese. If the cover is sunk down into the hoop, put some blocks, or even some pieces of brick, on the cover to build it up enough so that the lever

(Continued on page 232)



GRADE GUERNSEY HEIFER OWNED BY D. K. DAVIS, ILLINOIS

In one year, beginning at 2 years, 5 months, she produced 8,320 lbs. milk containing 464.92 lbs. of fat. At market valuation of $.43 per pound, the heifer's yearly fat production was worth $199.91. She carried a calf 220 days of her test.

Iowa's Sixty-fourth Fair

IOWA held her sixty-fourth annual fair and exposition August 21 to 30. Considering the unusual difficulties attending the 1918 show circuit, the most optimistic must have failed to predict the large success of the week. The total number of exhibitors fell short of the 1,720 average for the past eight years and the total attendance hardly came up to the average total count of visitors for a like period, 276,646, but the final records will tribute liberally to the management of this, the first real war fair and exposition in the sixty-four Iowa has held.

Iowa is prosperous. While her total 1918 production will not come up to early estimates, increased prices give this year's crop the highest cash value ever known in the Hawkeye state. Unfavorable weather during part of the growing season limited the yields in some sections of the state, yet the returns from Iowa's acres will still be bounteous. Her cutting of hay was a bit short of normal but small grains yielded heavily. Drought in the southwest ten or twelve counties has reduced their corn crop fifty per cent while excessive rains injured many fields in the North. Even so, it is estimated that the 11,000,000 acres planted, some of which was reported past danger from frost fair week, will harvest 450,000,000 bushels.

College Exhibits

Two exhibits by departments of the State College of Agriculture were of practical wartime value to Iowa farmers. They pointed the way to the present single objective of progressive agriculturists, the production of increased crops with a minimum labor expenditure.

Nineteen counties of the state have soil surveys completed. These define the various types of soil so that recommendations concerning crop adaptations may be followed intelligently. The Soils Department of the College is doing a splendid service in thus assisting farmers in choosing the crops which will give them largest returns from their particular types of soil.

Experimental work on a large number of farms over the state is establishing the values of various fertilizers. In a four-year rotation the following amounts of products have been secured from the fertilizers used:

Crop	No treatment	Manure	Manure and limestone	Manure, limestone, rock phosphate	Manure, limestone, acid phosphate
Clover	4,096.0 lbs.	6,098.0 lbs.	6,751.0 lbs.	8,799.0 lbs.	10,367.0 lbs.
Oats	33.5 bus.	54.2 bus.	55.5 bus.	91.6 bus.	77.8 bus.
Corn	37.3 bus.	46.7 bus.	55.9 bus.	60.8 bus.	61.7 bus.
Wheat	19.3 bus.	26.1 bus.	24.0 bus.	24.3 bus.	27.5 bus.

"Stairway to Victory"

To save one-fifth on labor, increase profits twenty per cent, and quadruple profits! Figures gathered by the Farm Management Department from 832 farms, all in 12 townships, show how this may be done. The data presented by Professor H. B. Munger and O. G. Lloyd showed that improved efficiency in the use of labor on Iowa farms would: first, increase crop production enough to feed 3,000,000 soldiers for 4⅔ months and, second, would at the same time release 44,000 farm hands for army service. The statistics were presented graphically as the "Stairway to victory and prosperity by man power efficiency with proper farm organization and management", each factor being represented by the rise of a step in the stairway. The following gives the facts from the farm survey which may well be closely studied by every Iowa farmer and others under similar farm conditions:

	Ave. of all 832 farms	Ave. of 109 best farms
Profit per farm	$370	$1,433
Profits per man	261	896
Profits per acre	237	673
Lbs. of live stock per farm	21,800	37,900
Lbs. of pork per man	6,344	9,197
Bus. of wheat per man	223	401
Bus. of corn per man	1,001	1,378
Acres of crops per man	63	76
Acres of crops per horse	17	21
Acres of crops and live stock per man	123,000	172,000
Acres per farm	156	213

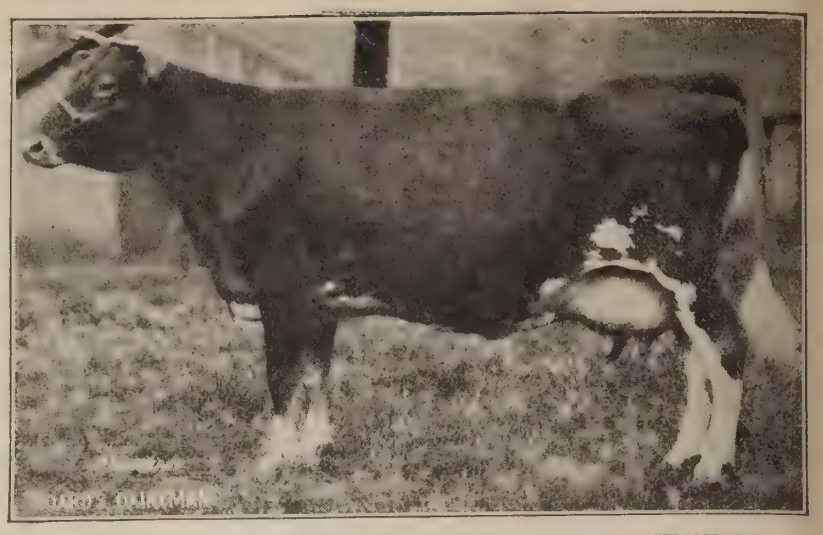
One deduction from this study is the pointed suggestion given with it, "Quarter acre corn belt farmers could use man power more efficiently if they would buy or rent 40 acres more rather than sell 40 acres."

Cow Testing Exhibit

A year ago last month Marshall County, Ia., started its first cow testing association with 450 cows. The 267 sold after records were begun were not all "boarder" cows but many of them were. At any rate the members could have a close idea of what these cows were able to return in profits before selling them. Last month when C. L. Blackman, in charge of association work in the state, went to Marshall County, he could not find a single animal not making a return above fed cost. Ten cows were selected, however, to illustrate three pointed dairy truths before the State Fair crowds: that cows must be tested to prove their worth, that the pure-bred sire is an almost certain means of improving, and that good care pays.



IMP. KENILWORTH GOLD, SENIOR AND GRAND CHAMPION GUERNSEY BULL AT THE IOWA STATE FAIR
OWNED BY W. W. MARSH, IOWA



IMP. BELLA 2D DU GRAND FORT, SENIOR AND GRAND CHAMPION GUERNSEY COW AT THE IOWA STATE FAIR
OWNED BY ISLAND FARM, MINNESOTA

A grade Shorthorn was exhibited which produced in a year 4,171 lbs. milk, 139 lbs. fat, test 3.3 per cent, and with a labor income of $32.54. Her 4-year-old daughter by a grade Shorthorn in six months made 4,252 lbs. milk, 160.2 lbs. fat, 3.8 test, and a labor income of $26.66. A 3-year-old daughter in a similar period has made as much fat from milk with a test an even per cent higher, and a labor income of $38.48, 44 per cent more than the half sister by a grade Shorthorn.

In another group comparison, a grade Holstein cow was shown which in the association made but 3,995 lbs. milk, 135.8 lbs. fat, 3.4 per cent fat, and a labor income of $22.64. Her 3-year-old heifer by a pure-bred Holstein bull produced 5,532 lbs. milk containing 204.3 lbs. fat and a labor income of $25.51. In six months a second daughter, a 2-year-old, produced 3,341 lbs. milk, 160.1 lbs. fat, 4.8 test. The labor income for this two-year-old was $28.27, a considerable improvement over the dam.

A third group of three cows well illustrated three kinds of association cows; a productive appearing animal with a good record (11,343 lbs. milk, 393.3 lbs. fat, 3.5 per cent test, and $99.2 labor income); a good typed, extremely low producer (4,613 lbs. milk, 133.7 lbs. fat, 2.9 per cent fat, and $10.97 labor income); and a poor typed, high producer (9,807 lbs. milk, 361.8 lbs. fat, 3.7 per cent fat, and $94.91 labor income). The comparison interested many farmers into trying to guess the records and led to the conclusion by a number that "the test is the only safe way".

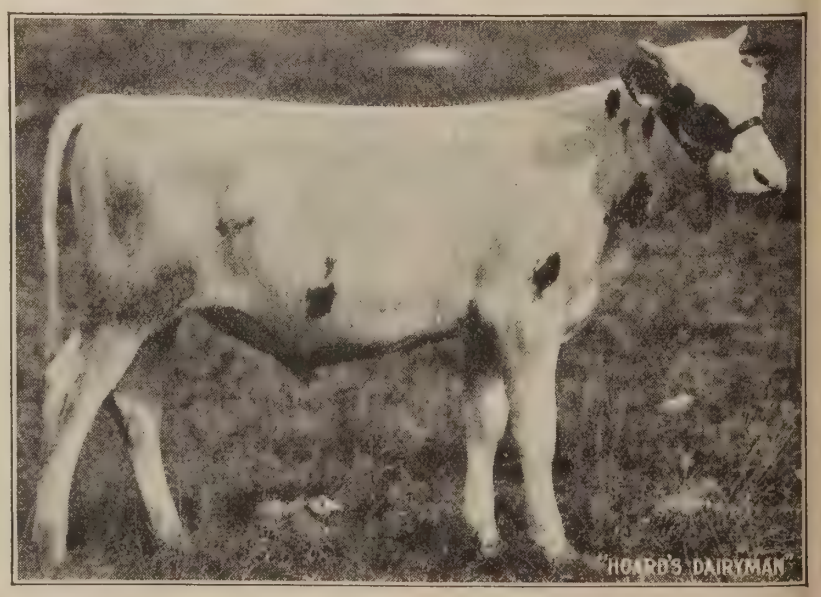
A cow was shown which had made two records; one under poor management and one when she was given good care. In her second test, when well cared for, she made double the increase in production which a change from two- and three-year-old form to 4-year-old form would account for.

The exhibit, conducted under the direction of C. L. Blackman, had three specific lessons continually before many farmers. It accomplished a good deal toward improved dairying in Iowa.

Live Stock

The fact that this country is at war is nowhere more clearly in evidence than on the show circuit. Many of the familiar figures in the stables and around the ringside in other years are gone; many herds are not brought out because experienced help, so necessary to successful showing, cannot be secured. Some of the herds on the circuit were cared for by less than half the usual force. Pete Ledgaard showed eighteen head of Holsteins for the Cass Farm Co. and was alone in caring for them. Freight and feed charges are so high as to be practically prohibitive to many of the less wealthy exhibitors. Another factor reducing the number of animals is the active sale demand for nearly all classes of live stock. Several old time show men have sold so closely that they could not pick herds for the circuit.

An unfortunate conflict of date with the Illinois State Fair kept a number of herds away which would otherwise have been at Des Moines. Because of celebrating the State's Centennial, the Illinois fair management moved the dates ahead so that the days for the live stock show duplicated some of those set aside for many years for the Iowa Fair. Since herds were not released at Springfield so they could reach Des Moine



ROSEBUD'S PRIDE, GRAND CHAMPION AYRSHIRE BULL AT THE IOWA STATE FAIR
OWNED BY C. H. PEVERILL, IOWA



ALMEDA LUESKE HENGERVELD, SENIOR AND GRAND CHAMPION HOLSTEIN COW AT THE IOWA STATE FAIR
OWNED BY CASS FARM CO., IOWA

in time for showing, those which were exhibited at Sedalia had to lay over a week in order to appear at the Iowa Fair.

One of the best attractions at the whole fair was the exhibit of baby beeves from the Iowa boys' calf feeding contest. One hundred and seven calves were shown, 98 boys and one girl competing. Altogether in the state-wide contest there were 743 members with records kept up-to-date. The quality of the entries was of the very highest, the winning animals being fit for the strongest of competition.

It was an inspiration to see the 99 club members with their 107 animals in the arena at one time. Every club member was at the fair for a purpose—and will go back home with a larger conception of agriculture. Those who were responsible for interesting so many of Iowa's future farmers in good feeding and care of high class live stock have earned the gratitude of the state. They might well change the name of their work to a "keep the boy on the farm" movement. Similar contests with dairy calves would put enthusiasm into many a boy who would grow to be a successful dairy farmer.

Dairy cattle were in fewer numbers than usual, Guernseys alone exceeding their 1917 show. The quality was fully up to average, very few inferior animals making their appearance and the great percentage being as well fitted as in normal times.

Guernseys

Exhibitors: Island Farm, Minnesota; Dairyland Farm, W. W. Marsh, Mountain Bros., and J. A. Yoder, all of Iowa.

Judge: Hugh G. Van Pelt, Iowa.

Guernseys retrieved their reputation at Des Moines. They made the poorest show of the breeds there last year, and, this year, the best, with the largest number of exhibitors, more cattle, and a better general quality than any other breed.

In a class of four aged bulls, Imp. Kenilworth Gold was selected to head the line. He is greatly improved over his 1917 form when he was first prize aged bull at the Dairy Cattle Congress and third at the National. He is splendidly fitted and is so well grown and filled out that he makes a much stronger showing than last year. His chief fault is lack of sufficient scale and spirit to carry him to the top against larger framed bulls of equal quality, though in his present condition he weighs around 1,600 lbs. Cherub's Winner, owned by Mountain Brothers, was placed first at Sedalia over Island Farm's Gold Lassie's Julian but went to fourth place at Des Moines, the Minnesota entry ranking next to the winner. The first four of the latter bull's heifers, with their first calves, are on test and producing at the rate of a 600-lb. average.

Senior and grand championship went to the Marsh bull, though he met two very worthy contendors after winning in the aged class, Imp. Kitchener's Express, winner in the two-year-old class and grand champion at Sedalia, from Mountain Bros. herd and, the junior champion, Cherub's Prince, a yearling shown by Marsh. The yearling is uncommonly large for his months and gives unusual promise of maturing into a bull of exceptional producing conformation.

Island Farm furnished the grand champion female, Imp. Bella 2d Du Grand Fort, an A. R. cow with a record of 595 lbs. fat, shown dry in the aged class. Her chief rival among the mature animals was Hayes Felois 4th, a 12-year-old with a record at 10 years of 635 lbs. fat, from the Marsh herd. The 12-year-old showed extreme dairy type in openness of framework and in udder and vein development. Her udder was broken in front, however, and she evidenced her age too strongly to be placed over the showy, strong, deep middled, strong backed cow from Minnesota.

The grand champion's daughter, Bella's Gold Lassie, won among the two-year-olds over Ingleside Pretoria Vrangue, owned by Marsh, in milk and showing splendid form, but without the growthiness, strength, and promise of the winner. When dam and daughter met for the senior championship the contest was close, the heifer showing every indication that her maturity will add a splendid individual to the Island Farm herd. Bopeep Queen 2d, a junior yearling, brought the junior championship ribbon to the Marsh herd, excelling Island Farm's senior calf and Dairyland Farm's junior, which in her class defeated a Marsh heifer whose dam and grandam have both won firsts at previous Des Moines fairs.

The list of awards follows:

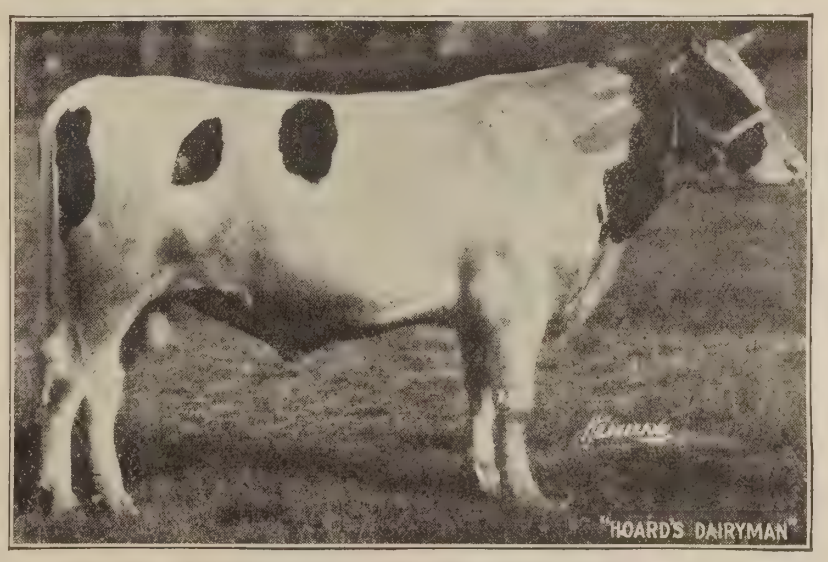
Bull 3 years or over—1, Marsh on Imp. Kenilworth Gold; 2, Island Farm on Gold Lassie's Julian; 3, Dairyland Farm on Duke's Sheet Anchor; 4, Mountain Bros. on Cherub's Winner. Bull 2 years, under 3—1 Mountain on Imp. Kitchener's Express; 2, Dairyland on College Star's Dairyman of Tilly Bardin. Bull 1 year, under 2—1, Marsh on Cherub's Prince; 2, Rookwood Farm on Rookwood Cherub; 3, Island Farm on Maxim of Linda Vista; 4, Dairyland on Billy Bumps; 5, Mountain on Cherub's Glenwood of Iowanola. Senior bull calf—1 and 2, Marsh on Marie's Cherub of the Prairie and Lily du Preel's Prairie Gold; 3, Mountain on Cherub's Recollection of Iowanola; 4, Dairyland on Handsome Clyde; 5, Island Farm on Beda's May King of Island. Junior bull calf—1, Marsh on Alyssum's Cherub; 2, Dairyland on Marie's Fannie Sequel; 3, Island Farm on Princess Jewell of Island Farm.

Cow 4 years or over—1, Island Farm on Imp. Bella 2d Du Grand Fort; 2, Marsh on Hayes Felois 4th; 3 and 4, Dairyland Farm on Yeksa Margaret and Imp. Herival's Betty; 5, Mourtain on Martha W. of Alfalfa Farm. Cow 3 years, under 4—1, Dairyland on Belle Princess. Heifer 2 years, under 3—1 and 4, Island Farm on Bella's Gold Lassie and Bella's Golden Lassie; 2, Marsh on Ingleside Pretoria Vrangue; 3, Mountain on Pollyanna of Iowanola; 5, Yoder on Pocotello's Renivetta. Senior Yearling Heifer—1 and 2, Marsh on Imp. Prospect's Rose des Houards and Felois of the Prairie; 3, Dairyland on Bonny Boy's Beauty Eagle; 4 and 5, Island Farm on Gold Lassie's Beldame and May Rose of Island Farm. Junior Yearling Heifer—1 and 2, Marsh on Bopeep Queen 2d and Golden Cherry of the Prairie; 3 and 5, Mountain on Golden Queen of Iowanola and Gaby Rose; 4, Dairyland on Flossette of Grayside. Senior Heifer Calf—1, 4, 5, Island Farm on May King Beda of Island, Milvias Beda of Island Farm, and Beda Maid of Island Farm; 2, Mountain on Cherub's Lilly of Iowanola; 3, Marsh on Express of the Prairie. Junior Heifer Calf—1, Dairyland on Dairyland Fanny; 2, 3, 4, Marsh on My Figtree of the Prairie, Cherry's Good Luck, and Cherub's Grace Darling; 5, Mountain on Imogene of Iowanola.

Graded Herd—1, Marsh; 2, Island Farm; 3, Mountain Bros.; 4, Dairyland. Breeder's Young Herd—1, Marsh; 2, Island Farm; 3, Mountain. Breeder's Calf Herd—1, Marsh; 2, Mountain; 3, Island Farm; 4, Dairyland. Get of Sire—1, Marsh; 2 and 4, Island Farm; 3, Mountain; 5, Dairyland. Produce of Cow—1, Island Farm; 2, Marsh; 3, Mountain; 4, Dairyland.

Senior and Grand Champion Bull—Imp. Kenilworth Gold. Junior Champion Bull—Cherub's Prince.

Senior and Grand Champion Cow—Imp. Bella 2d du Grand Fort. Junior Champion Cow—Bopeep Queen 2d.



FAYNE BESSIE HOMESTEAD, SENIOR AND GRAND CHAMPION HOLSTEIN BULL AT THE IOWA STATE FAIR
OWNED BY CASS FARM CO., IOWA.

Ayrshires

Thus far on the circuit, Ayrshires have not been out in numbers. Sedalia had three herds; Springfield, two; and Des Moines but one. From the Sedalia show, the Seitz herd went to Columbus, Ohio, and Van Etta's to Kankakee, Illinois, leaving the third, that owned by C. H. Peverill, Iowa, to represent the Scottish cattle at the Iowa Fair.

Mr. Peverill has been a breeder of Ayrshires but a short time, building from a small beginning. The selection of his showing was limited to a herd of but 30 pure-breds. Considering this, the exhibit of fourteen head he placed in the ring was a notable success. J. G. Watson, Secretary-Treasurer for the Ayrshire Breeders' Association, placed the ribbons. Yankee Doodle was the only aged bull shown. While he is not of the choicest Ayrshire type and would not win in stiff competition, he has an unusual record as a breeding bull. Used largely with grades he has 150 calves, only three of which are pure-breds. It is remarkable that all but 14 of the 150 offspring are females. Among the 150 were 9 pairs of twins.

Rosebud's Pride, a junior calf, led the "under two" males and was awarded grand championship over the old sire.

Among the aged cows, Enid Lessnessock best pleased Judge Watson's ideas of Ayrshire type. Nona Spencer, the noted prize-winner of former years, lacked sufficient size and strength and balance of udder to warrant her outranking the aged entry, even though the latter was in thin condition. Bertha Carlton, senior calf, was made junior champion but yielded the premier honors to the mature cow.

Holsteins

Exhibitors: Cass Farm Co., J. H. Cleverley, Hargrove & Arnold, and Henderson & Erickson, all from Iowa.

Judge: H. H. Kildee, Iowa.

Four Iowa Holstein herds made up the show of black and whites. Cass Farm and Hargrove & Arnold won the bulk of the money, with Cleverley carrying off four firsts, and Henderson & Erickson attaching a blue with the only animal they exhibited. Cass Farm Co. was premier exhibitor and Hargrove & Arnold, premier breeder.

The 53 head were of full average quality but made a considerably reduced total, as compared with 1917's collection from eight herds.

Sir Ormsby Korndyke Mechthilde, Cleverley's aged sire, had the depth



FAIRY GLEN'S FLORA, SENIOR AND GRAND CHAMPION JERSEY COW AT THE IOWA STATE FAIR
OWNED BY LONGVIEW FARM, MISSOURI



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and development and breediness about the head to place him over Cass Farm's three-year-old bull, King Aaggie Hengerveld, a bull which will be much improved by bodying down as he becomes older. Fayne Bessie Homestead, a Cass Farm two-year-old just out of the class for yearlings, was a general favorite about the ringside. He has an extraordinary development of body—with a depth and length of middle and a width, length, and levelness of rump which is uncommon. His great scale for his age gave him a feminine appearance about the head which a year or two should remedy. He was popular as senior and grand champion. Cleverley's yearling was given the purple for excellence among the juniors. The Henderson & Erickson entry, Tritomia Pietertje Ormsby, easily led the senior calves, but was at a disadvantage in size and age in the championships and lost to the yearling.

At Sedalia the Cass Farm Co. came near drawing the same loss which befell the Seitz Ayrshire herd—the loss of their aged cow. Almeda Lueske Hengerveld, as it was, was reduced so much in flesh that it will be extremely difficult to get her back to normal weight by the end of the season. Her clean cut dairy form, greater depth of body, and spring of rib, together with an advantage in balance of udder, won her ranking over Hargrove & Arnold's Josephine Nudine Ormsby. The latter firm's only good chance for senior championship, and, later, grand championship, depended on the day, perhaps the hour, of freshening of Rose DeKol Wayne Butter Boy, a heifer which, beginning at 2 years, 2 months, produced 20,830.4 lbs. milk, 913.84 lbs. fat. She calved at 10 o'clock in the forenoon of show day and was shown, winning in her class but being too gaunt and feverish from parturition to establish herself in the championships. Professor Kildee found his junior champion in Rose King Mutual Wayne, the daughter of Rose DeKol Wayne Butter Boy, and, therefore, the heifer whose dam and sire's dam have the two highest yearly 2-year records. This heifer did not have the ringside favor accorded Cass Farm's junior calf, Aaggie Mona Clothilde, a showier, better topped contestant. The strength of body and general promise of productive ability of the older animal, however, made her pleasing to the eyes of dairy farmers.

The list of awards follows:

Bull 3 years or over—1, Cleverley on Sir Ormsby Korndyke Mechthilde; 2, Cass Farm Co. on King Aaggie Hengerveld. Bull 2 years, under 3—1, Cass on Fayne Bessie Homestead. Bull 1 year, under 2—1, Cleverley on Sir Pietertje Watson Homestead; 2, Hargrove & Arnold on King Mutual Josephine. Senior bull calf—1, Henderson & Erickson on Tritomia Pietertje Ormsby; 2 and 3, Hargrove & Arnold on King Mutual Erna and King Mutual Beauty; 4 and 5, Cass on Aaggie Hengerveld Segis and Aaggie Hengerveld Bismarck DeKol. Junior bull calf—1, Hargrove & Arnold on Tang Mutual Carlotta; 2 and 4, Cass on Aaggie Almeda Hengerveld and Aaggie Hengerveld Lilith Walker; 3 and 5, Cleverly on Fairlawn Colantha Ormsby and Fairlawn Burke Ormsby.

Cow 4 years or over—1, Cass on Almeda Lueske Hengerveld; 2 and 3, Hargrove & Arnold on Josephine Nudine Ormsby and Oak Dale Lady Clothilde; 4, Cleverley on Piebe Colantha Ormsby. Cow 3 years, under 4—1 and 2, Hargrove & Arnold on Rose DeKol Wayne Butter Boy and Kirby Hengerveld Inka DeKol; 3, Cass on Opal Segis Pontiac. Heifer 2 years, under 3—1 and 4, Cass on Mercedes Aaltje Johanna and Piebe DeKol Pride Homestead; 2, Hargrove & Arnold on North River Tidy Netherland; 3, Cleverley on Gudultje Pietertje Burke. Senior yearling heifer—1, Cleverley on Colantha Ormsby Homestead; 2 and 4, Cass on Alcartra Pink Johanna and Pauline Mechthilde Walker; 3, Hargrove & Arnold on Kirby Martha Girl. Junior yearling heifer—1 and 3, Hargrove & Arnold on Rose King Mutual Wayne and Rose King Mutual; 2, Cass on Pietertje Fayne Concordia; 4, Cleverley on Miss Piebe Pontiac Korndyke. Senior heifer calf—1, Cleverley on Fairlawn Ormsby Beauty; 2, 4, and 5, Cass on Aaggie Hengerveld Carlotta, Sadie Fobes Homestead, and Aaggie Hengerveld Daisy Homestead; 3, Hargrove & Arnold on King Mutual Korndyke Dulcie Jewel.

Junior heifer calf—1 and 5, Cass on Aaggie Mona Clothilde and Aaggie Hengerveld Canary Segis; 2, Cleverley on Fairlawn Ormsby Pontiac; 3 and 4, Hargrove & Arnold on Lady Mutual Vale and Miss Rose Mutual.

Graded Herd—1 and 3, Cass; 2, Cleverley. Breeder's Young Herd—1, Cass; 2, Hargrove & Arnold; 3, Cleverley. Breeder's Calf Herd—1, Hargrove & Arnold; 2, Cass; 3, Cleverley. Get of Sire—1, Cass; 2 and 4, Hargrove & Arnold; 3, Cleverley. Produce of Cow—1, 3, and 4, Hargrove & Arnold; 2 and 5, Cleverley. Premier Exhibitor—Cass. Premier Breeder—Hargrove & Arnold.

Senior and Grand Champion Bull—Fayne Bessie Homestead. Junior Champion Bull—Sir Pietertje Watson Homestead.

Senior and Grand Champion Cow—Almeda Lueske Hengerveld. Junior Champion Cow—Rose King Mutual Wayne.

Jerseys

Two southern Jersey herds, from Longview Farm, Missouri, and White City Jersey Farm, Oklahoma, exhibited 44 head and made a strictly high class showing for the breed, though nearly twice as many animals and three times as many breeders were entered last year.

Professor J. B. Fitch of Kansas served as judge.

In the aged bull class, Noble's Handsome Prince, a 9-year-old, put up a strong fight for the blue against Viola's Majesty's White Sox but finally was forced to second honors, a reversed decision from their placing by Professor C. H. Eckles at Sedalia.

The former bull was shown lacking and is beginning to evidence maturity of age. He did not have the spring of rib, style, and general indication of vigor the Longview bull brought into the ring but was a decided improvement in width and levelness of rump and clean cut thighs over the younger sire. The aged winner was made grand champion over Longview's Poet's White Heart, a highly acceptable two-year-old, and over Warder's Oxford Chieftain, a senior calf from the same herd which carried rank as junior champion.

Age was the deciding factor in the mature cow class. Two good ones headed the line-up. Oxford's Majesty's Crocus, a ten-year-old with a record of more than 500 lbs. fat, led to Fairy Glen's Flora, a young cow which has produced 595 lbs. fat a year, losing largely because of her age. The older animal was thin and seemed to lack the vigor of her competitor but was a cleaner cut dairy type, more attractive about the head, and with a superior level of rump. Her udder and veins were indicative of larger productive capacity, though the udder halves were divided alike. Either cow was a worthy winner, the greater number of years of service left to the younger cow, as shown by her strength, making her slightly favored. She was successful in her contention for grand championship.

In the younger female classes competition was close, there being frequent chance for the selection of very worthy animals from those turned down by Judge Fitch. These younger classes, especially, were of exceptional average quality and made noteworthy showings in the group. Raleigh's Oxtivity, Longview's junior yearling, was made junior champion.

The list of awards follows:

Bull 3 years or over—1 and 3, Longview Farm on Viola's Majesty's White Sox and Warder's Chieftain; 2, White City Jersey Farm on Noble's Handsome Prince. Bull 2 years, under 3—1 and 2, Longview on Pogis White Heart and Dorariscus Raleigh. Bull 1 year, under 2—1, White City on Tulsa Chief; 2 and 3, Longview on Emily's Poet and Count Raleigh. Senior bull calf—1 and 2, Longview on Warder's Oxford Chieftain and Raleigh's Bright Prince; 3, White City on Guenon's Handsome Prince. Junior bull calf—1 and 2, Longview on ———— and Norma's Perfect Raleigh; 3 and 4, White City on Eventide's Bell Boy and Pansy's Handsome Prince.

Cow 4 years or over—1 and 2, Longview on Fairy Glen's Flora and Oxford's Majesty's Crocus; 3, 4, and 5, White City on Zizi of Elmendorff, Oxford's Gamboge Queenie, and Fern's Precious Lass. Cow 3 years, under 4—1, Longview on Rower's Benedictine Girl. Heifer 2 years, under 3—1, 2, 3, Longview on Fontaine's Nema, Raleigh's Star of Peace, and Raleigh's Oxford Thistle; 4 and 5, White City on Distinction's Princess and You'll

ampion's Queen. Senior yearling heifer—nd 3, Longview on Fairy Feather and My ary; 2, White City on Egyptian's Fairy. nior yearling heifer—1, 2, 4, Longview on eigh's Oxtivity, Raleigh's Velvet, and eftain's Flora; 3, White City on You'll s Silverine Rose. Senior heifer calf—1, 2, Longview on Raleigh's Evening Star, jesty's Golden Plymouth, and Raleigh's Red ther; 4 and 5, White City on Catherine's vel and Majesty's Beautiful Star. Junior fer calf—1 and 3, Longview on Raleigh's ry Finance and Red Flag's Susan; 2, White y on Rosebud's Isis.
raded Herd—1, 2, 4, Longview; 3, White y Jersey Farm. Breeder's Young Herd—1 l 3. Longview; 2, White City. Breeder's f Herd—1, Longview; 2, White City. Get Sire—1, 2, 3, Longview; 4, White City. duce of Cow—1, 2, 3, 4, 5, Longview. mier Exhibitor and Breeder—Longview.
enior and Grand Champion Bull—Viola's jesty's White Sox. Junior Champion Bull Varder's Oxford Chieftain.
enior and Grand Champion Cow—Fairy n's Flora. Junior Champion Cow—leigh's Oxtivity.

Control of All Cheese

Regulations governing manufactur-s, dealers, brokers, and commission rchants in all kinds of cheese have st been issued by the Food Ad-nistration. They supplant the rules t out a short time ago on Ameri-n or Cheddar cheese and include e foreign types such as Round viss, Block Swiss, Brick, Limburg-, and Munster.

The margins that dealers may take er cost are the same for American Cheddar as previously fixed and finite margins have also been made r the leading foreign types. The ndamental principles of the rules plied to the handling of American Cheddar have been used in the con-ol of the foreign types.

All cheese must now be sold with-t regard to the market or replace-ent value at not more than a reason-le advance over cash. Cost may be eraged by weight of all cheese of e same type, shape, and grade ned at the time of sale. Licensees ust keep a record of the manner in hich the average cost has been de-rmined.

Cost shall include nothing more an the purchase price; transporta-on charges, if any, storage charges, tual insurance charges, and interest n money invested at the current te if the cheese has been in storage ore than sixty days; and the actual st of paraffining, if any, providing is not more than one-fourth cent a und. The cost shall not include any ovision for shrinkage, commissions, cking expenses, or other expenses it is intended that these shall be vered by the margins allowed.

A full report on costs and margins prices charged in any given period r any style of cheese, or any other cessary information, must be fur-ished by the licensee upon demand of e U. S. Food Administration or the ederal Food Administrator for the ate.

The margins specified are to be nsidered as maximum margins and re designed to be in excess of reason-le margins. They are purposely ade wide enough to take care of ecial cases where the cost of doing siness is exceptionally high. The dvances taken must never be enough give the dealer more than a reason-le profit.

Provisions are made restricting ansfers from branch houses, and les by one dealer to another at a rice higher than the buyer would ave to pay on the open market will be nsidered as collusion to defeat the urpose of the rules.

Since imports of foreign cheese ave been cut off from our markets y reason of the war, the demand for oreign types made in this country as increased greatly and competition etween dealers has been such as to esult in the buying of much cheese, specially Round Swiss, before it has een properly matured and, therefore, efore its quality could be determined. This has meant a highly speculative business with prices in accordance with the risk. It has also resulted in a noticeable lowering of the standard of quality of the cheese as it was removed from the factories and put into cold storage before being properly matured.

The rules now provide that the cost of any grade of cheese must be figured on the purchase price of that grade. When ungraded cheese is bought at a uniform price the dealer must not figure the purchase price of any part of it higher than the actual price per pound paid for the entire lot.

Clearly, if the dealer can not sell the portion of the ungraded cheese that develops into No. 1 at a higher price than the average cost plus the specified margin, the risk will be too great and the tendency will be to delay purchasing until grades can be determined and the standard of quality will be improved due to proper handling by the maker. Dealers realize that this provision in the rules will be a great benefit to the industry in meeting the after-the-war competition that is sure to come when the foreign cheese again enters our markets.

The maximum margins on American or Cheddar cheese are the same as made previously. They range from three-fourths cent a pound on carlots to three and one-half cents on sales less than 100 pounds, with graduated margins for intermediate amounts. On this kind, when held in a warehouse for more than thirty days, an additional margin of one-eighth cent per pound per month may be taken, but in no case shall such additions aggregate more than one cent a pound.

On Round or Tub Swiss the margins range from one and three-fourths cents on carlot sales to eight cents on cut-loaf sales less than 120 pounds. Additional margins are provided for cheese held in a warehouse more than thirty days.

In the case of all different varieties a higher margin is allowed on the smaller sales for the reason that the expense is much greater in handling and selling these small amounts. Much of the cheese disposed of in these small quantities is sold by the so-called "peddler" wholesaler from his wagon. The higher margins allowed to dealers selling the foreign types were decided upon because of the greater perishability of these kinds, the larger investment on account of the high price, the greater shrinkage due to the high moisture content, and the greater danger of spoiling.

Margins on Block Swiss begin with one cent a pound on carlot sales and increase to four and one-half cents on sales less than 150 pounds. Other margins are provided for cheese held over thirty days in a warehouse and for transfer to a branch house when the main house actually handles the cheese.

On Brick, Limburger, and Munster the maximum margins run from one and one-fourth cents on carlots to five cents on sales less than 130 pounds. Storage and transfer margins are provided for as in the case of the other varieties.

Manufacturers of any of these kinds of cheese who do the work of assembler, wholesaler, or jobber are subject to the rules governing men in those classifications. But instead of a purchase price as assembler, wholesaler, or jobber, he must either compute the cost of raw materials and the expense of manufacture or, in case of American or Cheddar cheese, take the price during the ten days after the cheese is manufactured on the established primary market on the basis of which this kind and grade of cheese is usually sold by manufacturers.

Definite commissions are specified

(Continued on page 242)

All separators are turned at wrong speed some of the time;

Some separators are turned at wrong speed most of the time;

But the Sharples Suction-feed Separator is *automatically* turned at the right speed *all of the time.*

Why take a chance?

Why not use the separator that is right all of the time no matter at what speed you turn?

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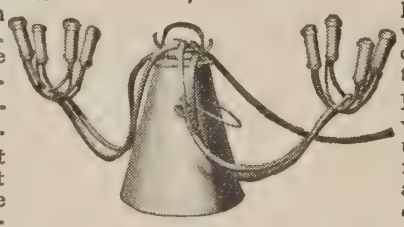
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Read your paper closely for stories of the valuable events to take place at this year's Show.

Farmers and Businessmen to Co-operate

HOARD'S DAIRYMAN:—Professor F. L. Musbach, in charge of the Branch State Experiment Station located at Marshfield, Wisconsin, has in co-operation with the Chamber of Commerce organized a movement to secure a closer spirit of co-operation between the farmers and business men of this section of the state. On July 30th and 31st, over seven hundred farmers from Wood and neighboring counties gathered at the farm where an educational program of addresses bearing on farm problems had been arranged for the instruction of the visitors. Among those who participated in the programs were C. P. Norgord, Professor F. B. Morrison, Miss Gladys Stillman, E. J. Delwiche, F. L. Musbach, B. D. Leith, Rev. F. J. Jordon, F. B. Lamson, and E. C. Pors.

The Tuesday delegation was made up entirely of farmers and business men from Taylor County who had been organized for the tour by R. A. Kolbe, agricultural agent for that county, and William Schmidt, secretary of the Medford Business Men's Association. The delegation was met in Marshfield by a committee of business men and a brief address of welcome was given by I. P. Tiffault. Lunch was served at the farm.

The leading address on Wednesday was given by C. P. Norgord, Commissioner of Agriculture. He emphasized the importance of this section of the state as one of the great dairy centers of the nation, and dwelt on the importance of raising well bred stock adapted to the needs of the farmer, and the necessity of securing stock free from contagious diseases. Among the diseases of a dangerous nature he spoke of tuberculosis and gave figures to show the alarming increase of this disease among cattle in the United States, and of the dire effects of this disease being spread among calves and pigs until it became a serious menace to human life.



FARMERS AND BUSINESSMEN GATHERING AT THE MARSHFIELD BRANCH EXPERIMENT STATION FARM

Among the problems discussed of special interest to the farmer was the importance of soil treatment and management, and the importance of securing varieties of grains adapted to the type of soil common to Wood and adjoining counties.

The ladies in attendance were deeply interested in the lecture and demonstrations relating to the canning of food products and the use of wheat substitutes which were ably treated by Miss Gladys Stillman of the Home Economics Department.

One of the most important features of the two days' gathering was the personal inspection tours made of the farm.

As a result of the Marshfield gatherings at the Experiment Farm, farmers and business men alike have been deeply impressed with the work done at the farm, and are realizing the great value of this Branch Station to the farming interests in this section of our state.

Wisconsin. F. B. LAMSON.

A rainy day job: Put tin around the feed bins where the rats are most likely to gnaw through. And plan a campaign against the rats.

To Improve Market for Minnesota Butter

A series of experiments, which it is hoped will result in great profit to the butter making industry of Minnesota, through what may be called a standardization of Minnesota creamery products, are being carried on this summer in the Dairy Division of the Department of Agriculture of the University of Minnesota.

The aim of these experiments is to improve the methods of butter manufacturing so as to combine in one product the keeping qualities of export butter, such as was first manufactured in Denmark, and the high flavor of America's butter.

If these qualities can be combined in one product, the products of Minnesota's creameries can be graded at a central station and shipped to markets outside of the state with the certainty that the butter will hold up to the grades certified. This will insure a better market for Minnesota's butter, and, it is felt, stimulate the dairy industry in a large degree, though Minnesota already produces more butter than any other state in the Union.

The experiments are being carried on by E. J. Holmers, state creamery inspector and dairy school instructor, and R. M. Washburn of the dairy division at University Farm. These two men have had more than a score of years of experience as expert buttermakers on top of years of farm experience. Yet they laughingly remark that they are just now learning to make butter.

The problem they have in hand is one of biochemistry, that of controlling the number of bacteria and enzymes in the butter.

Butter is produced under conditions that are practically identical and then placed in storage under the direction of federal experts. One sample is opened after 10 days, another after 30 days, another after 3 months, and another after 5 months. Each sample as opened is scored by state experts who are not informed as to the length of time the sample has been stored, or as to any of the conditions under which it was manufactured. In this way it is hoped an impartial judgment of the keeping and other qualities of the butter may be determined.

The experiments are in line with the ideas of a commission appointed by Gov. J. A. A. Burnquist to assist in improving conditions under which Minnesota's butter is marketed. Members of the commission are James Sorenson, chairman; H. Sandholt, secretary; R. M. Washburn and A. J. McGuire of University Farm, and Chris Heen, secretary of the Minnesota Dairymen's Association.—MINNESOTA COLLEGE OF AGRICULTURE.

Weeds result not only in big financial loss but also in great annoyance. Diseases, such as hay fever, could be eliminated almost entirely by adopting efficient methods for controlling the incidental weeds found along roadsides, in vacant fields, and in waste places.

Quality Cream for Quality Butter

The following advice comes from a communication to creamery managers written by W. B. Liverance of New York:

The recent spell of hot weather has brought to light at this end those creameries whose patrons do not attempt to produce a uniform high quality of cream. During the past two weeks creameries, which up until that time had been shipping a fairly uniform grade of butter, have sent shipments of uneven grade and of mediocre quality. The results have immediately shown up in the form of a financial loss. On the other hand, there are creameries whose patrons have co-operated in building up a reputation for high quality for the creamery. That the reputation is justified is shown by the fact that butter from such plants shows up fully as good during hot weather as under ideal dairy conditions, and, we might add, several such creameries are gathered cream plants. Financially, patrons of such creameries are well paid for the small extra trouble to which they have gone to produce milk and cream of high quality. During the very slackest of times in the butter markets of the country there is always a strong demand for high quality butter and the buyer is always glad to pay top quotation for such butter.

The writer knows from experience that creamery managers do very little to secure the co-operation of their patrons in an attempt to improve the quality of their butter. Too many look upon it as a hopeless task. That it is not hopeless has been demonstrated in many instances. It can not be done over night. It takes time and persistence. With the proper incentive many creameries have seemingly accomplished miracles in a month. In Iowa and Minnesota many creameries which were receiving practically nothing but sour cream were prevailed upon to make a contract with the Navy Department to supply it with a certain quantity of the highest quality butter. Many managers were inclined to have "cold feet" as soon as the contract was signed. However, practically all of them have been very successful in carrying out their contracts.

A Bull Warning

HOARD'S DAIRYMAN:—I have read so many warnings offered by you on the handling of bulls that I think it is my duty to give my own experience.

Not many years since, I was driving my eighteen-month-old bull to pasture across the railroad track. I opened the gate and then returned to drive the cows and the bull across the track. I rounded up the cows all right but before I could turn around for his majesty, he had me down and I could not get a chance to get on my feet. He rolled me over and over until he had me on the railroad track, then he jumped over me and rolled me back again. Sometimes he lifted me partly up and again pushed me with his muzzle, but in returning me he did not appear to try to put me back to the place where we started from. He rolled me up against the fence and I remember yet how I dreaded being crucified on a barbwire railway fence.

During all this time I did not lose my senses and kept watch carefully for the first opportunity that might present itself for escape. On reaching the fence, I put up both hands and got out of his reach and over the fence. The bull stopped for the first time, looked me over, threw up his tail and ran off. He broke only three ribs, but I felt the bruises and the nervous shock more than the breaking of the ribs.

The above experience (fortunately I am alive to tell it) causes me to be nervous when I see another person approach a bull. I have stood outside my yard gate and begged the hired man not to approach the bull unguarded and defenseless. I received the reply that he had told the bull to go in and he must mind. My reply was, "But you must not forget it is a bull you are dealing with."

I always treat a bull kindly but in some way see that he complies with my commands. I lead the bull and don't want the bull to lead me. I am always prepared for a surprise and on my guard that he does not take me unawares. In leading a bull with a staff, I never go ahead of him. I have found he is more easily controlled if I walk at his side and opposite his shoulders.

Kansasville, Wis. M. O. C.

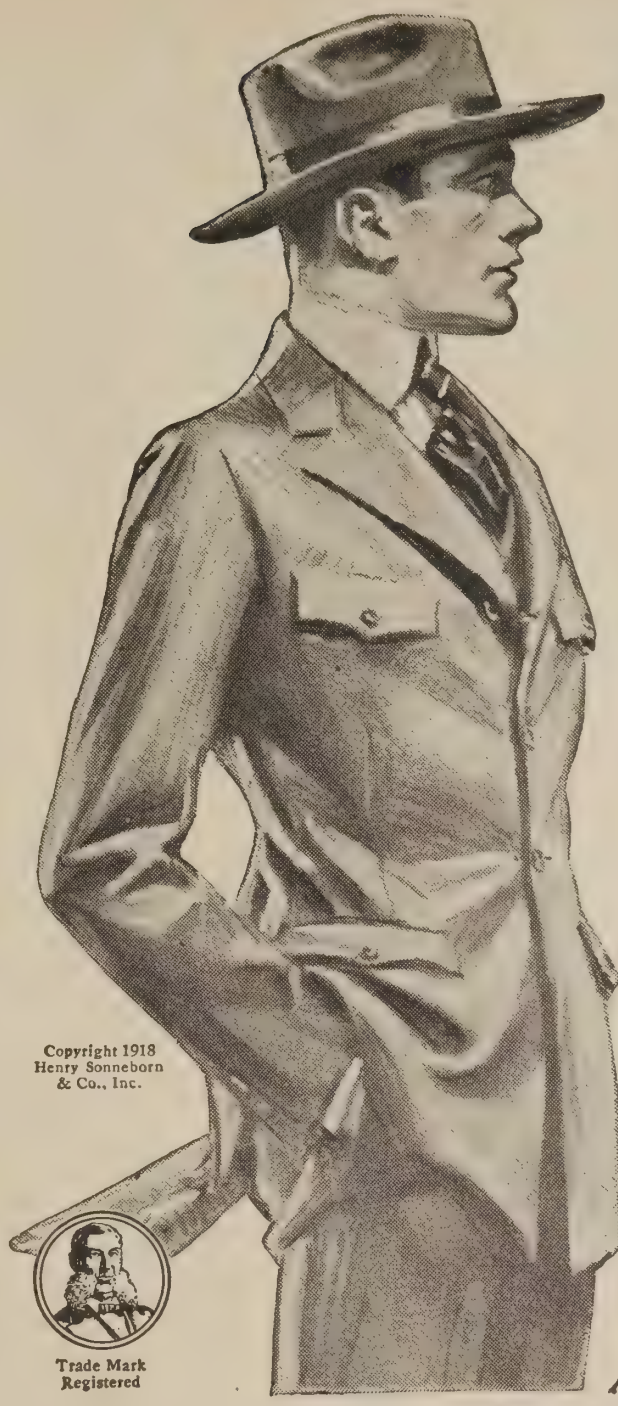
Cort to Minnesota

Joe C. Cort, lately extension agent for the Holstein-Friesian Association of America, and formerly in charge of dairy extension for the Iowa State College, has been appointed Assistant Professor of Dairy Husbandry in the Minnesota College of Agriculture. He will engage in the production side of the instructional and investigational work.

Mr. Cort's work with cow testing associations in Iowa and the beginning made in the publicity movement for Holsteins fits him well for practical results in the class room. Extension workers will regret his leaving field activities.

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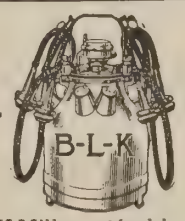
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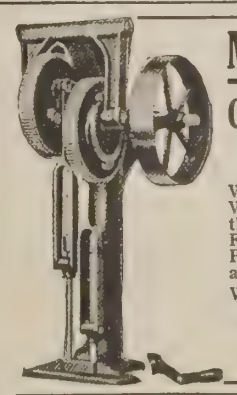
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Coming Events

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

Sept. 15 to 21. Illinois—Indiana Fair, Danville, Ill. G. M. McCray, secretary.

Sept. 16 to 21. Interstate Live Stock Fair, Sioux City, Iowa. Joe Morton, secretary.

New York Butter Market

NEW YORK CITY, September 3:—During the past week the market has been exceptionally strong. At the outset last week the seasonal decrease in make was beginning to make itself felt and there was an increase in price as a result. However, on Thursday all receivers and handlers of storage butter received instructions from the Federal Food Administration requesting them to reserve 60% of all grades held in storage August 1, for government use. The order had the immediate effect of further strengthening the market and its influence is yet very apparent. As a result all grades of butter advanced a half cent in price. On Friday the quotation was further advanced a half cent and today the quotation is again a half cent higher. Indications point to still further advances in price and a quotation of 50c for extras is expected before the close of the week. At the close today quotations were as follows: Extras (92 score butter), 48½c; Higher scoring than extras (93 score or higher), 49@49½c; Firsts (88 to 91 score), 46@48c; and Seconds (83 to 87 score), 43½@45½c. There is as yet a great scarcity of unsalted butter and it is quoted at a differential of one and a half cents above corresponding grades of salted butter.

It is very interesting to note that our armies which up until a short time ago were receiving considerable quantities of oleomargarine in place of butter are receiving at present larger quantities of butter. That fact is interesting from a butter marketing standpoint as it naturally will have an important bearing on the stability of the market during the present year, if not for the duration of the war. This year promises to be a banner one for the creamery industry and farmers who patronize the home creamery will find themselves well repaid because of their loyalty to the local institution. There is a world of promise in future export trade in butter as there will be a strong demand from the war infested countries for dairy products to serve as up-builders of the peoples whose vitality has been so seriously impaired because of the hardships which they have experienced. High quality butter will be in strong demand and it is very important that farmers co-operate to the limit with their creameries in order that a butter may be produced that will be demanded from across the seas. W. B. LIVERANCE.

Hay Prices

It is evident that the price of all hays will range high the coming winter. Quotations received from Kansas City on hay delivered at the buyer's railroad station are as follows: No. 1 alfalfa per ton, $36.25; standard alfalfa, $34.75; No. 2 alfalfa, $29.25; No. 1 upland, prairie, $29.75; No. 2, $28.75; No. 1 timothy, $32.50; No. 2, $30.50. These are August prices. It can hardly be expected that they will decrease as the season advances.

A Correction

In our report of the New England Ayrshire Club sale published June 28, Willowmoor Peter Pan 92nd was listed as having been purchased by E. E. Sawyer of New Hampshire, which was a mistake. W. H. Druckemiller, owner of Crestmont Farm, Pennsylvania, was the purchaser.

Sale Announcements

Sept. 17—Holsteins. Centralia Calf Farm, Centralia, Ill.
Sept. 18—Holsteins. W. F. Phelp's Holstein Sale, Joplin, Mo.
Sept. 25—Holsteins. Dispersion of Boardman Farms Herd of Registered Holsteins at Jackson, Mich. J. W. Boardman.
Sept. 25-26—Holsteins. Absolute Disperison of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.
Sept. 25—Guernseys. Polk County, Wis., Guernsey Breeders' Ass'n. J. H. Stewart, Sec'y., Clear Lake, Wis.
Sept. 27—Guernseys. C. M. Paul, Staunton, Va. C. T. Rice, Sales Mgr., Oakton, Va.
Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.
Oct. 2—Ayrshires. Ayrshire Breeders' Sale at Waterloo, Ia., D. M. Henderson, Hudson, O., Sale Mgr.
Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.
Oct. 3—Holsteins. The Dairy Cattle Congress Holstein Sale, at Waterloo, Ia., Roy L. White, Mgr., Waterloo or Woodstock, Ill.
Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.
Oct. 4—Guernseys. Dispersion of Sylvanite Guernsey Herd at Baraboo, Wis. Richard F. Klemm.
Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.
Oct. 8—Holsteins. Dodge County Holstein Breeders' Consignment Sale at West Concord, Minn. C. L. McNelly.
Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.



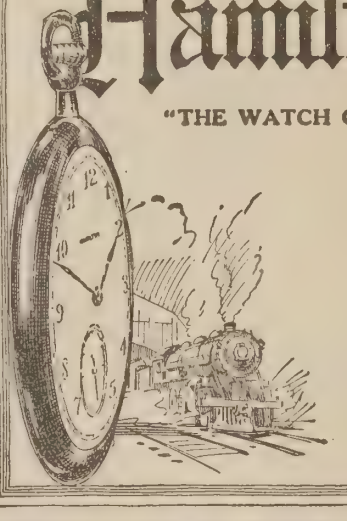
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First Meeting Wisconsin Dairy Council

THE first meeting of the Wisconsin Dairy Council was held at Madison August 31st in the office of C. P. Norgord, Commissioner of Agriculture. Ten of the nineteen persons suggested for members of the Board of Directors by the representatives of the dairy and agricultural organizations of the state who met in Milwaukee on August 7th were present. Several others interested in the welfare of dairying in Wisconsin were also in attendance. The meeting was called to order by A. J. Glover, chairman of the meeting held in Milwaukee.

Mr. James Clemens made the suggestion that the Board of Directors be enlarged so that the State Grange, Society of Equity, Milk Producers' Association, and the Cheese Federation could have representatives upon the board. A resolution was offered and adopted enlarging the board from 19 to 27. The meeting then proceeded to formally elect the following members as representatives of the various organizations, they to serve as the Board of Directors: Milk Producers: Howard H. Greene, G. R. Rice, J. H. Kelly, W. C. Brill; Purebred Dairy Cattle: Fred Pabst; Butter Manufacturers: Guy Speirs; Cheese Manufacturers; C. E. Reid; Condensed Milk Manufacturers: J. H. Harris; Manufacturers of Dairy and Barn Equipment: W. D. James; Dealer in Dairy Products: George C. Mansfield; Milk Distributors: John LeFeber; College of Agriculture: H. L. Russell; Dairy and Food Commission: C. E. Lee; State Department of Agriculture: C. P. Norgord; Public Instruction: C. P. Cary; Dairy Press: A. J. Glover; Consumers: Mrs. Edith Hoyt; Wisconsin State Grange: A. L. King; Wisconsin Cheesemakers' Association: J. L. Sammis; Wisconsin Buttermakers' Association; G. H. Benkendorf; Society of Equity; James Clemens; Cheese Producers' Federation; Henry Krumrey; Members at Large: George Buckstaff, Dr. G. A. Kletsch.

It is the purpose of the Wisconsin Dairy Council to have each of the several dairy and agricultural organizations at their regular meeting select two persons from whom the members of the Council may elect one to serve upon the Board of Directors to represent the organization from which he was selected. In other words, each dairy and agricultural organization shall have a representative upon the Board of Directors of the Council and members shall be selected by the organization which is represented.

After the Board of Directors were elected, the meeting of the members of the Council adjourned and the directors' meeting was called. This body selected for officers for the ensuing year the following: President, A. J. Glover, Fort Atkinson; vice-president, G. R. Rice, Milwaukee; secretary-treasurer, John LeFeber, Milwaukee.

This body then discussed the policy of the Council and plans for educating the consumer regarding the importance and food value of milk and its products. Mrs. Edith Hoyt, chairman of the Child's Welfare Committee of the State Council of Defense, stated it was particularly important that mothers should be advised of the necessity and value of milk for young children. In her child welfare work she has found young children fed on sauerkraut, beer, and coffee, and that milk forms but little or no part of their diet. Children fed in this way are low in vitality and do not develop properly. She urged the establishment of milk stations, especially in the larger cities, where pasteurized milk might be sold to the poorer classes at lower prices than when milk is delivered. She also believed there was opportunity to co-operate with the health departments of the municipalities and in this way reach the mothers who do not read and have not yet learned of the food value of milk for growing children.

Dean Russell of the College of Agriculture informed the board that the Wisconsin College of Agriculture had under way a poster discussing the food value and the necessity of milk, which they expected to place in every schoolhouse in Wisconsin. He believed that if every mother could be led to tabulate the weight of her child that it would do much to interest her in its diet. He believed, also, that it was necessary to educate the doctors of the state regarding the nutritive value of dairy products and that the city press must be advised concerning the importance of milk. It has been very noticeable that whenever the price of milk has advanced, the city press has raised objections, notwithstanding milk is the cheapest animal food now on the market.

Owing to the large demand for butter, cheese, and condensed milk, it did not seem to the Board of Directors that it was necessary to do anything to stimulate the consumption of these products. The government recently commandeered 60% of all the butter in cold storage and the demand for condensed milk is far beyond the supply. There is less cheese now in cold storage than a year ago and the prices are higher and the demand is increasing.

It did seem though that it was important to advise mothers of growing children regarding the necessity of milk and to encourage a larger consumption of skimmilk and its products. Many millions of pounds of skimmilk are being fed to swine that could be well diverted and used as human food without converting it into pork. The splendid campaign for increased production and consumption of cottage cheese now being carried on by the Dairy Division of the U. S. Department of Agriculture is bringing a larger amount of skimmilk into use as human food.

It was decided that some effort should be made at the Wisconsin State Fair to inform the dairy industry regarding the purpose and object of the Wisconsin Dairy Council and to call the attention of the consumer to the value of milk as a food and its relative value as compared to other foods.

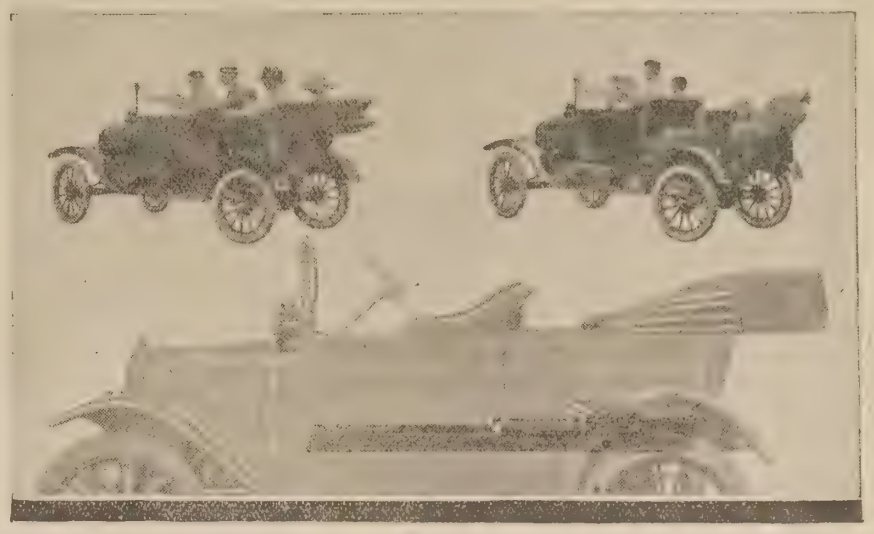
The board decided that one of the most effective ways to bring the consumer's attention to the value and importance of milk was through the school system. The president was directed to appoint a committee whose duty it would be to formulate a plan for getting such information in the hands of every teacher in the state and to provide suitable matter regarding milk and its products. There are a few schools already doing some work to determine the effect of the consumption of milk upon the physical and mental development of the child and the Council desires to lead every school to take up the same kind of work. It was also decided to cooperate with the State Council of Defense, the Child's Welfare Committee, and the county councils of defense in a campaign to educate every home regarding the food value of milk and skimmilk and its products.

The president was also directed to appoint a financial committee. An association of this character must be provided with funds or it cannot hope to accomplish much. It is the purpose of this organization to secure funds from the producer, the distributor of dairy products, the manufacturers of cheese, butter, condensed milk, and dairy machinery and barn equipment companies and from every one interested in the development of the dairy industry.. At this meeting about $300 was pledged for work in the month of September. It is to be hoped this will be increased when others are advised of the purpose and object of the Wisconsin Dairy Council. The Board of Directors expects to hold another meeting in October or November for the purpose of laying further plans for increasing the consumption of milk and its products.

It is not the purpose of the Wisconson Dairy Council to absorb any of the activities of the dairy and agricultural organizations already in existence, and which have done splendid work in their respective endeavors. The Wisconsin Dairymen's Association, the oldest of our organizations, is devoting its energy to the increased and more economical production of dairy products; the Cheesemakers' and Buttermakers' Associations are endeavoring to improve the workmanship of their members and to improve the quality of butter and cheese. Then, we have breeders' associations organized for the purpose of assisting them in advancing our several breeds of dairy cattle. There are also marketing associations and various other organizations which are engaged in special fields for the purpose of advancing the dairy and agricul-

(Continued on page 231)

TWO CAR SERVICE at ONE CAR COST



The Heath-DUPLEX patented folding truck body for Ford touring cars will pay for itself quicker than any machinery investment you ever made.

It is attached securely to the chassis. It fits old or new Fords.

The Heath-DUPLEX delivery body stays out of sight under the tonneau, with no outward sign of its truck utility, when the Ford is used as a touring car. The tonneau of the Ford touring car is made removable.

To make it a truck you simply slide off the tonneau and unfold the delivery body. Sixty seconds is all it takes. No tools are necessary.

To return it to a passenger car you fold up the delivery body and slide on tonneau. Another minute accomplishes this change.

Many a farmer will save the price of his Heath-DUPLEX this season by his ability to haul men and supplies in time to salvage a crop from disaster by storm or frost. On the average farm it will pay for itself in a month's use.

The Heath-DUPLEX is a product of the same spirit that moves a farmer to grow twice as many bushels to the acre as he did before the war.

It adds truck use to touring car use at a small cost, utilizing the low cost operation of the Ford for a double purpose.

It is indispensable to the small farmer who can't afford a separate truck. It is equally essential to the big farmer because of its ability to haul the lighter loads at less expense than his heavy truck.

One demonstration of the Heath-DUPLEX will convince you beyond further question as to its utility. Write us for folder explaining clearly the Heath-DUPLEX. We will also tell you where you can get a demonstration.

Look for a demonstration of the Heath-DUPLEX at your state fair.

McCord Manufacturing Co., Incorporated

Dept. 4, Detroit, Michigan

Heath Duplex

Makes a Ford a Truck or Passenger Car in 60 Seconds

PATENTED MAY 13 1919, DEC 15 1919

$57.50
F.O.B. Detroit

EDITORIAL COMMENT

COMMON COURTESY

Quite frequently we receive complaint that those who advertise for hired help, and as well the hired man who advertises for a position, will neglect to answer the letters that the advertisement brings them. This may be generally a thoughtless discourtesy but it is none the less reprehensible. It may be a little trouble to buy some postal cards and notify those who have written you that you have secured your man or have secured your position but any one unwilling to do this should not advertise. It is just ordinary and common courtesy that one has no business to intentionally neglect. It comes usually from the thought that the answer is of little consequence, having secured what was wanted, but those who have written in response to the advertisement do not know the position is filled or that the man has secured his position and the neglect causes needless annoyance. Neglect of this kind is unbusinesslike and discourteous. "Do unto others as you would be done by."

FACTS CONCERNING BACTERIA

In a recent address by Dr. Jacob G. Lipman, dean of the New Jersey Experiment Station, the following facts are given in regard to the knowledge we now possess regarding bacteria:

"Anton Van Lleuernheuk, a Dutch lens grinder of the 17th century, was the first to discover bacteria. In 1887 Pasteur discovered that decay was due to living organisms; in 1877 two Frenchmen experimented on nitrification and the relation of living organisms to crop production, and in 1883 the Americans, Atwater and Wood, showed why legumes increased the productivity of the soil but failed to discover their exact connection with bacteria. For more than 4,000 years the Chinese farmer has known of the application of legumes and compost and of their value in treating the soil so as to stimulate production."

KEEPING THE ADVERTISING COLUMNS CLEAN

Every reputable agricultural journal and, for that matter, every wise and honest newspaper as well, has to be constantly on guard against being misled by its own desire for financial gain to the sacrifice of its usefulness to its readers. The way to this accomplishment lies through the counting room in the form of artful advertisements that are not intended for the public good.

A writer in the Atlantic Monthly tells how the German press was debauched, and the German people most terribly misled during the war by the firm of Krupps with their advertisements for which they paid the highest rates. They used all kinds of papers to effect this debauchment of the German press and people, even to the humblest bee journal.

The first thought of every right thinking editor and manager of a paper should be to deal honestly with his readers and see that they are not misled and deceived to their hurt by dishonest and untruthful advertisements. Hoard's Dairyman refuses thousands of dollars' worth of advertising every year because we doubt its honesty and truthfulness. We lay no claim to any credit for this. It is a solemn duty we owe to our subscribers who pay for what they hope and suppose to be a reliable, honest journal.

A WEEK OF THANKS AND PREPARATION

Our government has already under way plans to increase the production of food for next year. In sections that grow winter wheat attempt is being made to increase the acreage. But the big drive for an increased food production for next year may be held during the week of Thanksgiving.

The feasibility of devoting this time to the purpose of a larger food supply has been discussed favorably by the Agricultural Advisory Committee of the Wisconsin State Council of Defense.

This is a very appropriate time to discuss ways and means of increasing food production for 1919. It will be a week of profound gratitude to Him who has dealt so generously with us. In offering our thanks for the bounteous harvest we shall show wisdom in providing plans to do our part to provide for a still larger crop next year. The shortage of farm labor and the extra burdens laid upon the farmer call for higher efficiency in farm work than ever before. It not only means that the farmer must make every movement count, but he must treat his soil so that it will do its best. Good management everywhere in the field, in the barn, and in co-operation with neighbors must prevail. Machinery and equipment must be purchased with the view of saving labor.

Considering plans for increasing crop production for 1919, during the week of Thanksgiving, is both fitting and wise as it will give the farmer opportunity to consider them during the winter and provide means for carrying them out.

ROCK PHOSPHATE AND WHEAT

For some years there has been more or less contention regarding the value of raw rock phosphate and acid phosphate as a fertilizer to increase the phosphorus content of the soil. The advocates of raw rock phosphate hold that it is the cheapest and best way to secure phosphorus for building a permanent system of agriculture. Their method of application is to apply it with barnyard manure or plow it under with some green crop, preferably clover or alfalfa. This is done for the purpose of associating it with the raw rock phosphate, which contains phosphorus in the unavailable form, that it may be converted into a form which may be taken up by the plants. Raw rock phosphate does not bring the quick returns that the acid phosphate form does, but the large yields of wheat secured this year by farmers in Illinois who have used the raw rock phosphate demonstrate clearly its value. It may be said that those desiring immediate returns from an application of phosphatic fertilizer should use acid phosphate; in other words, the form of fertilizer which has phosphorus in the available form.

This coming year it is highly desirable to increase the production of wheat and for this purpose acid phosphate should be used rather than raw rock phosphate. It seems both forms of phosphorus have their places and farmers who desire to increase their crop production may well consider the use of phosphorus in some form. In the dairy sections where clover, alfalfa, and barnyard manure are used for increasing fertility, the land is likely to become too rich in nitrogen and lack in the element phosphorus, which is very necessary for the development of plump grain and to strengthen the straw that it will not lodge easily.

MILK AS A FOOD

We desire to call attention to the splendid article by Ernest Kelly of the Dairy Division on the front page of this issue. It is an unusually well balanced article, and sets forth clearly the reasons why effort should be made to inform the people concerning the importance and food value of milk and its products.

As we note the amount of milk consumed per capita, we are led to believe that there are but few people who appreciate its food value. More than four years ago we began to publish articles concerning the splendid work done by McCollum and Hart at the Wisconsin College of Agriculture, and about three years ago Dr. McCollum wrote us a series of articles which showed up clearly that milk is essential to the proper development of the human race. It is our duty to carry this message to every home. Not only does the farm home need to be advised concerning the splendid food value of milk and its products, but also the city home and especially those whose incomes do not permit them to be extravagant in their purchases of food. The war has called attention, as nothing else could, to the necessity of buying food according to its nutritive value. The American people have been supplied so generously with foods and they have been so cheap that most of the purchases have been made according to taste with little regard as to nourishing properties. A few people realize that milk is the most economical animal food and one of the most nourishing foods, but the number is so small that there is necessity of carrying this information through various channels to every household in our country.

In our little city where the people have been advised many times through the local papers concerning the importance of milk, we found this year a young boy working on Hoard's Dairyman Farm whose breakfast consisted of bread and syrup and coffee. He was a plucky little chap, but observation revealed that he was under-nourished and not capable of doing as much work as the other boys with whom he was associating. We learned through him that his folks thought milk was too high in price and they were not purchasing any. They did not know that meat was far more expensive and not nearly as good for a growing boy as milk. In the short time that he worked on Hoard's Dairyman Farm he was given all the milk that he could drink and we could see an improvement in his physical condition.

If parents are not in position to buy an adequate supply of whole milk, they should at least purchase a liberal amount of skimmilk. It is a splendid food for growing children, but how common it is to hear people speak of skimmilk in a jesting way. They do not know that 100 lbs. of skimmilk contains as much nourishment as 15 or 16 lbs. of beef. For the welfare of the nation it is the duty of dairymen to carry the message of the value of milk and its products to all the homes in our nation.

THE SPIRIT OF THE SOLDIER

We have never under-estimated the spirit of farm boys to serve their country in time of war. No class of people responds more quickly to their country's call than the farm boys. It has, of course, been hard for the farmers to give up their sons to serve Uncle Sam, but we know very few farmers whose sons have enlisted would care to call them back. They need them badly in their farm work; they need them for the source of pleasure and the comfort they bring to the home; but these men have risen above their selfish interest and are willingly making the sacrifice necessary to bring victory to this nation.

The spirit and object of the soldier is well expressed in the following letter recently written Wallaces' Farmer:

"The company in which I am is composed of Iowa boys almost exclusively, and of course that means they are mostly farmers. I have talked with a good many new men since I came into the service, and you may be interested in knowing how we all look at this whole affair. I have found very few who would be glad to go home, even if they could. We all want to get our training and get across as soon as possible. We are very confident that we can do our work in a manner that will be an honor to our country, to our home state, and to our community. The general sentiment of the boys here is that the folks at home must do their part well, and leave it to us to determine when peace shall be made. We are willing to stake our fortunes, our lives, and everything we have, and we want peace to come only when the war is won. We do not say 'when the war is over'. If the folks at home will refuse to listen to German peace propaganda, we will promise them we will never want to come back until Belgium is restored, Russia is delivered, and peace terms decided upon which will settle the vital issues of this war for the future."

This soldier farm boy reveals the spirit which animates those called upon to serve their country in foreign lands. May this spirit permeate every home because it is just as essential for those who remain here to be steeled to the job of winning the war as it is for those who are actively engaged in it.

WRITE TO THE SOLDIERS

We had the good fortune to hear a French soldier, who had served nearly four years at the front. He told of several battles in which he had engaged, of the spirit of the soldiers and their determination to win victory for freedom. He said there was no question about the outcome of the war and that the soldier would do his part willingly and well. But certain duties fall upon all of us back home, and one thing he emphasized was writing letters regularly to the boys in the army and navy. He said there was not an hour in the day that the soldier was not thinking of home, wondering what his loved ones were doing and whether they were thinking of him. Letters haven't come to the soldiers over the seas as regularly as they should. They crave news from home. When a soldier goes to the post office for his mail and finds no letter it makes him feel despondent and depressed. This speaker urged that a few words be written each day; that is, start a letter on a certain date and write a few lines or paragraphs; then continue it the next day and so on, but put in the date each time. This will let the soldier know he has been thought of every day, the greatest encouragement he can receive.

We know how busy all the folks are on the farm and that letter writing is not the easiest task for people engaged in manual work, but if plans are made to pen a few lines every day to the boy who is away from home, telling him in brief what has been done on the farm that day, it will do much to lighten his heavy burdens. He would like to know about the crops raised, what the yield is per acre,

when his choice cows come fresh, how their calves are growing, when his younger brothers and sisters start to school, what they are doing in school, and all the little details which seem unimportant to those acquainted with them. These are all important and cherished information to him. It would be our suggestion to send letters at least twice a week, but write him a few lines each day and let him know that he has not been forgotten back home.

Drain for Silo—Moldy Silage

Some years ago I built a silo 12x22. Every season, rather earlier than this date, I have it freshly creosoted inside, after thoroughly cleaning it. It is all above ground on a solid stone and cement foundation. Should there be an opening for drainage near or at the base? If so, how large?

Last year the corn was put in early in September, the corn almost glazing, the leafage bright green, the stalks full of juice. It was cut into half-inch lengths and well trodden. There was not a sufficient quantity to quite fill it. When we began using it, some weeks later, it smelled as sweet as a clover field, but very soon it began molding and grew worse and worse so that we had to discard more than fifty per cent of it—a serious loss. We fed six cows from it, and used up daily about two inches. Some of the mold was pinkish and some greenish, and it was pretty evenly scattered over the surface. The corn was so juicy when it was put in that no water was put in and the silage was juicy all the way. Can you tell me what was the matter? Should it have been salted? Is green mold or pink mold worse? Should the corn have been riper?

Lancaster, Mass. A. H. W.

There is no necessity of providing drainage at the bottom of the silo, except possibly where very green corn is ensiled or where the silo has no roof and is open to the weather. However, silos are occasionally equipped with this form of drainage, the outlet being placed in the center of the silo bottom and tile laid so as to have an outlet some distance away. The outlet should be covered with heavy screen wire so that animals will not enter it and there should also be a trap of some kind that will form a water seal to keep the air from entering at the bottom of the silo.

We are unable to explain the spoilage of the silage, except that possibly it may not be fed off in sufficient quantity each day, or else care is not being exercised that the silage is not loosened to a greater depth than is needed for each day's feed. Where only a few cows are fed, it may be necessary to adopt some such procedure as is suggested on page 107 of our issue for August 16th.

We note that there was fed at least two inches daily. However, according to our computations, if the silo was filled to a settled depth of 16 ft., it would have contained approximately 55,000 lbs. of silage. The weight per inch of the silage would, of course, be greatest at the bottom, but the average per inch for the 16 feet would be 287 lbs. This would provide six cows with 48 lbs. each, or two inches would provide six cows with 95 lbs. of silage each. If two inches were taken from the surface daily, it would appear that there must have been a considerable quantity of spoiled silage, as average sized cows will ordinarily make profitable use of not over 30 to 40 lbs. of silage daily.

A round silo that is practically air-tight and which has been filled with corn cut in ½ inch lengths and the cut corn properly packed, should preserve this ensiled material with very little loss. It is, of course, preferable that a silo be filled to a distance somewhat greater than 16 feet, as then its own weight tends to insure a better packing of the cut material. Salting will not overcome the molding of silage and the ripeness of the corn within reasonable limits will not have any detrimental effects. The general rule now is to ensile the corn in a somewhat more ripened condition, using water where the stalks and leaves may have become somewhat too dry to pack properly. Where it is practical to do so, corn may be ensiled for the silo about a week or ten days prior to the time it would be ready to cut and put into shocks. In this condition it will seldom need additional water in order to insure proper packing.

We recognize no difference in the undesirability of pink and green mold in silage. Care should be exercised that the moldy or spoilt material is not fed, at least the major portion should be removed. However, it is somewhat remarkable that well fed cows will ordinarily separate the spoiled material from the good and only eat the latter. Horses and calves, however, should never be fed silage containing any mold. There has been practically no scientific investigation as to the formation of different kinds of molds in silage. The important things are an air-tight silo, with the silage sufficiently moist to pack well and exclude air. Practically all molds require the presence of air to grow, so the principal control measure is to exclude all air possible.

Starting With Pure-breds

I have a herd of twenty grade Holstein cows. Our market is for whole milk. I have decided that it does not pay under existing conditions to keep any cow that is not able to make 10,000 lbs. or more of milk per year, also I want nothing but tuberculin tested cattle. In view of this I have decided to sell my herd and buy a fewer number of strictly first class three- or four-year-old Holstein cattle, either grade or pure-bred. That's where I want your advice—which to buy, grade or pure-bred? I am a young man, married, have bought a farm, the payment on which is $700 per year, 120 acres; 65 acres tillable, of good clay loam soil. I have never had any trouble with my cows in any way because I have fed and handled them carefully. I feel that to keep cows in first class shape you can't be too careful in the feeding. I should probably have about $2,000 to put into a new dairy. This will buy about twelve first class, young grade Holsteins that will make 10,000 or 12,000 lbs. a year. What would you advise, grade or pure-bred, and why? I will buy no animal over five years old. I can get about 8 cents per gallon more for milk from tuberculin tested cows.

Ohio. H. A. N.

Whether a man will be successful with pure-bred dairy cattle depends all together upon himself. There are many men who are what may be called "pure-bred" farmers. They enjoy spending a great deal of time with their cattle and in giving considerable attention to the matter of sales and to the study of pedigrees. They are frequently more successful as breeders than as care-takers of a high-producing herd. On the other hand, we know a very good number of splendid dairy farmers who are securing highly profitable returns from grade herds who would not make a success of the pure-bred business. The matter depends altogether upon the individual.

There has never been a more favorable time for making a start with pure-bred dairy cattle than the present. The future gives very large promise of a strong demand for pure-bred stock. We anticipate that the present high prices of pure-breds will at least continue and perhaps increase considerably. A man who will start in, even in a small way, at this time to take good care of his stock and keep their records accurately and up-to-date, cannot help but benefit from the prosperity which is almost certainly ahead of the dairy industry.

From this letter we judge our correspondent to be fully capable of making a larger success with pure-bred cattle than with grades. It takes no more feed for pure-breds and takes no better handling to secure liberal production from them, and the offspring promise to sell for very good prices from this time on. We advise that rather than put the total sum available for the purchase of cattle into pure-breds, that it be divided between grades and pure-breds, buying a number of high-producing grades which can be secured at fairly reasonable prices and purchasing at least one or two well-bred, growthy, vigorous pure-bred heifers. These will mature in a short time and in a surprisingly brief period will form the nucleus of a goodly sized pure-bred herd. Frequently a pure-bred cow of some little age can be purchased which will drop several calves and will be valuable in that way as a foundation animal. We advise, therefore, that a start be made with pure-bred cattle at this time, but with the added caution that the start be made carefully, that is, by putting a small proportion of the available capital into pure-breds as a beginning.

Millet Seed for Cows

I have a large quantity of millet seed slightly "bin burned", just enough to spoil it for seed. Have sent sample to feed and seed company asking for offer. The question now comes to me, what is its value, finely ground to meal, fed to my milking cows? The question is, what is the feed value of millet seed meal compared with cottonseed meal?

Seneca, Ill. L. A. B.

Neither experimental results nor tests on practical farms are available to indicate the value of millet seed in a dairy ration. In feeding the seed to fattening swine, however, it has been determined to have a value about five-sixths as great as that of wheat or barley. In feeding baby beef more millet than corn was required. In feeding lambs, however, millet seed was found to be approximately equal to corn.

The first caution in feeding the seed is that in every case it should be ground before feeding. Never feed any class of farm animals unground seed. It is not only highly indigestible when unground and, therefore, of very little feeding value, but in many cases is dangerous and may cause the death of the animals fed.

Ground millet seed compares somewhat closely in feeding value to corn, barley, and wheat. It is approximately equal to these feeds in protein but is somewhat lower in carbohydrate value, thus making its total content of digestible nutrients slightly lower than that for the other feeds.

In the dairy cow's ration, from the experiments cited above and from the chemical analysis of millet seed, we judge that millet seed may be given a fairly liberal place in a dairy ration. It should never be fed alone but should be combined with feeds higher in protein value. It would combine in a dairy ration with cottonseed meal and ground oats or wheat bran very well. A mixture of 200 to 300 pounds millet seed, 200 pounds bran or ground oats, and 100 pounds cottonseed meal, if fed at the rate of one pound for each three to four pounds of milk produced, and fed in addition to a liberal supply of a legume hay, should give very good results in milk production.

Thick and Thin Cream Comparisons

I have been furnishing cream to a private customer for five years. Average 10 gallons of 20% cream daily. Price is $1.50 per gallon. Have now an offer to furnish 40% cream to a large hotel for coffee. Will the richer cream be any more difficult to handle? Will it keep sweet in shipment just as well? How many gallons will I get of 40% where I now get 10 gallons of 20%? What price would be equivalent? What price do you think would be fair for me to ask? Why do the big milk companies decline to furnish this cream to this special hotel business?

Unionville, Ohio. M. T.

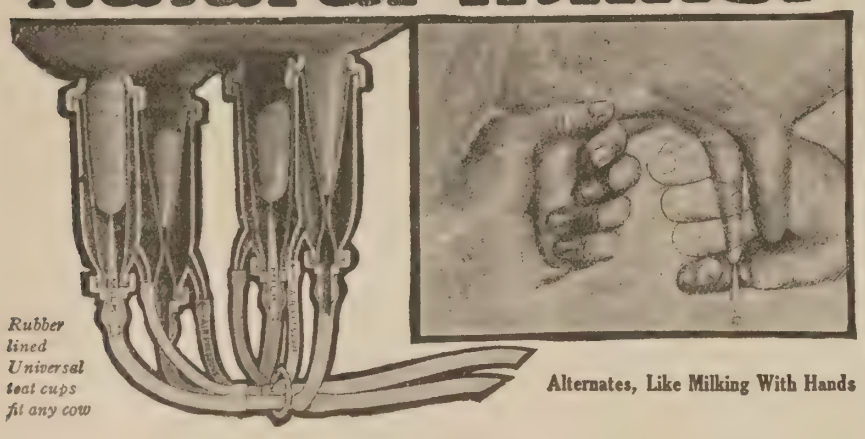
Ten gallons of 20% cream would make approximately 5.15 gallons of 40% cream. With the 20% cream at $1.50 per gallon, 40% cream would have to sell for $2.91 per gallon in order to bring the same return. There will be a slightly greater loss in handling the thicker 40% as more of it will adhere to the inside of the cans, and therefore we would suggest that its practical equivalent price would be $3 per gallon. When sold to a creamery when the cream is weighed in the can and the can rinsed to take out what remains, there is no greater loss in skimming a 40% cream than a 20% cream, popular belief to the contrary notwithstanding.

The richer cream will be no more difficult to handle, but care should always be exercised to see that the separator is working correctly. The Babcock test should be applied to the skimmilk frequently to see that there is not a loss here, and this applies whether skimming a thick or a thin cream. Many a farmer is losing the price of a separator every year through its improper operation or because some part has become worn and needs repair. The only measure of correct operation is to test the skimmilk and do it often. If it shows two one-hundreths of one per cent fat (.02%) or over, the separator or the operator are under suspicion and should be investigated to locate the trouble.

Rich cream will keep in shipment fully as well or better than thin cream, the only exception being that if the can is not kept full and the contents cool there is greater danger of the agitation churning it into butter. The higher testing cream stays sweet better because it contains less of the milk serum in which the lactic acid bacteria develop. We do not know why the big milk companies refuse to furnish the heavy cream, but possibly it is due to the fact that there is not a sufficient demand for them to vary their ordinary and usual operation, also consumers will more readily pay $1.50 per gallon for 20% cream than they will $3 per gallon for 40%. They judge with their eyes and a quart of 20% cream seems more than a pint of 40% cream; then, too, there are fewer uses for the richer cream.

It may be of interest to explain the computation of the equivalents of the two qualities of cream. Cream testing 20% will weigh approximately 8.5 lbs. per gallon; therefore, 10 gallons would weigh 85 lbs. and contain 17 lbs. fat. As cream increases in richness it weighs less per gallon. Cream testing 40% will weigh approximately 8.25 lbs. per gallon and will therefore contain 3.3 lbs. fat. As the 10 gallons of 20% cream contain 17 lbs. fat, we will find the number of gallons of 40% cream by dividing 17 by 3.3, which gives us 5.15 gallons. The ten gallons of 20% cream are worth $15 and the 5.15 gallons of 40% cream should be worth the same total amount, or $2.91 per gallon.

Universal natural milker



Rubber lined Universal teat cups fit any cow

Alternates, Like Milking With Hands

Easier, Better, 730 Times a Year

RIGHT NOW farm help is hard to get—all the time and effort you can save is good business as well as patriotism.

Why stick to the old-fashioned, laborious, time wasting, hand milking method while other farmers are saving time and making bigger profits by using the modern Universal Natural Milker?

One Universal lasts a life time.

It alternates, milking two teats at a time, while it is massaging and relieving the other two, imitating nature closely.

It is simple, dependable and always ready to work. Write us.

One Man With Universal Worth Three Without It

Dear Sirs:

We are using one of your milking machines and are very much pleased with it. We find that our man can milk three times as many cows with the machine as he could by hand, and easier. We had no trouble breaking the cows to milk, in fact, some cows milk better with the machine than by hand.

Yours very truly,
(Signed) H. D. Ross & Son
Lowville, New York

The Universal Milking Machine Company
403 Mound Street, Columbus, Ohio

Husking cost saved!



—that's what this Appleton husker and shredder would really mean to you. While husking the ears, it cuts or shreds the leaves and stalks—farm tests proving that this *prepared* fodder has *twice* the feed value of standing stalks or shocks. This increased feed value pays the *whole* cost of husking, besides giving *far greater* manure value. The Appleton was

the first successful machine husker made

For 20 years, wherever huskers have been used, the superiority of the Appleton has been recognized. Its perfect husking device, which made this machine nationally famous, was an *Appleton patent.* No other type of husker can equal it for

clean husking, well prepared fodder and little use of power.

Solid simple construction makes it practically trouble-proof and so *durable* that models made years ago still give good service. Automatic safety lever, enclosed gears and positive gripping feed rolls make it the *safe* machine. Cutter or shredder head interchangeable. Cutter head requires less power and can be arranged to cut 4, 2, 1 or ¾.

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This Appleton is an *essential* machine. Now when feed is *worth* more and labor is scarce, it is a better investment than ever. Your silo will take only a *part* of the crop. Save the *full fodder* value of the rest by *preparing* it for barn feeding. You'll save money and conserve feed for the Nation. Made in 2, 4, 6, and 8 roll sizes for 4 h. p. and up. Get the facts—send for big illustrated book *today.*

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APPLETON
Husker & Shredder

Dollars and Ideas

If you have a dollar and I have a dollar and we swap dollars we'll be exactly where we started in the beginning, won't we?

But if you have an idea and I have an idea and we swap ideas, I'll have two ideas and you'll have two ideas, your own and mine. Isn't that right?

The National Dairy Show, held at Columbus, Ohio, is a vast clearing house for ideas. Here you can go and swap ideas with Tom Brown of Ohio, Bill Smith of New York, Jim Dorr of Wisconsin, the Toms and Bills and Jims of Illinois, Indiana, Pennsylvania, Iowa, and Louisiana—practical dairymen, like you, from all over the country. Tom Brown's son will be there with his dad, and Bill Smith's son will be there with his dad; and while you and Tom Brown and Bill Smith are telling each other how you're getting the best results from a particular feed ration, Tom Brown's boy and your boy will swap experiences in the raising of the prize calf in the local club.

And if your boy doesn't come back from the show with you with a new idea of farm work and a strengthened determination to make good on the farm, I don't know the American boy, that's all.

Your meeting up with other men there, too, will be tremendously worth while to you. Because, like you, all the men you'll meet there, at the show ring, before the exhibits or at the lectures, are men who came to learn something new about their business.

It is a show for the practical farmer, a show for you.

The big men of the dairy industry will be there to give you free the benefit of their past year's experience in breeding. Experts from the United States Department of Agriculture will talk on feeds and feeding, on the prevention of contagious abortion, tuberculosis, and other diseases from which to guard your herd. The importance of cow testing and sire selection will be brought home to you as never before.

The manufacturers of dairy equipment will show you how to make one hand do the work that formerly required two, how machinery may take the place of human muscle, how to get the biggest profits from your dairy at the least expenditure of time and labor and money.

You'll see the best dairy cattle in the world. You'll find out how your herd stacks up. You'll get a chance to test your judgment of what is a good dairy cow. You'll see what to work for in your own herd.

And the experience will be worth many, many times more than you paid for it.

The National Dairy Show is Oct. 10-19th at Columbus, Ohio.

Wisconsin. RUDOLPH KREBS.



Cost $2.50 so far

One month old, 150 lbs. 50 lbs. when born.

Blatchford's

Sell your milk. Raise your calves on Blatchford's Calf Meal at ¼ the price of milk. The other ¾ stays in your pocket as clear profit.

Send for Pamphlet Shows you how to make two profits instead of one.

Blatchford Calf Meal Co.—Dept. 4546—Waukegan, Ill.

DAIRYMEN!
Velvet Bean And Pod Feed

Will Solve Your Feeding Problems.

A feed made from Velvet Beans and Pods ground into a meal. Contains no mixture or adulterant.

Analysis (Guaranteed Minimum)	
Protein	16.50 to 17.50
Fat	4.00 to 4.50
Fibre	15.00 to 12.50
Carbohydrates	50.00 to 52.50

Both Indiana (Purdue University at La Fayette) and Louisiana, as well as other states that have analyzed this feed, give it much better reports than our guarantee.

For Cattle, either Dairy or Fat Stock, use in same manner as you use 36% to 38% Protein Cottonseed Meal. A mixture of about 75 lbs. Velvet Bean and Pod Feed with 25 lbs. Cottonseed Meal will give the same results, or nearly so, as 100 lbs. of 36% Cottonseed Meal.

A splendid Dairy Ration is as follows:—
Velvet Bean and Pod Feed..... 50 lbs.
Cob Meal (or a like feed)..... 40 lbs.
Cottonseed, Linseed or Peanut Meal.. 10 lbs.

Work out a ration for your individual needs on this basis, using your Silage or whatever rough feed you may have.
Correspondence solicited.

Alabama Black Belt Co.,
Montgomery, Ala.



Make Your Home Ideal

ADD to the convenience of running water the beauty and luxury of

"Standard" Plumbing Fixtures

And you have an ideal home—one which has conveniences equal to those in the most modern of city dwellings.

These plumbing comforts belong in every home, whether new or remodeled. They are the perfected product of and are backed by the reputation gained through years of experience in manufacture. Their range in design and price will meet your requirements and purse.

Confer with your contracting plumber. Ask about "Standard" Fixtures—which you should demand in order to be certain of maximum service and satisfaction. See that the "Standard" Green and Gold label is on the fixtures you buy. It is your protection. Send for a copy of the book "'Standard' Plumbing Fixtures for the Home."



Standard Sanitary Mfg. Co.
Dept. 219 Pittsburgh, Pa.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

First Meeting Wisconsin Dairy Council

(Continued from page 227)

tural interests of Wisconsin. The Wisconsin Dairy Council is, of course, interested in the welfare of each one of these associations, but its field is to unite these many organizations for the purpose of creating a larger demand for dairy products. It proposes to carry the message to the consumer regarding the food value of milk, the food value of skimmilk, the food value of cheese, and the food value of butter as compared with other foods. It is not its purpose to interfere in any way with the activities of other organizations engaged in several fields of endeavor for the promotion of the dairy industry.

It is perhaps not out of place to state briefly why and how the Wisconsin Dairy Council was formed. A preliminary meeting of Wisconsin dairymen was held in the Gold Room of the Hotel Wisconsin, Milwaukee, Aug. 7, '18. The meeting was called to order by A. J. Glover, temporary chairman, who spoke in part as follows:

"Recently two meetings were held by men interested in the welfare of dairying, their purpose being to lay plans for the development of the dairy industry and to provide means for educating the consumer regarding the importance and food value of milk and its products. One of these meetings was held at the Wisconsin College of Agriculture and the other in Milwaukee. These two groups then reassembled and a committee was appointed to wait on the State Council of Defense for the purpose of requesting that organization to call a meeting of representatives of the various state dairy and agricultural organizations to consider the feasibility of forming a state organization through which all dairy and agricultural interests might unite in a campaign to inform the consuming public regarding the food value of dairy products.

"The committee appeared before the members of the State Council of Defense, presented their arguments for a meeting of the dairy interests. The State Council of Defense granted the request and I was appointed by Mr. Magnus Swenson, chairman of the State Council of Defense, to call together the representatives of the various dairy and agricultural organizations.

"The purpose of this meeting was to consider the feasibility of organizing our dairy and agricultural associations that they may effectively unite in the development of our dairy industry. There is no state in the Union which enjoys as complete an organization of its agriculture as Wisconsin. It may be reasoned that we already have more agricultural organizations than can be operated to the advantage of agriculture, but a survey of our situation will reveal that we have no organization through which the various dairy and agricultural organizations may co-operate for a common cause. It is the conviction of those who have at heart the development of our dairy industry that we should have a state-wide organization that would have within its ranks representatives of the various branches of the dairy industry.

"In the early years the Wisconsin Dairymen's Association represented every branch of the dairy industry. Every dairy activity worked through this association. It set the pace and was instrumental in establishing the Wisconsin Dairy School,—the first school of this character in the United States,—the Dairy and Food Commission, and the Wisconsin Farmers' Institute. The first job it tackled, after organization in 1872, was to secure a market for Wisconsin cheese. "At this time it sent a representative, none other than W. D. Hoard, later governor of the state of Wisconsin, to Chicago for the purpose of securing refrigerator cars in which Wisconsin cheese might be shipped to market. The railroad officials rather made fun of this idea and asked if Pullman cars would not be more desirable. But, the refrigerator cars came and a market was opened for the cheese of Wisconsin. The Wisconsin Dairymen's Association did not stop here, but sent exhibits of butter and cheese to various national exhibitions. The high quality of dairy products selected for these exhibitions led to a demand for Wisconsin dairy products. This was effective advertising. The dairy industry at that time amounted to about $1,000,000 per year and now it is about $190,235,000.

(Continued on page 235)



Thousands of Dollars Added to Cattle Profits!

WASTE feed is exacting a heavy toll from cattle men who feed *whole grains. Fully 20% is wasted.*

This is proved by the fact that fully one-fifth passes through livestock *undigested.* Why feed 20% of your costly feed to the *manure pile?*

Grinding your whole grains and roughage will save this loss. *Ground* feed is easily and wholly digested. Animals thrive on it better.

Because of the remarkable results obtained and the big saving on feed cost, thousands of farmers are now feeding balanced rations — properly proportioned concentrates and roughage reduced to a flour-like, predigested form by the celebrated

LETZ

America's Leading Feed Mill

The Letz is the first mill to meet every feed grinding requirement. It is famous for fine grinding and capacity.

Grinds corn, rye, oats, barley and all kinds of grains; grinds them with clover, alfalfa and other properly proportioned roughage and concentrates into fine, wholesome meal. Handles everything wet or dry—cannot clog—is durable—is most economical to operate. A Letz on your farm means an easy 20% cut on feed bills!

Letz-ground meal, because of its powder-like form, is preferable to all others. It is more nourishing—better liked by animals.

848 Keen Cutting Edges

Letz patented *grinding plates* lead the world in fine-cutting, capacity, light running and durability. They grind anything that needs grinding! 848 keen cuting edges pulverize the grain into powder. Plates are self-sharpening. Can be run together for hours—empty without slightest injury. Cutting edges will be sharper than before. One set is guaranteed to average 2,000 bushels of moderately ground feed before replacement is necessary.

9 Sizes
22 Styles

We guarantee that the Letz will grind more grain on less fuel and grind it better than will any other process, bar none. This is why feeders making the *biggest profits* by grinding their own feed, *are the feeders who use the LETZ!* The Letz has many other practical, labor-saving, cost-cutting features, including force feed, ball end bearings, etc.

Investigate NOW—Today!

High prices of feed costs and big profits in Hogs and Cattle make it now more necessary than ever to feed *ground feed* aud save the costly 20% waste now going to the manure pile. Over 28 years of unquestioned leadership is behind the Letz. Investigate! Write for our big catalog and our free book, "Feeding Farm Animals." Tells all about *Balanced Rations* and how to get maximum results at lowest cost. Copy mailed free of charge. Send a postal card *at once.* Address

Grind for Your Family Table

Thousands of Letz users grind their own corn meal and corn, oat or barley flour. The wonderful Letz silent Buhr grinding plates, with their 848 keen cutting edges, cut and grind the flour in one operation—reduce the cost of living.

We also make a SPECIAL Mill for the South, the Letz Dixie

A new type of mill—cutter and grinder combined — designed especially for Southern grinding requirements. Grinds velvet beans, vines and all, green or dry kaffir, sorghum, cowpea, hay, peanuts with vines—anything. Ask for Dixie circular.

LETZ MANUFACTURING CO., 219 East Road, Crown Point, Ind.

Address Inquiries to Crown Point, Ind. *Distributing Agencies at*

York, Pa.	St. Louis, Mo.	Muncie, Ind.	New Waterford, Ohio
Mt. Joy, Pa.	Little Rock, Ark.	Dallas, Texas	Spartanburg, S. C.
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Indianapolis, Ind.	Milwaukee, Wis.	Chicago, Ill.	Minneapolis, Minn.



See Lalley-Light In Action at the Fair

Lalley-Light will be exhibited, and in operation, at most of the county and state fairs this fall.

We ask you to note particularly the way it runs, and the character of the electric light and power it produces.

If you will do this, we count on the plant itself to convince you of the superiority it has proven in eight years of every day farm use.

You probably will be impressed, first, with its extremely smooth running; and the fact that a low hum is all you hear when it is running.

You will see that the electric lights are strong and steady all the time—without even a suggestion of a flicker.

You will observe, also, the same steady flow of power to the electrical machines which may be exhibited.

The men in charge will explain that Lalley-Light furnishes light and power from two sources—the storage battery; and the generator, independently of the battery.

That means with Lalley-Light you are doubly sure of having light and power.

Even if you are not of a mechanical turn, you can't help admiring the unusual simplicity of the plant, and its very compact design.

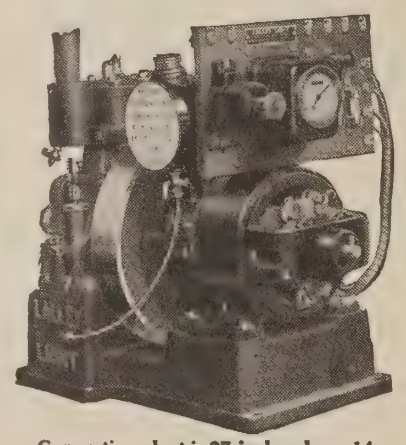
We urge you to study Lalley-Light, because it points the way to a great saving of farm labor and an equal increase of comforts and conveniences on the farm.

Next year the farmer's need for Lalley-Light's reliable, economical power and light will be even greater than this year.

You should prepare now to meet that need.

If Lalley-Light should not be displayed at your home fair, write to us for details and name of the nearest Lalley-Light merchant.

Lalley Electro-Lighting Corporation
763 Bellevue Ave. Detroit, Mich.



Generating plant is 27 inches long, 14 inches wide, 21 inches high. Storage battery is included in complete outfit.

LALLEY-LIGHT
THE ELECTRIC LIGHT AND POWER FOR EVERY FARM

It's the lasting quality and rich tobacco taste that makes Real Gravely Chewing Plug cost you no more to chew than ordinary plug.



Peyton Brand
Real Gravely Chewing Plug
10c a pouch—*and worth it*

P. B. Gravely Tobacco Company
Danville, Virginia



Fresh Water *and* Increased Dairy Production

Dairy cows must have plenty of water—since 90% of milk is water.

If your herd is to stay healthy—is to produce the greatest amount of milk—that water must be fresh.

The National Fresh Water System supplies *fresh* water right from the well itself. No storage tank—compressed air operates a powerful air-driven pump right in the well. A steady stream of pure, fresh water anywhere in your house or barns.

Write for descriptive literature and your dealer's name.

United Pump & Power Co.
772 Larkin Street Milwaukee, Wisconsin

NATIONAL Fresh Water System

Making Cheese at Home

(Continued from page 219)

will press upon them and hence upon the cheese. Let this stand until noon, then add some weight to the free end of the lever to give more pressure to the cheese. At night wet a clean cloth, remove the cheese from the press, turn it over, put the clean cloth in the hoop, and place the cheese bottomside up upon it. Smooth ends of cloth over top of cheese, put on follower, weights, and lever, and leave for the night. A little extra weight is put on the lever at night.

Leave cheese in the press until your next one is ready for it, providing you make one the next forenoon. Then remove from the press, take to the house, rub well and hard with butter on all sides. Make a thin bandage for it, and sew it in place to prevent spreading of the cheese. Place upon a clean cheese cloth or flour sack, fold the corners loosely over it, and place in a warm, airy place for curing. The curing is simple. All the cheese needs is to be rubbed daily, rubbed hard, and turned over whenever the cloth becomes the least damp. At first the cloths must be changed quite often, but after the first few days the cheese should have something of a crust, and no more whey exudes. But daily rubbing and turning are necessary as this prevents mold, and also shows if any insect is hovering near. The cleaner the cloths are kept the less danger from insect inroads. The warmer and more airy the place, up to summer heat, the quicker the cheese ripens for us. Our first cheese of the season generally gets out in four weeks from date of making, but it is much better after six weeks. After cheese is thoroughly ripened it may be covered with paraffine and put away. They can be kept all winter that way if kept from freezing and from mice.

The Cheese Fly

A word in regard to insects. The common house fly does not as a rule bother a cheese, although they might if plentiful and the cloth attracted them. The cheese fly, the one whose eggs make cheese mites, is a slim little creature shaped something like a mosquito. When you see such a fly hovering near your cheese, give it chase and be sure you get it. The cloth covering the cheese should be thin and should be folded loosely to allow air circulation, but it should be so folded as to exclude all insects.

Aside from the cheese fly, the only insect we have ever had to contend with is what is known as the common "flour bug". It is maybe half an inch long, is striped in dull colors crossways. It is offensive looking, and is offensive acting. These bugs are not plentiful but sometimes they creep out, and if one gets into a cheese it will burrow inside, and lay eggs and —well—!!!!! No words needed. This never happened to me but once, and then to a cheese left neglected on a shelf.

If the whey exudes slowly from the curd, it is because the milk was not warm enough, or because too little rennet was used. Either case makes the cheese too soft and much of the goodness goes off in the whey. The only possible remedy I know is to heat whey to a hundred or one hundred and five degrees Fahrenheit and pour over the curd, and keep doing this until it assumes the proper consistency. The curd should cling together in large lumps, if just right, but it should not be too tenacious. If it is hard and does not separate easily, it means either that the milk was too warm, or too much rennet used. It proves that doing a thing just right

is the best and easiest way to reach right results.

If, after a cheese is taken from the press, it leaks whey and wets the covering quickly, there is nothing which can be done except to let it leak, but change the cloths as often as wet. This shows one of three things—too little heat to milk, too little rennet, or too little pressure. Such a cheese will in the course of time ripen but it stands a much better chance of being sour than it otherwise would. It would not be a good keeping cheese.

The making and curing of one cheese will teach one more than volumes of writing or printed rules. Cheese making from this rule is easy, is simple, and it brings about a result very much like the regular commercial cheese.

Recipes for Cheese Dishes

We use cheese in many dishes more than we do just as plain cheese, though that is always a nutritious, appetizing way to use it. Following are some recipes for cheese dishes:

Welsh rarebit: This is our favorite of all cheese dishes. One cup sweet milk, bring to boil, thicken with one dessert spoonful of flour, before mixing up the flour stir in a little salt and about one-fourth level teaspoon of mustard. Mix flour smooth with milk, thicken the hot milk with this and let boil well. Add one cup of ground cheese and let it melt. Last of all add one egg, beaten just enough to break yolk and mix yolk and white. Serve as soon as this is stirred in and cooked which will be in about one minute. Adding the egg at the last insures a smooth rarebit. The flour is very important, and the cooking in the milk before the cheese is added helps greatly towards a velvet smoothness.

Cheese souffle: Two cups of sweet milk, a little salt, heat milk and add two cups of fine bread crumbs, then a cup of cheese, and two well beaten eggs. Bake twenty minutes, or until the custard is set.

Cheese eggs: Two cups of sweet milk, one dessert spoonful of flour, two eggs, one cup of ground cheese (in fact, all these recipes are finer if cheese is ground or grated) and a little salt. Thicken the milk with the flour and, when this has boiled well, add the cheese and the two eggs. When the mixture is smooth and creamy, break as many eggs as desired into it, and let cook by placing in the oven a few minutes. Salt the eggs before putting in the oven, and a piece of butter on each egg keeps them from crusting over. Let cook to the desired softness or hardness. Dip egg and cheese mixture on to slices of toast.

Cheese dreams: Butter and then cut stale bread in thin slices, sprinkle heavily with ground cheese (a meat chopper for grinding is used), add chopped English walnuts, press two slices of bread together, dip in beaten egg thinned with a tablespoonful of milk, fry in hot butter or drippings until the cheese is well heated and the bread a golden brown. These make a delightful dish for luncheon or for Sunday night supper. We sometimes grind enough cheese for several cheese dishes and put in a can for future use.

New Milling Plan in Brief

A new plan of flour-milling-profit control, to establish definite fair prices at every mill point in the United States, is announced by the U. S. Food Administration. This plan is expected to be permanent throughout the 1918-1919 crop year, with possibly some modifications under special circumstances.

Details of special interest to farmers include the following provisions:

A schedule of fair flour and feed prices have been evolved, but it is expected that competition will very often result in lower prices for mill products than the "fair price" schedule.

Must Display Price Schedules

Each invoice of the mill must have printed on it the "fair prices". Consequently it is very easy for any representative of the Food Administration or for any buyer to know whether a mill has overcharged.

The wheat miller must display in his principal place of business (and mills, warehouses and agencies) the price schedules and package differentials furnished by the U. S. Food Administration.

After careful investigation of handling costs, the Food Administration has announced what additional charges will be considered fair for sales of wheat flour in less than carload lots. The amounts range from 25 cents to $1.20 per barrel, depending on size and nature of transaction.

The maximum permissible margins for sales of food to wholesale and retail dealers range from $1 to $3 per ton over the fair price basis.

Sales of feed to consumers must be made at reasonable margins to be determined by the Federal Food Administrator of the state in which the mill is located.

In selling wheat mill feed to the consumers at the mill, if the producer desires to buy wheat mill feed in bulk and the sacks are kept and left at the mill in undamaged condition, the miller shall not add to the purchase price any charge for sacks.

Charge for Custom Grinding

The wheat miller who receives wheat from farmers' wagons and grinds such wheat on a custom basis or exchanges it for flour or feed, may charge not to exceed 35 cents per bushel for each 60 pounds of clean wheat so received. The miller is required to return to the farmer flour and feed in accordance with a specified schedule.

The maximum quantity of flour which a wheat miller may deliver to any individual consumer without special permission is 25 pounds for persons living in towns or cities and 50 pounds for residents of rural and farming communities. The regulation of the amount of flour which can be obtained in exchange for wheat and the requirements for the sale of substitutes to individual consumers are somewhat different in different states. Information covering these regulations will be supplied by the Federal Food Administrators on request.

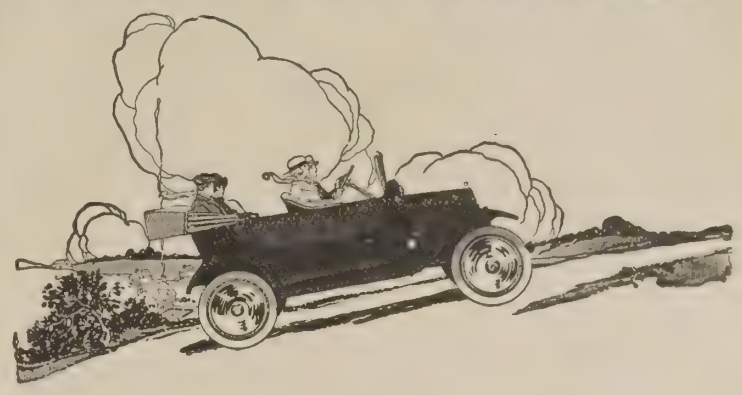
The entire plan is aimed at the elimination of profiteering and waste and is designed to secure the freest possible movement of the wheat crop consistent with necessary conservation.—U. S. FOOD ADMINISTRATION.

Gamble Goes to Maryland

September first J. A. Gamble gave up his work as Market Milk Specialist with the Dairy Division to accept the professorship of Dairy Husbandry at the Maryland State College of Agriculture.

Mr. Gamble has given considerable attention to the subject of cooling dairy products, having written a Farmers' Bulletin on that work. Other investigational work he has conducted concerned the effect of feeds on the flavor and odor of milk. He is a member of the milk and cream regulation committee of the American Association of Dairy Science, has judged milk and cream at the large dairy products exhibits of the East, and for three years has superintended the milk and cream exhibits at the National Dairy Show.

FORD EFFICIENCY



Four heat conditions scientifically met by Gargoyle Mobiloil "E" in Ford engines

If you have driven your Ford very long, you have no doubt met with a problem, more or less common to all cars.

That is—a tendency of the engine to overheat. This is generally most noticeable after continued running on low gear.

True, your thermo-syphon cooling system absorbs much of the excess heat of the combustion chambers.

But your water cooling system should not be called upon to absorb and radiate the heat of friction. Most of that task belongs to the lubricating oil.

But of even greater importance is the ability of the lubricating oil to perform its function of minimizing friction and thus reducing friction heat.

Four common forms of overheating are described below. Each one traces back directly to your oil supply.

(1) **Friction Heat on Cylinder Walls.** This is caused by oil too light or too heavy in body for the Ford engine If too light, it fails to thoroughly separate friction surfaces. If too heavy, it is not distributed properly, leaving cylinder walls and bearings partly exposed. In either case excess friction follows. Heat mounts up.

The body and character of Gargoyle Mobiloil "E" are such that it will feed readily, distribute thoroughly and form a protecting film between cylinder walls, pistons and piston rings.

(2) **Excessive Crank-Case Heat.** Normal crank-case heat is about 140° F. But if the oil does not tightly seal the Ford piston rings, part of the heat of each explosion shoots down past the piston to further heat the oil in the crank-case. Crank-case heat may then rise 40° to 50° higher.

Gargoyle Mobiloil "E" will thoroughly seal the Ford piston rings. The heat of the explosion on the power stroke is kept above the piston, where it belongs.

(3) **Hot Bearings.** Bearing surfaces, when seen through the microscope, show tiny hills and valleys of metal. The oil must thoroughly fill in these valleys and cushion the peaks or excess friction will result. If not, hot or burned-out bearings follow.

Gargoyle Mobiloil "E" is of the correct body to lubricate the Ford bearing surfaces, thus preventing them from rubbing against each other.

(4) **Heat Absorption and Radiation.** On warm days you will sometimes see Fords running under overheated conditions due to the use of an oil of low quality or poor heat radiating ability.

Ford owners who use Gargoyle Mobiloil "E" are free from this trouble, owing to the ability of the oil to minimize friction and to absorb and radiate heat.

The following test will show you the importance of scientific lubrication in the efficient operation of your Ford engine:

An Economical Demonstration

It will cost you little to fill your reservoir with Gargoyle Mobiloil "E." The garage or dealer you trade with has it, or can promptly secure it for you.

Ask him to empty your reservoir of its present oil and fill it with Gargoyle Mobiloil "E." You can then judge for yourself the results in cooler operation, gasoline economy and reduced oil consumption, to say nothing of reduced carbon deposit and greater power.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloil "E" from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not Gargoyle Mobiloil "E," he can easily secure it for you.

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

VACUUM OIL COMPANY, New York, N.Y., U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

Domestic Branches: Detroit, Boston, New York, Philadelphia, Kansas City, Kan., Indianapolis, Minneapolis, Pittsburgh, Chicago, Des Moines

Central Michigan Holstein Breeders Meet

HOARD'S DAIRYMAN:—The Central Michigan Holstein breeders held their second bi-annual picnic of the season at the farm home of A. R. Black and Sons, Tuesday, August 13. The day was ideal and the fine grove in the front yard made an excellent place for the gathering. There were about two hundred fifty farmers and their families present, representing the breeders within a radius of fifty miles. At noon everyone enjoyed an old-fashioned basket picnic dinner, with all the ice cream that one could eat. Following the dinner Prof. A. C. Anderson of M. A. C. gave a judging demonstration, using a prize bull calf from Mr. Black's herd.

The program for the day included songs, dancing, and a splendid patriotic address. Mr. Horace Norton of M. A. C. gave some timely suggestions in regard to holding a consignment sale next winter. Mr. Norton's one strong point was that to have a successful sale only the best type of individuals must be consigned, more emphasis being put on type than on the individual's records. Mr. Albert Jenkins, chairman of the sales association, gave a report of last year's sale that was very pleasing, considering it was the breeder's first attempt.

After a brief discussion, the breeders voted to hold another sale this coming winter, at the time of the breeders' meeting, and gave the president power to appoint a sales committee.

FRED R. MCDONEL, Sec.

Value of Skimmilk as Food

"It is bad economy," according to B. H. Rawl, Chief of the Dairy Division of the United States Department of Agriculture, "to feed 100 pounds of albumen, casein, and milk sugar into an animal for the sake of producing five pounds of pork, part of which is bone and gristle and not edible."

This statement was made by Mr. Rawl while in Columbus to give the preliminary instructions for the government's participation in the National Dairy Show, to be held October 10-19. It indicates the next big problem in conservation which the Dairy Division of the Department of Agriculture expects to take up and popularize.

"I do not mean," says Mr. Rawl, "that farmers should not feed skimmilk to their hogs, for under existing conditions that is all many of them can do with it. Millions of pounds are absolutely wasted, not even having the same percentage of conservation secured by feeding to the hog. What we must do is to educate the people of the United States to the very high food value that is now being wasted. That is one of the missions which we hope the National Dairy Show will help us to accomplish.

"The war experience of the government in the matter of educating the public has been most encouraging. In the recent campaign to popularize the use of cottage cheese, we have several authentic records where the daily consumption has gone from 300 pounds to a ton in a day. The proper utilization of skimmilk is the next big problem for us, as I see it. There are at the present time in the United States something like 15 billion pounds of this available annually, which is very largely wasted. The ideal use for skimmilk is the manufacture of milk powder, which at the present time is only an infant industry. The difficulty in utilizing skimmilk by this process is the time and investment required in manufacturing milk powder.

"There are many ways in which skimmilk can be employed advantageously in the home cooking. This is particularly true in the making of soups and other meat substitute foods. In the form of powder, skimmilk can be used for practically all cooking needs where raw milk is usually employed."

Mr. Rawl has just returned from an inspection tour in the extreme West and gives it as his opinion that in the main, the dairy industry of the United States is holding its own in spite of adverse conditions which have governed it for the last six months.

"It must not be forgotten," he says, "that since the war we have changed an adverse balance of 500 million pounds of milk to a favorable balance of 1,500 million pounds in our favor. This is not a falling off in domestic consumption, attributed in part to high prices. Our department is now working with the extension departments of schools and universities throughout the United States in bringing to the attention of the people of the country the value of milk, and information how to use it to their own best advantage. We do not believe that the consuming public as a whole has an adequate conception of the importance of the dairy industry to the welfare of the nation. We are organized to help bring this about and that is a justification of the government in participating in the big National Dairy Show."

Ohio. T. T. FRANKENBERG.

DAIRY MARKETS

CHICAGO, Sept. 5—Butter—Higher; receipts, 10,789 tubs; creamery, extra, 47½c; firsts, 44½@47c; seconds, 34@44c; standards, 46¾@47¼c.

Cheese—Unchanged.

Eggs—Unsettled; receipts, 11,106; firsts, 40@40½c; ordinary firsts, 37@39c; at mark, cases included, 37@40½c.

MILWAUKEE, Wis., Sept. 5—Butter—Creamery, fresh, extras, tubs, 1 lb., 46½@47c; prints, 1 lb., 48c; extra firsts, 44@45c; firsts, 41@43c; seconds, 38@40c; process, 38@39c; dairy, fancy, 42c.

Cheese—American, full cream, Twins, 26@26½c; Daisies, 27@27½c; Young Americas, 26½@27c; Longhorns, 27@27½c; Brick, fancy, new, 1 lbs., 31@32c; Limburger, old, fancy, Bricks, 27c; 1 lb., 28c; Swiss, loaf, 45@47c; block, 34@36c.

SHEBOYGAN, Sept. 2—On the Sheboygan dairy board eight factories offered 384 boxes of Longhorns, 306 of which sold at 26c and 78 at 26¼c.

NEW YORK, Sept. 5—Butter—Strong; receipts, 9,071; creamery, higher than extras, 50½@51c; extras, 49¾@50c; firsts, 47½@49½c.

Cheese—Firm; receipts, 2,851; state, whole milk, flats, fresh specials, 27@27¼c; average run, 26½c.

PLYMOUTH, Wis., Sept. 2—On the Wisconsin cheese exchange twenty-nine factories offered 2,933 boxes of cheese which sold as follows: 160 squares at 28¼c, 425 Twins at 25¾c, 75 at 25½c, 1,600 Daisies at 26¾c, 325 Double Daisies at 26½c, 348 Longhorns at 26c.

APPLETON, Wis., Sept. 2—Seven factories here offered 359 boxes of cheese on the local call board on Tuesday; sales were 319 Twins at 25⅜c and 40 Double Daisies at 26½c.

SPRING GREEN, Wis., Sept. 2—Offerings of cheese on the Spring Green dairy board of trade on Tuesday were 993 boxes of Single Daisies. All sold at 26¾c.

THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load. We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.



Write AERMOTOR CO., 2500 Twelfth St., Chicago

WEAR OVERLAND **ALUMINUM SHOES**



From Factory to Feet

For all rough, wet work on farm or elsewhere. Outwear other boots or shoes. Light and easy on feet. Water-proof, rust-proof, rot-proof. Shaped like army shoe. Easy walking. Warm in winter; cool in summer. Cushion insoles. Money Back Guarantee. All sizes. FREE catalog shows styles and prices. Write for it. A postal will do.

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REGISTERED RED ROCK WHEAT ROSEN RYE

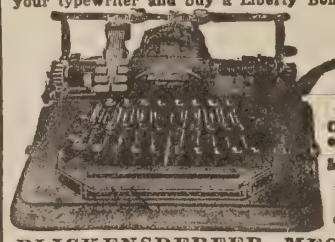
Pedigreed varieties developed at the Michigan Agricultural College and inspected, approved and registered by the Michigan Crop Improvement Association.

Be sure and get pure Rosen as rye cross fertilizes readily.

For list of growers write to Sec'y of the Association.

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Guaranteed Factory Rebuilt
REGULAR $60.00 MACHINE NOW
Free! Carrying Case, Supplies and Instruction Book with every machine. Save $41.00 on your typewriter and buy a Liberty Bond.



Don't Delay? Only 300 on hand. Mail $3.00 today, balance on delivery.

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C. M. Paul, Staunton, Va.
announces public auction sale of
60 Head of Registered
— and —
High Grade Guernseys
to be held at Fair Grounds, Staunton, Va.
Friday, September 27th

This offering consists of animals rich in blood of King of the May and Governor of the Chene. The grades are large, extra good cows, some fresh, others due in thirty days. Thirty grades and thirty pure-breds. For catalogue address C. T. Rice, Sales Mgr., Oakton, Va.

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To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

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THE GUERNSEY
stands for Economical production. More profit from every pound of feed. Do you want cows that will improve your Dairy? Write for free literature.
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FEMALES of All Ages
CHOICE BREEDING
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I offer sons of Lord Fayne Valdessa No. 187263 whose two nearest dams average 33.31 pounds butter and 585.30 pounds milk in seven days. Dams are granddaughters of Colantha Johanna Lad, one of the greatest sires in the world. Have choice individuals from yearlings to calves at reasonable prices.
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6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.
Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now on yearly semi-official test and will complete records this fall and winter. Nearly every cow has completed cow testing records for three years and has produced up to 600 pounds of butter. These cows are never pushed to the limit. The bulls offered are sired by bulls secured from the E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butter. Bulls are heavy bone, straight, well marked and large for their age. They will and must please. We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn.

AYRSHIRE SALE EXTRAORDINARY
At Dairy Congress, Waterloo, Iowa
Wednesday, October 2nd, 1918, Beginning at 11 A. M.
60 HEAD 60 Absolutely the greatest collection of top notchers ever offered east of New York. Watch the following issues of this paper for further announcements. 60 HEAD 60
SALES MANAGER, D. M. HENDERSON, HUDSON, OHIO.

First Meeting Wisconsin Dairy Council

(Continued from page 231)

"The Wisconsin Dairymen's Association also sent instructors to creameries and cheeseries for the purpose of improving the quality of our butter and cheese. It encouraged farmers to keep a better class of dairy cattle and to improve the character of crops for live stock. To the regret of the early organizers of the Wisconsin Dairymen's Association several branches of the dairy industry have left the parent organization and formed associations to deal especially with some particular phase of the industry. The hive became so large that its members swarmed. We now have the Wisconsin State Buttermakers' Association, the Wisconsin State Cheesemakers' Association, and the Wisconsin State Breeders' Association. They again have been divided into smaller units and we have county buttermakers' associations, sectional cheese associations, state breed associations, and county breeders' associations. Under the wing of the Wisconsin Dairymen's Association we have 115 cow testing associations. Besides these organizations we have local federations, notably among them is the Cheese Producers' Federation of Plymouth. These are local dealers' associations. Then we have the Wisconsin Cheese and Butter Industry Protective Association. In recent years many local milk producers' associations have been formed. Among our state agricultural organizations interested in the development of the industry we have the Wisconsin State Grange and the Society of Equity.

"Those responsible for the organization of the Wisconsin Dairymen's Association, and among them was former Governor Hoard, saw tremendous advantages to the dairy industry of Wisconsin to have all dairy activities remain under its jurisdiction. This would give opportunity for unity of action which cannot be accomplished when each branch of the industry is separately organized. We now see that these men had a clear conception as to how organization could protect and further an industry. We have come here for the purpose of bringing the many dairy and agricultural organizations together that they may again co-operate as was planned by the men who organized the Wisconsin Dairymen's Association. In calling this meeting it was attempted to bring together representatives of all our state organizations and such other organizations as would be interested in a meeting of this character. All the chairmen of the county councils of defense were invited; chairmen of the county agricultural committees, and county agents in easy range of Milwaukee were notified of this gathering. The College of Agriculture, the Department of Agriculture, and the Dairy and Food Commission were requested to send representatives. It would be a source of regret to me if I have overlooked any organization entitled to representation at this meeting. It is my sincere belief that if we are to organize a harmonious and effective organization through which our innumerable dairy and agricultural societies may work, everyone should have opportunity to help organize such a body and have something to say in directing it.

"The uniting of these forces which I have briefly mentioned should bring to the dairy industry new inspirations and new opportunities. This corporation could well be called the Wisconsin Dairy Council. Its purpose would be to educate the consumer regarding the food value of dairy products, to promote the dairy industry, to give publicity and to advertise dairy products, in order to encourage their consumption."

In the near future we shall publish the articles of organization and by-laws of the Wisconsin Dairy Council.

When Dairy Cows Fight Flies Their Milk Flow Decreases

Decrease in milk production, loss of live weight, discontent, and unrest are promoted among herds during the summer months as the consequence of the activities of the common stable fly and horn fly. An average decrease in milk flow of from 25 to 40 per cent is not uncommon as the direct result of flies and extreme heat of summer. Under existing conditions with a keen demand for dairy products and with prices at a high mark, it is highly desirable that every dairy farmer exercise a maximum care and caution to eliminate the fly evil, according to dairy specialists of the United States Department of Agriculture. Remedies are darkened barns, stable sanitation, and spraying with fly repellents. Thorough treatment of manure, its daily removal from the barn to a distance, the use of hanging burlap or other devices in the barn doors to brush flies from animals, baited fly traps placed outside the barn, and closed milk pails are among the necessary requirements for keeping flies away.

The stable fly, armed with biting mouth parts, punctures the hide of of cows and sucks their blood, while the horn fly locates at the base of the horns where it irritates the skin and causes the formation of congestions which resemble mosquito bites. Both species of these flies propagate rapidly and require only from 10 to 16 days in which to hatch their eggs and produce new hordes of pests which operate for cow discomfort.

Stabling and Spraying

The stabling of cows during the heat of the day in cool, darkened barns is recommended as one of the best means of eliminating the fly evil, provided adequate labor is available to keep the stables clean and sanitary. As manure provides an ideal breeding material for flies, it is imperative that none of it be allowed to accumulate in or around the stable. Spraying the animals with some fly repellent, such as kerosene emulsion, is an effective remedy, but requires repeated applications. Repellents should be used with care, as no good one has yet been devised which is not likely to slightly taint the milk. It is best to spray the cow just before milking each evening, using a hand spray pump or applying it with a brush or a sponge. There are some anti-fly solutions on the market which are more or less effective. Most of them consist of some coal-tar product combined with either fish oil, oil of tar, or rosin. Lime sprinkled about the barn on manure is also useful in destroying flies.

To prepare kerosene emulsion—one of the cheapest and best home-made fly repellents—dissolve one-half pound of yellow soap in a gallon of soft water heated to the boiling point, and with this combine 2 gallons of kerosene in a barrel where the solution can be churned vigorously. Dilute this mixture with 6 gallons of water. This amount of emulsion is sufficient for spraying 100 cows and should be prepared only as needed. When smaller amounts are required they should be prepared in the proportions given.—Weekly News Letter of the U. S. Dept. of Agr.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Absolute Dispersal

Of Boardman Farms Herd

At Jackson, Michigan

Wednesday, Sept. 25, '18

of Registered Holsteins

One of the Oldest and Best Michigan Herds.
No Old Worn Out Ones.

SIXTY HEAD OF FEMALES

in dairy working condition, headed by King Korndyke Oriskany Pontiac No. 143113, a four-year-old Grandson of Pontiac Lass 44.18 lbs. butter in 7 days. His dam has 31.33 lbs. in 7 days and she has 3 A. R. O. daughters. One of the best individuals in Michigan—all females bred to him—all sound, healthy, tuberculin tested. No reaction in years. Several good A. R. O. cows whose records can be increased. Son in France, owner in poor health.

POLK COUNTY, WIS.

GUERNSEYS AT AUCTION

Wednesday, Sept. 25, '18

Clear Lake, Wis.

The sale will commence promptly at 1 o'clock p. m.

55 Head of Choice Stock

30 High Grade Cows and Heifers to freshen this fall and winter; 15 Yearling Heifers, some bred; several Spring Calves; 6 Registered Bulls, 3 aged and 3 youngsters. Get one of these to head your herd. The aged bulls consist of Ah Ta of Spring Lake 19023, out of her Majesty's Pride 33190, by Prolific 12420,—Duchess' Duke of Spring Lake 27271, out of Sweet Lily's Duchess of Spring Lake and by Lord Dwini of Spring Lake, 19562. Joe Armstrong, the sire of twenty-two of the animals of this sale, including the three young bulls, is sired by Prolific 12420, and out of Josie Armstrong, a Yeksa bred show bull of extraordinary breeding ability as shown by his get and their performance at the pail. The three young sons of this bull offered at this sale are out of very well bred, heavy producing dams. An opportunity to get what you want in bulls.

If you want a family cow, five, ten or a carload, come to Clear Lake, Wis., on September 25th. Every animal selected, tuberculin tested and guaranteed healthy.

Clear Lake is located 52 miles from St. Paul and Minneapolis, on the St. Paul, Minneapolis & Omaha Railway. The Sale will be held under cover, rain or shine.

W. H. Scott, C. B. Thatcher and J. H. Stewart,
of Clear Lake, Sale Committee.

Bank of Clear Lake, Clerk. **Col. J. R. Love, Auctioneer.**

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

You Select the Seed Corn

What was one of the serious problems many of our farmers had to face this spring? Seed corn, wasn't it? Where to get enough satisfactory seed and at reasonable prices was indeed a problem. Last year, in the northern sections at least, early frosts caught most of the corn before it was ripe and in a great many fields there was but little opportunity to gather seed.



A HANDY WAY TO GATHER SEED CORN—(Illinois Circular 225)

Moreover, not all the fairly good seed was saved that might have been.

Now we, and that means Hoard's Dairyman Juniors, everywhere, can do a very great deal to avoid such difficulties next spring. At present the corn crop looks good and if the frosts do not come too early, there should be plenty of corn from which you can select seed.

Notice that we say you. This can very well be your job this season. Have you ever selected seed corn before? If not, begin this fall. Your father will be glad to have you do it if you know how, and that is something every fellow ought to know. This kind of work is worth while. On how well you do it depends your next year's corn crop. And while you're about it, select more seed than you will need. Some may not prove to be good when tested and if it does, you will always find a demand for it at fair prices.

What Kind to Select

What kind of corn are you going to select for seed? There are several points to keep in mind? In the first place, don't start with the idea of picking the big ears. Ordinarily they don't ripen as early as the rest and certainly you want corn that will ripen fairly early, before the danger of heavy frosts. Select medium sized ears, not necessarily those that ripen first, but rather those that are ripe before hard frosts are due.

Those that grow too high or too low on the stalk are not desirable, and for the same reason he avoids taking ears with very short or very long shanks. He prefers an ear that grows three or four feet above the ground, one with a strong, medium length shank that just permits the ripe ear to droop enough to shed water.

In addition, select ears that are true to type, those that are good representatives of the variety you are using. If you were to look for grade Jerseys, you wouldn't select big red and white cows, would you? Neither should you select very large ears with deep, roughly dented kernels if you are looking for Golden Glow seed. Which means that you must know just what kind of corn you're after, before you start working.

One of the illustrations on this page shows a convenient way of working. An ordinary grain sack suspended from your shoulder in this way will prove a time saver.

Dry the Seed at Once

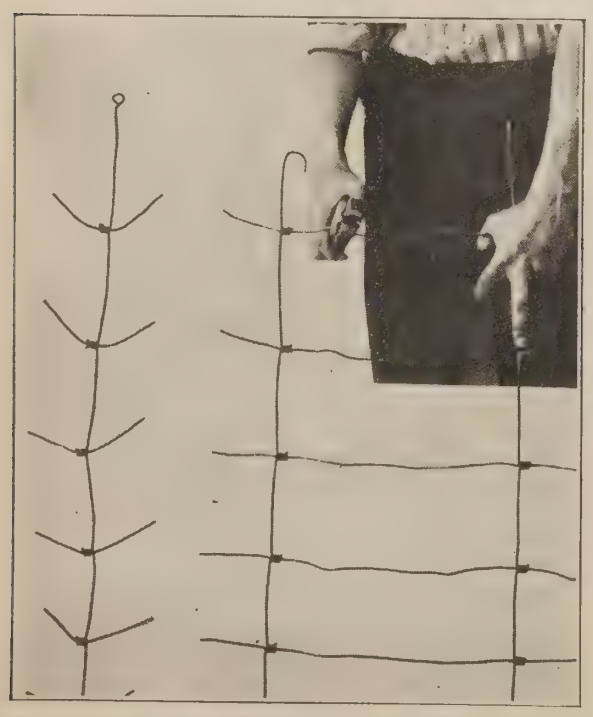
After you have picked your seed, what then? You should not allow it to be piled up on the ground or elsewhere for several days because at that time it contains 30 per cent or more of water and unless properly cared for will mold readily. The only safe plan is to hang it up where it will dry and at the same time be protected from the weather. The attic, kitchen, furnace room or a room in almost any building will do nicely so long as windows or doors are left open to insure the proper ventilation.

The man who makes a business of raising seed corn for the market very often has a special building in which to dry it and store it. There are long rows of racks for the ears and a stove furnishes the necessary heat for drying. Corn that is dried in this way with artificial heat is called kiln dried seed. For your purpose, however, the attic or a room in the tool shed will do exactly as well.

There are, however, places not fitted to the drying of seed corn and because some of them are often used it is well for us to know them. Don't try to dry your seed under the eaves on the south side of a building, on the fence or windmill tower, under the porch or in the stable. Such places do not offer enough protection.

Nor is this all there is to see to. It is not enough to have the corn stored in a room where it will dry. It must be put up on some sort of racks or hangers so that the ears will be separated. There are many kinds of hangers, so that the ears will be separated. There are many kinds of hangers, some that you can buy and others that any of you fellows can easily make, using some nails and a few old boards. Notice the illustrations on this page. Those racks or the hanger are easily made and they will do just as well as any others. Get a little old lumber or some heavy wire fencing and in half an hour you can make enough to take care of all the seed corn you will pick.

After the seed ears are thoroughly dry, store them in some dry place for the winter. If your drying racks are in the attic, you can probably leave the corn there until testing time next spring. The important thing is to get it dried early and keep it dry.

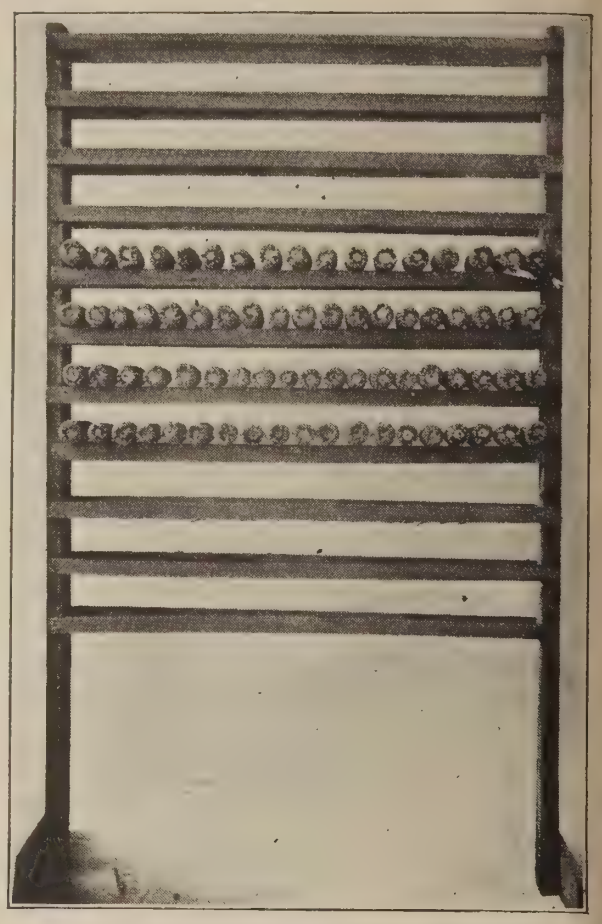


ONE KIND OF A HANGER FOR SEED CORN—ONE ANY BOY CAN MAKE—(Illinois Circular 225)

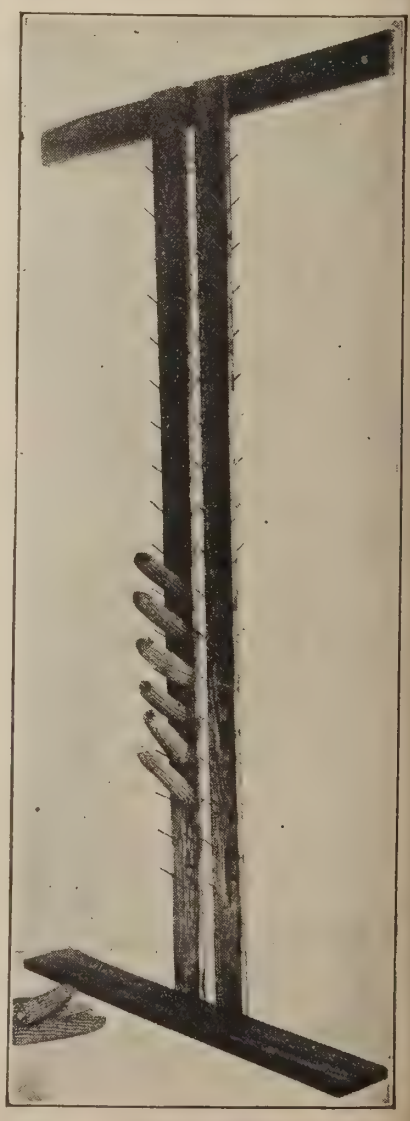
Information Wanted

HOARD'S DAIRYMAN JUNIORS:—My father takes your paper and I would like to get a little information from you. I have been raising squabs with common pigeons. They were allowed free range and picked up all their own feed. I never fed them anything except in winter. Now I want to begin with Homers, because I think they are better. I want to allow them free range after I get them used to their surroundings, that is, so they will not fly off. How should I start? Should I buy young pigeons and mate them later or should I buy old mated pairs? How old should I buy them, so they will raise squabs by next spring, that is, buying them this month? What should I feed those that I buy (1) while they are growing, and (2) while breeding squabs? I have one pair of old ones now. They are just beginning to molt. What can I feed them? In feeding, I want to feed the most economical feeds at war times, especially, but not leaving out those that are essential to bring good results. If possible, name some breeders of good squab breeding Homers.

I am interested in Hoard's Dairyman Juniors very much. I have one grade Holstein calf, a cross from a Jersey cow bred to a Holstein bull.



A RACK FOR DRYING AND STORING SEED EARS—(Illinois Circular 225)



STILL ANOTHER HOME-MADE RACK—(Illinois Circular 225)



BIG MONEY
IN "ORNERY" HORSES

MY free book will amaze you. See the big money that is being made by those I taught my famous system of horse breaking and training! Wild colts and vicious, unmanageable horses can be picked up for a song. By my methods you can quickly transform them into gentle, willing workers and re-sell them at a big profit. You can also earn fat fees breaking colts and training horses for others.

Write! My book is free, postage prepaid. No obligation. A postcard brings it. *Write today.*

Prof. JESSE BEERY, 49A Main St., Pleasant Hill, Ohio

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Made to comply with Departments of Weights and Measures. Large Circular Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail.

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Get Cash For Your Empty Bags

Don't throw away a single bag—they're worth money to you. Prices are way up now. Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.

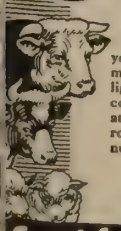
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THIS TAG PREVENTS LOSS



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SALT LAKE CITY, UTAH

Send for Free Samples

Without obligation to me, please send FREE Samples of PERFECT EAR TAGS, and Price List.

Name _____

Address _____ HD-9

I also have nine White Wyandottes, hatched May 5th, 3 pullets, and 6 cockerels (tough luck). I will close now for I think I've written a great deal already.

If any juniors know about squab raising I would be glad to have them help me out with these questions.

Wisconsin. FREMONT CONRAD.

Junior Letters

Hoard's Dairyman Juniors:—I sold my pig two weeks ago to a man down town for $5. Out of the ten there are five left as we sold them. They are growing fine.

I am milking four cows now, but one is about dry; the other one gives about 5 lbs. a day. They are going to freshen next month. My two brothers and I have one-eighth of an acre of early potatoes. I expect between 20 and 30 bushels from the piece.

We cut our barley yesterday. We have about 1¼ acres of it; papa expects about 60 bushels from it. Our wheat will be ready next month. our oats about a week from next Monday or Tuesday. We have two acres of alfalfa, two of wheat, 3¾ acres of oats, one acre of potatoes, and six acres of corn. Nine cows, one bull, one heifer to freshen this fall, one to freshen next spring, one yearling, and four calves. Also three horses and two colts, all on a 40-acre farm; also some clover and timothy.

I will close wishing the juniors good luck. My address is R. F. D. 6, Rice Lake, Wis.

Paul Krippner.

Hoard's Dairyman Juniors:—How are all the juniors today? I am fine and I hope you are the same.

We are in the testing association and our cow was the best in the association. Last month she gave 86.8 lbs. butterfat in a month on nothing but grass.

I read the junior page every week and find it very interesting. Pa likes the Hoard's Dairyman the best of all the papers he reads.

I went to the short course at the University Farm this spring.. I stayed a whole week and liked it fine.

I just got done skinning a calf which we found dead in the pasture. It was about four months old and it was a heifer. Well we are lucky; it was the smallest one and it wasn't a full blood.

I wish some of the juniors would write me. My address is Box 1, Rosemount, Minn.

Hubert Widdenbogerd.

Hoard's Dairyman Juniors:—This is my first letter to the juniors. I received my watch fob, button, and creed and I like them very much. I am 12 years old and will be in the seventh grade this fall. I live about two miles from school and have to walk every morning. Our school was out in April.

I have one brother that belongs to the Hoard's Dairyman juniors, and one sister and one brother who do not belong to the juniors.

We have 10 cows, but are milking only nine at present. They are the Holsteins. We have about four hundred and fifty little chickens this year. I own 20 of them.

We have been hoeing weeds in the corn and the kafir and cane field the last few weeks.

My letter is getting rather long so I will close for this time, wishing all the juniors good luck.

Kansas. Gertie L. Folger.

Hoard's Dairyman Juniors:—It is a long time since I wrote to the juniors, but we have been so busy with our garden and haying that I had no time to write.

My apple tree does not bear any apples this year. Last year I got 3¾ bushels of apples. It is 5 years old.

My brother and have got one-eighth of an acre from papa which we planted into potatoes. They are looking pretty good now. We pay our younger brothers for picking the bugs off them.

I think my letter is about long enough so I will close, wishing the juniors good luck.

Minnesota. Toralf Bakke.

Hoard's Dairyman Juniors:—Please excuse me for not writing sooner, for I have been very busy this spring and summer.

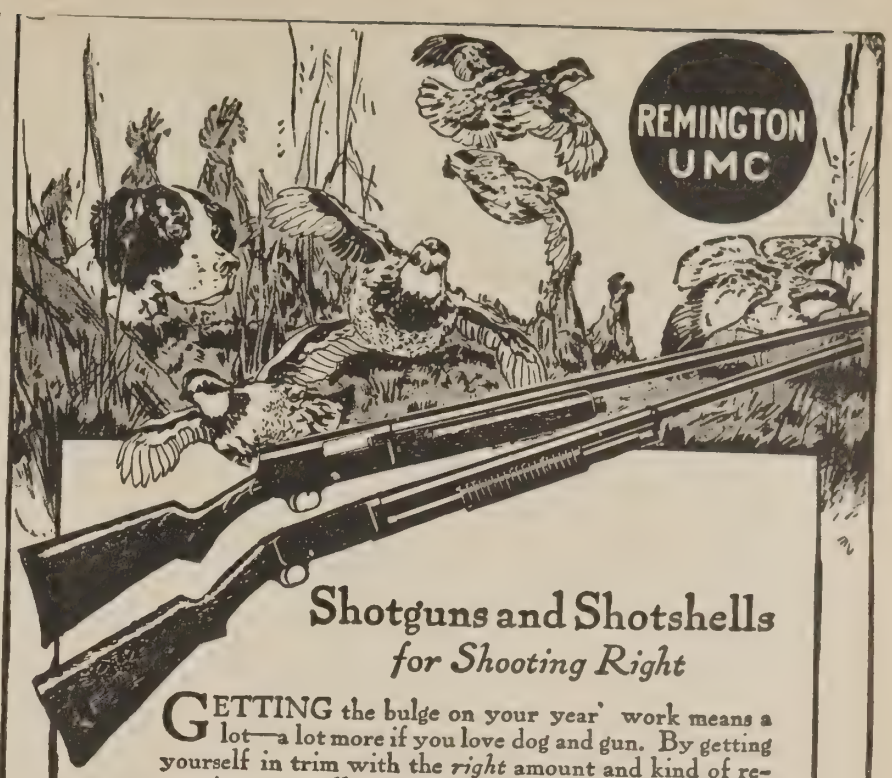
You asked me about my pig and pig club. I have a registered Berkshire pig which I am going to keep for a brood sow. She was born the first of January. I bought her when she was 4 months old. I paid $15 for her. We haven't enough members around here, but I belong to the organization. I am feeding my pig now oat middlings, 2 lbs.; cocoanut meal, 2 lbs.; skimmilk, 8 lbs. That is what I give her each day. I can't get much green feed now, only a few weeds out of the garden. I keep her pen clean and lots of straw for a bed. I wash her once in a while and put on something to kill the lice.

We got our grain threshed a few days ago. Our wheat made 12 bushels per acre. It ought to have made 24 bushels per acre. Our oats were not good either. The aphis damaged our grain, besides it was a dry year.

We are milking 10 cows now. They are not milking very good now on account of a short pasture but the milk is very rich and we still get quite a lot of cream.

I guess my letter is getting long so I will close for this time wishing the juniors good luck. My address is R. 3, Albany, Oregon.

Lyle Smith.



Shotguns and Shotshells *for Shooting Right*

GETTING the bulge on your year' work means a lot—a lot more if you love dog and gun. By getting yourself in trim with the *right* amount and kind of recreation, you will tackle next year's work with more vim.

There is much additional satisfaction in store for you if you buy a Remington UMC Pump Gun or Autoloading Shotgun for your days off this Fall. When your well earned chance comes to bag some game, you will then have in your hands a gun made to shoot *right*. Guns of the same design helped win the Grand Prize, highest of possible honors, "For Modern Firearms and Ammunition," awarded to Remington UMC at the San Francisco Exposition.

The wonderful Wetproof process invented for and exclusively used in the manufacture of Remington UMC Smokeless "Arrow" and "Nitro Club" Steel Lined Shotshells, has been pronounced the greatest advance in shotshell manufacture in a decade. *These shells as now made are the first completely wetproof shells.* Another Remington UMC contribution to shooting *right*.

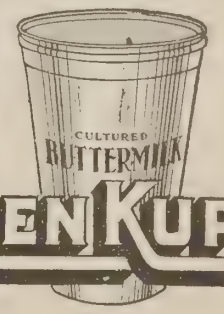
In *black powder*, buy the old reliable Remington UMC "New Club," now Wetproof sealed at turnover and top wad.

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THE REMINGTON ARMS UNION METALLIC CARTRIDGE CO., Inc.
Largest Manufacturers of Firearms and Ammunition in the World
WOOLWORTH BUILDING NEW YORK CITY



Summer Time is Buttermilk Time



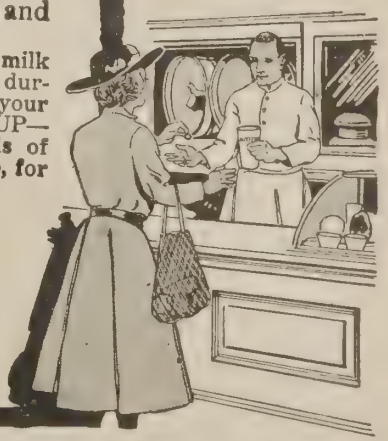
KLEEN KUP

There's a booth in the Reading Terminal Market, Philadelphia, where cultured buttermilk is sold daily, direct from the farm. Crowds swarm about the counter through the long, hot summer days, slaking their thirst with this delicious, satisfying and nourishing drink.

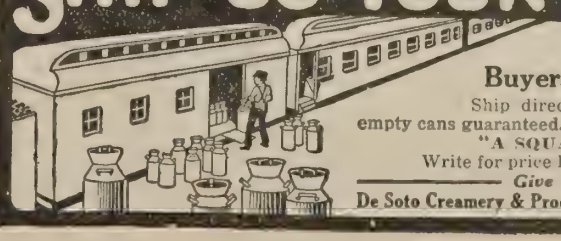
It will *pay* you, whether dairyman or milk dealer, to make a specialty of buttermilk during the hot weather months. Serve it to your trade in the neat, appetizing KLEEN KUP—"The Package of Quality for Foods of Quality." Use Kleen Kup packages, too, for marketing fancy butter, cottage cheese, cream, etc. They are attractive, non-breakable, inexpensive. Used by over 4000 dairymen.

Look into this money-making proposition. Write us for Kleen Kup samples and the Kleen Kup story—*free*.

THE MONO-SERVICE CO.
Newark, N. J.



SHIP US YOUR CREAM



Largest Cash Buyers in the Twin Cities

Ship direct to us. Quick return of empty cans guaranteed. We pay daily. Our Motto: "A SQUARE DEAL."

Write for price list and shipping tags.

Give Us a Trial

De Soto Creamery & Produce Co., Minneapolis, Minn.



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

Dispersal auction sale pure-bred registered Holstein cattle, New Douglas, Illinois, September 25th and 26th. Hundred and thirty head, mostly heavy springers. Eight serviceable young bulls from cows with records over thirty pounds of butter in one week. Cattle federally tested and sold subject sixty-day tuberculosis retest. Write for particulars. SAM GEHRIG, New Douglas, Illinois. 5-5

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—150 high grade Holstein springers, cows and heifers. Call at once. FRICK & HOESLY, New Glarus, Wis. 4-5

150 Head of high grade springers, large and mature milkers, and good producers. As choice a selection of dairy cows, as can be found anywhere. Write or wire FRANK LUHRS, South St. Paul, Minn. 5-4

Calves-Calves-Calves-Holsteins $25, Guernseys $20. 15-16 pure. Not ordinary calves, but good ones. Order now. A few yearlings and two-year-olds. F. L. TAYLOR, Iola, Wis. 5-4

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Registered Holstein bull, ready for service; two younger bulls; choice breeding. Splendid individuals; description on request. Prices reasonable. ARTHUR C. DAILY, Springfield, Mo. 7-2

For Sale—15 months old pure-bred Holstein-Friesian bull (line bred) with 10 world and state records in his pedigree. King Segis and Hengerveld De Kol breeding intensified. Price $500. DR. W. J. SOUTHEY, Bridgeport, Conn. 7-2

For Sale—A very choice 7-month-old Holstein bull. Dam's record: 931 lbs. of butter 22,043 lbs. of milk a year. Sire's five nearest average 1,070 lbs. of butter, 23,809 lbs. of milk a year. JOHN PULS, Hartford, Wis. 7-2

Save! Save! Save! On heifer calves. Holsteins $20; Guernseys $18. We raise them. Buy from us and save commission. Springing cows and heifers for sale. Our sires are of World's Record breeding. FRED JOHNSON, Iola, Wis. 7-3

Fourteen choice grade Holstein cattle, twelve three-year-old, two five-year-old, fresh and springing. As choice a selection of dairy cows as can be found anywhere. Write or wire. FLOYD HANSBROUGH, Monroe City, Missouri. 7-2

Twenty registered Holsteins, $2,000. H. S. MARTIN, Fayette, Ohio. 7-2

For Sale—Carload milking cows. CHAS. W. O'NEILL, Bridgeport, Wis. 7-2

Grade Holsteins—Nineteen years of breeding, backed by A. R. O. sires. Seven bred heifers, seven fifteen months old heifers, ten heifer calves from five weeks to five months old, one pure-bred bull calf born June 29th. All guaranteed as represented. Write your wants. WOODLAND DAIRY FARM, Tomahawk, Wis. 7-2

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

For Sale—We are offering all of our registered Holstein cows over three years of age (10 in number) to settle a partnership. They are mostly due to freshen in late fall and early winter. All good large cows and heavy producers. Also have five registered bull calves at from $65 to $125 each. Address W. L. WAGGONER, Junction City, Wis., or T. J. Pitt, Fremont, Wis. 8-3

For Sale—21-pound granddaughter of Hengerveld DeKol due October 7th. Also a few choice heifers, all bred to King Korndyke Pontiac Lass 5th, due this fall and winter. All nicely marked. Also three bulls ready for service by above sire. ELMER HURELLE, Doylestown, Wis. 8-3

Holstein Bull for sale. Born June 21, 1918. Dam, Era Johanna Grace. Sire, King Segis Boelyn. Straight, healthy and nicely marked calf. Price $35. Phone or write. L. J. EICHACKER, Masonville, Iowa.

STOCK FOR SALE

For Sale—30 head extra fine two-year-old grade heifers, due to freshen November to February, bred to registered bull. JAMES M. BROCKWAY & CO., Letts, Ia. 8-2

Holstein Bull sired by son of 44-pound cow. Five nearest dams over 28 pounds. C. MULKS, Riceville, Iowa. 8-3

Two registered Holstein bulls from A. R. O. dams and sired by brother of Duchess Skylark Ormsby. H. O. HEDEMAN, Wright City, Mo.

Holstein grades—Sixty for sale; the best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minn. 8-4

For Sale—Registered Holstein-Friesians, young heifers, $75. Young bulls, $50. PAUL McNISH, Burton, Ohio. 8-5

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

For Sale—Fourteen high grade Guernsey cows two to eight years old coming fresh during fall and winter, one registered Guernsey sire serviceable age. PAUL L. LEHMAN, R. 2, Barron, Wis. 5-4

For Sale—Guernsey bulls from six months to year and half old. Write for pedigree and prices. S. M. WHITE & SON, London Mills, Ill. 6-6

For Sale—Closing out our grades. We offer several choice grade Guernsey cows and heifers. Most of them our own breeding. Reasonable prices. ST. AUSTELL FARMS, R. D. 3, Jackson, Mich. 8-4

As pretty as a picture and as good—sweepstakes winner over all. Weight sixteen hundred—coming five and sure breeder. Seven nearest relatives average over seven hundred pounds fat. Photos and pedigree. Write: GLYN SARGEANT, Long Prairie, Minn.

For Sale—Few choicely bred heifers and calves, May Rose and Chene breeding; also May Rose bull. Prices right. W. F. MURPHY, Aitkin, Minn.

Registered Guernsey 14 months old heifer. A. R. breeding. Price $140. C. A. BALCOM, Ohio, Ill.

For Sale—15 months old Jersey bull "Mailands Wyandotte" H. R. 152868 by a son of "Imp. Oxford You'll Do" A. J. C. C. 111860 and "Imp. Noble Star" A. J. C. C. 288716. Look him up. No better bred young bull in the U. S. Price $500. DR. W. J. SOUTHEY, Bridgeport, Conn. 7-2

For Sale—Registered Jersey bull ready for service. ORVILLE LEE, Harris, Iowa.

Pure-bred and registered Jerseys, two to seven years old. Tuberculin and butterfat tested. $90.00 per head by car lots. Over stocked. MARK DeMOTTE, Petersburg, Ind.

For Sale—Six registered Jerseys due to freshen October by one of best bulls in Michigan. H. F. GODWIN, Birmingham, Michigan. 8-2

STOCK WANTED

Wanted on Shares—Fifteen registered Guernsey cows, coming fresh September to October, not over 6 years old; 3 to 5 years' contract. Address BOX 223, care Hoard's Dairyman. 7-2

Wanted—Carload registered Holstein springers, calves and cows. Also high bred young bull. BOWERS & SON, care State Bank, Moores Hill, Ind.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

David W. Williams, Lake Forest, Ill., can buy you grades or pure-breds, any breed. 2-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

Dairy cattle bought on commission. W. STRAUSS, Route 5, Watertown, Wis. 8-2

AUCTIONEER

Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

SWINE

Chester Whites, either sex at reasonable prices. JOHN HORLAMUS & SON, West Bend, Wis. 5-4

Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 6-4

Big growthy registered Poland China spring pigs, boars and gilts, not related. Also bred sows. CHAS. W. O'NEILL, Bridgeport, Wis. 5-5

HORSES

For Sale—8 heavy draft horses. Can be seen at our stable. JOS. SCHLITZ BREWING CO., Milwaukee, Wis. 5-4

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

SEEDS

We offer, fancy recleaned Missouri grown Early New Era and Whippoorwill cowpeas at $3.00 per bushel, and mixed peas at $2.75 per bushel of 60 lbs. Freight paid to your station or by express 50c per bushel extra. Also fancy Missouri grown Japanese buckwheat $5.00 per 100. Early Stowel's sweet corn and Sudan grass 20c per lb. Hardy alfalfa 99% pure, $11.00 per bushel. We also offer Golden (German) and Japanese Millet, Kaffir, Milo, Maize, Cane Seed, Soy Beans and Dwarf Essex Rape. Samples of all of the above on request. 300 head Holstein cattle, Wallace strain big boned Poland China hogs. Address CALLA LILY FARMS, Clayton, St. Louis Co., Mo. Established 1885. Reference: Mercantile Trust Co., Franklin Bank. 23-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Wisconsin Pedigree rye. Our world's champion strain has record yield over forty bushels per acre five years straight. $2.50 per bushel, sacks sixty cents each. Golden Glow seed corn, fresh picked ears, $5.00 per 75 pounds. NOYES RAESSLER, Beloit, Wis.

Pedigree rye and winter sand vetch, properly mixed for seeding. VAN LOON, LaCrosse, Wis. 8-tf

Marquis Spring Wheat for seed. Resists drouth and hot winds better than any variety. Has out-yielded winter wheat for me ever since I have grown it. No more trouble than oats. The great Liberty crop. $2.50 per bushel, bags extra. R. F. JOHNSON, Assumption, Illinois. 8-tf

MACHINERY

Having disposed of my dairy herd, will sell my Empire milking machine at one-half price. Am sending it to factory for complete overhauling and new rubbers. Guaranteed labor saver. Write L. L. DUNMIRE, El Paso, Ill. 6-6

Wanted—Three or four single unit milking machine, any make. State full particulars and lowest cash price you will take for quick sale. H. W. COIT, Route 1, Galesville, Wisconsin. 8-2

For Sale—2-unit Sharples Milker complete, $50.00; one 2-year-old Jersey bull, Register of Merit stock, $200.00. MEDER STOCK FARM, Foley, Ala.

For Sale—No. 15 De Laval Cream Separator with power attachment. Good as new, used part of two years. C. N. NOWRY, Mendon, St. Joseph Co., Michigan. 8-2

On account of selling my herd will close out the following equipment at bargain prices: Nine-unit Sharples Milker and pump, 24-bottle Babcock tester, 50-gallon Cherry coil pasteurizer, 150-gallon Creamery Package cheese vat, ninety-six Louden 1¾ stalls. Everything in working order and first class condition. JAMES M. BROCKWAY & CO., Letts, Iowa. 8-2

WANT TO RENT

Wanted to Rent on shares, by experienced stockman, good improved stock farm for term of years. References furnished. H. F. ROCKWELL, Mondovi, Wis.

Wanted—To lease up-to-date dairy, 50 cows, ship whole milk, 40 cents gallon. References required. A. A. PIGFORD, Lumberton, Miss.

Good, reliable, well experienced farmer, age 34, wishes to rent farm on shares with everything furnished. Address BOX 233, care Hoard's Dairyman.

FOR RENT

For Rent—Dairy farm one mile from Beloit, Wisconsin. Excellent soil, good buildings. 425 acres, 200 acres in pasture. DON VAN WART, Agent, Parker Block, Beloit, Wis. 5-4

For Rent or Sale—100-acre farm near Brookside, Wis., fair buildings, about 70 acres under cultivation, balance pasture. WM. KIPP, Escanaba, Mich. 6-4

For Rent—High class grain and stock farm in south central Wisconsin. 170 acres plow land and 100 acres pasture. Address BOX 230, care Hoard's Dairyman.

Dairy farm for rent or sale or chance to work. H. H. LYON, Bainbridge, N. Y. 8-2

I have two 20-acre farms well stocked with horses, hogs, cattle, and machinery that I want to rent. Want to sell the horses and machinery and lease the cows and hogs to the renter. Renters apply to A. G. WHITNEY, St. Cloud, Minnesota.

FARMS FOR SALE

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—In North Rochester, 200-acre farm. Big, modern dairy barn, fully equipped; 70 milking cows. Sold at sacrifice on account of health. Apply to MR. H. P. DION, 1070 County Street, New Bedford, Mass. 5-4

Money Makers—40-acre farm, $1,800; 60 nearly all under cultivation $1,500; 80 with stock, machinery and crop, $4,800; 160 with good, large buildings, $6,800; choice cut over land $15 to $20 per acre. Write for particulars. THE E. L. C. CO., M-B Dept. 31, Merrill, Wis. 5-tf

New York Farms for Sale—112 acres; 30 alfalfa, good buildings, running water in house and barn, $6,000; 66 acres—good buildings, $2,600. Easy terms. Others larger or smaller. For particulars address BOX 78, Peterboro, N. Y. 5-4

For Sale—Equipped dairy farm of 350 acres, 100 cows, heifers, team, and implements. E. CHRISTIAN, Owner, R. F. D. 1, Richmond, Va. 6-3

For Sale or Exchange—Choice, improved 240-acre farm in Waupaca County. Complete set of farm buildings, 100 acres crops, 25 acres fine timber, pasture, etc. No waste land. Do not answer unless you mean business, but a rare chance to get a farm. Answer LOCK BOX 552, Oshkosh, Wisconsin. 6-tf

For Sale by Owner—153-acre improved farm, black soil, brick house, barn room for 40 head of cattle. Two miles from Waukegan, Ill. on state cement road. One mile from high school, ¼ mile grade school, three railroads within two miles. Best of markets for farm products. $175.00 acre. Terms. D. W. WILLIAMS, Lake Forest, Ill. 6-4

For Sale or Trade—Town 2 sections or 1,280 acres of fine cut-over and timber land in St. Louis County, Minnesota, which I would sell at $12 per acre. Adjoining land is sold for $15 to $20 per acre, or would trade it towards a well improved and well stocked Wisconsin dairy farm. My land is clear. Write BOX 343, Barron, Wis. 6-3

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

Just Out—The finest and most complete list of improved farm bargains ever offered in Central Wisconsin; pictures of most all our farms, write today for this free list. GRAHAM'S LAND OFFICE, Marshfield, Wisconsin. 6-spl

300 acres, Columbia River dairy farm, right here on Columbia Boulevard, 25 minutes' ride from Portland. This is a real opportunity for the right party. Income now about $1,200 month. All stocked with the finest herd of Holsteins in the country. All level, 100 acres under plow, some timber for wood; all kinds fruit, A-1 sandy loam soil; ¼ mile R. R. station R. F. D., school, church, etc. All fenced, wire; 2 houses, 60x150 and 50x100, holds 150 head of cattle, etc.; machine shed, tool shed. 2 chicken houses, 2-room milk house, 1 Chilly King cooler, steam boiler, wash trays; rent per month $125. Personal property for sale; 2 wagons, mower, rake, plow, harrow, disc drill, potato planter, 3 cultivators, 58 cows, 1 registered Holstein bull, 3 horses and harness. Price $9,000, $5,000 cash, balance terms to suit. Watch our ads; we get results. A. G. BENDER, Ritter, Lowe & Co., 203-5-7 Board of Trade Bldg., Portland, Ore.

215-acre farm, $3,000, with 7 cows, pair horses and hens, wagons, machinery, tools and crops included if taken soon by owner unable to work longer; near neighbors, mail delivered, 3 miles railroad town. Loamy tillage, brook-watered pasture, estimated 500 cords wood, 300,000 ft. timber, 150 apple trees, other fruit. 7-room house, barns, stable, poultry house, etc. $3,000 takes everything, part cash. Details page 3 Strout's Catalogue of this and other bargains, many with stock, tools, crops, mailed free. E. A. STROUT FARM AGENCY, Dept. 3001, Marquette Bldg., Chicago, Ill.

320 acres—Dairy farm near Ottawa; 2 sets improvements. Farm arranged just right for big returns. Well watered, shade, close school. Write for full description and free descriptive booklet. MANSFIELD LAND & LOAN COMPANY, Ottawa, Kansas. 8-2

It will surprise you, to see what a few dollars per acre, and but a small part of that down, it's our business to help those looking for homes, will do in Aitkin county. Our illustrated literature and the facts that we will send you, if you write, will open your eyes to what you can do. You need not wait. You can act now. The sooner the better. Come or write to me. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

FARMS FOR SALE

Splendid irrigated dairy ranch in the famous Pecos Valley. Plenty free water, short mild winters, cool summer nights, long growing season. Long staple cotton, alfalfa and dairying mainly. Good roads. Must sacrifice at half value, $40 per acre. Terms. Owner, BOX 345, Pecos, Texas.

Free Maps of Mississippi, showing views and describing the famous black prairie alfalfa, clover, corn, stock and dairy belt, located in Northeastern Mississippi, where Lincoln Harvold of Iowa, the largest hog feeder in the world, has located; 300 miles of hard pike roads; good well and artesian water; excellent climate; three creameries; lots of grass; best hog, cattle, sheep and mule raising section in the South. K. M. WISHART, Aberdeen, Mississippi. 8-2

LITTER CARRIERS

Litter Carriers—Price only $15.90. Write for catalog and price list too. TORGERSON MFG. CO., Baldwin, Wis. 4-6

For Sale—James Mascot litter carrier with 30 feet of track and hangers. Also 12 James wood-lined stanchions. CHAS. BELL, Champaign, Illinois.

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

We are not quoting prices but paying all we can for merchantable second hand bags. Ship today. DANVILLE BAG CO., Danville, Ill. 7-tf

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

DAIRIES

For Sale—Dairy 50 Jerseys. Thoroughly equipped. Splendidly located in most thriving city in Florida. Rare opportunity. BOULEVARD DAIRY, Route 5, Tampa, Fla. 6-3

PARTNER WANTED

Successful dairy farm, dairy business, southern Pennsylvania wants partner or will sell. Address BOX 195, care Hoard's Dairyman. 5-4

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forestville, Conn. 3-10

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. CUCZYNSKI, Milwaukee, Wis. 24-13

Old Process Cocoanut oil cake meal; velvet bean meal feed; ton lots or car lots. NEUSTADT & CO., 294 Ninth Ave., New York City. 7-4

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 5 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 165-J3, Stoughton, Wis. 15-tf

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—A dairyman who understands manufacturing butter and other by-products of milk, to take charge of a small Jersey herd. Give age, married or single, and salary expected. None but a worker need apply. Address BOX 193, care Hoard's Dairyman. 5-tf

Wanted—A sober, reliable married man from thirty to fifty years of age to take charge of a dairy in Indiana. Have an old reliable milk route, the highest class of its kind in the state. Keep two men to attend thirty cows. Use Hinman Milker. Want a man to take charge of my herd and drive the wagon. Must be honest and steady. Will furnish five-room house, garden spot, milk, chickens to raise on shares and furnish feed for them and pay $75 per month cash. Address or apply to WARREN PARK FARM, Terre Haute, Indiana. 5-4

Wanted—Two men to work in dairy barn to run milking machine, feed cattle and do general barn work. Best of wages will be paid right men. MILFORD MEADOWS STOCK FARM, Lake Mills, Wis. 7-2

Wanted—Married man not subject to draft to do general farm work in dairy barn. Wife to board other farm help. Good wages will be paid to right people. A separate house, food, fuel, etc., furnished free. A real opportunity to save money and have permanent position. Address BOX 225, care Hoard's Dairyman. 7-tf

Wanted—Single man general farm work, good milker. Steady job to right man. Give particulars. BOX 192, care Hoard's Dairyman. 5-tf

Wanted—Single herdsman capable of handling help and managing herd of dairy cattle. Address BOX 198, care Hoard's Dairyman. 6-4

Wanted—Married man, to take charge of pure-bred Holstein herd, who has some help of his own. Location Central Kansas. BOX 199, care Hoard's Dairyman. 6-tf

Married herdsman wanted by October first for large Guernsey herd. Experienced feeding for records. New four-room house, close to school, milk, wood and garden. Wages $900 for year. Give age, experience and reference. HOMER F. RUNDELL, Livingston, Wis. 6-4

Wanted—Single man or stout, healthy, 17-year-old boy for delivering, bottling and dairy room work. Must be good milker—10 to 12 cows to milk—exempt from draft, honest, reliable and capable of learning the work and to run ton truck. Steady work. Wages $50 per month, room and board. Located just outside limits city of 100,000 in Northwestern Missouri. Address BOX 207, care Hoard's Dairyman. 6-4

Wanted—Middle aged man and wife to work on up-to-date dairy farm in Vermont, beginning October first. Man to do general work with team on farm or work in cow barn. Wife to take charge of farm boarding house where about ten men are boarded through the winter. A good cook and manager required. One girl furnished to assist with work, also man to run washing machine Monday mornings. All fuel and found furnished by the farm. Only people desiring steady work and of clean habits need apply. Preferably those who have lived in the New England states and are accustomed to the climate. An excellent opportunity. Address RAY L. WILLIAMS, Quechee Fells Farm, Quechee, Vt. 7-2

HELP WANTED

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—Good man for up-to-date dairy farm. Registered Holstein cattle. Yearly position. State age, weight, experience and wages. JOHN PULS, Hartford, Wis. 7-2

Help Wanted—Married man for farm work. Wife to do housework. Good wages all year round. Present couple been with me 9 years. Give particulars. DENNIS SHEA, Melvina, Wis. 7-2

Assistant herdsman wanted for high class pure-bred Holstein herd. Must be good milker. Married men need not apply. Please state age, nationality and wages expected in first letter. T. H. SKREI, Glyndon, Minn. 7-2

Man for general farm work, $40 per month, milking done by machine. AUG. HERMAN, Tomahawk, Wis. 7-2

Wanted—Working foreman or superintendent for combination dairy farm and summer home preferably familiar with registered Guernseys. Would have to attend to transfers, etc. Herdsmen employed. Please state full particulars first letter. If married, size of family, salary expected, etc. BOX 1601, Milwaukee, Wisconsin. 7-2

Wanted—Married man for general dairy work. Pure-bred Holsteins. Wife to board help. HOLMES DAIRY CO., Whiting, Iowa. 7-3

Wanted at Once—Steady, experienced, single man, over draft age, to care for small herd of registered milking Shorthorns. One who can produce milking records and grow young stock successfully. No milk sold from the farm. Permanent position. Address E. A. POTTER, Lake Geneva, Wis. 8-2

Wanted—Herdsman for Holstein-Friesian herd Northern Illinois, modern equipment. A. R. O. work. Give references; state wages. Address BOX 228, care Hoard's Dairyman. 8-2

Wanted—Single men for farm and dairy work, northern Illinois. Give references; state wages. Address BOX 229, care Hoard's Dairyman. 8-2

Wanted—Single man for general farm work. Must have knowledge of milking machines; prefer man with knowledge of Ayrshires. J. A. PRINGLE, Montesano, Wash. 8-2

Wanted—We have purchased 1,500 acres of land near this city on which to establish the most modern and sanitary dairy in this part of the country. We need a thoroughly competent manager, preferably one familiar with the use of tractors. Communicate at once with J. J. CARROLL, Drawer 356, Houston, Texas.

Wanted at Once—A good, steady, reliable young man for general farm work. Must be a good milker. Wages $50.00 per month. BOX 65, R. 9, Waukesha, Wis.

Wanted—Herdsman for 25 Jerseys; modern dairy barn and equipment. State salary expected. NORTH DAKOTA STATE TUBERCULOSIS SANITORIUM, Dr. J. G. Lamont, Supt., Dunseith, North Dakota.

Wanted—Dairyman and buttermaker, single, steady job for reliable man, draft exempt preferred. Herd of 30 cows; our boys assist in milking. $55 with room and board. Give full details in first letter. SUPERINTENDENT, Cleveland Boys' Farm, Hudson, Ohio.

Wanted—Two good barn men for up-to-date farm. Must be first class milkers and willing to do the work in barn as instructed by herdsman. Wages $45 and bonus of $5 per month for first six months. Nothing but good steady, all year men need apply. Good room and board. Address BOX 227, care Hoard's Dairyman.

Herdsman Wanted—Oct. 1st for up-to-date farm. Must be good milker and understand feeding and care of cattle. Dairy barn of 80 cows and 30 other cattle, a man who can handle his men to get results out of them without changing help. Good room and board. Give experience and salary in first letter. None but good men need apply. Address BOX 226, care Hoard's Dairyman.

Competent herdsman wanted—(Single man or small family.) Fixed bonus above salary for definite production. 70 head Holsteins. Modern buildings. Milking machines. Permanent for temperate worker who really understands A. R. testing, calf raising. Superior opportunity. A. F. HOWES, 6 W. Market St., Wilkes-Barre, Penna.

Wanted—Good man for general farm work. $50.00 per month. A. G. BEEBE, Ladysmith, Wis. 8-2

HELP WANTED

Working farmer wanted on a fifty-acre farm having Ayrshire cows and Berkshire hogs: concrete barns, running water; farmer's house of six rooms and bath; two miles from town of Red Bank, N. J.; desire experience with animals and general crops; reply with all details and salary desired; might consider shares. P. O. BOX 237, Red Bank, N. J. 7-2

Will give good, reliable couple without children one hundred dollars per month and board. Man to take charge of well equipped dairy, woman to cook for about five men. Could also use assistant. CHAS. G. ABBEY, Gilby, North Dakota. 8-2

Wanted—Dairyman capable of taking full charge of herd of pure-bred Holstein cows and get results, also man to drive dairy wagon. Give references and salary expected in first letter. Position open Sept. 1st. Address J. R. SMITH, Mgr., Colver Farms, Colver, Pa.

Wanted—Married man for dairy farm. Must understand feeding and care of cattle and calves, mechanical milker. Give reference and wages expected first letter. GEO. S. VOSBURGH, Richmond, Illinois.

Wanted—Two high class farmers to take charge of two choice stock farms. Must thoroughly understand farming in every branch, including dairying and hog raising. Apply to A. G. WHITNEY, St. Cloud, Minnesota.

POSITIONS WANTED

Wanted—Position as manager pure-bred dairy farm. 15 years' practical experience in all branches farming and stock raising, advanced registry, fitting for show ring, sales, etc., also wholesale and retail milk and butter business including pasteurizing and all other details incident to big milk business. Not subject to draft, age 35, married, no children, college education, can make change Sept. 1st. Address BOX 201, care Hoard's Dairyman. 6-3

Can you use a man, 46 years of age, college graduate, experienced in feeding and showing cattle? Wire DOUGLAS DEMMON, 52nd and Sansom Sts., Philadelphia, Pa. 7-4

Wanted—Position as herdsman manager; life experience in dairying, A. R. O., show ring, veterinary; competent as to values, etc.; would consider partnership or share proposition. Present position 5 years. References first class. BOX 224, care Hoard's Dairyman. 7-2

Position wanted as herdsman or farm manager. Graduate of school of agriculture, married, and have experience in A. R. O. work, also certified dairy work. Address BOX 220, care Hoard's Dairyman. 7-2

Married man desires position as dairy manager. Theoretical knowledge coupled with practical experience in all lines of dairying. If you have the opportunity, my ability, energy and tenacity will make your place profitable. MANAGER DIGGS DAIRY FARM, R. F. D. 1, Rockingham, N. C. 8-2

An experienced man, excellent character, wants to manage an improved farm, with high grade cows in good condition. Establishment must be suitable for production of clean milk at a profit. Must be on good road near city. Married, no children; have very capable help. Give complete description and terms expected in first letter. Address BOX 231, care Hoard's Dairyman.

Position wanted at once by man of experience, fifty years old, able, competent and dependable. Must have separate house and near school. State wages and particulars. References exchanged. BERT OLDS, Route 1, BOX 53A, Hankinson, North Dakota.

Wanted at Once—Position as herdsman of first class Guernsey dairy herd, by thoroughly qualified man of years of experience. Have been herdsman on the W. W. Marsh farm at Waterloo for the past nine years. Practical man, temperate, and steady. Best references. Give particulars and salary offered in first letter. JAMES RACKLIFFE, Box 442, Waterloo, Iowa.

Wanted—November 1st, position as herdsman or manager by Scotchman. Married, age 34, life experience, best of reference. Also position for single man, American, as assistant. 11 years' experience. Out of draft. Will go anywhere. Herdsman, SWIGARTDALE FARM, Petersburg, Mich.

Farm Manager—Energetic, scientific, reliable desires postion on large farm where ability is appreciated. Experienced in pure-bred stock, Advanced Registry, orcharding, tree surgery, spraying, modern farming and machinery. Can manage farm economically and produce results. Strictly temperate. References excellent. BOX 235, care Hoard's Dairyman.

Position wanted as manager on large farm by man with experience in dairying and wheat growing. Practical and scientific, college graduate, married. Only first class position considered. Give particulars, state wages. Address BOX 234, care Hoard's Dairyman.

Louisiana Dairymen Meet

HOARD'S DAIRYMAN:—The annual meeting of the Louisiana Dairymen's Association was held in Baton Rouge, the state capital, on July 30th. After listening to a few ringing words by President W. H. Richardson, State Commissioner of Agriculture Harry D. Wilson gave a rousing talk on co-operation and organization, touching on the recently passed incorporation law passed at the last session of the legislature. This law enables the Louisiana agriculturists to incorporate as a non-stock, non-profit association under section 6 of the Clayton Amendment. Closing his remarks Mr. Wilson said: "Have a good live board of directors. Eliminate politics and get down to business. The whole thing depends upon how you stick together. Sell milk as an association, not as individuals. Find out the cost of production and fix the price accordingly."

The question of the association incorporating under the new agricultural law was discussed and unanimously passed. The name of the new association was voted as the Louisiana Dairymen's Co-operative Association, Inc. Its domicile was selected at Baton Rouge. Articles of association were then drawn up and adopted and a temporary board of directors elected as follows: J. P. Wallace, J. C. Prichard, Henry Vermeersch, W. H. Richardson, G. L. Plettinger, Frank Fargot, and J. S. West.

Other business included the appointing of Peter Fabacher of Baton Rouge to represent the association on the cost of production inquiry soon to be started by representatives of the producers, dealers, consumers, the press, and the commissioner of agriculture.

It was voted to request the Louisiana State University for a detailed report on the cost of producing milk at the University Farm near Baton Rouge. This has never been furnished the public and in view of the agitation on cost of production at this time, a great deal of assistance it was felt could be derived from such a report. After this the meeting adjourned.

Since the meeting the articles of association have been approved and filed according to law, and permission given by the secretary of state to commence business. The temporary board met at Baton Rouge to elect themselves a permanent board and adopt the by-laws voted on at the regular meeting. Officers were also appointed at this meeting. It is the intention of the association to form locals in different parts of the state and several requests have already come in.

J. S. WEST, Sec.

Every owner of dairy cows should establish a definite standard, and all cows that do not measure up to the requirements should be disposed of for beef. Whether a dairy cow should be rejected or retained should depend ordinarily on production, as shown by the milk scales and the Babcock test.

Increase Yield by Reducing Disease

In an effort to maintain or increase our live stock supplies, the reduction of the toll taken by disease should not be overlooked. There are a large number of diseases which are very common and which seriously affect the dairy industry. Among these are contagious abortion, tuberculosis, infectious garget, cowpox, cattle-tick fever, etc., which in the past have greatly reduced the milk production of our herds.

Wheat straw at $78 per ton and alfalfa hay at $88 per ton were the prevailing mid-summer prices in France.



How the Colt Lighting and Cooking Plant Differs From All Others

DIFFERENT: because there is nothing to get out of order—nothing to wear out. Farmers have used them for 14 years continuously, without spending a cent for repairs.

DIFFERENT: because it gives a soft but powerful white light—much more powerful than any other system. No matches required—simply pull a little switch.

DIFFERENT: because it is silent. If it is put in the cellar (where it can stand in the corner) you would never know it was in the house. It works equally well if put in an outbuilding.

DIFFERENT: because it runs itself. Beyond putting in a little carbide (like crushed stone) and plain water once a month, it requires no attention. The U. S. Government lights the Panama Canal with carbide and water. 700,000 miners insist on having Carbide Light to work by.

DIFFERENT: because it not only lights the house and barns more perfectly than any other system, but supplies fuel for a genuine gas cooking range—a range which will cook the meals with all the advantages of the gas ranges used by millions in the big cities.

DIFFERENT: because its first cost and maintenance are lower than any other system.

Carbide Lighting COLT TRADE MARK and Cooking Plant

"In 10 years there has not been one minute when it was not working perfectly."
D. T. CENTER

Write us today for the names and addresses of neighbors who have used the Colt double service system for years and prefer it to all others. Benefit by their experience.

"We have given your generator the least attention of anything on the farm."
E. H. MARSHALL

J. B. COLT COMPANY
42nd Street Building - New York

901

SILO HEATER

The new sensible cover for silage
Places natural heat at walls.
Artificial heat when needed.

PREVENTS FREEZING

Write for free descriptive leaflet.

SILO HEATER COMPANY
McKnight Building, - Minneapolis, Minnesota.



TOP PRICES will prevail for many years' harvest, but the great war has drained men and animals off the farm. Replace them with a

BULLOCK CREEPING-GRIP TRACTOR

Protected by U. S. Patents

and swell your profits at the same time. Bad weather and unfavourable soil have no terrors for the British Battle Tank or for its worthy prototype, the BULLOCK CREEPING GRIP TRACTOR. Will work in ground so soft a man would mire, or a hillside so rough that the wheels of the ordinary tractor would spin and slip. The CREEPING GRIP has no wheels — it lays its own broad track and then rolls over it.

You can bank on the CREEPING GRIP doing more work than three men and six horses on any farm.

A three or four bottom tractor, depending on soil conditions. Write for catalog TODAY.

BULLOCK TRACTOR COMPANY
1809 Diversey Parkway
Chicago, U.S.A.

Increasing Consumption of Dairy Products

(Continued from first page.)

reached it yet. Let's look at this in a community spirit. Don't be afraid to advertise dairy products in general. It may help the other fellow, but it's bound to help you too. Look at what advertising has done for the fruit growers of California. The possibilities are just as great or greater in the dairy field. Neither is it good business for you to sit back and wait for some other fellow to advertise your wares. State agencies and the federal government have done a great deal of advertising for the dairy industry; but you are the people with the goods to sell, and your efforts should be constant and active.

In formulating advertising there are several points to remember. First, tell the public why dairy products are desirable. Let them know the food value of milk, butter, cheese, ice cream, etc. When you have done this, you have awakened interest, which is the first step.

Second, show your audience why they must have dairy products in the diet. Refer to McCollum's work which shows the presence of growth promoting essentials in milk. This sort of argument establishes dairy products as necessities.

Third, explain why dairy products have a place in the diet which cannot be filled by substitutes.

Fourth, convince the public that dairy products are worth the price. Show the relative values of meat, milk, and eggs. This appeals to the consumer's pocket book and leads him to buy.

Fifth, convince the public that the price of dairy products is warranted by the cost of production. At present this is one of the weakest links in the chain. Milk producers generally have not kept such records that they can go before the public and explain accurately and convincingly just how much it costs them to produce milk. Until they become business men they cannot hope to be placed on a business footing. Some have kept such records for a long time, many are doing so now.

The U. S. Department of Agriculture Helps

Realizing the need of stimulating dairying by increasing the demand for dairy products, the United States Department of Agriculture has lent a helping hand. A number of posters, leaflets, and pamphlets have been published and widely distributed by the Dairy Division to stimulate the use of milk, cheese, cottage cheese, etc. Some of the titles are as follows:

Milk as a Food.

The Food Value of American Cheese.

Skimmilk for Human Food.

Cottage Cheese an Inexpensive Meat Substitute.

Ways to Use Cottage Cheese.

Cottage Cheese Dishes.

Eat More Cottage Cheese.

Ten Suggestions for Milk Consumers.

Over three million copies of this material had been distributed to consumers; and it has been placed before the public through the medium of city and county newspapers, periodicals, etc.

In looking over the field, it was decided that cottage cheese offered a channel through which a great deal of skimmilk could be used advantageously.

Accordingly the co-operation was secured of the States Relations Service of the Department of Agriculture and the various state extension forces. Educational work has been

done in 40 states, largely through the instrumentality of the women home demonstration agents. This work encourages the making and consumption of cottage cheese of good quality. Over 2,000 meetings and demonstrations have been held before over 100,000 people. As a result, 41,499 persons have been encouraged to take up the manufacture of cottage cheese. Over 580,000 pounds of this valuable food have been made by these people in the short time they have been at it. They will continue and their neighbors will take it up. Commercial clubs, women's clubs, state and county food administrators, etc., have been interested and have co-operated. Not only has the manufacturing end been demonstrated, but uses in cookery have been explained. At the same time, local advertising campaigns have been conducted.

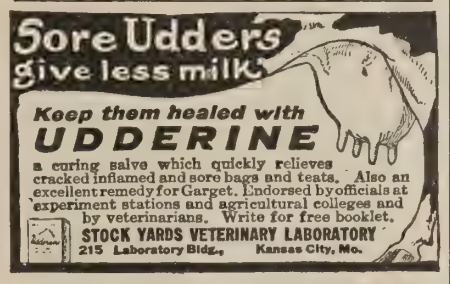
This work shows the possibilities of organized effort. American people do not begin to eat enough dairy products for their own good. Let's get together, produce the very best goods possible and then start such a well organized campaign of education that all may have the correct knowledge of milk value. Remember it took the farmers to fire "the shot heard round the world".

Securing a Stand of Clover

HOARD'S DAIRYMAN:—In the Dairyman for Aug. 23rd, you have a letter from City Farmer "How to Increase Clover". The answer you publish is good. I have found that manuring land to be planted to corn, keeping the field well cultivated, and cutting all weeds with the hoe is a good practice. The following spring, in March or early April, I disk the ground six or more times, lapping the disk one-half to keep the land level. After the last disking I take a plank drag and plank the field both ways until the land is leveled and entirely smooth. I drill in the seed with an alfalfa clover drill not over one-half or three-fourths inch deep. I drilled a little one inch deep but it did not come up as well as where drilled one-half inch deep.

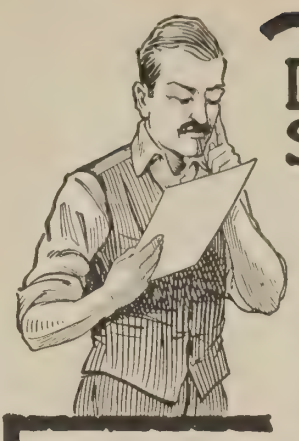
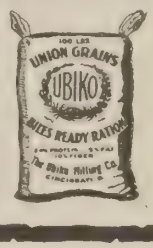
I have seeded both clover and alfalfa this way early in April with the best results. I bought the best alfalfa seed I could, drilled in from seven to ten pounds of seed per acre, and got a perfect stand with fine crops of hay. After land has raised a good crop of clover and the field is rotated it is generally easy to get a stand seeded in small grain.

Laclede, Mo. F. F. D.


Sore Udders give less milk
Keep them healed with
UDDERINE
a curing salve which quickly relieves cracked inflamed and sore bags and teats. Also an excellent remedy for Garget. Endorsed by officials at experiment stations and agricultural colleges and by veterinarians. Write for free booklet.
STOCK YARDS VETERINARY LABORATORY
215 Laboratory Bldg., Kansas City, Mo.

Don't Wear a Truss

Brooks' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads.
MR. G. E. BROOKS
Brooks' Rupture Appliance
Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.
Brooks Appliance Co., 467 State St., Marshall, Mich.


Does Your Record Sheet Puzzle You?
DAIRYMEN feeding a home mixed ration are often puzzled at the varying results they obtain from the same quantities of the same kind of grains. This is because even the best and most reliable concentrates vary considerably in actual chemical composition as well as from the guarantees under which they are sold.
To secure results which you can standardize and always depend upon, you must feed a ration that is always the same, such as
UNION GRAINS
Union Grains never varies. It is scientifically mixed so as always to contain the same proportions of protein, carbohydrates, and fat.
Union Grains is composed of Fourex Corn Distillers Dried Grains, Choice Cottonseed Meal, Old Process Linseed Meal, White Wheat Middlings, Winter Wheat Bran, Hominy Meal, Corn Germ Meal, Corn Gluten Feed, Brewers Dried Grains, Barley Malt Sprouts, one-half per cent of Fine Table Salt, *and nothing else*—no filler, no weed seeds, no trash. It bulks well, is palatable, and is easily digested.


The Food Administration wants you to order your winter supply of feed now while the railroads can handle the shipments. They allow you to order a four months' supply for shipment in sixty days. Union Grains will keep indefinitely. It contains only 8% moisture. At present the price is comparatively low. Place your order at once. Your dealer has Union Grains or can get it for you. Don't accept a substitute.
You can use a new record sheet. If you have never kept one, start now. Send for the record form we have prepared for dairymen's use.
THE UBIKO MILLING COMPANY, Dep H, Cincinnati, Ohio

ABORTION IN CATTLE

PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT, REGULAR BREEDERS BY
STERILOID
STOP LOSING CALVES
TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.
GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.
MARTIN REMEDY COMPANY, Dept. A, 398-408 Columbus Ave., New York City, Reference—Colonial Bank.

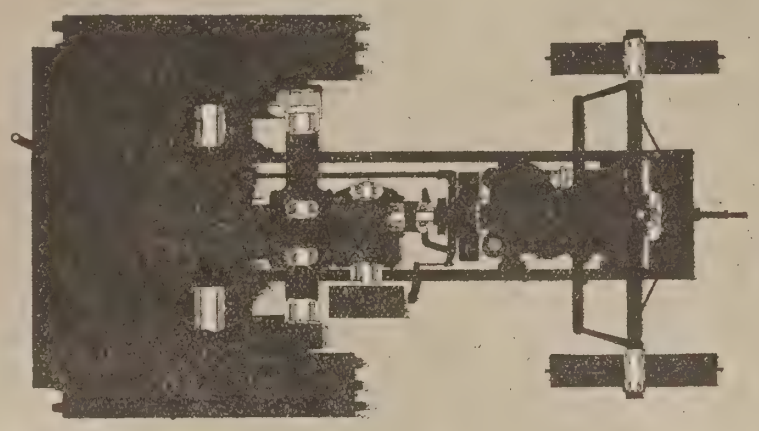


Summer Graining Pays Big Profits

DAIRYMEN are coming more and more to realize that feeding a good grain ration on grass is essential to making the most money out of the dairy business.
The feeding of grain with pasture is more than justified by the extra yield of milk which comes at the time the summer grain is being fed. It pays a nice margin of profit over and above what the grain costs.
BUFFALO CORN GLUTEN FEED
But the big results, the most important part of the profit, come after the cows have been taken off the grass and are in the barn for the heavy milking season, when milk prices are up.
Dairymen know from experience that they make out far better with their herd by feeding Buffalo Corn Gluten Feed now than they possibly could by not feeding it.
When cows have to fight flies and heat all day long, dusty tough grass stubble is more of an aggravation than anything else.
Men who feed Buffalo Corn Gluten Feed the whole year through are making more than a living out of the dairy business.
REFUND! Keep the branded Buffalo Corn Gluten Feed sacks together and take them to your dealer for refund.
Write us for sample and particulars
Chicago CORN PRODUCTS REFINING COMPANY New York

The LAUSON 15-25

DUST PROOF-ALL GEARS ENCLOSED



The Full Jewelled Tractor

Every one knows the value of the watch with the "Full Jewelled Movement"—it can be depended upon. In the LAUSON 15-25 we have followed the full jewelled idea by equipping it with 24 sets of Hyatt and Timken heavy duty Roller and Ball Bearings. These mean to the tractor what the jewels mean to the watch movement. They insure easy running, no friction, dependability, long life, power.

Combined with LAUSON dust-proof design—all gears enclosed and running in oil—and LAUSON rugged construction, the LAUSON owner has real tractor insurance for field or belt work, year after year.

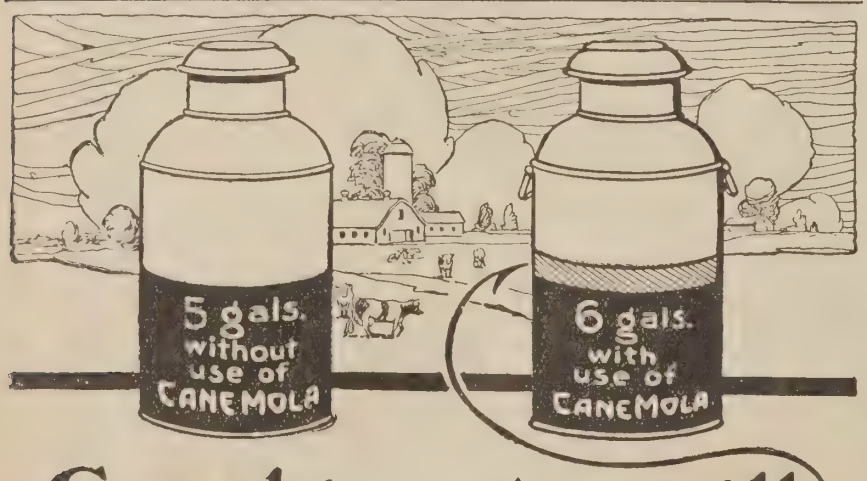
Full particulars about the LAUSON 15-25—the economical farm power unit for all farm work—will be sent on request. Our nearest Sales and Service Station will gladly arrange a demonstration on your farm.



Builders of Lauson Frost King Engines

For twenty-three years LAUSON Frost King Engines have been the standard of farm engine excellence— 1½ H. P. to 28 H. P.

THE JOHN LAUSON MFG. CO., 530 Main St., New Holstein, Wis.



Get this extra milk

at less feed cost

Cane Mola will increase the milk yield of the average herd about 15%. It is NOT a mixed feed, *not* beet molasses, but 100% Pure Sugar Cane Molasses—provides fat and energy at an economical feed cost. More than half its weight pure sugar—but sells for less than corn.

CANE MOLA

makes coarse feeds succulent, makes roughage palatable. Endorsed by Government Experiment Stations. Again, it conditions cattle and keeps them in the pink of health. Use it for cows, hogs and horses—mix with grain or forage. Sold in 600-lb. barrels. Decide now to get more milk from your cows at lower cost. Write us—today.

Pure Cane Molasses Corporation

69-A Wall Street New York City

Control of all Cheese

(Continued from page 223)

for the several kinds of cheese. No licensee can pay, and no commission merchant can accept, an unreasonable commission. The dealer for whom cheese is sold must inform the commission merchant of the maximum price for which such cheese may be sold.

It is the intention of the Food Administration that cheese be kept moving to the consumer in as direct a line as possible. Licensees have been placed in three classes and the direct line of distribution is from one class to the succeeding one. Manufacturers are in the first class. The second class includes assemblers, wholesalers, and jobbers, including all licensees who receive cheese from manufacturers and grade and assemble it for sale, or who distribute it in any way except at retail, and all manufacturers who perform the services customarily performed by an assembler, wholesaler, or jobber. Class three includes retailers, hotels, restaurants, and institutions.

Certain exceptions are made in permitting sales within a class, but any transactions that savor of dealing in which a profit comes to the dealer without corresponding service will result in the revocation of his license and such other penalty as the law provides.

Whenever more than one sale in the same class is made, the seller must notify the buyer of the prior sale. Such information must be given at the time of the transaction and should be placed by the seller upon the invoice in order that there shall be a permanent record.

Some varieties of cheese, among which are Camembert, Roquefort, Italian, and Greek varieties, that are made in this country are not mentioned in these rules. They are produced in very small amounts, some of them being in the experimental stage, and are not of sufficient importance on the market to warrant the placing them under special rules, but dealings in these cheese come under the general rules in regard to excess profits.—U. S. FOOD ADMINISTRATION.

Winter Rations for Dairy Heifers

In the Missouri Experiment Station Bulletin 151, C. H. Eckles and W. W. Sweet report that in an experiment which has been under way for four years and has involved 50 heifers, it has been found that heifers receiving a ration of silage and timothy hay will be maintained but will make very little gain in weight during the winter. Gains much above the normal may be had by feeding liberally with concentrates, but this greatly increases the expense of raising the animals. Where summer pasture is relatively cheap and grain high, the economical plan is to feed the animals a ration composed largely of roughage during the winter and to keep them in a moderate condition. Under this plan of feeding a large part of the growth is made from pasture, but the animal may be somewhat slower to mature. The most practical ration for Missouri conditions is silage and a legume hay for roughage, with a grain allowance of about 2 lbs. daily.

Unfavorable rations exert a much more pronounced effect upon the growth as represented by weight than upon the skeleton growth. Unless the rations are rather extreme in character the rate of skeleton growth is not affected appreciably.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

SILOS

At Half Price

Ware-house needed for pressing work. Am forced to close out my entire holdings of sixty-five silos of a well-known make which I will sell at pre-war prices. Silos all new and first-class. Advise size desired.

M. L. Smith, Manufacturer's Agent, 286 Chestnut St., Meadville, Pa.

It isn't too late to get a silo. We still have material for Saginaw silos and can make prompt deliveries. But our supply is going fast. If you want to be sure that your silo is up when the corn must be gathered, order today. Ask about the Liberty silo—New Saginaw construction.

The McClure Company

Saginaw, Mich. 15 Cairo, Ill.

Winner Opening Silo Roof



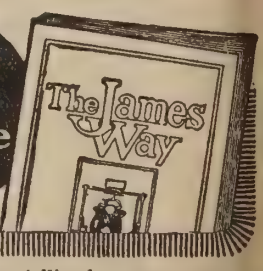
Fits any silo—wood, cement, tile, or iron. Makes silo filling convenient and easy. Increases your silo capacity eighteen to thirty-five tons. Easy to install. Write for prices and full particulars. **Agents wanted for this profitable line.**

Satisfaction Guaranteed.

SILO SPECIALTY MFG. CO.

185 19th St., Clinton, Iowa

Barn Plan Service



Write us telling how many cows you own and when you expect to build or remodel your barn and we'll send "The Jamesway," giving helpful Barn Plan Service and valuable information about

JAMES

Sanitary Barn EQUIPMENT

JAMES barns are money-makers. They are *standard*. Barns built and equipped the Jamesway are increasing profits for dairymen everywhere. Write to JAMES MFG. CO., C-K-23 Cane St., Ft. Atkinson, Wis. Elmira, N. Y.

TIRES ¼ LESS

There's a way to obtain high-grade tires at manufacturers' prices. Write and we'll tell you. Freshly made tires, every one

GUARANTEED 6000 MILES

(No seconds.) All sizes, non-skid or plain. Shipped prepaid on approval. This saving on guaranteed quality will open your eyes. State size tires used.

SERVICE AUTO EQUIPMENT CO.

964 Traders Bldg., Kansas City, Mo.



You Can Lay Your Finger On the Reasons

why milk flow and butter fat are increased by feeding your cows

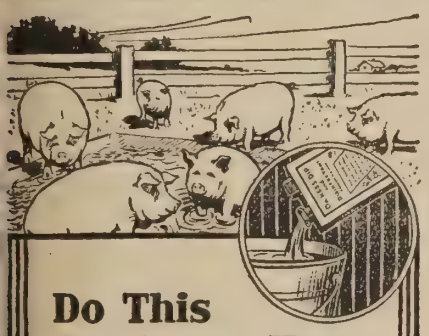
Ce-re-a-lia Sweets

The guaranteed analysis proves it a perfectly balanced ration. Good results are invariable because the ingredients are always the same. This is rarely the case in home-mixed feeds where one or another ingredient is not always available. Pure cane molasses provides wonderful palatability and digestibility—no waste.

Try Ce-re-a-lia Sweets Four Weeks At Our Risk. If it fails to "produce", feed will cost you nothing. Send a post-card request for particulars.

The Early & Daniel Co.
301 Carew Bldg, Cinn., O.

Another Nest Egg, The 4th Liberty Loan, Go Your Limit

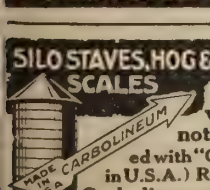


Do This For Your Hogs

Provide a wallow close to the feeding grounds to which add Dr. Hess Dip and Disinfectant. The **DIP** will kill the lice and cleanse the skin, and as the hogs pass back and forth from the wallow to the feed trough, the **DRIP** will destroy the disease germs and the worms that pollute the ground. That will mean a clean, healthy skin, freedom from lice, a safeguard against disease and larger, better porkers. Also sprinkle freely about poultry houses, pens and stables to destroy germs and avoid contagious diseases. An excellent disinfectant for the home.

Dr. HESS & CLARK
Ashland Ohio

DR. HESS DIP and DISINFECTANT



SILO STAVES, HOG & STABLE FLOORS, SCALES and all other woodwork on the farm will not Rot or Shrink if painted with "CARBOLINEUM" (Made in U.S.A.) Results guaranteed. Write Carbolineum Wood Preserving Co. Dept. 137 Milwaukee, Wis.

FOR MILKING MACHINES



Clean and Clean as Water

B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."

General Laboratories—Madison, Wis.
281 So. Dickinson St.

Get a 2-Man Silo Filler

Silver's "Ohio"

Fill Your Own Silo

Produce your own cheap feed this year—avoid buying feed at high prices. You can get Silver's famous "Ohio" in a variety of sizes, 4 horse-power up. 40 to 300 tons per day. "Silverized" Silage—cut even, packs air-tight—makes better feed.



Write for Free Catalog
The Silver Mfg. Co.
Box 303 Salem, O.
"Modern Silage Methods" 264 pages, 25 cents

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.

Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

Pleasant View Herd

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.

VISITORS WELCOME.

H. W. AYERS, HONEY CREEK, WIS.

JERSEYS

Lookout Farm Jerseys

A Rare Opportunity Is Offered

to secure a fine young bull carrying a large percentage of *Sophie's Tormentor* blood. Solid color; dropped May 9th, 1917.

SIRE. Raleigh's Lookout Torono, 136362, who has 37½% of the blood of Hood Farm Torono, and whose dam, grandam, and great grandam are all in the Register of Merit; and each of them has given over ten thousand pounds of milk in a year.

DAM. Laddie's Prize, 317532, a fine young Register of Merit cow, whose dam, grandam, and great grandam are also in Register of Merit. Price reasonable considering quality.

Henry S. Redfield, 1925 Seventh Ave., New York City.

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over

700 Pounds of Butter in One Year

These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of

1132 Pounds of Butter in One Year

If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.

ROYCROFT FARM, SIDNAW, MICH.

Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50 00, $75.00 and $100.00 each.

ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

MERIDALE JERSEYS

Several foundation herds of particular merit are available from the Meridale Herd this summer. They are fully described in a small leaflet, mailed on request.

AYER & McKINNEY
300 Chestnut Street, Philadelphia, Pa.

GRANDDAUGHTER OF NOBLE OF OAKLANDS



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

Jersey Bulls FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917

Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

READY FOR IMMEDIATE SERVICE

A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

The Blood and the Bull

You should head your herd with a grandson of

Gamboga Knight

His dam, granddaughter of Oxford You'll Do. She is faultless in conformation, solid golden fawn heifer giving 38 lbs. 5.4 milk as two-year-old on herd feed. This calf is right in every way, was dropped Mar. 26, 1918, will be solid dark golden fawn, has the production, size and type. He is an exceptional calf and one that you will be proud to own. First check for $150 gets him, with all papers, crated and loaded. Act now.
MEADSIDE FARMS, - Meadville, Pa.

FOR SALE

1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.

14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow.

Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio.

Fairview Farms, Inc.

Sophie's Tormentor Jerseys

"Production" Our Watchword.

FOR SALE Bull Calf No. 267, an extremely good individual and excellently bred; dropped June 23d, 1918; solid color with black tongue and switch.

SIRE: Lass 64th's Son 106612, whose dam, Lass 64th of Hood Farm 266735, made 962 lbs. 85 per cent butter in 1 year from 13,444.6 lbs. milk as a junior four-year-old. Grandson of Sophie 19th of Hood Farm, Hood Farm Torono and Hood Farm Pogis 9th.

DAM: Rose Bosnian 352727, in the R. O. M., Class AA—480.95 lbs. 85 per cent butter in 1 year from 6,156.3 lbs. milk, at 2 years of age.

Price delivered in U. S. A. $150.
R. L. Pike, General Mgr., Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

SWINE

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

Big Type Poland China Boars

of noted breeding now ready to be shipped. All of March farrow. Cholera immune and guaranteed to please. I have culled them out very closely therefore have nothing but the best to offer. Sired by such noted boars as Big Ben H., Model Mastodon, Orphans Big Joe, Mow's Chief and others. Buy from a herd that has built its reputation and where you take no chances either on cholera or getting "stung" on a pig for I stand back of everything I say and sell. Write at once and mention this paper.
F. A. MOREHOUSE, LANCASTER, WISCONSIN.

RED POLLED

VALPARAISO University Farm

Few choice yearling Red Polled Bulls sired by Jean Du Luth Bonny Boy, he out of J. D. Beauty. Write for description and prices.

Duroc Jersey boar pigs. Few left, $50 each. Ship on approval. Pedigrees furnished.

Valparaiso University Farm, Wanatah, Ind.
Virgil Mood, Manager.

Our August and September RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—

Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.

JEAN DU LUTH FARM NO. 2, Nickerson, Minn.

GUERNSEYS

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** **MINN.**

TWENTY Guernsey — TWENTY IMPORTED GUERNSEY HEIFERS

Will be offered at a SPECIAL PRICE if taken in lots of eight or ten head.

These heifers were recently imported, are very high class individuals and of the best Island breeding.

They range in age from 11 to 30 months, about three-quarters of the number are bred, balance open.

It is getting more and more difficult to import Guernseys and it will pay anyone to investigate this offering if they wish to add a few imported heifers to their present herd.

Frank S. Peer OSCEOLA FARMS Cranford, N. J.

Pinehurst Guernseys Produce

with *farm care*. *70 A. R. records* average *465 lbs. fat*. The former home of *Glenwood Boy of Haddon, 4605*, where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat*. His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat*. Present herd bulls, *a line bred Glenwood*, and *a line bred May Rose*.

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

GUERNSEYS A. R. RECORD COWS for SALE

Others of special breeding. Send for list of cows and heifers. **ROY C. BUZZELL, Stanley, Wis.**

Harbor Hill Guernseys

We Bred and Developed
The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

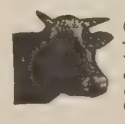
Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.

Louis McL. Merryman, Cockeysville, Md.

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, Perry, Ohio.**

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daught
Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of t
Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows wi
records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSI**

HERD SIRE

2½ YEARS OLD

Well Bred, Fine Type, Gentle, Vigorous.

Sire: Golden Noble of Craigamoor 29215 a royally bred May Rose-Golden Noble bull.

Dam: An imported daughter of Alderney II that made 568.04 lbs. fat with first calf.

He is getting us some fine heifers but one of the owners is going to war and we must reduce our herd. Price $400 for immediate sale.

We also offer several bull calves for sale.

Franklin Land & Timber Co., Janesville, Wis.
A. P. Lovejoy, Pres. H. S. Lovejoy, Sec'y.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. **Roy Burton, Eagle, Wis.**

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. **His Dam** is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. **The Bull** himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York,

KOSHKONONG PLAC GUERNSEYS

Herd Bull: Jury of Koshkonong Pla
Sire: Jewel of Koshkonong Place A.
Dam: Blossom of Koshkonong Pla
714 lbs. fat.

Seven Bulls six to fifteen months o
Satisfaction guaranteed with every sa
A. R. HOARD, Fort Atkinson, W

TILDEN FARM GUERNSEYS

For Sale:—Several large, well marked pu
bred heifers of May Rose and Governor of t
Chene breeding. These are excellent individu
out of high producing A. R. stock, and pric
to sell. We are also offering a few pure-br
bulls ready for service, and several grade co
and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mg
Delavan, Wisconsin.

SARNIA

Imported and Home Bred Guernsey
300 Head Imported

in 1917 are all sold. Several good cows for sa
Also young bulls from high class A. R. cow
Place your order early for bred heifers fr
1918 importations. Send for sale lists.
Charles L. Hill & Son, Rosendale, W

BIRCHWOOD GUERNSEYS

We are offering some well bred and nice
marked young bulls nearly ready for service o
of A. R. dams and sired by good bulls. Also
few heifer calves. Eighty head in herd. He
on the State Accredited list. Send for sale li
M L. WELLES, - ROSENDALE, WI

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Ne*
Jay 4th from two to seven months of age,
from A. R. cows or on test. They are
choice individuals, sired by the highest pric
bull of the breed.
W. G. Jamison & Sons, Appleton, Wi

Young Guernsey Bull

Of Good Producing Ancestry

with advance registry records. Good, stron
individuals of the celebrated *Yeksa Breedin*
Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wi

EDGEMOOR FARM

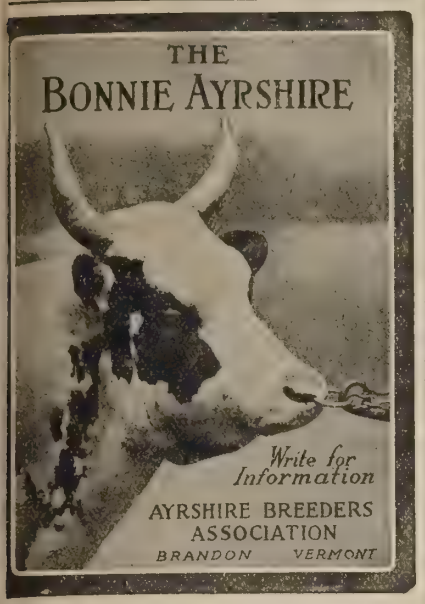
Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chen and Glenwood Bull Calve

Also a few heifers bred to Edgemoor Herd Bull
Stock guaranteed sound.

AYRSHIRES

THE
BONNIE AYRSHIRE



Write for Information
AYRSHIRE BREEDERS ASSOCIATION
BRANDON VERMONT

Willowmoor Ayrshires!

World's records. 300 head. Write for circular.
W. W. CLISE, Redmond, Wash. (Near Seattle)

World's Champion Ayrshires

HOW CALF—Bull, born July 5th, 1918, white with red markings. Sire:—Deubler's Favorite, 5669, great breeding, son of Kate's Good Git, and Auchenbrain Favorite Beauty 8th. Dam:—Imported Auchenbrain Ada 8th, a very handsome young cow with almost perfect udder and large teats, now on A. R. test and averaged over 50 lbs. daily for first month. Price, $100 for quick sale. **Penshurst Farm, Narberth, Pa.**

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Van Etta's Ayrshires

10 HEIFERS FOR SALE

I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. **Jas. Van Etta, Lima Center, Wis.**

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Crestmont Farm AYRSHIRES

Few Choice Bull Calves

BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
W. H. DRUCKEMILLER, Prop., 31 N. 4th St., Sunbury, Penna.



ALTA CREST FARM AYRSHIRES

CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

HOLSTEINS

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*
Address The Purebred Live Stock Sales Company.



A Pure-bred
HOLSTEIN
for your
HERD SIRE

Leave out of consideration the greater direct cash return and Holsteins are still the best investment you can make. Great strength and constitutional vigor make the typical Holstein long-lived, free from disease and sure to produce healthy calves.

A thirteen-year-old Holstein owned by the Kansas Agricultural College, has recently finished a year's record of 15,773 pounds of milk and 513 pounds of butterfat.

This record indicates the dollars and cents value of Holstein vitality.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

Bloomingdale Herd
...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.
A. A. Courtelyou, Somerville, New Jersey.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.
Dam—Emblaggard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.
EMBLAGAARD DAIRY, Marquette, Michigan.

5 Holstein Bulls
Ready for Business
At ½ Real Value

They are from world record sire and A. R. O. dams. We are selling farm.
LONG BEACH FARM, AUGUSTA, MICH.

The Traverse Herd

This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27 18 in 7 and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices, but *hurry* for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.
Traverse City State Hospital, Traverse City, Michigan.

The Pontiac Herd
"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*
Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.
GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

A Rare Chance
To secure a few choice
Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

HOLSTEIN BULLS

6 mos. to 1 yr. Segis Pontiac breeding. A. R. O. dams and grandams; 30, 40 and 50-lb. blood. $65 to $100. Three choice heifers up to 5 mos. old. $400 for the three.
H. J. KARPINSKI, R 7, Oswego, N. Y.

Registered Holsteins For Sale

9 Granddaughters of Spring Farm King Pontiac 6th, from A. R. O. Dams. Up to 20 lbs. 6 to 13 months old.....*From $100 to $150*
5 Extra good Granddaughters of King of the Pontiacs, from 9 to 14 months old.....*$800 for all*
1 Daughter of Spring Farm King Pontiac 6th. Four months old....*$150*
3 Two-year-old Granddaughters of Spring Farm King Pontiac 6th .....*From $150 to $200*
1 Extra Fine 3-year-old son of King of the Pontiacs; 27-lb. Dam; 29-lb. Grandam *$800*
1 Son of Aristocrat Pontiac, from a 22.50-lb. 2-year-old.....*$400*

GEO. S. BIGELOW, BREEDSVILLE, MICHIGAN.

GREAT SOUTH-WEST HOLSTEIN SALE

Don't fail to attend the great sale of 75 head of Pure-bred Holsteins, mostly 1 to 3-year-olds, nearly all bred to top-notch sires, at

JOPLIN, MO., WED., SEPTEMBER 18th

This is a sale of QUALITY females and 3 extra good males, and there are many strong features in the catalog. Sale is by
PHELPS STOCK FARM, AURORA, MISSOURI

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.
We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.
This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

The Greatest Bull on Earth
SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby.
Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.
MAXWELL FARMS, WATERLOO, IOWA.

HOME FARM HOLSTEIN FRIESIANS

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.
W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.
L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.
50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.
35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

Lakeside Herd
Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.
IOWANA FARMS, Davenport, Iowa.

Large Yearly Records
No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write
Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG
Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Springdale Farms
Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

FIRST WINONA COUNTY Dairy Breeders' Sale

ST. CHARLES, MINNESOTA
OCTOBER 2d and 3d

HOLSTEINS
Wednesday, October 2d

THIRTY PURE-BREDS
INCLUDING

KAYEWOOD GERALDINE KORNDYKE 20266, one of the seven 20-lb. daughters of Colonel Douglass Korndyke, sire of 21 A. R. O. daughters. Her dam made 16.3 lbs. butter in 7 days.

DAISY JOHANNA PRIDE DEKOL, 325586, whose sire carries 75% of the blood of Johanna De Colantha Champion, sire of 26 A. R. O. daughters, eight of them making two-year-old records above 600 lbs. butter.

8 YOUNG DAUGHTERS OF KING KORNDYKE PONTIAC VEEMAN 2D, whose eleven nearest dams average 27.47 lbs. butter and 601 lbs. milk in seven days.

SIR INKA DEKOL BEETS 139444, a 28.7-lb. son of Hengerveld DeKol Beets, the sire of Johanna Hengerveld Beets, 33.19 lbs. butter in 7 days. Also three of his daughters from A. R. O. dams.

Other pure-bred cows and heifers from A. R. O. dams.

A number of young bulls of splendid breeding.

GUERNSEYS
Thursday, October 3d

FIFTEEN PURE-BREDS
INCLUDING

BEULAH OF CLOVER LAWN 81050, with average A. R. record of dam and sire's dam 540.24 lbs. B. F.

BRIGHT EYES OF CLOVER LAWN 81048, and her full sister *TOPSY OF CLOVER LAWN 52239*, with average A. R. record of dam and sire's dam 524.80 lbs. B. F.

GLENDETTE'S QUEEN OF CLOVER LAWN 51732 and her full sister, *MINNA OF CLOVER LAWN 73588*, with average A. R. record of dam and sire's dam 468.9 lbs. B. F.

SPOTSWOOD'S BUTTERCUP 33569, with A. R. record of 8,983 lbs. milk containing 484 lbs. B. F.

All except one of the *CLOVER LAWN* female offerings are bred to Glorianna's King Masher 27645, a winning son of King Masher 11084 A. R. whose seven best daughters average 623 lbs. B. F.

Five beautiful young bulls of fine breeding and serviceable age.

55 GRADE HOLSTEIN COWS and HEIFERS
AND
40 GRADE GUERNSEY COWS and HEIFERS

From the Largest and Best High Grade Dairy Herds in Winona County

CATALOG OFF PRESS SEPTEMBER 10th

Apply FARM BUREAU OFFICE, Lewiston, Minnesota

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

Carload High Grade Holstein Cows and Heifers

Due to freshen this winter. Heavy milkers. Bred to a 30-lb. Pontiac Bull. Need the room for Pure-breds, and am closing out all grades. Will price them right.

PAYNESVILLE STOCK FARM, Paynesville, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖
Born May 1917 Black and White ❖
3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.
Sale Catalogs Printed — Live Stock Printing Co., La Grange, Illinois

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. L. Reamer, North Liberty, Indiana.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

3 BULLS — HOLSTEINS — 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Mankato Holstein Herd

Offers you this

WONDERFUL BARGAIN

BULL born February 9th, 1918. ¾ white. Large and straight—a beautiful show calf, from a 32-lb. sire and 20-lb. dam. 5 nearest dams average 25 lbs. butter in 7 days. Price $350. **Marlow and McCargar, Mankato, Minn.**

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

Foundation Trio For Sale

Bull born Oct. 1917, would make a show calf, mostly white. His sire is by a son of the famous Judge Hengerveld De Kol, whose daughters are showing up great in short and long time test. The two heifers born in Dec. and March last, dandy good individuals, mostly white and sired by De Kol Goudgeld Pietertje who is siring a wonderful lot of fine individuals. Priced for immediate acceptance $250.00 F. O. B. Muncie.

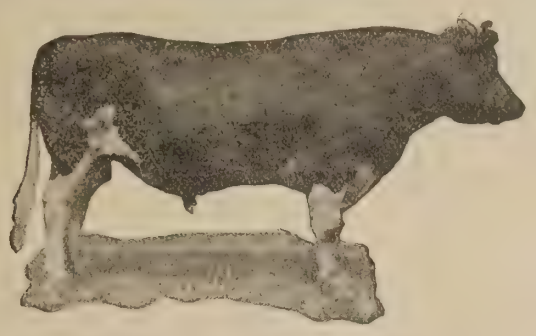
RAY MEEKER, - MUNCIE, INDIANA.

Absolute Dispersion

Prairiedale Farm Holstein Herd
75 - Registered Holsteins - 75

OCTOBER 3RD, 1918, DIXON, ILLINOIS

All females of milking age with A. R. O. records. All but one cow and the herd sire born on the farm.



MAPLECREST SIR DE KOL—Our present herd sire. A 31-lb. son of Friend Hengerveld De Kol Butter Boy (37 A. R. O. daughters, 5 above 30 lbs. His dam is herself a 31-lb. cow, a daughter of Pontiac Aaggie Korndyke, and from Daisy Grace De Kol 32.50 lbs. butter in 7 days, 1203 lbs. in one year.

Maplecrest Sir De Kol and 27 of his daughters will be sold.

39 cows bred to him—12 with records of 23 lbs. to 29.48 lbs. all but 3 made under full age. Also 30 of their daughters among them a 27-lb. 3-year-old, and her 4 daughters; a 28-lb. cow and her 2 daughters; a 27-lb. 4-year-old and her 2 daughters; a 26-lb. 4-year-old, four 24 and 23-lb. Jr. 3-year-olds and 4 first calf 2-year-olds with records of 20 lbs. to 22.46 lbs.

The milk of every cow has been weighed the year around since 1903. The herd has averaged 10,214 lbs. milk per year for past 4 years on twice a day milkings except while they were on A. R. O. short time tests. Send for catalogs to

Galt & Spencer, Prairiedale Farm, Dixon, Ill.

Do You Need a Young Bull?



Mutual Fobes Longfield DeKol, 82959

One of His Good Young Sons for Sale

Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters although a comparatively young sire. His sire is one of the good sons of Mooie Mutual DeKol. His dam, a daughter of Homestead Jr. DeKol (71 A. R. O. daughters), made 30.04 lbs. butter and 630.80 lbs. milk in 7 days as a Jr. 3-yr.-old. At the same age she made 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days.—(A world's record when made.)

The Dam Of This Young Bull is Monona Josephine with 31.77 lbs. butter and 616.2 lbs. milk in 7 days. She is a granddaughter of Homestead Hengerveld DeKol and Dutchland Sir Pontiac Rag Apple (29 A. R. O. daughters). The first of her daughters to be tested made 22.82 lbs. as a jr. 2-yr.-old in the month of June. Two of her sons are in service at the head of first class herds.

The Calf Himself was born March 11, '18. He's nearly half white and a good individual, one of the kind that will develop into a big, straight, rugged herd sire. Moreover, he's bred right. Notice the milk production on both sides of his pedigree.

We Have other young bulls for sale. Write today or come and see us.

MILFORD MEADOWS STOCK FARM, Lake Mills, Wis.



Ashburn Pietertje Hengerveld King

Who Wants This One at $150

A son of Sir Pietertje Ormsby Mercedes 43d 163834 whose dam, Aaggie Wayne Peep 131420, butter 7 days at 6 years 34.59, milk 657.20; butter 365 days 1250.35; milk 27,762.50. His dam at 25 months butter 16.35; milk 405.10; second dam 24. Born November 16th, 1917.

YOHN'S STOCK FARM, Watertown, Wis.

King Pontiac Champion

Leads All A. R. O. Sires

King Pontiac Champion, (81 A. R. O.) has the best balanced A. R. O. record of any living bull of the breed.

He does not depend upon a few sensational daughters for his prestige but upon the high average production of his get. His daughters excel in both long and short tests as well as in milk and butter.

Last year King Pontiac Champion led the 589 sires represented in the prize list by being represented 34 times, and in respect to 30-lb. daughters, did not even have a rival. The showing of his semi-official yearly daughters in both milk and butter also far surpasses that of any other sire.

Think of the 125 daughters of King now on the Pabst Stock Farm, 81 of which have already been credited with A. R. O. records, and the fact that King Pontiac Champion is now in his prime.

Is not this the kind of a sire to line up with when selecting a herd sire? Look over our list of young bulls—prices reasonable.

PABST STOCK FARM,
Oconomowoc, Wis.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

Holstein Bull Calves

One 27 lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

START

Or increase your herd of Holsteins while they are on the bargain counter. Send for our free price list of 100 head of choice females that will double and treble in value in the next few years over the prices we are asking. If you need a bull send for our bull list.

WOODLAWN FARM, Sterling, Illinois.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a 32d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.

ARLINGTON HEIGHTS, ILLINOIS.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

JOHN HETTS, FORT ATKINSON, WIS.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.

JOHN MURPHY, R. 27, Eagle, Wisconsin

. R. O. Holstein Cows and Heifers

order to make room in our barns we st sell a number of cows and heifers t are backed by large official milk l butter records. They are bred to SCONSIN STAR STOCK FARMS,

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to

ED. M. SCHULTZ, Hartford, Wis

A Few Good Ones For Sale

am offering yearling and bred two-year old registered heifers for sale. Daughters of King gis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good ghters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac ngerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for rself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show r,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is ked by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been ding for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

YSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

OLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall; dy for immediate shipment. Several bulls ready for service.

UERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

RCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

JROC JERSEYS Anything you want in Duroc Jersey Swine.

cattle sold on a 60-day retest guarantee. ite us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

OUNG BULL FOR SALE

am now offering an excellent young bull dropped ruary 27.

His Sire: A son of King Segis Pontiac Polkadot, has 100% the same breeding as K. S. P. Alcartra, from one of the good daughters of Korndyke yne Paul De Kol. **His Dam:** Rosa Queen Herbert Kol, a 22.5 lb. junior, 4-year-old. This calf is well wn and a remarkably fine individual.

few other bulls up to 11 months old, and several ales for sale. Every animal guaranteed.

ALSEY SEDGWICK, Limeridge, Wis.

HIGH GRADE HOLSTEIN

ves, either sex, from heavy producers, well rked, 4 to 6 weeks olds, 15-16ths pure. $25 h, crated and shipped to your station. Ex-ss and all charges paid here.

rhland View Place, - Whitewater, Wis.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

irview Stock Farm Holsteins

or Sale: 3 yearling heifers sired by Sir Korndyke gerveld Grouw, whose dam is a full sister to Piet-e Maid Ormsby. Also one bull ready for heavy ser-. Write your wants. **FAIRVIEW STOCK FARM,**
G. Marshall, Prop., Whitewater, Wis.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.



STOP Being Robbed Of Your Cream Profits!



INVESTIGATIONS covering six counties of a good dairy state prove that nearly 9 out of 10 dairy farmers are actually **throwing away $20.00 per cow each year!** They are letting out-of-date and inefficient cream separation methods actually steal away that amount of earned butter-fat profits per cow.

That's **one** of the reasons why some farmers are not getting rich!

This cream waste is something that Swedish dairy farmers would not permit. Their farming conditions have compelled them to cut out **all** cream waste. Their demand for **perfect** cream separation has produced the most efficient cream separator in the world— the ***Viking.***

Get All the Cream, Get More Profits By Using A

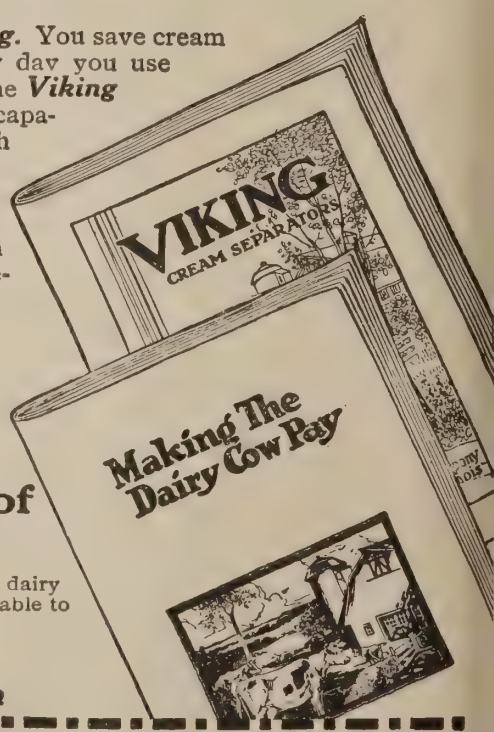
Over ONE MILLION In Use

VIKING CREAM SEPARATOR

Guaranteed For A Lifetime

LOWER IN PRICE—GREATER IN CAPACITY

You save money when you buy a ***Viking.*** You save cream and add to your butter-fat profits every day you use a ***Viking.*** Experts' tests prove that the ***Viking*** actually has 100 pounds of milk greater capacity **per hour** than many separators which cost much more than the ***Viking.*** Furthermore, the ***Viking*** is the closest skimming machine in existence. It is guaranteed to skim down to three one-hundredths of one per cent. In actual work it has often skimmed down to one one-hundredth of one per cent.



Made in the World's Largest Separator Factory

World-wide demand for ***Vikings*** has built up the largest separator factory in existence. 180,000 ***Vikings*** are sold every year. Each one is made of the finest quality Swedish iron and tool steel. Simplest separator made today. Easiest running; operation starts the minute you begin to move the handle. Whole bowl can be thoroughly cleansed in less than 3 minutes. See it at your local dealer's store.

These Two Free Books Will Open Your Eyes to Scores of Ways to Increase Your Dairy Profits

These two books are ***Free.*** We want you to have ***both*** of them. Read them. They show how the most successful dairy farmers are netting fat profits. Every page is packed with plans and methods and systems that have **proven** profitable to hundreds of American dairy herd owners. Just fill out the coupon—clip it off—and mail it to us tonight.

SWEDISH SEPARATOR COMPANY, Dept. N , 507 So. Wells St., Chicago, Illinois

Get Both of these Books FREE—Mail us your Name and Address on the Coupon

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SWEDISH SEPARATOR COMPANY, Dept. N , 507 South Wells Street, Chicago, Illinois

Send me your 2 FREE books at once

Name_____ R. R. No._____

Post Office_____ State_____ Name of my Dealer is_____

20 JUL 19
COLL OF AIR
URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., SEPTEMBER 20, 1918 — Number 9

When Aladdin Rubs His Lamp

HELEN S. K. WILLCOX, NEW YORK

UNTIL the income tax put in its unpopular appearance, an interested and credulous public was kept constantly and cleverly informed of the marvelous salaries paid the Mary Pickfords and Charley Chaplains of the screen. We were never allowed to forget for a moment that the kings and queens of the movies were paid $5,000 more or less a week for merely disporting themselves in front of the camera's eye—which news kept the "picture" fans in a constant state of envy and wonder as it was intended to do. It is human nature to be interested in successful and well known people or products.

We are decidedly interested in the screen favorites, not because they are paramount in their art, for there are many who could undoubtedly compare with or even excel them if given the opportunity, but because through the great methods of publicity we have gradually been influenced in their favor by the thought of the enormous amount of money they are supposed to earn and because their pictures, their daily doings, their public and private lives have been kept eternally before us for the one purpose of selling us themselves. When the mighty light of advertising is brought to bear upon an unknown or unpopular person or thing, that thing or person in due length of time is certain to be nationally known. That thing, if the campaign is entered upon as we are doing things today—to get the opposing forces conquered and won over in the shortest consistent time.

To be sure, it must be admitted that certified or graded or evaporated or condensed or "just milk" is no Mary Pickford or C. Chaplin. We have, rather, to be very thankful that our friend milk is something far more necessary, more real than the greatest film favorite that ever lived. Rome was not built in a day, but fame, name, market, and demand are almost created over night, as it were, by Aladdin, the Advertiser.

If you hand this modern wizard sufficient coin of the realm, he will in turn immediately rub his magic lamp and throughout America, or even the world if desired, the highways and hedges, the reading tables, the talk and gossip will announce simultaneously that Wrigley's Spearmint or Velvet are "the" ones to use in their respective classes—and like the good "follow or bust" folks that we are, everybody hustles to buy the new brand, or sing the new song, or see the new star—and somebody's fame and fortune is nicely made.

Then knowing these facts about the efficient power of advertising, why do we dairymen not get busy and hire some concern first in its line to press-agent our milk, cheese, and butter into the refrigerators and pantries of all America? We can at least talk it over here. In the first place, Aladdin the Advertiser does not perform his pleasant tricks for nothing. Oh, dear me, no! For taking our milk in hand, he would insist on a princely random to spend as freely as water. He would probably like and perhaps insist on $500,000 in which to send milk, cheese, and butter skating down the throats of the meanwhile perfectly indifferent consumer. Not but that milk and its allies are marketable enough at present, as you say, but absolutely not to be compared to what they might become if the public were taken in hand and told in highly approved advertising style to "go to them" in doubled quantity.

People who are content to stand still and make the best of an unpromising situation are not always admirable in their stand. This is a bit the place we find ourselves in today regarding the future of milk—we can take it for granted that the consumer knows best when she "gets along" with a pint of milk a day for two or a quart for six and buys "Troco" and "Just as Good" in place of butter, but it would seem rather foolish and short-sighted to allow a legitimate market to slowly decrease while we piously sit back with hands folded and murmur resignedly, "The Lord's will be done".

Such an attitude would never conquer Kaiser Bill and his minions, nor will it conquer several million housewives who have made up their minds that they may as well economize on milk and butter and put the saved pennies into the movie magnates' purse because he has told them consistently and well in the magazines, in the newspapers, in the trolleys, on the bill boards, that a penny saved is a penny gained by which to see Douglas Fairbanks or Theda Bara one more night in the week.

It has been repeated several times in history that advertising pays. The only thing or person which should beware of its clutches is he or it who cannot stand the searchlight of publicity. It would seem that milk could and should, but not spasmodically, not as an advertising rocket sent up now and then to fitfully sputter and then die out while no one's interest has been aroused enough to pay.

Supposing that it does cost half a million to make milk the successor of beer, (surely the time was never more opportune to spring nature's own food and drink in exchange)—what of it? What would a paltry half million a year amount to if rightly divided among those who would share in the future great gains—the million or two or three million dairymen themselves? Those dairymen would be few and far between who would refuse to contribute one dollar annually for the purpose of doubling or tripling a demand for their product. The very few ignorant or unarguable would never be missed for there are thousands of keen and ambitious men who would be glad of the chance to put in five, ten, or a thousand dollars for the cause because they would know what satisfying and wonderful results would ensue.

It would seem that this amount could be quickly and promptly collected at any time if the dairymen's own organizations everywhere took the matter in hand. The wonder is that we have failed to see the possibilities of regularly advertising our products for so long a time past. We would be dealing with no new forces or methods. Advertising in the American way is a tried and proven part of our every day lives and none of us can realize just how much we are led by it. Some people still think, perhaps, that advertising is merely spending money; but the money-makers, the doers, know that it is the surest way to make more and each one of them applies it in some form to their business.

There is no reason why America shouldn't be put right on the milk question and that right speedily. It is only fair that the producers of milk should also be its promoters. What we seem to lack is an organization or head to take charge and push us over the top. It would be too simple, too easy to win our public back again—and yet we linger and loiter while the substitute men are deciding that they needn't lie awake nights any more to beat us—we are already beaten.

Milk is a dry topic to dwell on alone, perhaps, but the clever advertising agency, if given rope enough, would persuade Mrs. Millionaire or Mrs. Bowery that she was hopelessly out of date and decidely un-American if she longer hesitated to demand it in superabundance.

This past year, our old friends, the Borden's Condensed Milk Company, has burst into print and prominence as never before. They must

(Continued on page 274)



BARN AND HOLSTEIN HERD OWNED BY W. F. PHELPS, MISSOURI

Hoard's Dairyman

W. D. HOARD & SONS CO., PUBLISHERS

W. D. HOARD, Editor

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H. H. LYON, - - - - - New York
WM. GOODRICH. - - - - - - Iowa

Subscription Rates

Subscription in United States and Mexico $1.00 per year; 6 months, 50 cents; 3 months, 25 cents. Canada, $1.50 per year.

FOREIGN SUBSCRIPTIONS may be sent through Wm. Dawson & Sons, Cannon House, Breams Building, London, S. C., Eng., or their agents, including the news dealers and book sellers in all foreign countries.

Subscription agents for New Zealand—Bray Bros., Agricultural Hall Building, Dunedin, New Zealand. Also—The New Zealand News Co., 150 Wakefield St., Wellington, N. Z.

Subscription agents for Australia—Australasian News Co., 226 Clarence St., Sydney, Aust.

All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Wilamette Valley Notes

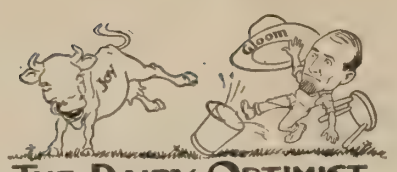
HOARD'S DAIRYMAN:—Old timers in the Wilamette Valley agree that the past season has been the driest one since the Civil War. A newcomer here would be alarmed at the crop prospects about the Fourth of July. Even some old residents when they saw that the hay crop was lighter than usual and the pastures were drying up earlier than commonly, sold off surplus young stock and then began letting some of their cows go to market. Rain came in time to help out corn and potatoes; winter grain got moisture enough from that stored up from the winter rains.

Feed and hay are both high. The largest hay dealer of this section, who is buying now and storing it, predicts a price of thirty-five dollars a ton next spring. Under these circumstances one can not blame some of the dairymen for selling their cows, but where they can get others to replace them later will be hard to tell.

The past season has shown the value of good cultivation. I have noticed some fields of spring grain that were put in as carefully as a garden and will give a splendid crop. And the same is true of the potato fields and the corn fields. It is quite probable that another year more fodder corn will be planted to help out the pastures and if there had been more silos it would have helped to save some herds that have been depleted.

Oregon. CLEON J. EMERY.

On account of the present emergency it is particularly important that good dairy bulls should be utilized to the fullest advantage, for more can be accomplished in increasing milk production and making it more economical in this way than in any other.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The Hour of Reckoning

I sometimes think it's very hard;
This fussing daily with the herd.
I look with growing disregard
Upon each optimistic word.
And then, on Saturdays, when I
Get out my little writin' pad
And figure up, I soon learn why
It's worth th' worry I have had.

The doctoring—the sleepless nights;
The raising of the endless crops.
The bugs and blunders and the blights!
The constant care that never stops.
But, once a week, book-keeping shows
That it is more than worth th' care.
That bank account—it grows and grows!
I guess I'm pilin' up my share.

Most all of us are prone to grunt
At tasks our life-work brings about.
Whatever is the chosen stunt,
We growl and grumble, cuss and doubt.
But, if we go about it right,
And have the proper sort of stock,
We win a battle for each fight,
And land as solid as a rock.

"Somebody has figured out," said Old Uncle Whitseed of Hilcrest Dairy, that it takes $1,458,041 worth of twine to tie up the year's wheat crop in Missouri. Gosh! they must be glad they don't have to use rope!

"What sort of folks live in that farm over there, little boy? Are they worth much?"

"Yes, sir, they come from pure Ayrshire an' Holstein stock, an' have fifty of 'em."

Observations of the Old Dairyman

"Lilacs and Florida water is all right but my favorite perfume is creosote, especially when my fence posts are startin' to decay."

"I've got a corn crib and granary that is full of 7,800 bushels of corn and 7,200 bushels of small grain. Makes me feel as if I was president of a bank every time I enter th' door."

"We have a Dairymen's Club in our section. When they start arguin' I wonder why they call 'em 'Get-Together' meetin's."

"And after we get through fighting th' Hun, I'm for startin' in on them fellers what is makin' these cheap, no-good butter substitutes."

Respect for His Herd

"Dairyman Higgins got in bad with his rich uncle from St. Louis, that visited him last week."

"How was that?"

"The old gent asked to look over the family album. Higgins handed it to him, and it was full of photygrafs of his prize cows."

His Redeeming Trait

The hired man, Jim, is mighty slow,
You have to jaw to make him go.
He gets up late and eats a lot.
And slacks at work when it is hot.
He's not a born man with a cow,
And, gee, he simply hates a plow.
But—I'll forgive th' chores not done.
He wants to see us whip th' Hun.

The hired man, Jim, would rather snooze
Or search th' village through fer booze.
He flirts with every country maid,
And churns in fancy duds arrayed.
He keeps our kitching working nights,
On chicken fried, this man delights.
But—all his vices seem as none—
He wants to see us whip th' Hun.

My dander up, I say to him:—
"Get busy, help at milkin', Jim."
But he takes twice as long as me
To milk a Holstein happily.
Th' silo job is not his style,
He'd rather sit than walk a mile.
But—bless his heart! He's got me won;
He wants to see us whip th' Hun.



72-page catalog mailed upon request

Eight Good Reasons Why You Should Buy a

DE LAVAL
CREAM SEPARATOR

GREATER CAPACITY: New capacities have been increased 10%, without increase of speed or effort required in operation.

SKIMS CLOSER: The improved bowl design, together with the patented milk distributor, gives greater skimming efficiency.

EASIER TO WASH: Simpler bowl construction and discs caulked only on the upper side make the bowl easier to wash.

EASIER TO TURN: The low speed of the De Laval bowl, the short crank, its unusually large capacity for the size and weight of the bowl, and its automatic oiling throughout, make it the easiest to turn and least tiring to the operator.

THE MAJORITY CHOICE: More De Lavals are sold every year than all other makes of separators combined. More than 2,325,000 are in daily use—thousands of them for 15 or 20 years.

TIME TESTED: The De Laval was the first cream separator. It has stood the test of time and maintained its original success and leadership for 40 years the world over.

EQUIPPED WITH SPEED INDICATOR: Every New De Laval is equipped with a Bell Speed-Indicator, the "Warning Signal" which insures proper speed, full capacity, thorough separation and uniform cream at all times.

SERVICE, WHEN YOU NEED IT: The world-wide De Laval organization, with agents and representatives ready to serve users in almost every locality where cows are milked, insures the buyer of a De Laval quick and efficient service whenever he needs it.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Co

165 Broadway, New York **29 E. Madison Street, Chicago**

Necessity of Dairying During the War

OSCAR ERF, Ohio

THERE is undoubtedly no food so essential to the development of mankind as milk. First, it is the only food which man can take from infancy and produce growth to maturity. Second, milk if taken in liberal quantities is the greatest disease resisting food found in the entire category of foods; and third, it is one of the most economical of all foods.

Increased crop production which is now of so much importance depends to a very great extent upon the dairy business. The dairy cow not only supplies food direct, such as milk and its products, but she furnishes a large amount of beef and is indirectly responsible for pork derived from skimmilk and for increased crops of wheat, corn, oats, and hay brought about indirectly by the use of manure from the cow.

It has therefore been our conscientious aim, and every effort has been exerted, to develop the dairy business and while there have been a great many obstacles to hinder the progress of this splendid industry, probably the greatest one has been the increase in price of all commodities entering into the cost of milk production without a proportional increase in the price paid for milk. At the present time the average dairyman is probably satisfied when he receives the cost of production.

Increasing Costs of Production

There have been cow testing associations in Ohio for the past nine years and for ten years figures have been kept on the cost of milk production. These figures have always been high in comparison with those repeatedly published and for that reason we have hesitated about giving them out, for fear they would be considered overestimated and so do more harm than good. But constant dissatisfaction on the part of milk producers caused us to search for a remedy for the situation. They were urged to keep better cows but gradually the various items that enter into the cost of milk production advanced so much that finally even the best cows proved to be quite unprofitable for milk production in the average herd. The only way by which the dairyman could figure a profit was to place an inflated value upon the manure and increased values upon the breeding operations.

We realized that there should be no decrease in production, especially after the beginning of the war, and that some method had to be devised by which the business could be placed on a sound financial basis, which would mean that from 70 to 80 per cent of the producers must find the business profitable.

During this time the consumption of milk was apparently decreasing; the margin of profit to the distributor was so small and the producer was suffering constant losses, so that there was no chance to advertise dairy products and inform the public of their value. Other food products were heavily advertised and in spite of the fact that the price of butter was low, oleomargarine was making terrific inroads in the butter business.

Organization Results

In Ohio an attempt was made to organize the distributors with the hope of preventing disastrous competition, arriving at uniform methods of payment, and finally protecting their own business by protecting the producer. The buttermakers likewise were organized but little could be done. Then an attempt was made to organize the producers that were supplying particular markets into larger groups. Already there were small local organizations in various parts of the state and the work of organizing was taken up with considerable enthusiasm. This soon resulted in certain demands upon the distributors, who for the first time felt that they were being dictated to and in some cases opposed the organization. But the distributor and manufacturer who could look into the future realized that if there was no increase in the price of milk his business would be virtually ruined in a short time, and that in order to make it a success there must be a small margin of profit both for the producer and the distributor with enough additional profit to permit advertising the product and stimulating consumption.

There are some conditions under which the business can never be made profitable and the public should not be expected to pay a price which will justify a profit in every dairy. It is a well recognized economic law that the price of milk should be regulated by the degree of consumption. When there is a shortage of milk the price should advance to the point which will meet the cost of production in even the most poorly managed dairies; while in the time of surplus the price would be so low that only the best of dairies would be receiving cost of production. This means that throughout the year an average of approximately 78% of the dairymen would be receiving production cost.

Two Viewpoints on Labor Values

Dairymen must be educated regarding labor values and the methods of estimating costs. A comparison of two men's ideas of the value of labor will give a clear conception of this point. In what was considered an extremely successful dairy center by reason of the fact that the dairies were large, the barns well built and spacious, the homes beautiful, and the farms in a high state of fertility, there was a small organization of dairymen. Mr. Knabenshue, the president of the association and the most progressive dairyman, was the leader of a discussion on the cost of production. After taking the association figures as to the quantity of feed fed and the amount of milk produced and adding to this the overhead, it was found that they were producing 100 pounds of 3.5 per cent milk at a cost of $2.72 and were selling it for $2.10. It was suggested that these figures conflicted with their claim that they were producing milk at a profit. Mr. Knabenshue explained it as follows:

"We folks live out here on these farms and the best way to amuse ourselves is to work. We have formed the habit of getting up at half-past four in the morning and as it is useless to go to the fields before seven, we utilize the early morning hours for productive work, instead of wasting them as most city people do. The same is true in the evening. We exercise in this way rather than to waste our energies in running after a golf ball. For this reason we figure this as clear gain and do not figure our labor at the regular price. Furthermore, this kind of work makes men and women of our boys and girls and teaches them to be industrious, frugal, and economical. A good, frugal man in the country can oftentimes accumulate money enough to buy a farm, when receiving one dollar per day, while many city men go broke on $10 per day. It is just a question of management. Furthermore, we feel that we are doing as much to help win the war by producing food in this manner as though we were buying large numbers of liberty bonds. Real, genuine patriotism can be shown in this way as much as in any other."

Contrast his statement with that of a man in the plumbing business—Mr. White, who is the leader of an organization of plumbers. Mr. White informs us that no man ought to work longer than eight hours per day; that he should have at least six hours for recreation, in order to make life worth while. Seventy cents per hour is a very reasonable wage and is necessary in order to keep a man's family in just comfortable circumstances.

There is a happy medium between these two extremes and to find this average is an important problem. Today, education is the biggest problem that is confronting the dairy leader and this process of education

(Continued on page 266)

Great Records and Persistency



SPERMFIELD OWL'S EVA, OWNED BY MERIDALE FARMS, NEW YORK

THE question as to whether a cow can retain her milking qualities after having made a great record is once more answered by a famous Jersey, Spermfield Owl's Eva. This cow has not only made one record worthy of note, but has made six records that stamp her as an animal of exceptional merit. Her performance closely rivals that of Sophie 19th of Hood Farm in total production, and both of these animals hold honor places to be occupied until at least such time as the practice of testing cows for "long distance" production becomes more general.

There is, at the present time, a shortage of records that demonstrate the staying power of great test cows and this quality is of utmost importance to the farmer who not only milks a cow for short tests, but who is forced to get his living from cows year after year. A few Jersey breeders have realized the opportunities that lie ahead for this breed when its persistency has been thoroughly impressed on the public mind. Their untiring work and unrelenting patience to wait a number of years for cumulative results has not only been profitable to them, but to the Jersey breed.

The close relationship in the records of Spermfield Owl's Eva and of Sophie 19th is all the more interesting because both of these animals represent entirely different lines of breeding and also because of the fact that both animals are of about the same age and still on the active service list.

Both cows were at the last National Dairy Show and "Eva" won second prize in the Register of Merit cow class. They finished their latest tests within a few months of each other and their trips on the show circuit did not impair their work, which speaks volumes for their vigor and constitution at a rather advanced age.

Spermfield Owl's Eva's Record			Sophie 19th's Record		
Milk Lbs.	Fat Lbs.	Age Yrs.	Milk Lbs.	Fat Lbs.	Age Yrs.
8,947.0	511.80	3	7,050.2	395.9	2
10,859.9	597.10	7	9,924.8	570.8	3
16,457.4	933.30	8	14,373.2	854.4	4
11,666.8	709.61	10	15,099.4	931.9	6
13,114.4	740.65	11	17,557.8	999.1	7
15,504.2	833.72	12	11,915.4	680.5	9
			15,948.2	847.8	11

Spermfield Owl's Eva, in her best year's work, made 993 pounds of fat. Sophie 19th, in her best year, made 999 pounds of fat. The latest test in each case is the second best record that either of these cows ever made. The six years' total for Eva is 76,549.7 pounds milk and 4,386.18 pounds fat, while Sophie 19th in her first six tests made 75,920.8 pounds milk and 4,432.6 pounds fat. Sophie 19th has made one more yearly record than her opponent, however. It is said that both cows are in remarkably good condition at the present time and fit for a still greater length of service.

Spermfield Owl's Eva cannot be classed as a sport, nor is her great productive ability or her fine type an accident. Her sire is the great Jersey bull Spermfield Owl, who has forty-nine daughters and six sons in the Register of Merit. She also has illustrious grandparents, one of them being Exile of St. Lambert, the sire of ninety-four tested daughters.

The owners of this great cow, Meridale Farms, New York, are to be congratulated upon the making of such a good record, inasmuch as such tests are the means of putting information before the public that is of pronounced value in determining the true worth of dairy stock.—A. L. Tichane, Extension Dept., A. J. C. C.

Minnesota State Fair

THE 1918 Minnesota State Fair fulfilled its mission and fully justified its being held at a time when the utmost is demanded of the farmer. His hours were well spent if he but takes to heart the suggestions and lessons which were offered in good numbers in an attractive, understandable way. The whole fair was a food production and conservation program. It was a "food fair" in fact.

One hundred and sixty thousand people entered the gates the opening day of this year's fair, held September 2 to 7. Succeeding days continued the precedent thus set of breaking previous records for attendance. The patronage serves well as a measure of the excellence of the exposition. Old-timers declared it to be unsurpassed in the fifty-nine which have been held, and followers of the western circuit gave it rank as "the greatest fair we have ever seen".

Twenty-six million, five hundred thousand acres of the Gopher State are in farms. Their total production gives her rank among the states as first in barley, second in wheat, third in oats, rye, and flax, tenth in corn, and first in butter. A census of her farm animals shows her to be an unusually "live" live stock state, 1917 showing an increase over 1916 of 140,000 cattle, including 26,000 dairy cows; 27,000 sheep; and 165,000 hogs —a total of 358,000. Predictions are that 1918 will show an equal increase over 1917. Her 1,300,000 dairy cows, scattered on 135,000 farms, supply the product of over 900 creameries, 646 of which are co-operative. In 1917 these dairy cows produced fat for 132,390,172 lbs. of butter, more than was manufactured in any other state, and in this "the bread and butter state of the Union" returned more wealth than the entire wheat output of the state, bringing to her caretakers about $100,000,000. These facts laid before those who leave their farms at this season enlighten and encourage them to continued effort. From statistics of what is already being done comes a vision of the unlimited possibilities for food production which further development will open up in Minnesota.

Signboards about the grounds directed the attention again and again to the text of the fair, "food conservation and production". An instructive exhibit by the State Food Administration graphically illustrated the importance of milk as food and of consuming increased quantities of it as a health insurance and as a substitute for scarce foods. The necessity of gathering seed corn early and of increasing cereal crops and potatoes was emphasized. In no way could the smallness of our food sacrifices, as compared with those of our allies, have been shown better than in an exhibit, "Let's divide", which presented life size figures representing the several allied nations and seated at a table with their typical amount of food before them. "Columbia's" share appeared liberal indeed —perhaps selfishly so. The kinds of meats needed for the army and navy were shown with those which may best be consumed at home, attractive sugarless pastry was exhibited, and concrete illustrations were made of the immense saving in food which may be accomplished when each saves a little.

The entire food conservation exhibit was practical and praiseworthy.

The Allied War Exposition showing many trophies was given much prominence. On Monday more than 15,000 paid their "two bits" each to see guns, shovels, machine guns, etc., brought from the battlefields of France. A United States government exhibit, given liberal space in the horticultural building, where there was not room for all those who desired to show products, was almost equally popular. Nine military aeroplanes flew three different days, a formation of six in flight proving a special attraction.

A butter statute of an American eagle in flight with its talons firmly fast in a butter figure of the Kaiser drew many an interesting comment from visitors to the dairy building.

The title, "Our Dove of Peace", seemed to fit the expressed sentiments admirably. The Dairy and Food Department presented with the "Dove" a well arranged assortment of foods with food values equivalent to that of a quart of milk. A goodly number of bottles of milk had been taken from the wagons delivering in the Twin Cities, scored, and placed on exhibit. Enough low scores were found to serve as a caution to the dairy farmers to improve the quality of their milk.

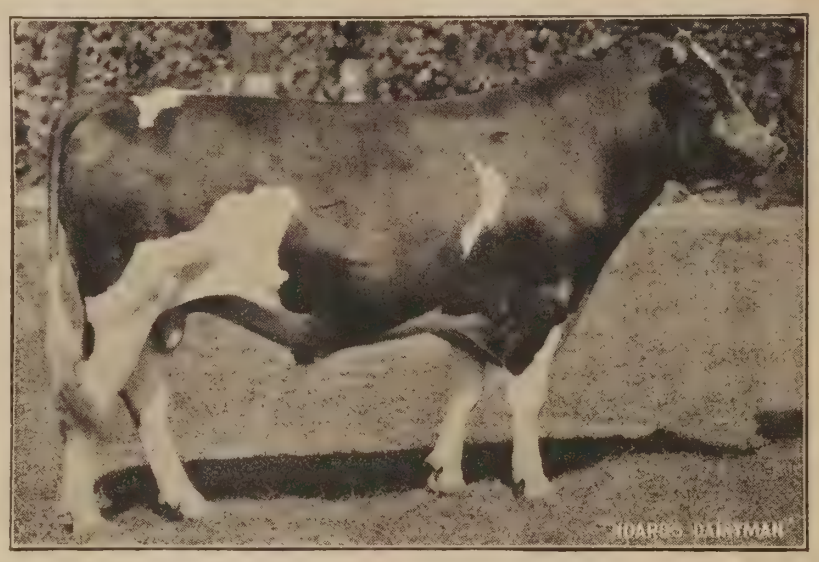
Two hundred fifteen entries of butter and 28 of cheese made up a good showing for dairy products. The quality was uniformly high. O. O. Vaughan won in the gathered cream class with a sample scoring 96.5 per cent. Leo Von Ark was awarded first on a sample of cheese with a score of 97 per cent.

In the Dairy Building also was an "Eat more milk" exhibit put up by the Minnesota Dairy Council. Enlargements of pictures of some of Dr. E. V. McCollum's laboratory animals were used to drive home the fact that milk has special nutritive qualities and that it contains absolute essentials to the health of young. A mounted figure of a cow was used in the exhibit booth with the inscription, "Foundation of the dairy industry". Considerable publicity was given to the high quality of the butter made by Minnesota's co-operative creameries, fifty of which are contracted to supply butter to the navy.



JUDGES OF DAIRY CATTLE AT THE MINNESOTA STATE FAIR

From left to right: J. L. Hope, New Jersey; H. C. Davis, Washington; L. S. Gillette, Iowa; W. A. McKerrow, Minnesota.



SIR PONTIAC OLLIE, GRAND CHAMPION HOLSTEIN BULL AT THE MINNESOTA STATE FAIR
Owned by J. D. Bacon, North Dakota



PELAGIE WAYNE RAG APPLE KING, GRAND CHAMPION HOLSTEIN FEMALE AT MINNESOTA STATE FAIR
Owned by V. S. Culver, Minnesota

Cattle Exhibit

Minnesota's dairy cattle exhibit was easily a leader over preceding 1918 fairs. It was unusual in including representations from but three of the breeds, Ayrshires and Brown Swiss failing to appear. The most pleasing feature of the showing was the exceptionally strong line-up of Guernseys. Frequenters of show rings for many years could not recall a state fair which has brought out as many of the fawn and white dairy cattle or an exhibit of as high average quality.

A characteristic of Minnesota exhibits which augurs well for the future of the state is the large number of small breeders who come out. Somewhat less than 300 cattle were shown this year by a total of 36 breeders. The strength of this fair lies in the many exhibitors who have been encouraged as beginners to fit a few animals from their small herds and bring them to the state fair for comparison with those of their neighbors.

A second movement which promises to become a strong feature is the county exhibit. There are now at least four counties which under normal conditions would compete in pleasant rivalry for the honor of bringing the largest exhibit to the fair. Breeders from Freeborn County made a noteworthy mark for their county by bringing 54 head of dairy cattle.

Holsteins

Exhibitors:—J. D. Bacon, North Dakota; Alfred Berglund, Egil Boeckmann, V. S. Culver, Mayowood Farms, Redwood Holstein Farm Co., F. S. Ruble & Sons, and A. F. Wendlandt, all of Minnesota.

Judge: H. C. Davis, Washington.

Among the nine Holstein exhibitors at the 1917 Minnesota fair was but one from another state, Brown Bros. of South Dakota. This year there were again eight Minnesota contendors but the lone venturer was "Jerry" Bacon of North Dakota. Each year the total number of animals shown approximated 100. This is the first year the Bacon herd has left its own state but the guess about the ringside was that it isn't the last. The animals were excellently fitted and shown and put up strong competition in every class they entered. They attached eleven seconds and but two firsts, but made one of the latter good for a senior and grand championship.

The scale of Johanna Ondine Grahamholm Lad, an aged bull weighing 2,600 lbs., gave him sufficient advantage over Bacon's son of King Segis Pontiac Count, King Watson Segis Star, a 3-year-old, to give him the lead among the aged sires. The Grahamholm bull lost in the championships to Sir Pontiac Ollie, a straight topped, deep, well conditioned two-year-old among the North Dakota entries. His finish, stronger chest, and width and levelness of rump were points to his advantage. He was later popular as grand champion over Grahamholm's senior yearling junior champion, Johanna Glenda Lad.

F. S. Ruble & Sons won in the aged cow class with Josephine Pietertje DeKol Galis which had dropped a calf the opening day of the fair. Her udder quality was hardly normal but her scale and depth gave her warrant to the blue. She had a cow of splendid quality and lines and a superior udder against her, Lilac Hedge Bismarck Colantha, from Bacon's herd. The latter, for a four-year-old, hardly had sufficient size to make the decision close, however. Boeckmann won

among the three- and two-year-olds with Aaltje Korndyke 2d and Jessie Tritomia DeKol 4th, respectively, the latter heifer having enough finish and advantage in lines to make her senior champion over the aged cow. V. S. Culver exhibited only 6 head but won two firsts, two seconds, a third, and junior and grand champion. His junior yearling heifer, Pelagie Wayne Rag Apple King, chosen by Judge Davis to lead all the females, was pronounced one of the best the judge has seen and was praised by him as being an animal practically "unbeatable".

The list of awards follows:

Bull 3 years or over—1, Mayowood Farms on Johanna Ondine Grahamholm Lad; 2, Bacon on King Watson Segis Star; 3, Wendlandt on Joe Oak DeKol Fobes. Bull 2 years, under 3—1, Bacon on Sir Pontiac Ollie; 2, Mayowood Farms on King Aaggie DeKol Grahamholm. Senior yearling—1 and 3, Mayowood on Johanna Glenda Lad and Mercedes Ondine Jewel; 2, Ruble on Nockdair King Segis Combination. Junior yearling—1, Mayowood on Ondine Cornucopia Posch; 2, Bacon on Lilac Hedge Sir Colantha; 3, Redwood on King Colantha Ormsby Boss. Senior bull calf—1, Berglund on Nockdair King; 2 and 5, Bacon on King Segis Star Aaggie and Colantha Zubrod Segis; 3, Mayowood on Ondine Colantha Hazeltine; 4, Ruble on Prince Colantha Ormsby Korndyke. Junior bull calf—1, Mayowood on Ondine Homestead Posie; 2, 4, and 5, Culver on Fair Oaks Sir Grace Homestead DeKol, Fair Oaks Sir Pauline H., and Fair Oaks Sir Grace Homestead; 3, Bacon on Lilac Hedge Pontiac Colantha.

Cow 4 years or over—1, Ruble on Josephine Pietertje DeKol Galis; 2, Bacon on Lilac Hedge Bismarck Colantha; 3, Boeckmann on Homeland Korndyke Segis; 4, Wendlandt on Victoria Perfecta DeKol; 5, Mayowood on Mayowood Fernwood DeKol. Cow 3 years, under 4—1, Boeckmann on Aaltje Korndyke 2d; 2, Bacon on Mercedes Pearl Elgin; 3 and 4, Mayowood on Barnes Colantha Pietertje and Pietertje Perfection Soo; 5, Berglund on Daisy Manor DeKol Beets. Cow 2 years, under 3—1, Boeckmann on Jessie Tritomia DeKol 4th; 2, Redwood on Redwood Ramona Monk Walker; 3, Berglund on Daisy Allerton DeKol; 4, Bacon on Aaggie Fay DeKol; 5, Mayowood on Ondine Inka DeKol. Senior yearling heifer—1 and 4, Mayowood on Johanna Tritomia Mercedes and Posie Homestead Ondine; 2, Bacon on Lilac Hedge Fay Colantha Bismarck; 3, Berglund on Daisy Manor Beets DeKol; 5, Redwood on Redwood Duchess Hettie Korndyke. Junior yearling heifer—1, Culver on Pelagie Wayne Rag Apple King; 2, Bacon on Lilac Hedge Korndyke; 3, Mayowood on Venus Ormsby Mercedes; 4, Ruble on Doris La Polka Boon; 5, Boeckmann on Queen Movie Segis. Senior heifer calf—1, Ruble on Florence Princess Baun; 2, Culver on Far Oaks Skylark Homestead; 3, Boeckmann on Laura Segis Ormsby 2d; 4 and 5, Mayowood on Glen Ondine Doede and Aaggie Pietertje Ondine. Junior heifer calf—1 and 3, Mayowood on Johanna Korndyke Ruth and Avanella Canary Ondine; 2, Bacon on Lilac Hedge Tekstra Homestead Prilly; 4, Berglund on Lady Jennie Champion DeKol; 5, Culver on Fair Oaks Miss Homestead Rue.

Graded Herd—1, Bacon; 2, Mayowood; 3, Wendlandt. Young Herd—1, Mayowood; 2, Bacon; 3, Ruble; 4, Redwood. Calf Herd—1, Mayowood; 2, Bacon; 3, Culver; 4, Ruble; 5, Redwood. Get of Sire—1, Culver; 2, Mayowood; 3, Bacon; 4, Ruble; 5, Berglund. Produce of Cow—1, Mayowood; 2, Bacon; 3, Redwood; 4, Ruble; 5, Berglund.

Senior and Grand Champion Bull—Sir Pontiac Ollie. Junior Champion Bull—Johanna Glenda Lad.

Senior Champion Cow—Jessie Tritomia DeKol 4th. Junior and Grand Champion Cow—Pelagie Wayne Rag Apple King.



FONTAINE'S GRAY LINNET, GRAND CHAMPION JERSEY FEMALE AT THE MINNESOTA STATE FAIR
OWNED BY C. C. WEBBER, MINNESOTA

Jerseys

Exhibitors: C. R. Brackett, H. L. Elliott, L. C. Elliott, Roger A. Fox, Norbert P. Grathwol, Walter J. Grathwol, J. W. Love, I. C. Schneider, Geo. T. Slade, C. C. Webber, C. C. Webber and Dixon, all from Minnesota, and W. H. Clark, Wisconsin.

Judge: L. S. Gillette, Iowa.

Twelve exhibitors, eleven from Minnesota, brought out 67 head of Jerseys. Not only did the breed fail to come up to the standard of its 1917 showing but it fell behind in numbers and quality, the exhibits made by the other two breeds represented. The large number of herds entered, mainly from the hands of beginners, was a commendatory feature. C. C. Webber brought Pride of L'Etacq, champion of Minnesota Jerseys by 50 lbs. fat, to exhibit in the barn but not in the ring. Her record is 12,252 lbs. milk containing 726.77 lbs. fat. Slade's Noble Prince Jolly was made

(Continued on page 276)



"STUB", A GRADE JERSEY WHICH MADE HER OWNER $108.26 IN A YEAR

"FUZZY", A GRADE JERSEY, PAID HER OWNER $.16 FOR A YEAR'S "KEEP"

NO. 16, A GRADE GUERNSEY WHICH HAS PRODUCED PROFITABLY YEAR AFTER YEAR

"Camouflage" and a 16-cent Cow

"CAN you afford to milk a cow and care for her through the year for sixteen cents?" That's the sum a Minnesota farmer profited from keeping "Fuzzy", a grade Jersey, the past year. Her product had a value of $57.89 and the feed she ate was worth $57.73. The owner had the difference, sixteen cents, for his trouble.

"Fuzzy's" herd mate, "Stub", looked very much like her and received the same treatment but she paid her owner $108.26 for feeding and caring for her. That made the case against "Fuzzy" pretty strong. She had no alibi, for the cow tester's figures couldn't well be disputed. Furthermore, "Stub" proved that the feed and management couldn't be blamed.

These two cows, with eight others, were brought to the Minnesota State Fair, September 2 to 7, that their records might warn other cow owners to look out for the "Fuzzy" in their own herds by keeping records, and to be equally vigilant in testing to discover the "Stubs" also, in order that they may be retained for continued production. The exhibit was made a prominent and valuable feature of the fair. If thousands of dairy farmers did not gain information directly profitable to their cow keeping, the fault does not lie with W. A. McKerrow and E. J. Haslerud who collected the facts from the records kept on Minnesota cows and placed the lessons where farmers might profit by the experiences of others.

"Camouflage", a cow which looked like something she proved not to be when the cow testing association records were known, was on exhibit. Her appearance indicated that her production would be liberal but the books denied that she is a profitable cow. For the association year, 1917-1918, she returned, over and above feed cost, only $3.01—less than one cent per day. Another cow of the same breeding, grade Holstein, of very much less promising appearance, returned for the same period, $116.35. She was labeled, "Better than she looks". No one could fail to be persuaded that the test is the only safe means of judging productive capacity.

"Hawkins" and "Charity" were back again this year to repeat the good service they gave in 1917, one to show what a cow ought to be, and one to illustrate very plainly what a cow should not be. Purchased at 12 years for $40, "Hawkins", a grade Jersey, has ever since proved her former owner unwise in the sale. At 17 years of age she is still a money-maker and is milking well even though her last freshening was in the fall of 1916. But "Charity" has no such record. Why her owner has kept her the past year, no one explained. She is a cross bred Holstein-Jersey and very well represents the qualities neither breed wants. She made 79.8 lbs. of fat in a year and had only $31.50 to pay for her "board and room" for the year. She used most of it herself, leaving too little as profit to encourage any farmer contemplating crossing the two breeds, to get offspring with the large milk flow of the Holstein and the high test of the Jersey, to carry out his plan.

Charts were exhibited to show larger results from the various associations of Minnesota, which, incidentally, has 22, the second highest of the middle western states.

In two herds in the Winona County Association, liberal feeding gave one member $87.72 profit per cow per year more than was secured by a neighbor who stinted his herd on grain. The first fed during the year feed valued at $61.49 per cow and reaped a return above feed cost of $161.75. His neighbor cut his cows down so that their feed cost only $46.91. He made a substantial temporary saving but his cows "conserved" also and only gave him a product worth $74.03 more than expense for feed.

In the same association the 10 poorest cows were compared with the 10 best. There was an average difference of 343.66 lbs. fat between the two lots; the 10 best had an average feed cost of $37.38 higher but also returned $182.02 each more than the 10 poor cows.

Figures were given to show that following the suggestions of the tester in making up the dairy ration in one month increased the average milk and fat production in one herd 101 and 4.43 lbs. respectively, the profit over feed cost being increased $1.68 per cow. A report from the Dover Co-operative Creamery was given which showed that though but 12 per cent of its patrons are members of a cow testing association this 12 per cent receives 36 per cent of the money paid patrons. Their cows average to return $14.19 per month, while herds outside the association average $5.95. The buttermaker credits the increase in the creamery's output, from 243,000 lbs. in 1914 to 330,000 lbs. in 1917, to the influence of the association. In one year the cows in the Dover Association raised their average production 1,605 lbs. milk and 60.7 lbs. fat and their return over feed cost, $20.27.

Checking an average of 130 farm separators per month, Minnesota testers found one-third of them leaving more than .03 per cent of fat in the skimmilk. Fifty-two per cent of imperfect skimmings were found to be the result of too slow turning; 11 per cent, of worn discs; 5 per cent, of poor foundations; and 5 per cent, of wobbling bowls.



Babcock Milk Tester Complete $12.00

Any Cow Owner Can Make Accurate Milk Tests With the Efficient and Simple Crepaco Babcock Milk Tester

There is nothing intricate about it—operated by hand. There is a size for every dairy, from the 2 bottle tester to the large size with 24 bottle capacity.

This tester is noiseless in operation, the high speed being attained without unnecessary friction, by means of a spur and worm gear with cut teeth. The full instructions which are supplied with each machine tell you how to make accurate milk tests.

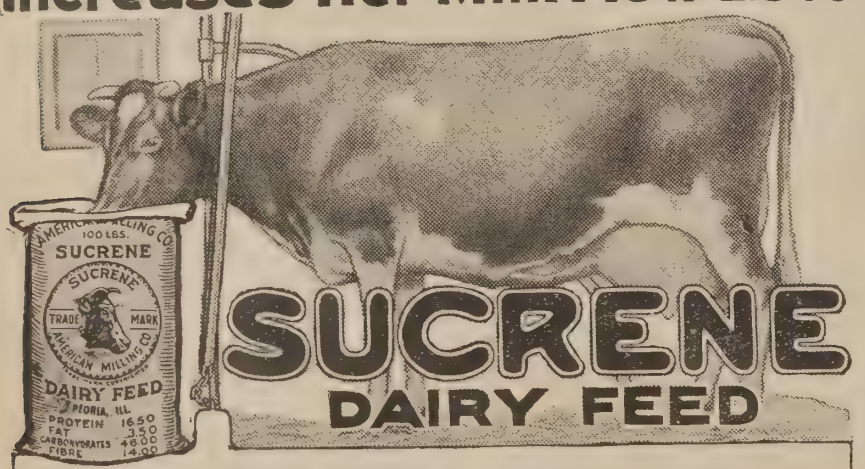
Crepaco Babcock Tester complete with glassware as illustrated above—six bottle capacity costs only $12.00.

We have Babcock Testers as small as the 2 bottle size costing $4.25 complete with glassware.

Our big Dairy Catalog describes fully, all size Milk Testers and other appliances of value to the dairyman. Write for it TODAY.

THE CREAMERY PACKAGE MANUFACTURING CO.
68 W. Kinzie Street, Chicago, Illinois

The Poorest Milker You Own Increases Her Milk Flow 25%



SUCRENE DAIRY FEED

It Pays to Feed Your Cows a Complete, Correctly Balanced, Quality Guaranteed Ration

When a good milk cow is fed a full ration she turns half her feed into milk; when fed three-fourths of a ration she turns one-third her feed into milk; when fed half a ration she needs all her feed for body maintenance.

Sucrene Fed Cows Always Give More Milk Because They Are Properly Nourished

Sucrene Dairy Feed is a scientifically correct body maintaining and milk making ration. Its 16½% protein, 4½% fat and carbohydrates, and necessary ash and mineral matter, meet all the needs of the cow, every day, when fed only with the usual roughage. Composed of cottonseed meal, corn feed meal, corn distillers' dried grains and solubles, palm kernel meal, finely ground and bolted grain screenings, clipped oat by-product, calcium carbonate ½ per cent, salt ½ per cent.

Your cows will prefer Sucrene to any other feed because it is sweet smelling, appetizing, easily digestible, and because of its great variety of high grade feeding materials. Sucrene Feed is a complete ration as you buy it. You have no mixing to do—we have done that for you in the most perfect manner possible — merely vary the quantity in accordance with the cow's milk-producing capacity. Every sack guaranteed uniform high quality.

Reduce Cost of Milk Production

Sucrene Dairy Feed brings you more milk per dollar of feed money than any ordinary ration. It leaves your high priced grain to bring you a quick, direct profit in the market. It is an all year profit maker, keeps your cows in better producing condition summer and winter.

Order a ton from your dealer. If he can not supply you at once, write us and we will see that you are supplied. The coupon or a post card brngs you free Illustrated Literature on care and feeding of farm animals. Write for it.

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- ☐ Sucrene Dairy Feed
- ☐ Sucrene Calf Meal
- ☐ Sucrene Hog Meal
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My Dealer's Name.....
P. O..... *State*.....
My Name.....
P. O..... *State*.....

Price Fixing and Cost of Farm Products

(Continued from page 86)

When the point of view in farm cost accounting is shifted from specific costs to comparison of profits, the whole problem is much simplified. In the attempt to secure specific costs, accounts had to be kept in minute detail comprehending every activity and economic relation of the farm. As soon as one shifts to the point of view of comparing the profits of competing enterprises, no record need be kept unless the farmer really has a choice and then only such records as are essential to answering the question, Does this pay better than that? For example, the farmer in Southern Wisconsin has a choice between growing oats and barley. In order to make a wise choice on this point it is not necessary to know the specific cost of growing either oats or barley. All that is necessary is to know differences in cost and differences in the value of the crops. In this case the same tools, machinery, horses, and men are used at essentially the same time of year whether the farmer grows the one crop or the other. These common items of cost may be omitted for they cancel each other in the calculation. When put in this form the question is so simple that almost any farmer can figure it out on the basis of such facts as are easily available by keeping a production record and by studying price quotations.

The milk producer has a number of ways of disposing of his product. He may sell whole milk to a city, or a condensery. He may take his milk to a cheese factory and carry home the whey or he may separate the cream and sell it for city use or to a butter factory. If the milk is marketed through the cheese factory, hog production is introduced as a supplementary industry using the whey. If he sells cream, calf raising and pork production may be combined with dairying as a means of using the skimmilk. All of these different types of dairying can be based upon the corn, oats, hay, cropping system. The combination a given farmer should choose depends upon which pays best under his particular conditions of production and marketing.

The dairy farmer has, of course, other alternatives. He can change from dairying to beef and pork production, based upon the same field crops. Again, he can abandon cattle and hogs entirely, grow grain to sell and raise horses as a side-line to use up much of the unsalable roughage, but in figuring the merits of this last system, influence upon fertility and production of grain per acre should not be ignored. He has the further alternative of trying his fortune in the city, and this horn of the dilemma has frequently been the choice.

With all these opportunities before him, the farmers are slow to shift from one thing to another in normal times because, for a given community, the question of what pays best becomes fairly well settled. Near the cities, whole milk of high quality is produced under sanitary conditions of a higher standard than in other dairy regions. Outside of the milk zone there are scattering cream shippers selected mainly with respect to the characters of the farmers participating. These are intermingled with the farmers producing for the creameries and cheese factories. The city milk zone becomes more or less well defined with the boundary line moving out a little farther in winter and contracting in summer, with a gradual expansion of the milk zone about a growing city.

But in abnormal times when radical changes are taking place in the prices of all these competing lines of production, farmers with their eyes upon the market become uneasy and unsettled in their convictions as to what to produce. The fact that the producer of city milk is getting more than he ever got before is not a sufficient consolation if he might be making more profits selling grain, hogs, and butterfat, in spite of the fact that he has gone to greater expense to equip his farm for meeting the requirements of the city ordinances. It is this unsettled condition which has given rise to the recent efforts to regulate prices.

In deciding upon a fair price to the farmer on the part of a commission the alternative choices of the farmer become the basis for a rational decision. The industry should be made attractive to the farmer if he is expected to remain in it. But what is essential to make a given system of farming attractive? Must it pay some definite labor income to each farmer engaged in it? Apparently not, for as a matter of fact men are remaining in each type of farming who are making small incomes while others are making very large incomes.

Whether or not a man should continue to carry on a given type of farming depends upon his opportunities in other lines of farming or other lines than farming. If there is no better outlook, if he is doing better than he could do any place else, he will probably continue to produce the supply for the price he can get and look to methods of reducing costs as a means of increasing profits. If there is an alternative which will pay him much better, which should he do, ask that his price be lifted to the point where his present activities will pay as well as the alternative or quietly choose the better paying activity? The answer is not as obvious as it might at first appear. Shifting is often expensive and there is usually hope that conditions will change and the old line will again pay better. It often takes a generation to build up a type of farming, and when the system becomes unprofitable a serious loss is suffered before readjustment can be made. Yet, where permanent changes in market conditions have come about, changes in farming are necessary. Where readjustments should be made it is believed that public expenditures to aid in the readjustment, especially by means of educational campaigns, may often be more desirable than price lifting as a means of making the industry profitable.

Here is work for price commissioners well trained in agricultural economics, who will ascertain the true cause of price changes, make a study of the conditions of production, and advise the farmers in making readjustments in their farm management or in standing by their old lines of production as the case may warrant. In this work the price commissioner should not forget that the well-being of the farmer is just as important as that of the consumer, and that in the long run prices should be such as will make farm work and country life attractive.

In carrying out this policy, price lifting may at times prove desirable. This is most likely to happen in the case of articles like milk for which the price is more or less influenced by custom and which is often sold at the same price for long periods and which for this reason does not adjust itself quickly enough in times of radical changes in the general price level; but wherever isolated farmers in great numbers are acting individually in selling their produce to great corporations, need may often arise for price regulation by public authority to maintain the public interest.

In deciding upon prices, both the farmer and the price commissioner should keep the long-time as well as the immediate effect in mind. It takes

decades to build up the dairy industry in a community. Equipments require time for construction. Years are required to build up good herds, and decades are required to train a whole community in the fine art of producing high class milk. When such a community is diverted from dairying to another line of production, the farmers suffer a great loss while making the change and while adjusting themselves to new lines of production, after which they may again prosper. But if the farmers are needed to produce the supply of milk essential to the welfare of the people of the city, the loss of skilled dairymen will result in a heavy loss to the consumers, who will have to pay higher prices for milk, and probably find it necessary to lower their standards with respect to quality in order to get the necessary supply.

Hence it is the long-time averages which must be considered. The records of one year may indicate that the profits would have been greater had the farmer been in another line of production, similar to that practiced outside of the city milk belt. In contemplating these figures, the farmer should look for the unusual conditions which have made this true. If the conditions are temporary he should hold fast to his present line and recall the years when his profits were much the greater because he was in the dairy business.

If, however, it becomes apparent that permanent changes in market conditions have taken place which account for the change in profits, a move should be initiated to bring about a readjustment of the farming to suit the new market conditions; possibly some dairymen should change to other lines of production. But this is not a matter for hasty action, especially in the case of the dairy industry where public welfare is at stake and where a change has far reaching effects through a series of years.

Changes which the farmer may make in grain production or hog production may be quickly readjusted, but not so with milk production. One's ill-feelings towards other people should not enter his decision. One should not get angry and sell his herd of cows. Cold reason should form the basis of judgment. It is easy to disperse a good dairy herd but it takes years to rebuild it. A much safer plan is to cut down a little on the number of cows by cutting out the least profitable ones and plan to sell some grain or hogs in addition to milk rather than to make a radical change in type of farming.

If the profits of milk production are temporarily low on a large share of the farms in a given city milk belt, due to short crops of grain and hay, which for this reason must be shipped in at heavy cost, the farmer should not only look to the long-time average, and to the maintenance of his market, but he should recognize the occasion of his loss, namely, the short crop, and he should lay this loss to the land or to the way he has handled his land and not ask that the consumer should pay the rent on the land which did not produce the feed and also pay for the purchased feed.

The farmer should not be too insistent upon the consumer's price varying exactly with his costs from season to season and from year to year. Custom is a big item in determining what people will eat. So long as prices are the same the customer is not likely to change, but every time the consumer's price changes, consumption customs are shaken; and the more violent the change the more likely the custom is to be upset. It is not only the industry, then, but the market which may be damaged by impassioned actions in times like these.

Just as it is by comparing profits that the farmer makes choice of types of farming, so it is by comparing prices in the market that the consumer makes choice. If it is done in the right way, the price of one commodity may be raised as rapidly as that of its substitute. So long as relative prices are the same the choices may be expected to be the same. If, however, much publicity of an antagonistic sort accompanies the change in the price of one article while the change in another is accompanied by shrewd advertising which wins the sympathy of the consumer, there may be a falling off in the demand of the former and an increase in the consumption of the latter.

In connection with the Chicago milk hearings the idea of comparing the profitableness of the different types of dairying was suggested, with especial reference to ratios between milk prices and butter prices, but apparently the commissioners did not see anything they thought usable in the suggestion. So far as has been noted, relative prices to consumers were not considered as a basis of price-fixing.

The farmers took the lead in the first instance, and were set upon having a price based upon specific costs. It was a very natural thing, therefore, when the commissioners despaired of ascertaining specific costs, for them to turn to a ratio between the price of feeds and the price of milk as a basis of price regulation. This resulted in the acceptance of what has been known as the Pearson formula.

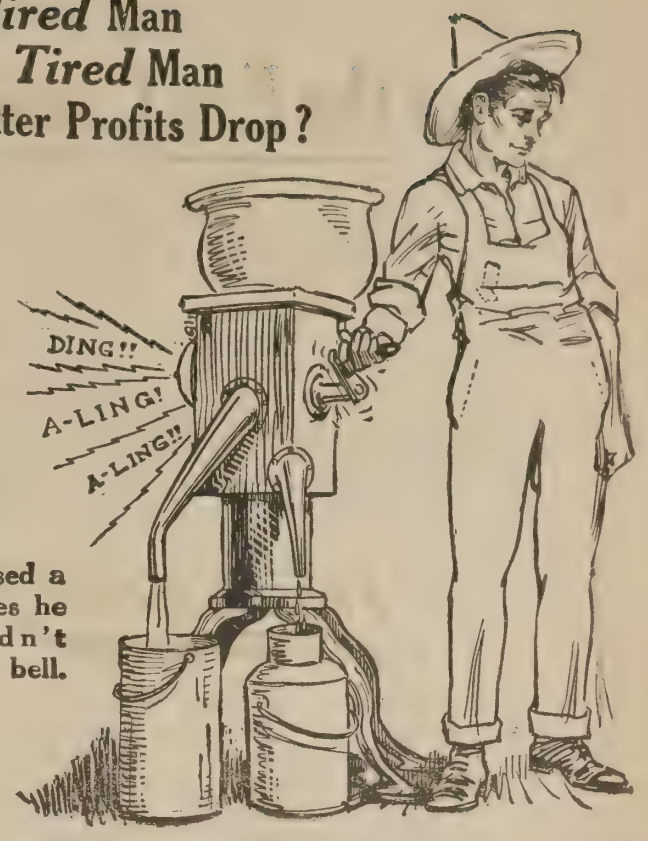
One weakness of the Pearson formula arises out of the fact that the price of milk is the major factor in determining the prices of many of the articles of cow feed. The price of bran, prepared dairy feeds, or clover hay, are determined largely by the price of milk. For example, a high price of milk stimulates milk production, which stimulates the demand for feed, resulting in an increased feed price, which, according to the formula, provides for a still higher milk price. Thus started on its upward course nothing would stop the upward trend of prices excepting the lack of buyers for the milk at the ever rising price. So far as has been learned, the commission has not arranged to take all the milk which is offered at the price. On the other hand, suppose the price ratio is narrow, resulting in a milk price too low for profit. How would this affect the producers? The farmers would lose money and would produce less milk. The demand for dairy feed would fall off, and the price of feeds would fall. This, according to the Pearson formula, would call for a lowering of the price of milk which would further depress milk production and the price of feeds, and in turn the price of milk, even though the demand for milk might justify a higher price. Thus it is that the Pearson formula possesses elements of danger and will in all probability fail to serve the purpose intended.

The commission has yet the problem of price-fixing to solve. It is believed that after the excitement of the present conflict is past the commissioners will turn to a careful study of the amount and character of the milk demanded at various prices and the character and amount of milk which can be secured at these prices, and will adjust the milk price on the basis of maintaining an equilibrium between demand and supply through a long period. In doing this they will need to take into account the substitutes to which the consumer may turn, as well as profits in other types of farming to which the milk producer may later change if the milk price is fixed too low compared with other prices.

The much talked of law of supply

(Continued on page 266)

When the *Hired* Man Becomes the *Tired* Man Do Your Butter Profits Drop?



If he used a Sharples he wouldn't need a bell.

HE can't see the butterfat he loses in the skim milk when turning a fixed-feed separator under speed!

But it's there, sure enough, and it's represented in the lesser size of the dairy check, too.

The ring of a bell may temporarily speed him up like a spur to a jaded horse.

But it's human nature to relax when tired.

Why not have a separator *always in tune* with the *feelings* of the one who works it?

Why not have a separator that will skim clean at low speed, high speed, middle speed.

That has *clean-skim built into it!* In a word, the Sharples.

SHARPLES
SUCTION-FEED CREAM SEPARATOR

will skim clean at any speed. Tests prove conclusively that 95 per cent of all separators are turned under-speed much of the time and that's when you begin to lose cream with any separator but a Sharples. It's the wonderful Sharples Suction-feed that absolutely prevents cream loss due to turning under-speed. The Sharples bowl is a plain steel tube —no discs—therefore, easiest to clean. Write to the nearest office for catalog, addressing Dept. 10.

The Sharples Separator Company, West Chester, Pa.

Sharples Milkers—used on half a million cows daily.

Branches: Chicago San Francisco Toronto

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What the Eye Cannot See

Bacteria may get into milk from the stable air, but by far the greater number come from unclean and unsterilized utensils.—Farmers' Bulletin 976, U. S. Dept. of Agriculture.

Without doubt, clean utensils are the first essential in the production of milk, but when every dairyman is more or less particular in having his utensils washed the question arises as to what causes utensils to become unclean.

Rather than believe that unclean utensils are the effect of imperfect washing methods, is it not better to study the results where a special dairy cleaning material is used.

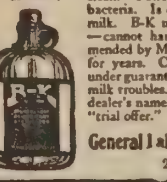
Just how thorough these results are you will readily appreciate, for the clean, sweet, wholesome, sanitary cleanliness which the use of

Wyandotte Dairyman's Cleaner and Cleanser

so easily produces is from every standpoint most unusual.

You will also observe how this cleaner protects the milk quality, and how it creates a cleanliness which gives off no odor, whether of soap or otherwise, and still further how it leaves the utensils cleaned positively free from every particle of foreign matter even beyond what the eye is able to see.

Indian in Circle



in Every Package

Why not prove this to your own satisfaction, and order this cleaner from your regular supply house. It Cleans Clean.

The J. B. Ford Co., Sole Mnfrs.,

Wyandotte, Mich.

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Applied to the Most Vital Industry—Dairying

Dairy Cattle Congress

AND INDUSTRIAL EXPOSITION

World's Greatest Cattle

Since the first show nine years ago the Dairy Cattle Congress has been the meeting place of the best herds from the North, East, South and West. Here the champions of the champions are selected. Ayrshire and Brown Swiss days Sept. 30th and Oct. 1st; Holstein days, Oct. 1st and 2nd; Jersey days Oct. 2nd and 3rd; Guernsey days Oct. 3rd and 4th.

Mammoth Educational Display

Every foot of space in the exhibition buildings and on the grounds will be occupied by practical labor-saving devices and essentials for the modern farm. Every day's program will be filled with comprehensive demonstrations, contests, and lectures of intererest to the experienced as well as the beginner.

SEPTEMBER 30—OCT. 6

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B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."

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has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load



We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.

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The "STAY THERE" Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalog and prices mailed free. Ask for them. Address Wilcox & Harvey Mfg. Co., 568 W. Randolph St., Chicago, Ill.

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Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.

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Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
N. Y.	Carroll	A. W. Kelly	July	289	32	69.9	H. W. Ploss
"	Chenango Valley	R. J. McEneny	"	756	24	73.5	Otto Ives
"	No. Chenango	R. H. Taylor	"	443	35	61.9	Ralph Simmons
"	Texas Valley	H. Chamberlin	"	486	1	44.4	Ezra Carter
"	Bovina	J. R. Colegrove	"	634	8	47.9	C. J. Russell
"	Delhi	A. E. Monroe	"	691	4	49.8	J. E. Kilpatrick
"	Franklin	A. C. Hazard	"	532	5	45.7	W. R. Dimond
"	East Branch V	E. D. Daley	"	580	3	43.4	W. R. Potts
"	Erie County	Baker, Ass't. Co. Agt.	"	220	7	42.8	Frank Ruhlen
"	Malone	J. Wheeler	"	591	4	46.3	J. F. Fallon
"	Mohawk Valley	R. Quackenbush	"	356	19	77.8	G. H. Gros
"	Oswego County	W. S. Peck	"	493	8	56.3	R. S. Sponenberg
"	Otsego No. 1	W. M. Harrison	"	465	11	51.5	Lyman Harrison
"	West Exeter	M. H. Carr	"	516	16	48.7	M. E. Armstrong
"	Lawyersville	C. J. Kinaman	"	438	44	57.6	D. R. Shaver
"	Cohocton	G. M. Colegrove	"	445	6	54.3	O. F. Binburg
"	J. H. Ball	J. H. Ball	"	444	16	68.5	Knapp & Ames
"	Hartford	R. E. Sherman	"	391	20	58.1	Wm. Norton
Ill.	First Lake Co.	W. R. Remely	Aug.	382	4	43.0	W. A. Brewerton
"	Lake Co. No. 2	R. Williams	"	415	20	71.8	Rouse Bros.
Ia.	Cerro-Gordo	R. J. Hill	"	278	7	49.1	C. Booth
Minn.	Pioneer	H. C. McMurray	"	800	28	60.3	A. Berglund
N. J.	Middlesex—Somerset	J. G. K. Duer	"	446	13	52.1	H. W. Kline
Wash.	Stillaquamish	H. W. Quimby	"	480	47	56.6	E. Eitzenberger
Wis.	Rice & Cedar Lake	A. Arnold	July	360	25	54.2	J. Thoni
"	Wood Co. No. 1	W. Anderson	Aug.		11	50.5	C. H. Imig

Association Notes

First Lake County, Illinois: In August market milk sold in this community for $2.75 per hundred pounds. The average test required was 3.5 per cent and for each point above, 4c were paid. The condensery paid $2.75 flat for milk and the creamery paid 47c per pound for fat. Prevailing prices of feed are: Pasture, $1 per month; silage, $6; clover hay, $28; alfalfa, $30; oil meal, $60; cottonseed meal, $64; gluten feed, $51; ground oats, $42; bran, $42; Red Horn, $65; and Grain Gold, $57.

Lake County, No. 2, Illinois: In August market milk sold in this community for $2.75 per hundred pounds, the average test required being 3.5 per cent.

Cerro Gordo Progressive, Iowa: Two separators were discarded; the skimmilk from one testing .08 and the other .2 per cent. Cows turned on clover pasture increased in milk, whereas others decreased. All herds but two now are headed by pure-bred bulls. Arrangements have been made for buying a carload of cottonseed meal. In August market milk sold for $3.00 per hundred pounds. The average test required was 3.4 per cent and for each point above 5c were paid. The creamery paid 52c per pound for fat. Milk retails for 12c per quart and butter for 50c per pound. Local prices of feed are: Common pasture, $2 per month; clover pasture, $3; silage, $8 per ton; green cornstalks, $5 per ton.

Pioneer, Minnesota: Local prices of feed are: Silage, $4; hay, $8 to $12; pasture, $1 to $2; bran, $31; oats, $37; and barley, $34.

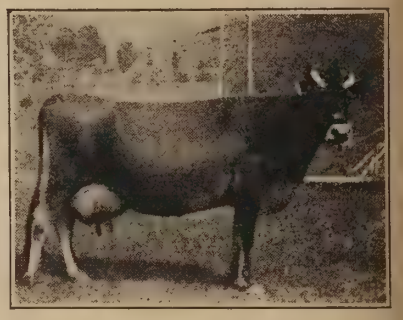
Middlesex-Somerset, New Jersey: In August market milk sold for $2.70 per hundred pounds. The average test required was 3 per cent and for every point above, 4c were paid. Milk retails for 12c to 16c per quart and butter for 50c to 70c per pound. The local prices of feed are: Corn silage, $7.50 to $8; hay, $25 to $30; Larro Feed, $64; corn, $65; oats, $50; bran, $50; cottonseed meal, $70; oil meal, $65; Schumacher Feed, $60 to $65; dried brewers grain, $60 to $65; gluten feed, $60 to $65; Unicorn, $65.

Stillaquamish, Washington: Weather conditions favorable for good pasture have had a tendency to bring down the high price of hay. War conditions will have a marked effect on the amount of concentrates available for feed. There will be a slight shortage of milk production during the winter but a review of all conditions tends to show a hopeful outlook. During August the 480 cows under test produced an average of 655.8 lbs. of milk containing 27.2 lbs. fat.

Rice and Cedar Lake, Wisconsin: In July the creamery paid 49c per pound for fat and the cheese factory 55c, with butter retailing for 47c per pound and cheese for 24c per pound.

Wood County, No. 1, Wisconsin: The August report does not contain as many 30- and 40-pound cows as did the two previous months. This is due to the extremely hot weather and flies, and in many cases the lack of sufficient pasturage has caused a decrease. It is hoped that September will bring up a better record, as the late rains and cooler weather may revive the pastures. Several of our members siloed their timothy hay this summer and several are intending to silo their millet crops this fall. Corn in general is very promising at the present and another three weeks or so without frost will see a bumper corn crop, even though it was not planted until late in June. This surely is encouraging to us all.

Washington County, Oregon: Four



A VERMONT CHAMPION

Golden Oxford Brownie, a pure-bred Jersey owned by Quechee Fells Farm, has lead Vermont cow testing associations for the past three months. In May she produced 1,504 lbs. milk containing 82.7 lbs. fat; in June, 1,440 lbs. milk containing 90.7 lbs. fat; and in July, 1,314 lbs. milk containing 84.1 lbs. fat.

As a seven-year-old Brownie has a yearly cow testing association record of 6,873 lbs. milk containing 367.9 lbs. fat. She also has the following Register of Merit yearly records:

	Milk Lbs.	Fat Lbs.
1 year, 11 months	5,440	290.1
3 years, 1 month	6,663	306.6
6 years	8,117	499.8

cows were sold for beef. Two silos are being built. Condensery raised test on one member's milk 1 per cent, due to recommendation of tester.

Coos Bay, Oregon: Two new silos built. One new barn is being constructed. One man will arrange to flood his pasture if dry weather continues.

Smith & Umpqua, Oregon: Two separators were found to be doing poor work. Five silos were constructed this month and one manufactured silo bought. Several members of the association are planning to buy a pure-bred bull this fall.

Johnstown, Colorado: In the year's work recently completed, there were 214 cows having a full record. These cows averaged 6,300 lbs. milk containing 250 lbs fat. Nineteen cows produced over 365 lbs. fat; the record cow making 469 lbs. Five herds were sold owing to high prices of feed and labor. Forty-five unprofitable cows were sold during the year. Nine pure-bred bulls and 11 pure-bred cows were purchased.

Arkansas Valley, Colorado: There were 414 cows that completed a year's work in the association, averaging 6,109 lbs. milk containing 216 lbs. fat. Seven cows produced over 300 lbs. fat; the record cow making 12,588 lbs. milk containing 386.9 lbs. fat. Sixty-five unprofitable cows were sold to the butcher. Seven pure-bred bulls and 27 pure-bred cows and heifers were purchased.

Boulder, Colorado: The 84 cows completing a year's record averaged 6,617 lbs. milk containing 295 lbs. fat. There were 15 cows that produced over 365 lbs. fat and 18 over 300 lbs. The record cow for fat made 504.7 lbs., while the cow having the highest milk production made 14,116 lbs. milk containing 482.7 lbs. fat. Three herds were sold because of the high price of feed and labor. Twenty-six unprofitable cows were sold. Three pure-bred bulls and ten pure-bred cows and heifers were purchased.

Cohocton Valley, New York: The association has now completed its first month and is running nicely. At the present time there are twenty-five members. Judging from the results of the July work the association should do much toward improving the dairies of Steuben County. In July milk sold at shipping stations for $2.13 per 100 pounds plus 4c per point above 3 per cent. Milk retails in local urban districts for 9c per quart, butter for 45c per pound, and cheese for 32c per pound. Local feed prices are hay, $15; grain (balanced ration), $60.

Oswego County, New York: July completed the first full year for our association. Twenty dairies completed the full year. In those twenty dairies completing yearly records, 415 cows commenced the year's work. During the year 10 cows have died, 34 were sold on account of age or for special reasons, and 38 have been sold because they were not profitable. Since the balancing of the completed yearly records, 5 cows have been sold because of low returns over feed costs and in one or two cases an actual loss was shown. There are 16 more low producers on sale at the present time.

The members who are deriving the most value from testing are those who are selling all their low producers and replacing them by better ones. But if all did this where would those better cows come from? A few herds may replace their losses by purchasing good cows but mainly the losses are made good by heifers. Here is where the value of a good sire comes in and those members who have raised heifers from a good sire are now in a position to replace their poor cows with better ones. In July milk sold at shipping stations for $2.14 per 100 weight plus 4c per point above 3 per cent. Milk retails in local urban districts at 12c per quart, butter for 49c per pound, and cheese for 32c per pound. Hay is selling at $18 and a balanced ration costs approximately $60.

Canfield, Ohio: May, a grade Jersey owned by Randall Anderson, made 510 lbs. of butterfat in her last lactation period under ordinary care. This year she is being milked three times a day, along with another cow in the herd that shows fairly good capacity, and so far has responded wonderfully to the extra care, producing in 132 days 290.4 lbs. fat from 5,737 lbs. milk. The other cow, also a grade Jersey, has made 157.3 lbs. fat from 3,321 lbs. milk in 73 days. Their owner is gradually working into pure-breds as he realizes the fact that the grades are not so apt to perpetuate their good qualities.

Indiana Associations

For each 1,000-lb. dairy cow approximately four tons of silage and one and one-half tons of hay (preferably clover or alfalfa) should be hoarded up to feed between now and next spring. In supplying the necessary grain to supplement this ration a careful study of the feeds available should be made. Quotations on the various available feeds are in the hands of your tester who will be glad to assist you in planning your winter ration.

Vanderburg Association:—Although the month of July has been hot and the flies bad, the majority of the herds have shown an increase in production over the month of June. Twenty-two cows produced better than forty pounds of butterfat for the month. The highest butterfat record was 85.6 pounds. The highest amount of milk for one cow was 1,271 pounds. The past month has shown an increase in the number of members feeding grain, and also an increase in the amount of grain fed. Two members of the association are using milking machines, both members being well satisfied with their machines. Skimmilk from several separators was tested and some were found to be losing excessive amounts of butterfat. A silo and dairy tour of the county was held on the first day of August. Some of the more prominent herds and farms of the association were visited. The tour was instructive and a good time was enjoyed by all.

Clark—Harrison:—The association has completed its second month's work and there have been some very striking results obtained by better feeding. One herd of 39 cows tested, by feeding a balanced ration, saved $58 on feed in July over June and increased the profit $56.41 and reduced the average cost of producing a pound of butterfat from 53c to 25c. One cow increased her production of butterfat from 20 pounds to 39.8 pounds. Another cow increased her yield of butterfat from 17.6 pounds to 41.7 pounds or an increase of 24.1 pounds. Valuing butterfat at 47c per pound, this means an increase in income of $11.32.

Out of seventeen members in the association, ten are feeding balanced rations. Those members that are not feeding balanced rations have found a decrease in the production of their cows. Two cows from the same herd decreased 20 pounds of butterfat each or a decrease of $9.40 per cow which would pay for the feed for both cows during the month.

One pure-bred cow, one pure-bred bull, and two milking machines have been bought. One member made the statement that he received enough benefit from the first visit of the tester to more than pay the tester's fees for the year.

Warrick—Spencer:—In looking over

(Continued on page 264)



Cut Your Firewood with a Disston Buck Saw

It's the fine quality of Disston Cross Cut and Buck Saw blades that makes them eat up the timber and wood pile. They cut fast, sure and with the least possible effort. All Disston Saws are made from steel especially made for the purpose, in our own plant. The Disston Trade Mark means the same on a Cross Cut or Buck Saw as it does on a hand saw—and three out of every four carpenters choose Disston Hand Saws—famous for value for 78 years.

Disston Saws and Tools are sold by progressive hardware dealers the world over.

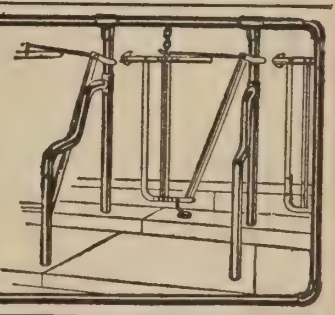


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REGISTERED RED ROCK WHEAT ROSEN RYE

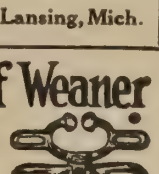
Pedigreed varieties developed at the Michigan Agricultural College and inspected, approved and registered by the Michigan Crop Improvement Association.

Be sure and get pure Rosen as rye cross fertilizes readily.

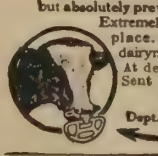
For list of growers write to Sec'y of the Association.

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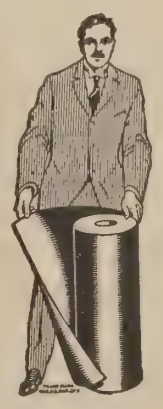
Economy is the watchword of the day. He is most economical who does no buying of non-essentials and who exercises foresight and care in buying essentials. To buy on the basis of price alone is not true economy.

It is essential that all your farm buildings be kept in repair. They are being used for war work and should not be allowed to deteriorate. So look to your roofs, for the roof is the most important part of a building. It protects the contents.

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Wheat Conservation Program

The recent careful survey by the Food Administrators of the United States, France, England, and Italy of the food resources of the 220,000,000 people fighting against Germany shows that, to maintain enough supplies and necessary reserves against disaster, there must be maintained in all countries a conservation of wheat flour during the coming year.

It has been agreed that the wheat bread of the Allies shall contain 20 per cent of other grains than wheat, and it is only just that we should bear our share in this saving and that our bread at least be universal with those who are suffering more greatly from the war than ourselves.

Distribution and transportation circumstances in the United States render it necessary to rely very largely on the voluntary action of our homes to enforce this mixture. The "Victory Bread" so made is wholesome and there is no difficulty in preparation. We desire to emphasize the fact that the mixtures outlined below are for wheat bread and the saving of wheat flour, but they are not intended to displace the large use of corn bread. We must use the mixture with wheat flour in addition to our normal consumption of corn bread.

For this purpose regulations are formulated below, effective September 1, providing first, for the preparation and marketing by the manufacturing and distributing trades of the country of a mixed flour complying with the international policy, which will be available for purchase by the household; second, in regulations covering the case where straight wheat flour is sold by retailers, that at the same time 20 per cent of other cereal flours must be sold coincidentally; third, requiring that all bakers' bread shall contain 20 per cent of other cereals, and the Food Administration relies upon the householders of the country to mix at least 20 per cent of the substitute cereals into the wheat flour at home for all uses. Corn meal for the use of corn bread should be purchased separately from combination sales.

Ready Mixed Flour for Sale as "Victory Mixed Flour"

It is desirable to insure a supply of ready mixed flours on the market, and to have millers and dealers of all kinds encourage the use and sale of this flour so that the country may be on a mixed flour basis without the necessity of retailers' making combination sales of flour and substitutes.

All such mixed flours made according to the following regulations should be labled "Victory Mixed Flour, and are to be labled with the ingredients in order of their proportion. The flours so mixed must be milled in accordance with the standards of the United States Food Administration. No "Mixed Flours" (except pancake flours) shall be made or manufactured except in the exact proportions as outlined below:

Mixed wheat and barley flour shall be in proportion of four pounds of wheat flour to one pound of barley flour.

Mixed wheat and corn flour shall contain the proportion of four pounds of wheat flour to one pound of corn flour.

Mixed wheat, barley, and corn flour shall contain the proportions of eight pounds wheat flour to one pound barley and one pound corn flour.

Mixed wheat and rye flour shall contain the proportion of three pounds of wheat flour and not less than two pounds of rye flour.

Whole wheat, entire wheat, or graham flour or meal shall contain

at least 95 per cent of the wheat berry.

All the above "Victory Flours" may be sold without substitutes, but at no greater price from the miller, wholesaler or retail dealer, than in the case of standard wheat flour.

Retail Sale of Standard Wheat Flour

The new regulations supersede the 50-50 rule. The retail dealer selling standard wheat flour is required to carry in stock either barley flour, corn meal, or corn flour, and with every sale of wheat flour must sell a combination of some one or more of these in the proportion of one pound of substitute to each four pounds of wheat flour. No dealer may force any other substitutes in combination upon the consumer, and these substitutes must conform to the standards fixed by the United States Food Administration.

There are some localities where other substitutes are available and which retailers may wish to carry. In order to meet this situation the following flours may be sold in such combination in lieu of the above flours if the consumer so demands, at the ratio of one pound to each four pounds of wheat flour; that is, feterita flour and meals, rice flour, oat flour, kafir flour, milo flour, peanut flour, bean flour, potato flour, sweet potato flour, and buckwheat flour. Pure rye flour or meal may be sold as a substitute, but must be sold in proportion of at least two pounds of rye with three pounds of wheat flour.

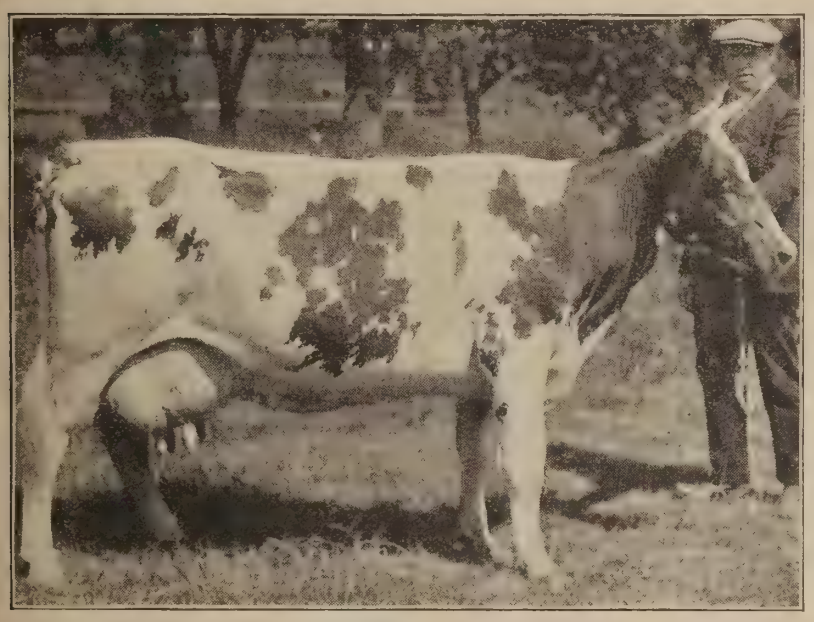
The foregoing rules apply to all custom and exchange transactions as well as sales of flour to farmers unless modified by special announcement of the Federal Food Administrator of the state where the mill is located, acting with the approval of the Zone Committee. —U. S. Food Administration.

Dairy Products on Hand

Stocks of dairy and related products in commercial channels other than retail stocks, as reported to the United States Department of Agriculture in the comprehensive food survey for July 1, 1918, were as follows: butter, 87,928,955 pounds; cheese, 85,656,949 pounds; eggs, 213,050,498 dozen; dried eggs, 9,452,913 pounds; dried milk, 12,384,444 pounds; margarine, 8,834,352 pounds; peanut butter, 6,727,220 pounds; condensed milk, 142,712,943 pounds; and evaporated milk, 203,177,023 pounds.

The figures given above include stocks actually reported as on hand by manufacturers, storage houses, and wholesale dealers and also quantities reported as in transit from these concerns. The stocks of retail dealers, as reported for July 1, 1918, are not included, since these are still in process of being tabulated. In the similar survey by the department on January 1, 1918, the retail stocks constituted the following percentages of the total commercial stocks of the commodities here considered: butter, 10.8 per cent; cheese, 12.4 per cent; eggs, 14.7 per cent; margarine, 32.1 per cent; peanut butter, 50.5 per cent; condensed and evaporated milk, 27.2 per cent.

In the case of four of these commodities, namely, butter, cheese, eggs, and margarine, the stocks reported for July 1, 1918, represent only meager increases over the corresponding stocks of July 1, 1917. In the case of the other five commodities more substantial increases were found. The stocks reported for July 1 of the present year represent the following percentages of the stocks on July 1, a year ago: butter, 102.7 per cent; cheese, 100.3 per cent; eggs, 105.1 per cent; dried eggs, including egg albumen, 244.8 per cent; dried milk, including milk powder, 178.7 per cent; margarine, including oleomargarine, butterine, etc., 107.3 per cent; peanut butter, 152.4 per cent; condensed milk, 178.5 per cent; and evaporated milk, 156.4 per cent.—U. S. Department of Agriculture.



NANCY WHITEHALL, THE AYRSHIRE COW PURCHASED BY A. HENRY HIGGINSON FOR $925 AT THE FIRST BRATTLEBORO, VT., SALE

Highest Priced Ayrshire Cow at Brattleboro Sale

Nancy Whitehall topped the first Brattleboro (Vermont) sale of Ayrshires at $925. She was consigned by Newton Farms, Massachusetts, and purchased by A. Henry Higginson, Middlesex Meadows Farm, Massachusetts.

Nancy is now on official test as a junior four-year-old and should make the four-year-old record go by if nothing happens. On the day of sale she pailed out 71.8 lbs. milk and she is a high testing animal. Her official test for May made by the Massachusetts Agricultural College was 143 lbs. in two days. Nancy has lots of milk production behind her and, with her great constitution and capacity, she should make history for Middlesex Meadows. Her grandsire on dam's side is King Finlayston, the sire of Alta Drummond of Oakdale, who made 2,140 lbs. milk, 96.2 lbs. fat in the month of May.

J. G. Watson, Extension Service.

Jersey Cattle Notes

For week ending August 30, 1918: Number of animals registered: Bulls, 240; cows, 685; total, 925. Number of transfers recorded: Bulls, 162; cows, 511; total, 673.

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Green Feed the year 'round

The Silo is no longer an experiment. Milk and meat *are* produced at less cost by feeding silage. Green feed can be had throughout the winter when kept in a properly built silo.

Concrete Makes the Best Silo

The inner surface of a concrete silo is smooth—the walls are air tight and watertight, and without joints. It keeps the silage at a uniform temperature. It is vermin-proof, rust-proof, decay-proof, wind-proof, and fire-proof. It lasts a life-time.

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Coming Events

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

Farmers' National Congress meets in Jacksonville, Florida, December 3-6, 1918. President, J. H. Kimble, Port Deposit, Md.

Fitch Heads Kansas Department

J. B. Fitch has been appointed to succeed O. E. Reed as professor of dairying and department head at the Kansas Agricultural College. He assumed full charge of the department September 1.

Professor Fitch is a graduate of Purdue University, finishing there in 1910 and entering the Kansas Dairy Department the same year. He has coached five dairy judging teams with high credit and been active in other production instruction work. His investigational work with sorghum crops and alfalfa for silage is of great practical value to the dairy farmers of Kansas and other sections where the sorghums make more certain growth than does corn. Another important set of experimental studies which he has gotten under way is in the development of dairy heifers on alfalfa hay alone and on a ration made from alfalfa hay and corn silage.

The direction of the dairy herds of twelve state institutions will be in the hands of Professor Fitch. Important breeding projects are under way in these herds, by which the department will be able to render increased practical assistance to the breeders of the state.

Professor Fitch is well acquainted with Kansas conditions and adaptations to dairying. His proved ability makes his appointment a source of satisfaction to all interested in the continued advance of the agriculture of Kansas.

Harry Cave, who was graduated



PROFESSOR J. B. FITCH

from Iowa State College in 1914 and given a master's degree from the Kansas Agricultural College in 1916, will assist with the production work of the Kansas Dairy Department. Since graduating in 1916 he has had charge of dairy extension work in West Virginia.

F. W. Atkeson, who was graduated from the University of Missouri in 1918, will be given charge of the work with the twelve state institutions of Kansas.

Dairy Cattle at the Michigan State Fair

The dairy cattle show at the Michigan State Fair this year, judged by the standards of former years, was only fair. But when we consider the handicaps of labor under which farmers are burdened, the dairymen of Michigan are to be congratulated for the effort they put forth.

The dairy cattle show was almost entirely a Michigan show, but it was by no means a criterion of what the Michigan herds could do. Few of the herds were in good flesh and none were highly fitted.

It is unfortunate that modern barns and a roofed judging pavilion are not provided, for rainy days made judging difficult, but we understand that the fair board is considering the erection of a suitable barn and pavilion at an early date

The Holsteins easily led in point of numbers over the other breeds, and they presented a thoroughly creditable showing. The exhibitors were: John A. Rinke, Pontiac State Hospital, Bruce McPherson, Musolff Bros., Grant L. Carpenter, A. R. Black & Sons, and Henry J. Carpenter, all of Michigan. The four first named were very closely matched and divided the ribbons fairly evenly.

Only two herds of Jerseys were shown, those of Myrtle E. and Earl F. Pyle of Ohio and H. B. Wattles & Son of Michigan. The former, veterans of the show ring, had all the better of Wattles, but the latter had a nice herd and will undoubtedly be able to give a better account of himself as he gains experience. The Pyle herd was one of the few well fitted herds at the fair.

Two full herds of Guernseys were present, while W. S. Scripps brought one cow and her bull calf. The exhibitors were John Ebels, A. Hatt & Son, and W. S. Scripps, all of Michigan.

The feature of the Guernsey show was the cow, White Beauty of Mixter Farms, shown by Scripps. Not only was she an outstanding show cow, but she gave the lie to the statement that production and beauty do not go hand in hand. She has an A. R. record of 13,000 pounds of milk and 654 pounds of butterfat.

The Brown Swiss were represented by two splendid herds which divided the ribbons fairly evenly. They were Hull Bros., Ohio, and L. S. Marshall & Sons, Michigan.

Only one herd of Ayrshires was shown, that of Jas. Van Etta of Wisconsin. This can justly rank as one of the great show herds of the country.

Following is a list of awards:

Holsteins

Bull 3 years or over—1 and 2, Pontiac State Hospital on Pontiac Rochester Burke DeKol and Sir Clothilde Concordia; 3, Rinke on Flint Mayde Crest Butter Boy; 4, McPherson on Maplecrest Application Pontiac. Bull 2 years old—1, Carpenter on Huron Hill Canary Nig DeKol. Yearling bull—1 and 3, Rinke on Rinkland Cornucopia Butter Boy and Rinkland Johan Butter Boy; 2, Musolff Bros. on The Pastures King Segis Butter Boy. Senior bull calf—1 and 2, McPherson on Cluny Mable Colantha De Nijlander and Banostine Pontiac Aberdeen; 3, Rinke on Rinkland Butter Boy Colantha; 4, McPherson on Moonlight Colantha Geneveve; 5, Carpenter on Judge Canary Nig DeKol. Junior bull calf—1 Black on Maple Defender DeKol Butter Boy; 2 and 5, McPherson on Cluny Banostine Pontiac Frank and Dutchland Konigen Sir Rag Apple; 3, Pontiac State Hospital on Pontiac Segis Walker; 4, Rinke on unnamed calf.

Cow 4 years—1, 3, and 4, Pontiac State Hospital on Pontiac Genius, Pontiac Grace, and Pontiac Oseris; 2, Rinke on Hengerveld Pauline DeKol; 5, Musolff Bros. on Mercedes Pietertje Aaggie Texal. Cow 3 years—1 and 4, Pontiac State Hospital on Pontiac Rypster and Pontiac Julia; 2, McPherson on Vale Cornucopia Fayne; 3, Rinke on Rinkland Pontiac Colantha. Heifer 2 years—1, Pontiac State Hospital on Pontiac Cecelia; 2, Musolff Bros. on Mollie of St. Anna Butter Girl; 3, Rinke on Rinkland DeKol Pontiac Colantha; 4, McPherson on Alfadale Korndyke Hourly. Yearling heifer—1, 3, and 5, Pontiac State Hospital on Pontiac Opie, Pontiac Anita, and Pontiac Pansy; 2, McPherson on Cluny Pietertje Application; 4, Rinke on Rinkland DeKol Colantha. Senior heifer calf—1 and 5, Musolff Bros. on Aaggie Texal Segis Pieter and Buttermaid Segis Pieter; 2 and 4, Pontiac State Hospital on Pontiac Thelma and Pontiac Mildred; 3, McPherson on Cluny Pontiac Colantha Moonlight. Junior heifer calf—1 and 4, Pontiac State Hospital on Pontiac Renota and Pontiac Minnie; 2, Rinke on Aaggie Concordia Butter Boy; 3, McPherson on Cluny Application Pontiac Lena.

Exhibitor's Herd—1, Musolff; 2, Rinke; 3, Pontiac State Hospital, 4, McPherson. Breeder's Herd—1, Pontiac State Hospital; 2, Rinke; 3, McPherson. Calf Herd—1, Pontiac State Hospital; 2, Rinke; 3, McPherson. Get of Sire—1, Musolff; 2, Pontiac State Hospital; 3, McPherson; 4, Rinke. Produce of Cow—1, Pontiac State Hospital; 2, Rinke; 2, McPherson.

Senior and Grand Champion Bull—Pontiac Rochester Burke DeKol; Junior Champion Bull—Maple Defender DeKol Butter Boy.

Senior and Grand Champion Cow—Pontiac Genius. Junior Champion Cow—Aaggie Texal Segis Pieter.

Guernseys

Bull 3 years or over—1, Ebels on L'Aiglon of Bon Ayre. Bull 2 years old—1, Hatt on Funston of Thornhill. Yearling bull—1, Ebels on Olive King Duke. Senior bull calf—1 and 3, Ebels on Olive Red Rose and Olive Don; 2, Hatt on Lone Boy of Lakeside. Junior bull calf—1 and 3, Ebels on unnamed calf and Don of Olive; 2, Scripps on Oakland Squire; 4, Hatt on Lakeside Billie.

Cows 4 years or over—1, Scripps on White Beauty of Mixter Farms; 2 and 4, Hatt on Imp. Young Charming's Golden Girl and Bonnie Cleopatra; 3 and 5, Ebels on Imp. Lizette III of the Hall and Nancy of Linden Heights. Cow 3 years or over: 1 and 2, Hatt on Westmoreland Wildflower and Village Golden Hope. Heifer 2 years old—1, Ebels on Nancy of Butternut Hill; 2 and 3, Hatt on Alfa Glenwood of Lakeside and Lakeside Glenwood Rose. Yearling heifer:—1, 2, and 3, Ebels on Nettie of Butternut Hill, Rozette of Butternut Hill, and Lydia of Butternut Hill; 4 and 5, Hatt on Lakeside Buttercup and Trixie of Lakeside. Senior heifer calf—1, Ebels on Muriel of Bon Ayre; 2, Hatt on Mable of Glenwood. Junior heifer calf—1 and 2, Ebels on Lona of Hazel Bank and Princess Olive; 3, Hatt on Lakeside Bonnie Girl.

Exhibitor's Herd—1, Hatt; 2, Ebels. Breeder's Herd—1, Ebels; 2, Hatt. Calf Herd—1, Ebels; 2, Hatt. Get of Sire—1, Hatt; 2, Ebels; Produce of Cow—1, Ebels; 2, Hatt.

Senior Champion Bull—Fun ton of Thornhill. Junior and Grand Champion Bull—Ebels on unnamed calf.

Senior and Grand Champion Cow—White Beauty of Mixter Farms. Junior Champion Cow—Nettie of Butternut Hill.

Jerseys

Bull 3 years or over—1, Pyle on Angelicia's King; 2, Moore on Lonatus of Moore Farm. Bull 2 years—1, Pyle on Sans Alois Niece's King; 2, Moore on Rosy May's Major. Yearling bull—1 and 2, Pyle on Financial Richmond and Rosa San's Aloi K; 3, Moore on Queen's Decoration. Senior bull calf—1 and 2, Pyle on King's Rosa's Sans Alois E and Financial Mary's Sans Aloi; 3, Moore on Jap Girl's Captain. Junior bull calf—1, Pyle on Stockwell's Niece's King; 2, Moore on unnamed calf.

Cow 4 years or over—1 and 2, Pyle on Sultan's Eminence and Stockwell's Angelina; 3, 4, 5, Moore on Zenda of Moore Farm, Lona of Moore Farm, and Queen of Moore Farm. Cow 3 years old—1 and 4, Pyle on Financial Mary K and King's Column Vine F; 2 and 3, Moore on Rosa May's Barbara and Rebecca's Lady Jap. Heifer 2 years old—1 and 2, Pyle on Financial Mary P and Rochette's Jolly Sultana; 3, Moore on Zenda's Fontaine Maid. Yearling heifer—1, 2, and 4, Pyle on Martell's Financial Lady, Lady Silver You'll Do, and Financial Elfie's Fairy; 3 and 5, Moore on Katie's Rule's Violet and Matilda's April Girl. Senior heifer calf—1, 2, and 3 Pyle on Niece's King's Columbine, Sans Alois Niece's Opal, and Sans Alois Golden Flora; 4 and 5, Moore on Sara Patterson's Lassie and Zenda's Summer Girl. Junior heifer calf—1, Pyle on Sans Alois Golden Diploma; 2, Moore on unnamed calf.

Exhibitor's Herd—1, Pyle; 2, Moore. Breeder's Herd—1, Pyle; 2 Moore. Calf Herd—1, Pyle; 2, Moore. Get of Sire—1, Pyle; 2 Moore. Produce of Cow—1, Pyle; 2, Moore.

Senior and Grand Champion Cow—Sultan's Eminence. Junior Heifer—Sans Alois Golden Diploma.

Junior and Grand Champion Bull—Financial Richmond. Senior Champion Bull—Sans Alois Niece's King.

Brown Swiss

Bull 3 years or over—1, Marshall on Stasie Boy of Sedgeley; 2, Hull Bros. on Dick of Lake View. Bull 2 years—1, Marshall on Marcus; 2, Hull Bros. on Vogel's College Boy. Yearling bull—1 and 3, Hull Bros. on Supreme of Lake View and Cinderella Boy; 2, Marshall on Braerera II's Grandson. Senior bull calf—1, Marshall on Edgard L; 2 and 3, Hull Bros. on Irene's H Third Reuben and Dennis of Swiss Glen. Junior bull calf—1, Marshall on Bessie F's King; 2, Hull Bros. on Harold of Swiss Glen.

Cow 4 years or over—1, 3, and 5, Hull Bros. on Swiss Valley Girl's VII, Reuben's Ruth, and Bessie May; 2 and 4, Marshall on Brownie F and Bessie F. Cow 3 years or over—1, Marshall on Betsey Girl; 2, Hull Bros. on Bessie May II. Heifer 2 years old—1 and 3, Marshall on Jackson Lady and Valley Girl M; 2 and 4, Hull Bros. on Swiss Valley Girl and Bessie May III. Yearling heifer—1 and 2, Marshall on Betsey Girl's Braerera and Beaut's Braerera; 3 and 4, Hull Bros. on Belle of Lake View and Nina of Lake View. Senior heifer calf—1 and 4, Hull Bros. on Swiss Valley Girl of Merney and Lottie G. D. of Lake View II; 2 and 3, Marshall on Styx II and Beaut II. Junior heifer calf—1 and 2, Marshall on Mollie II and Brownie's Beaut 2d; 3

Sale Announcements

Sept. 25—Holsteins. Dispersion of Boardman Farms Herd of Registered Holsteins at Jackson, Mich. J. W. Boardman.
Sept. 25-26—Holsteins. Absolute Disperison of the Chas. Prange and S. E. Gehrig herds at New Douglas, Ill.
Sept. 25—Guernseys. Polk County, Wis., Guernsey Breeders' Ass'n. J. H. Stewart, Sec'y., Clear Lake, Wis.
Sept. 27—Guernseys. C. M. Paul, Staunton, Va. C. T. Rice, Sales Mgr., Oakton, Va.
Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.
Oct. 1-2—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Oct. 2—Ayrshires. Ayrshire Breeders' Sale at Waterloo, Ia., D. M. Henderson, Hudson, O., Sale Mgr.
Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.
Oct. 3—Holsteins. The Dairy Cattle Congress Holstein Sale, at Waterloo, Ia., Roy L. White, Mgr., Waterloo or Woodstock, Ill.
Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.
Oct. 4—Guernseys. Dispersion of Sylvanite Guernsey Herd at Baraboo, Wis. Richard F. Klemm.
Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.
Oct. 8—Holsteins. Dodge County Holstein Breeders' Consignment Sale at West Concord, Minn. C. L. McNelly.
Oct. 10—Poland China Boars at Lancaster, Wis., F. A. Morehouse, Sec'y.
Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 29—Holsteins and Poland China hogs. Pleasant Valley Stock Farm, Thos. Maher, Brookings, S. D.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Oct. 11—Holsteins. Meadow View Farm, Parker, Colo., W. R. D'Arcy, owner.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.

and 4, Hull Bros. on Cinderella I of Lake View and Elsie of Lake View IV.

Exhibitor's Herd—1, Marshall; 2, Hull Bros. Breeder's Herd—1, Marshall; 2, Hull Bros. Calf Herd—1, Marshall; 2, Hull Bros. Get of Sire—1, Marshall; 2, Hull Bros. Produce of Dam—1, Marshall; 2, Hull Bros.

Senior and Grand Champion Bull—Stasie Boy of Sedgeley. Junior Champion Bull—Edgard L.

Senior and Grand Champion Cow—Swiss Valley Girl's VII. Junior Champion Heifer—Swiss Valley Girl of Merney.

Wisconsin. W. A. FREEHOFF.

New York Butter Market

NEW YORK CITY, SEPT. 10:—Quotations on all grades of creamery butter have advanced three and four cents during the past week and the limit is far from reached. There has been no regularity in the advancement as some days have shown no change in quotation, while other days showed an advance of two cents. That was particularly true of Monday. Today there was a further gain of a half cent which indicates that while the advance was marked on Monday it was well advised and will be followed by further advances soon.

At the close today established quotations were as follows:—Extras (92 score), 52½@53c; Higher scoring than extras (93 score or above), 53½@54c; Firsts (88 to 91 score), 49@52c; and Seconds (83 to 87 score), 46@48½c. The strong demand for unsalted butter still continues with quotations at the usual differential above those for salted butter.

Butter is very scarce in New York and the demand continues very strong. The writer, who has had occasion of late to visit many creameries in butter producing sections, finds that there was a great decrease in production during the hot, dry weather that prevailed generally throughout such sections. The shortage created an unprecedented local demand for butter which has cut down materially our eastern shipments. The recent rains have caused pastures to improve which is already resulting in increased production.

It is the consensus of opinion among creamerymen that with improved pastures and fresh fall cows the production will be somewhat above normal during the late fall months. There is greater interest in dairying among farmers than has been known for some time because of high prices of dairy products and because of the almost certainty of an unlimited demand for such products for a long time to come.

W. B. LIVERANCE.

Judges and Breed Days at National

The official date for closing entries of cattle for the National Dairy Show at Columbus, Ohio, has been fixed at September 25. There is every prospect of a very large list of entries this year. The attendance of the leading breeders and their herds at Columbus is already assured and the opportunities of comparison and study seem too obvious to require comment. The best talent in the United States and Canada has been chosen to pass on the cattle which will be brought to Columbus.

The judges are: Ayrshires, Wm Hunter, Ontario; Prof. H. H. Kildee, Iowa; Guernseys, Chas. L. Hill, Wisconsin; Jerseys and Brown Swiss, H. G. Van Pelt, Iowa; and Holsteins, W. S. Moscrip, Minnesota.

The days of the cattle judging are:
Ayrshires, Monday, October 14.
Brown Swiss, Monday, October 14.
Jerseys, Tuesday, October 15.
Guernseys, Wednesday, October 16.
Holsteins, Thursday, October 17.
—NATIONAL DAIRY SHOW.

The farm as well as the front needs men who see straight and shoot straight.



You Are Paying For It Now

WHEN you or your help take the time necessary to milk by hand, you are really paying, in daily installments, for the Hinman Milker. You are paying out in extra *time* (which is money!) an amount that would pay for Hinman equipment in a *surprisingly short period.*

HINMAN MILKER

When you install the Hinman you begin immediately to save *two-thirds* of the time it takes to milk your cows. This may mean one or even *two* less hired men! One man with three Hinman units can milk from 18 to 25 cows an hour!

Furthermore, you will very likely get *more milk* and certainly *cleaner milk,* and your cows you will find are more *uniformly contented.*

Thousands of other dairymen have saved through use of the Hinman enough to pay for their equipment *several times over.* Thus they have *increased their profits*—to say nothing of enjoying the pleasure of milking with this safe, simple, mechanical milker.

Why not join now the big army of highly pleased Hinman users?

Send for catalog and then decide.

HINMAN MILKING MACHINE CO.

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In stock at many convenient shipping points.

EDITORIAL COMMENT

Every right implies a corresponding obligation; every privilege a corresponding duty.

It is a well known fact that the producer can increase the production of his herd considerably through better care and feeding. We have every reason to believe that this increase will follow, provided the prices for dairy products are in keeping with the prices of feeds and labor.

In the dairy sections of this country the corn crop, on a whole, is good and in other sections where drouth has injured the crop, much good feed has been gathered and put into the silo. As a rule, about 30 lbs. of corn silage is fed daily but under the circumstances more may be fed this year in many instances with less hay. It will require the use of some protein feeds to supplement the corn silage in order that an adequate amount of protein may be provided for the production of normal flows of milk. With the bright prospect for a large demand for dairy products, we believe the dairy farmer is taking no chances in equipping himself for producing a liberal amount of milk the coming season.

PRODUCE TO LIVE

"Great Britain has adopted the rationing of poultry." Such are the recent words of the Food Administration, and continuing we read: "So great has become the shortage of feed that it is no longer justifiable to support even a hen, if she fails to do her part toward feeding the nation."

The rationing system provides that the hens will be divided into two classes, those in the first class to receive 4 ounces per day, and the wants of second class supplied according to what may be left. In effect, the plan practically decrees that hens must lay to live.

There were those who last winter criticized us for advocating that only those cows should be kept that under proper care could produce at a profit; that in times of food shortage it was unpatriotic as well as unsound business to feed poor cows or improperly feed good cows. At other times it might be desirable to keep the poor cows that, in the hands of the competent dairyman, might, through the use of a dairy prepotent bull, produce daughters or granddaughters of better quality. Just now, however, our immediate concern is that the world be fed and Kaiserism swept forever from the earth.

The analogy with the British hen problem is pertinent. We may well accept as good policy, without government decree, "cows must produce to live".

WHERE IS THE BRAN?

Ever since the publication of the prices set on bran and other wheat by-products we have been besieged for information as to where these feeds may be secured. Up to the present the situation is as it was last spring, bran low in price but unprocurable. At this time most Wisconsin farmers are paying around $40 per ton retail, this price being in excess of what would seem a reasonable charge for sacks, freight, and retail profit above the fixed maximum of $23.36 per ton at the mill door in Minneapolis for bulk bran. In other communities prices would vary according to the established maximum price at the various milling centers. At Great Falls, Montana, the maximum price is $16.67 at the mill door; at Kansas City, $22.26; at Chicago, $25.26; at New York, $30.26;—the highest price prevailing being at Durham, N. C., $31.26. Recent wholesale quotations on sacked bran delivered at Fort Atkinson are $33, this being for bran from the Minneapolis mills some 300 miles distant.

Various reasons are offered as to why farmers are unable to secure bran and middlings, all of which revolve about the fact that at the price set they are the cheapest feeds on the market and therefore in unusual large demand. Indeed, the demand is so large that millers will sell very little in car lots, but insist on mixed cars in order to move their particular brands of flour. Later on this condition may change, but at present we are unable to refer individual buyers or war clubs to sources from which wheat by-products may be secured in car lots.

A discussion of this question from the standpoint of the dealer in feeds will be found in our reprint of an editorial from the "Price Current Grain Reporter," which appears under the title "Where Feeds Go". We do not agree with the remedy proposed, for without some sort of control all by-product feeds would go soaring in price. There is not, perhaps, sufficient wheat by-products available to wholly control prices of other feeds, but we do feel that it has some effect. This being true, all farmers are indirectly benefited by the control of wheat by-product prices, while others are directly benefited by the low prices at which they are buying bran and middlings.

ACID PHOSPHATE FOR WHEAT

Wheat requires a liberal supply of phosphorus in the soil to produce a good yield. Most upland soils which have been farmed for many years lack in available phosphorus. In view of this it is quite safe to use phosphatic fertilizer to enrich the soil for the different crops and especially for wheat.

Dr. C. E. Thorne, Director of the Ohio Experiment Station, has made the following statement regarding the use and value of acid phosphate for wheat: "For 24 years wheat has been grown on the home farm of the Ohio Experiment Station at Wooster, Wayne County, with no other fertilizing than 160 pounds per acre of 14 per cent acid phosphate on each crop. The wheat has been grown in a five-year rotation of corn, oats, wheat, clover, and timothy, located on five different tracts of land, so that each crop has been grown every season. The outcome has been that the wheat receiving this quantity of acid phosphate has yielded eight bushels more wheat to the acre as a 24-year average than that grown on adjoining land left without any fertilizer treatment."

In other words, 160 lbs. of acid phosphate has produced eight bushels of wheat and besides it has increased the yield of the other crops. This makes it easy for a farmer to determine whether it will pay to use acid phosphate.

NEW SELECTIVE DRAFT BILL

Congress has passed the new man-power bill and the registration of men from the ages of 18 to 20 inclusive and from 32 to 45 inclusive has been completed. According to Provost Marshall Crowder about 2,400,000 out of the total number of registrants may be used in active war service. The direct purpose of this measure was to increase our war strength, for the present business of this nation is war. It is not the purpose of our government to upset industry any more than is possible, but to place itself in control of all able-bodied men in the country.

It is, of course, expecting too much that industry will not be disturbed by this new selective service. The farmers will not find their burdens any lighter during the coming year than in the past, but we can not engage in a great war without disturbing our industry and without making sacrifices for our country.

Notwithstanding the heavy tasks placed upon the farmers, they have met the demands of the country without any break-down in their industry. This cannot be said of all other industries. Our transportation, mining, and manufacturing have cracked under their loads. The farmers have a right to feel proud of their achievements.

The one comforting fact in this new selective draft bill is that it will provide opportunity for building a large army and bring into service a greater number of men to make munitions of war, for the sooner we can put this nation to its full war strength, the sooner the horrible job will be over.

MIS-STATEMENTS DEPRESSING

Mis-statements are unfortunate. It seems as though our abnormal conditions have created abnormal conceptions, and have hindered the people from forming a true prospective of dairy conditions.

Since we entered the war, we find those who hold that the dairy cows are being slaughtered, that milk consumption has decreased, that there is less demand for butter and cheese, and, on the whole, taking a gloomy view of our dairy situation. In our close association with those engaged in the production of dairy products we find them accepting their tasks as cheerfully as any class. It must be expected that peaceful pursuits will be interfered with when we enter the gigantic task of putting four or five million men in Europe. No class of farmers has met the burdens placed upon it better than the dairy farmers and no industry has responded to the call of our country better than agriculture.

Mr. James J. Harvey of the Chamber of Commerce, in calling the dairy interests of Indiana together for the purpose of organization, stated: "In the last year milk consumption has decreased from 15 to 50 per cent, butter consumption decreased 33⅓ per cent, and oleomargarine has increased 150 per cent."

The Chicago Dairy Produce in commenting upon this says: "While we do not know where Mr. Harvey secured the figures upon which to base his statements of decreased milk and butter consumption, we fear it may occasion a misunderstanding and a feeling of discouragement among producers and consumers. There has been no decrease of production of milk and the loss of consumption, due to high prices, has been offset. Had Mr. Harvey stated that at least three times as much of milk and its products had been exported as ever before and that this government and its allies are holding great stocks to supply the needs of the armies and navies, his statement would have given a different impression."

It may be said that there are a few sections which have disposed of more cows than usual, but, on the whole, the dairy cow population of this country according to government statistics has increased, and especially in young cattle, since we entered the war.

We are not going to encourage the dairy farmer by holding up to him the exceptions, but rather by keeping him informed regarding the dairy industry as a whole and the opportunities that the future holds for his products and his cattle.

RECORD BREAKING WHEAT YIELD

Every good farmer desires to increase the productivity of his fields. It is not always a simple matter to know how to treat a piece of land in order that it will produce a larger crop. But in the past 15 or 20 years some progress has been made in learning about fertilizing lands which we may accept as fundamental.

The wonderful crop of wheat produced by Mr. Mann of Illinois, and reported in the Prairie Farmer, should be of interest and value to every farmer in this country. According to the report, Mr. Mann had 25 acres of wheat which averaged 63 bushels per acre. This, we believe, was one of the largest, if not the largest, yields of wheat ever produced in this country. We have followed the field practices of Mr. Mann very closely, and it has been a source of deep satisfaction to note the progress he has made since he started to treat his soil according to the teachings of Dr. Hopkins of the Illinois College of Agriculture. The question which interests our readers is: How did Mr. Mann obtain such a splendid yield of wheat? Here are his own words as we take them from the Prairie Farmer:

"The field has been having a rotation of corn, oats, wheat, and clover for about 12 years, with phosphate applied with clover before plowing under the second crop. Two applications of ground limestone had also been applied which amounts to about five tons per acre. The total amount of phosphate applied amounts to about four tons per acre and parts of the field have had five tons per acre. Some manure was also applied a few years ago to a portion of one of the fields, but on this part of the field the wheat was down to some extent, and as the wheat did not fill so well where the manure had been applied, the yield was really lessened somewhat as an effect of the manure."

"Last year the oats on these fields yielded from 96 to 115 bushels, according to the variety of oats. The year previous the corn yielded 81 bushels per acre. The previous year the crop was volunteer wheat and alfalfa, with a yield of 35 bushels volunteer wheat. Four years ago these fields were in wheat and with a yield of 52 bushels. There is now a very good stand of young mixed clovers consisting of a mixture of red, alsike, and alfalfa with some timothy."

"To grow 50 bushels or more of wheat per acre the soil must be in a high state of fertility, but it is not necessary that it be very "rich", as this term is usually used. The term "rich" is usually applied to soils that have a high active humus content—a large amount of decaying vegetable matter, enough to cause the soil to be dark brown or black in color."

"The 'rich black' soils of the corn belt are usually too rich in nitrogen and not rich enough in phosphorus. In consequence of the excess of nitrogen over phosphorus there are likely to be many troubles to the wheat—straw grows rank but tender and weak enough to break down; various fungus and insect troubles such as rust, scab, fly, and bug. While there is much straw there is too little grain in proportion and the grain is frequently inferior in quality.

"As these troubles are due to the low proportion of phosphate, it may not be desirable to try to

grow much wheat until the phosphorus has been largely increased."

It may be said that Mr. Mann was one of the first farmers in Illinois to purchase raw rock phosphate and lime and the results of his large wheat crop show the wisdom of his work.

Where Feeds Go

In discussing this subject The Price Current Grain Reporter says:

"Referring to an editorial in these pages on August 14, headed "Mill Feed Situation," a well informed reader has suggested that the apparent shortage of mill feeds is caused not so much, as was tentatively suggested, by action of the requirement of a high extraction of flour from the wheat milled, which increases the quantity of flour while it reduces the quantity of the milling offals (although there must be some reduction of the latter products), as to other causes.

"The fact is, as we are reminded and as we have previously stated herein, that at this time, owing to purely artificial causes, nearly all of the mill feed is sold locally by retail, right from the mill door to farmers in the immediate vicinity of the mill or to those who go even quite long distances to the mill in order to buy this feed. There are two reasons for this, both of which are quite apparent. One is that the miller is permitted to charge approximately $3 per ton more for his feed when sold at retail in this way than when he ships it out in car lots. The second cause is the artificial price put by the Food Administration upon the feed itself. The net result is that hog feeders can buy mixed feeds at about $30 per ton, whereas the corn which they raise is worth approximately $60 per ton, or where the farmer would have to buy corn it would probably cost him still more. The farmer, therefore, can take a ton of mill feeds, feed it to his hogs and obtain a profit on a single ton of from $40 to $50. If a farmer has hogs enough to use up a ton of feed per day he has a very splendid business, as any one can readily see, one that runs very rapidly into "excess profits", but upon which it is not likely the farmer will pay any excess profits tax or even an income tax. Farmers generally are not built that way nor do our congressmen require them to be different.

"Now, of course, the Food Administration, which has undertaken to regulate the disposition of the mill feeds so that there shall be no undue profiteering in their distribution, did not perhaps foresee what is now happening, although practical men might have anticipated some such condition. Mr. Hoover, speaking at the National Milk and Dairy Farm Exposition in New York City on May 23rd, called attention to the vastly important function of the American dairy at this time and laid much stress on the "heart-breaking reaction of diminished milk feeding of children" everywhere, and upon the necessity of building up reserves of dairy products as well as conserving dairy herds. Undoubtedly, therefore, the intention of the Food Administration in fixing the price of mill feeds as it now stands was to lower the price of the mill feeds, which, as it has turned out, is out of all proportion to other feeds, in order that the dairyman might secure cheap feeds and thus help to keep down the price of milk and butter and also to increase their production; but as it now appears the order was injurious, a complete failure, because the actual effect of the order has been that dairymen as a rule are not able to obtain mill feeds at any price, by far the larger part of the mill feed now being produced being secured by the hog feeders who obtain from $16 to $20 per cwt. for their product. The Food Administration has made things very pleasant for the hogs but not so pleasant for the babies.

"We have frequently in the past referred to the unfortunate results of the arbitrary rules governing both the price, the storing, and the general disposition of feeds, and we have it on the authority of one of the largest interior manufacturers of mixed feeds that prior to last December, when the arbitrary lowering of prices took effect, he was a large buyer of mill feeds for distribution as wholesaler to the elevators throughout the Central States and to consumers generally; but since that time he has been unable, as have practically all makers of mixed feeds, to obtain mill feeds in car lots in any quantity and since the grinding of the new crop began both the feed manufacturers and dealers generally throughout the entire country have been unable to buy feeds in full car lots or at all except in mixed cars, taking the flour in many instances in order to secure the much needed feeds.

"What is the remedy? No one seems to have one; but at the Ohio State Millers' Convention of some two weeks ago, where the matter was very fully and freely discussed, about the only practical solution of the business seemed to be to take off all price restrictions whatever and let mill feeds sell on their merits. It is believed that such a course would result immediately in the distribution of mill feeds in practically the same way that they were before the price was fixed by the Food Administration. At any rate, it is pretty certain that by such a course the dairy, which needs the mill feeds much more than the hogs, would be able to obtain its share, which now the dairy is unable to obtain at any price. And the price of flour would be lowered automatically."

Harvesting Buckwheat

What is your advice as to time of cutting and method of cutting a small field of buckwheat in this vicinity? This is our first year experimenting with buckwheat and we are not sure that we know just the best time to handle same.

Janesville, Wis. A. P. L.

The general recommendation is to cut buckwheat when the first seed ripens. However, on Hoard's Dairyman Farm we usually cut it somewhat later than this. In any manner of handling or time of cutting, there is quite certain to be some wastage as the buckwheat ripens unevenly and therefore shells out to a certain extent.

Buckwheat is probably best cut with a cradle or self-rake reaper. The gavels are set up without binding in order that it may dry out quicker, the tops being merely pressed together with the hands, given a slight twist, and the interlocking of the bunches holds it together well enough for handling.

Last year, however, we cut our buckwheat with a self-binder, shocked it as we did ordinary grain, and it came out in good condition. The buckwheat is not stacked or hauled into the barn but is threshed direct from the field after drying out thoroughly.

Chess in Wheat Seed

All the winter wheat that has been raised around this community is mixed with chess. Will wheat after graded and cleaned be apt to be infected with this germ of chess? I wish to sow about 5 acres.

Milton Junction, Wis. C. S.

Chess is an annual grass that will not produce seed unless sown in the fall, and consequently is not found in spring wheat. It is more prolific than wheat and is more resistant against cold and insects. Cases are reported where one pound of seed has multiplied ninety-nine fold in one generation. Chess injures flour and must be cleaned from wheat before grinding. It must be understood that chess does not grow from wheat seed nor is it caused by a germ. It is a distinct grass plant or weed and has its own seed the same as oats or any other plant. In the West, chess (or cheat as it is sometimes called) is grown for hay, and is somewhat inferior to timothy for this purpose.

Seed wheat properly cleaned by a fanning mill is quite free from chess. If the wheat seed is treated for smut by stirring it in a solution, the chess seed will rise to the surface and can be skimmed off. After the wheat seed has been properly cleaned, it would be desirable to sow it on the ground which had not grown wheat the previous year as doubtless numbers of the chess seed will have shelled out prior to or during the harvest of the wheat.

Ration Lacking Succulence

Can you help us by giving us information in regard to winter feeding of our cows? We are unable to give them silage this year and will have nothing in the way of succulent feed for them. We found that they did not do well last winter on nothing but afalfa and grain. Do you recommend beet pulp?

Pine Mountain, Ky. E. H. F.

Succulent feeds are necessary in a ration which is to return the very largest production possible. In most sections of the country corn silage is a very satisfactory succulence particularly because of its economy. If a liberal supply of silage for the dairy herd can be secured, pleasing results will be had. Failing this, beet pulp soaked twelve to twenty-four hours before feeding in three to four times its weight of water will prove very satisfactory. Cows relish these succulent feeds and are stimulated to increased consumption of feed which in turn results in a large flow of milk.

In feeding pulp the fact should be borne in mind that in a dry condition it has an analysis quite similar to that of corn and that in the ration it may be allowed to replace a considerable portion of the carbohydrate concentrates of the grain mixture.

Even failing to use a succulent feed we believe very good returns should be made from a liberal feeding of high quality alfalfa hay supplemented with a suitable grain mixture. We have seen many herds of cattle which produce splendidly whose ration is made up largely of alfalfa. It should be fed in as large quantities as they will consume, being careful, of course, that the hay is not wasted but being equally certain that the cows are never stinted on it.

Grain should be supplied in addition to all cows producing heavily, at the rate of about one pound for each 3½ pounds of milk produced. This grain mixture must be palatable and balance up satisfactorily with the alfalfa.

Price Per Gallon and Pound Fat

What will butterfat at 75 cents per pound return for milk testing 4.2 to 4.5%; that is, how much per gallon will the milk be worth?

Wesson, Miss. H. M. A.

A gallon of milk will weigh approximately 8.6 pounds, and a gallon of milk testing 4.2 per cent would therefore contain slightly over .36 pound fat. At 75 cents per pound fat, this would make a gallon of milk testing 4.2 per cent worth 27 cents per gallon. In a gallon of milk testing 4.5 per cent, there would be .387 pound of fat which, at 75 cents per pound, would make the gallon of milk worth 29 cents.

Another Preservative Exploded

Dr. Wm. Brady, a man who evidently sends out syndicated articles to the daily press, advises an inquirer that "ten to fifteen drops of peroxide of hydrogen added to a quart bottle of milk will prevent souring and not have a deleterious result."

If true, the above recommendation would be of large benefit to the dairy industry, but having had similar "cure-alls" presented and exploded we conceived the best recourse would be to refer the matter to a trained and competent authority on bacteriology. Dr. E. G. Hastings of the University of Wisconsin, gives us the following:

"In reply to your inquiry concerning the statement given in the clipping from a Boise, Idaho, paper, I would say that hydrogen peroxide when added to milk has a marked preservative effect. A number of years ago, a Danish engineer devised a method for the preservation of milk which consisted in the addition of a small quantity of hydrogen peroxide to the milk and then heating to about 50° Centigrade for an hour. The process was called the "Budde process" after the man who originated it. The combined effect of the hydrogen peroxide and of the heat destroyed practically all of the non-spore-forming bacteria in the milk. The process was never a commercial success, due first to the expense. Only perfectly pure hydrogen peroxide could be used. Commercial hydrogen peroxide is made from barium peroxide. Traces of barium are likely to be found in the hydrogen peroxide unless extreme care has been used in its manufacture. Barium salts are poisonous. Milk will decompose hydrogen peroxide, forming free oxygen and water. Different samples of milk will decompose varying amounts of hydrogen peroxide. If more hydrogen peroxide is added to the milk than the milk will decompose, a distinct metallic taste will be imparted to the milk. Apparently in the Budde process traces of the hydrogen peroxide might remain in certain quantities of milk treated.

"Milk treated with hydrogen peroxide has also been suggested by some noted sanitarians to be used in place of pasteurized milk. For example, Behring thought that milk from tubercular cattle contained certain substances which exerted a protective action against the disease. It was his idea that such milk might be used for the feeding of children and thus give to them a certain degree of immunity against tuberculosis. In order to avoid any danger from tubercle organisms that might be present in such milk, he suggested the addition of hydrogen peroxide. He devised, and there was placed on the market in Germany, a substance which was to be added to the milk which would decompose any residue of hydrogen peroxide not decomposed by the milk itself. I am under the impression that this scheme was used to a very limited extent in certain of the children's hospitals in Germany.

"It is quite probable that milk will decompose the amount of hydrogen peroxide mentioned in the clipping. In other words, the peroxide would be changed into two perfectly harmless substances as far as health is concerned. I feel quite certain, however, that the health authorities would object very strenuously to the use of peroxide in milk."

TEN (OF MANY) CASE Betterments

1 Weighs only 3400 pounds, little more than a team of horses. Low and compact with short wheelbase. Turns in 22 ft. circle. Stays on all fours.

2 Rated 10 H. P. on drawbar, but develops nearly 14 H. P. Rated 18 H. P. on the belt but delivers about 24 H. P. This insures abundant reserve power.

3 Four cylinder Case valve-in-head motor. Removable head. Motor is set crosswise on frame, affording use of all straight spur gears. This conserves power.

4 Belt pulley mounted on the engine crank shaft. No gears used to drive it. Pulley is part of the tractor, not an extra-cost accessory.

5 All traction gears are cut steel, enclosed and running in oil. No bevel gears, chain, worm or friction drive parts.

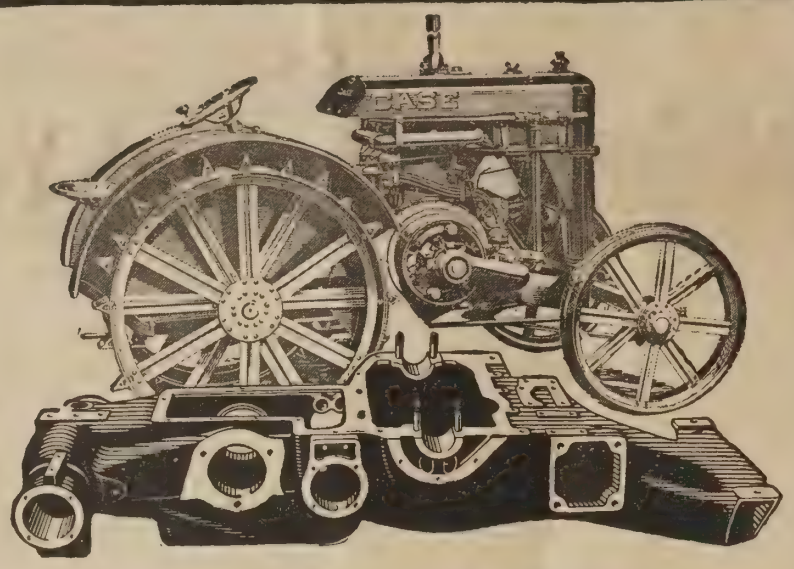
6 Case-Sylphon Thermostat controls cooling system and insures complete combustion of kerosene in the motor. Prevents raw fuel from passing by pistons and diluting oil in the crank case.

7 Case air washer delivers clean air to carburetor. No grit nor dust gets into cylinders to minimize their efficiency and shorten their life.

8 All interior motor parts lubricated by a combination pump and splash system. Speed governor, fan drive and magneto are dust proof and well oiled.

9 Complete accessibility. No dismantling necessary. Removable covers permit you to get at parts quickly.

10 Hyatt Roller Bearings in rear axle, bull pinion shaft and transmission case. Kingston ignition and carburetor. Five-piece radiator with a cast frame. Core is copper. Fin and tube non-clogging type.



This One-Piece Main Frame

Reduces Vibration—Prevents Disalignment

Here we picture a new tractor achievement—the frame of a Case 10-18. It is the fore-runner of new-day ideas in designing.

Note that this casting constitutes a dust-proof housing for the rear axle, bull pinion shaft, transmission shafts and the bearings for these parts. It also provides a base for the motor, which sets cross-wise.

This type of frame construction brings rigidity unattainable in a fabricated frame. It insures constant alignment of bearings, shafts and gears. Owners avoid gear troubles. Thus we prevent power losses.

And we multiply strength while reducing weight.

This one-piece frame is one of the greatest advancements in tractor history. It was inevitable. Others are bound to follow. But Case is in the lead. Case offers you now, today, what later on will be adopted generally.

This is only one of many betterments, some of which are itemized at the left. Do you know of any tractor offering all these superiorities?

A complete description of the Case 10-18, with illustrations and specifications, will be mailed upon request. Write for it today. Or visit a Case dealer.

J. I. Case Threshing Machine Company, Inc.
(Founded 1842)
1295 Erie Street, Racine, Wis., U. S. A.

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CASE
KEROSENE TRACTORS



A Better Way of Sealing Preserves, etc.

In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

The better and easier way is to use a MIDGET CROWNER and seal your bottles (up to 14 ins. in height and 4 ins. in diameter) with air tight Crowns (3 sizes).

In storing condiments of all kinds for future use you will find this the safest method of sealing.

Write for full particulars.

THE CROWN CORK AND SEAL COMPANY,
Baltimore, U. S. A.

ABORTION IN CATTLE
PREVENTED AND CURED PERMANENTLY. YOUR COWS MADE PROMPT, REGULAR BREEDERS BY
STERILOID

Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY
Dept. A2, 398-408 Columbus Ave., New York City
Reference Colonial Bank.

ABORTION



Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.
Dr. George Hollabush, Fort Atkinson, Wis.



RAISE BELGIAN HARES For U.S.
HUGE PROFITS easily and pleasantly made. We furnish stock and pay you $6.00 a pair and express charges for all you raise. Contract and book "Fortunes in Hares," 10c. Nothing free.
NATIONAL FOOD & FUR ASSOCIATION
Dept. 240 MILWAUKEE, WISC

DON'T PUT OFF
Seeing your friends and having them join in for a club of subscribers.

Cow Testing Associations

(Continued from page 257)

my records for the past month I find that a herd of cows which has been kept in a dry lot this summer and which was fed a balanced ration of corn silage, alfalfa hay, bran, and cottonseed meal has been more uniform in its production of butterfat than any herd in the association. Several members who have been trying to balance their ration have found that it pays. One member by the use of the balanced ration raised his butterfat production one-third over what it was last month.

A test was made from the skimmilk of seven separators this month, one of which was found to be losing .4 of a pound of fat in every 100 pounds of milk separated. These separators should be adjusted so as not to lose over three to four-hundreths of one per cent of fat.

Dearborn:—I found since I took up the work one cow that was not paying for her board and several more that were returning less than $1.25 per the dollar invested for feed. In several cases where the pasture was short I found they were obtaining good results with some grain feeding. The association met July 27th and at the meeting decided to buy two carloads of feed. By getting it in so large a bulk they were able to save considerable.

A Yearly Report

Mr. Harold Harkness, tester for the Dover Association of Minnesota, secured the publication of his annual report in his local paper, from which we quote the following:

"During the year 550 cows were tested. Two hundred sixty-three completed the year's work with an average of 259.2 lbs. of butterfat as compared with 205.8 lbs. the preceding year, an increase of 53.8 pounds.

"One hundred five cows were sold and 110 were purchased to replace them. The first year's work showed that 17 cows produced over 300 lbs. butterfat as compared with 74 cows over 300 in the second year's work. Nine of these were over 400 lbs. and one over 500 lbs.

"The high cow for the year is Fawn, a grade Guernsey owned by John Henry. She made 520.58 lbs. fat.

"During the year the following new equipment was purchased by members:—Seven installed water bowls in their barns; seven installed steel barn equipment; twelve installed milking machines; three installed motor to run separators and milkers; five purchased new separators; five erected new milk houses; and four built new barns. One new silo was built making every member a silo user with the exception of two who are now building.

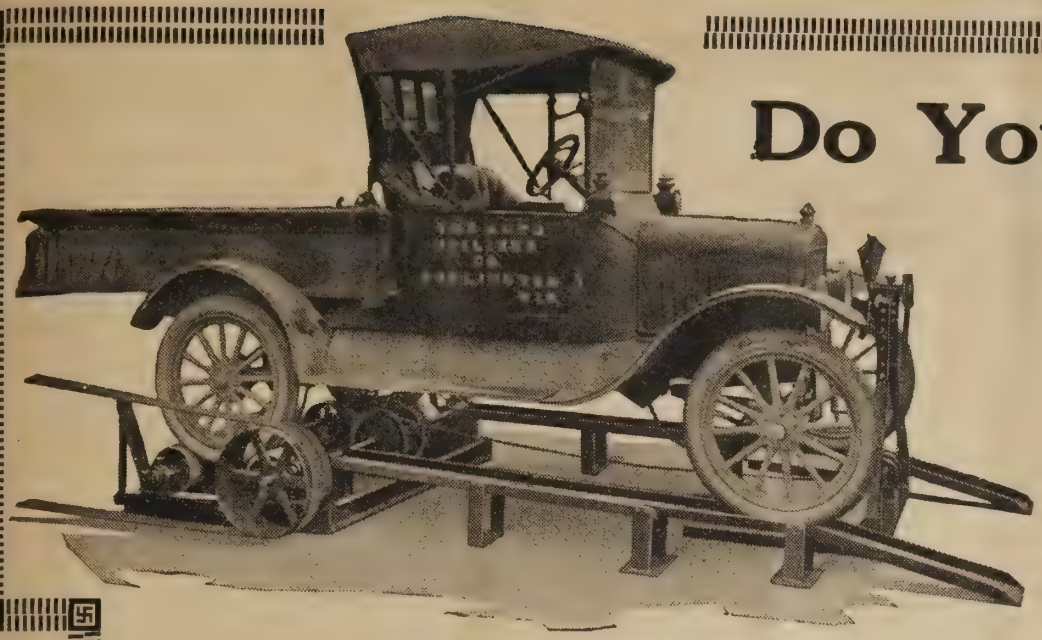
A successful calf show was held on June 11th. The show was of value to the community through the interest and enthusiasm it aroused in better stock. The Red Cross also profited to the extent of $221.85 on calf show day.

"Under the direction of the Farm Management Division, University of Minnesota, special accounting work was carried on throughout the year. This is to be used as data on the cost of milk production. The results will be made public at a later date.

"The average production of the 24 herds in the association ranged from 165 to 374 lbs. fat per cow for all cows on test over 8 months. Eight of these herds averaged over 250 lbs. fat. The following table gives the names of owners and records of cows producing over 365 lbs. fat per year, 'A Pound of Fat Per Day'."

Owner	Breed	Milk Lbs.	Fat Lbs.	Profit over cost of feed
John Henry	G.	11,633	520.58	$181.27
John Henry	G.	8,589	457.71	162.71
John Henry	G.	9,694	456.32	159.27
H. W. Hart	H.	11,635	445.23	153.80
H. W. Hart	H.	11,436	415.36	136.31
Gus Doering	H.	10,443	408.65	137.23
J. A. Henry	H.	10,518	407.10	138.46
John Henry	J.	8,885	404.84	135.00
John Henry	G.	8,660	402.78	139.56
John Henry	G.	7,505	396.99	134.69
J. A. Henry	H.	9,995	392.73	130.84
John Henry	G.	8,599	392.60	132.40
James A. Henry	H.	10,328	392.29	124.06
Nihart Bush	H.	8,603	390.39	120.92
John Henry	G.	8,734	390.01	180.88
John Henry	J.	7,195	388.99	133.82
John Henry	G.	9,316	380.19	115.60
Paul Pfeifer	G.	7,809	379.91	139.64
Harold Hart	H.	10,693	376.61	131.17
Harold Hart	H.	9,996	374.44	114.63
Gus Doering	H.	10,957	373.39	119.45
Scott Kepner	H.	12,318	372.94	90.73
Harold Hart	H.	9,825	369.75	127.09
John Henry	G.	8,928	369.73	117.06
Scott Kepner	H.	9,681	368.30	107.24
James Henry	H.	9,592	367.17	127.21
James Henry	H.	11,438	366.08	109.86
Paul Pfeifer	G.	7,962	365.2	130.47

The war has greatly increased the demand for dairy products, and it is also important that they be produced economically. In order that the quantity of dairy products may be large and the production economical, more and better cows are needed. The raising of all the best heifer calves will provide cows enough to permit the culling out of all low producers.



Do Your Silo Filling With Your Auto and the Auto Utilizer

Improved to the point where it is the only practical adequate device **for getting all the usefulness out of an auto engine that any farm power requirement can possibly demand.**

Specially Air Cooled, reproducing the effect of running the car against the wind. No possible danger of overheating the engine.

No Jacking Up the Car — car stands level, and runs exactly as it does on the road—both wheels revolve the same all the time—just like running for miles and miles in a perfectly straight line.

Tires Run on Rubber Rollers. After steady running of new tires equal to thousands of miles of road travel, they hardly show any evidence of use—in fact, much less than would be shown after travel over ordinary roads a similar distance.

Built Sectional—Easily Moved About. See the bottom illustration showing the dissembled Auto Utilizer. This feature enables two men to take it apart and load it onto the auto in five minutes, and transport it wherever they wish to use it next.

The Auto Utilizer Really Makes the Auto Engine the Only Engine Needed on the Farm. No need to buy an expensive engine, costing up to $300 or $800, to fill silo and do the other farm work if you own, or wish to buy, an Auto. The Auto Utilizer enables you to do all this work at the saving between the price of such a special heavy duty engine and the cost of the Auto Utilizer.

$220 F.O.B. Factory. Price, subject to change. Buy now before material and labor costs increase.

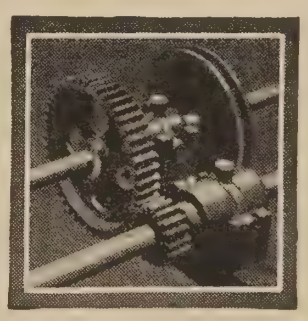
Does Not Force the Car to transmit the power through one wheel, causing strains on the differential and eventually pulling the wheel out of alignment.

Provides a Secure, Firm Basis for attaching pulley—no tendency to pull away from car after the belt is on.

Automatic Adjustable Rocker--Base Housing — keeps shaft always in alignment. Equipped with Hyatt Roller Bearings—nine on each outfit.

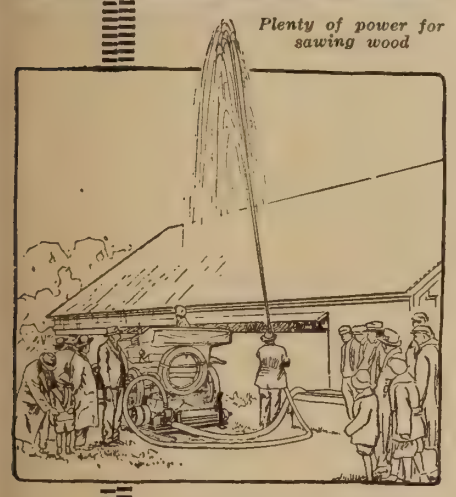


Geared Down to a point that relieves the effort of the car to the minimum.

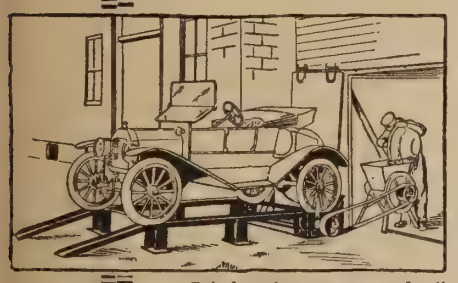




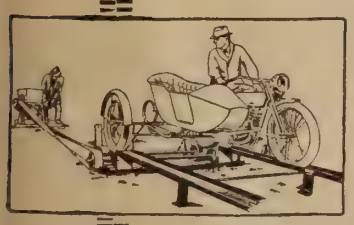
Plenty of power for sawing wood



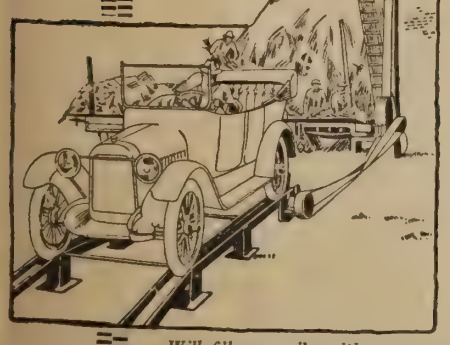
Pumps water and operates power pump for fire protection



Grinds wheat, corn and all sorts of feeds



Even a Motor Cycle runs it, grinding feed



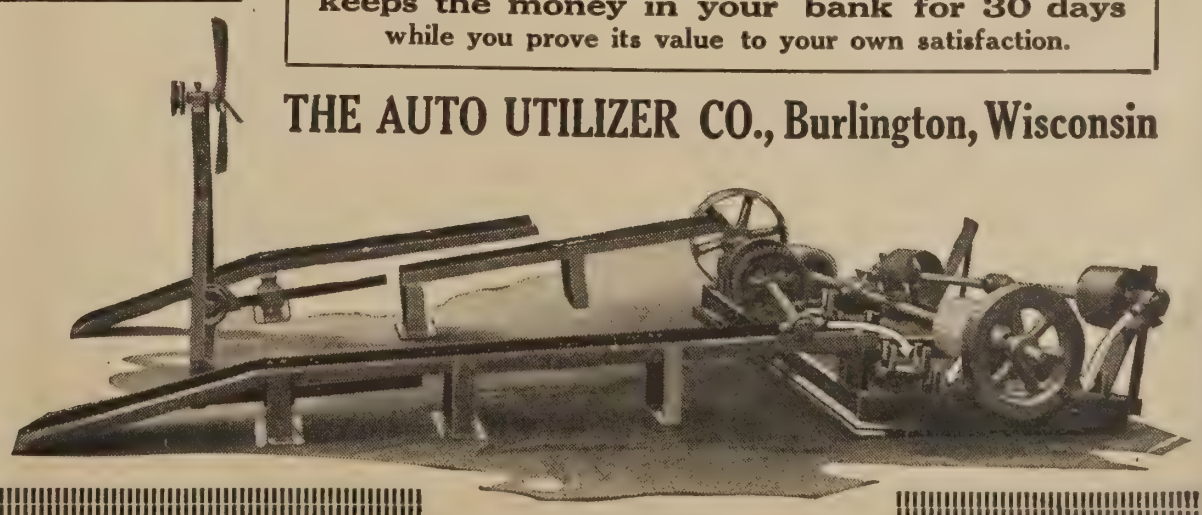
Will fill your silo with ease—day by day as you cut

Order from this Ad.

Satisfaction Guaranteed—Our Special Order Plan

keeps the money in your bank for 30 days while you prove its value to your own satisfaction.

THE AUTO UTILIZER CO., Burlington, Wisconsin



RKD ARCADY

ANNOUNCEMENT

FARMERS and feeders who have been feeding the well known and popular Arcady (R K D) Feeds, will be pleased to know that the Company are supplying their trade in their usual prompt and careful manner in spite of their recent fire loss.

Regardless of modern fire extinguisher protection, three hours served to send up in smoke one of the most modern and up-to-date equipped feed mills in America. The Poultry Feed plant, we are glad to announce, remains in full operation for the immediate shipment of orders.

Plans are already under way for the quick and immediate rebuilding of the plant on even better plans than heretofore.

Meanwhile, orders for R K D Dairy, Hog and Stock Feeds will be shipped from associated plants with the same painstaking care as before.

May we, therefore, ask you your continued patronage and support, which we shall do our best to merit and satisfy.

Yours very truly,

ARCADY FARMS MILLING COMPANY
CHICAGO

UNCLE SAM

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The Whole Dairy Family Cow to Consumer

Bossy, her father and brothers—The man, woman or child who feeds and milks her—The man, woman or child who makes her milk into butter, cheese, ice cream, condensed milk, milk powder or any other shape or form and the man, woman or child who uses her milk in any form—all the folks who make or sell machinery and equipment she makes necessary

TO GO TO THE

National Dairy Show

Columbus, Ohio, October 10th to 19th, 1918

Where he is going to deliver to each one
A great war message
On the team work he wants to do with the dairy people
And how he wants
The dairy people and the consumers of their products
To work together—

This is a Call of Duty and Opportunity—Go!



Safe and Sure
catches easily and locks firmly. Has straight pull—no twisting. Your bull will respect the
KEYSTONE BULL STAFF
Shepherd's crook, automatic latch, easy to release, taper socket riveted fast to 5-foot heavy ash handle.
Guaranteed.
Write for free circular.
M. T. PHILLIPS. BOX 109B, POMEROY, PA.

KING SEGIS PATENT LOCK
Ear Tags, Bull Staff and Rings.
Description and prices sent on application.
300,000 of these ear tags have been sold without adverse criticism. 500 of these BullStaffs areusedby the best breeders in the business.



H. A. Moyer, Syracuse, N. Y.

Price Fixing and Cost of Farm Products

(Continued from page 255)

and demand is too little understood. It does not always work perfectly. It might be made to work much better under the guidance of a commission than when left to the free and unequal bargaining power of great distributing corporations on the one hand and the isolated producers on the other.

A properly constituted, permanent price commission might inaugurate an educational program which would improve the mutual attitude of mind of the producer and consumer toward each other, which would make each more considerate of the rights of the other that are in the long run fundamental to the interests of all concerned.

Furthermore, such a commission, well informed with regard to the facts of production, distribution, and consumption, would form a desirable medium for collective bargaining between the organized producers on the one hand and the organized distributors on the other, which appears to be the logical outcome of present tendencies and which would appear to be desirable wherever large numbers of isolated farmers are selling to large corporations such as the milk distributors in the large cities, the packers and the grain dealers, and possibly in many other instances. Even where the more specific functions of price-fixing are unnecessary, there is an important work for price commissioners in studying market conditions and the conditions of supply and in educating both producer and consumer to rational action.

In passing judgment upon the merits of commission prices in comparison with unregulated prices, too much weight should not be given to the results of commissions which of necessity have been organized hastily under the stress of war time conditions. It will take time to develop good price commissions; but what is so much worth while is worth striving for.

Digest

The demand for price regulation has increased rapidly during the past year. Cost of production is assumed to be the basis of this regulation, but there has been much difficulty in the application of the cost principle to price-fixing.

Costs vary greatly from farm to farm. To fix prices on the basis of average costs would leave about half the farmers producing at a loss.

There are differences of opinion as to whether produced feeds should be charged at cost of production or the market price.

It is difficult to distribute cost of production. Much of the expense would be the same if one crop in a rotation were dropped; hence the specific cost of a given crop cannot be used as a basis of price-fixing.

Total farm profit is recommended as the starting point in price-fixing. The combined prices of the group of crops produced on one farm must be enough to make the given type of farming profitable. For example, if the milk price is continually held too low, farmers may find total farm products greater in the production of beef or wool, in which less labor and cheaper feeds are required. Where there are competing crops such as barley, oats, and wheat from which the farmer may choose, the price of wheat cannot be held down, while the others are high, without danger of reduction in the seeding of wheat.

A bad system of price regulation may do untold damage by destroying agricultural industries which have required decades to build. The long-time point of view is necessary and should be considered by price commissioners, producers, and consumers.

Price commissions should make a careful study of the demands for consumption at the various possible prices, and then carefully study the conditions of production to find what supplies can be produced profitably at the various prices and adjust them with a view to keeping supply and demand balanced.

A price commission might well act as a medium for collective bargaining in the sale of farm products and in the purchase of supplies. It could steady prices, guide production, and in a measure, direct consumption so that the greatest good might result to all concerned.—H. C. Taylor in Bulletin 292, Wisconsin Experiment Station.

Necessity of Dairying During The War

(Continued from page 251)

must begin by first organizing the producers and teaching them the simple farm departmental methods of cost accounting.

As Prices Rise Dairying Declines

The keen observer along dairy lines has always found the dairy business on the decline during the time of high prices, while the greatest development has been made during times of depression. Upon analyzing this situation it becomes very clear that in order to maintain the profitableness of the dairy business the price must increase directly to the advance in price of everything that enters into the production of milk. Since every item increases, the increase in the cost of the final product is proportionately much higher than the increase in cost of the elementary commodities that enter into it.

Undoubtedly sooner or later—it may be through regulations and it may be at the end of the war—these commodities will gradually be lowered in price and then the dairy business will automatically become a profitable business. But dairy farmers have large investments in their dairy plants and if they are forced to sell during the crisis which we are now facing, it will be done at a sacrifice and these dairymen will very reluctantly enter into the business when prices are low again.

To help carry the producer over this crisis, therefore, becomes the particular problem in which every man and woman should be interested. If the preservation of the dairies is neglected now, the consumer must pay the penalty later on by paying proportionately increased prices for milk, during the time of a decline in prices of other commodities, in order to compensate for the losses sustained. —[Address given before the National Dairy and Food Commissioners' meeting.]

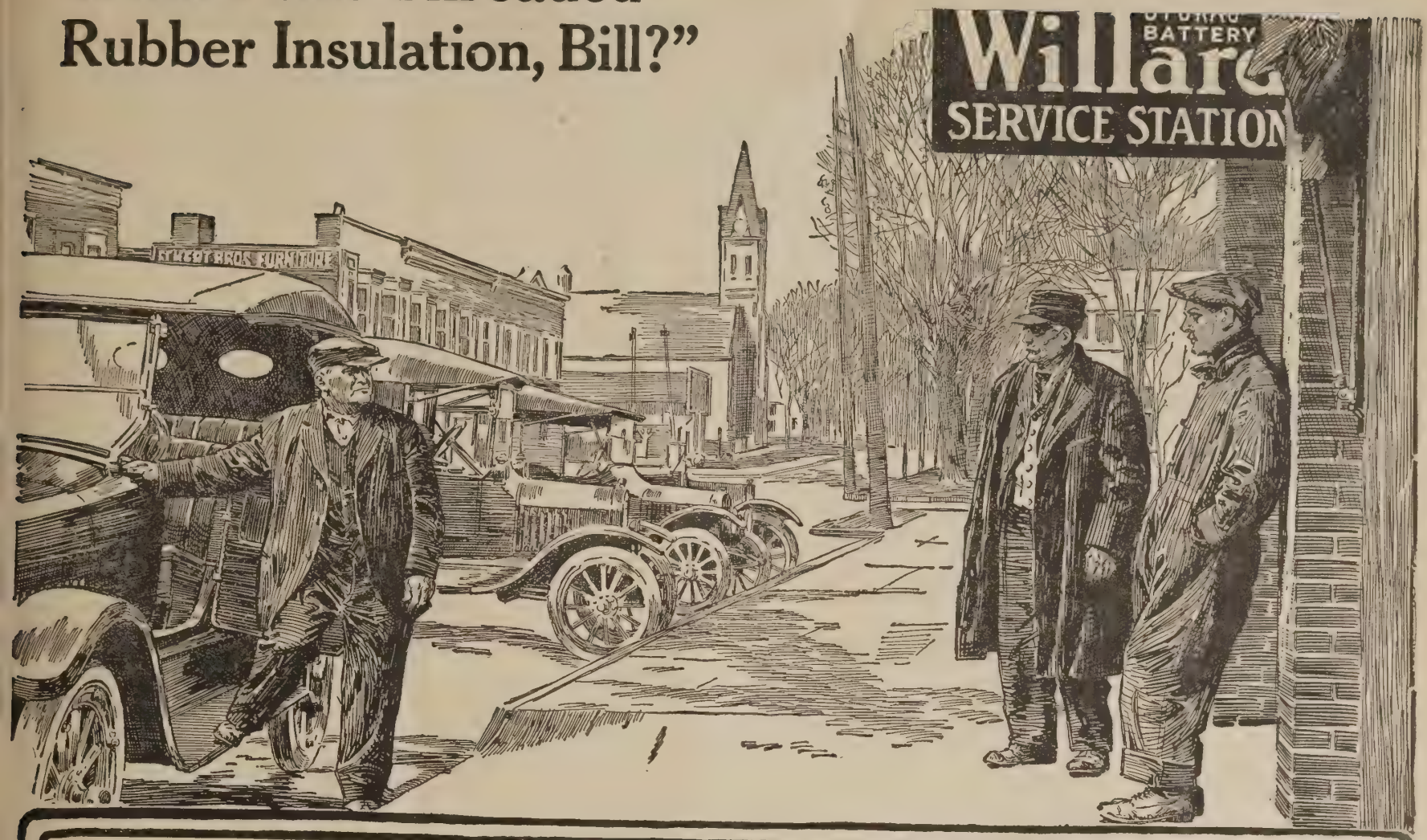
Barrenness

Can you give me some information in regard to a cow that comes in heat regularly but does not seem to catch. I had a calf from her last August but she is not with calf yet. She is too valuable a cow to beef without trying some cure. I have had more or less trouble with some of my other cows but after a time they would breed.

Ingram, Wis. J. VANP.

As often stated here there is no specific remedy for barrenness and the best treatment is to have the ovaries massaged two or three times at intervals of a week and the veterinarian should also treat the womb if an examination shows that to be necessary. Only a specially trained and experienced veterinarian can do such work properly. Meanwhile syringe the vagina out two or three times a week with lukewarm water containing one dram of pure phosphate of soda to the quart.

"What's this Threaded Rubber Insulation, Bill?"



"Come in and See for Yourself"

"Here's a piece of it—just looks like a square sheet of rubber, but notice those little specks all over the surface.

"Each one is the end of a tiny thread that goes through from front to back —196,000 of 'em.

"They draw the battery solution just like a lamp wick draws oil.

"That means that you can have *hard rubber* insulation between the plates of your starting and lighting battery and still have the *free passage for the battery solution,* that is necessary for a good, strong current.

"The rubber keeps the plates from short-circuiting; keeps your battery in good shape and prolongs its life.

"It's an insulation electrical engineers have wanted for years, and now Willard has made it possible.

"Yes, it costs a little more, but nothing like what it saves in extra life and freedom from repairs.

NOTE—Write for free booklet "The Wick of the Willard" and list of Willard Service Station addresses. Sent free, postpaid, on application to The Willard Storage Battery Company, Cleveland, Ohio.

Willard STORAGE BATTERY

Willard Threaded Rubber Insulation

55 Head Pure-bred Holsteins

To Be Sold at Union City, Mich.

Tuesday, October 1st, 1918

Being a Dispersal of the Thomas B. Buell and Son Herd and Consignments by Ray Parham, John Gintling, Wm, Tase and Sidney Smith.

Sale includes: 2-year-old grandson of King of the Pontiacs and Pontiac Aaggie Korndyke, a combination never offered before in 30-lb. breeding; 8 two-year-old heifers, ready to freshen, sired by a $3,000 son of King of the Pontiacs; a 24-lb. cow that made 96 lbs. milk her best day, with two of her daughters; a daughter of a 26-lb. cow; a 22-lb. daughter of Pontiac Aaggie Korndyke; 3 granddaughters of Pontiac Aaggie Korndyke.

All animals from best blood of the breed—and all guaranteed against contagious abortion and tuberculosis for 60 days.

Union City is on Michigan Central—jitney service from Battle Creek and Coldwater.

Col. B. V. Kelley, Auctioneer. **S. T. Wood, Director.**

Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now on yearly semi-official test and will complete records this fall and winter. Nearly every cow has completed cow testing records for three years and has produced up to 600 pounds of butter. These cows are never pushed to the limit. The bulls offered are sired by bulls secured from the E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butter. Bulls are heavy bone, straight, well marked and large for their age. They will and must please. We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn.

WE PAY HIGHEST PRICES FOR EMPTY BAGS

Bags - Bags - Bags



We buy all kinds at highest market prices—and pay the freight. Ship us your second hand bags, or at least write us what you have so we can quote you. Satisfaction guaranteed. Our check goes out the day the bags come in.

LINCOLN BAG CO., Dept. H, Springfield, Illinois.

Lime Your Soil

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While the Yankee lads are fighting their way toward the Rhine, and giving their all; while England, France, and Italy are throwing their entire national forces of life and money into the struggle, there will be no patriotic American who will not do his part.

GEO. A. KING.

Whitewash Recipe

HOARD'S DAIRYMAN:—Each week we look with great interest for our "Dairyman" and read it all as soon as possible. I am a Jersey man. Have a few fine registered ones and have just completed a very nifty little barn. I want to give the readers of the Dairyman just a few tips on whitewashing as now is the time to clean up, get rid of flies and insects, and get ready for winter.

I mix good white lime and soft water until it will spread easy. To each pail I add a cup of common salt and a cup of corn starch. It will make a very nice, hard finish and is suitable for cow barns, hog houses, horse stables, or for any sort of interior work. If it is desired one can add a cup of Creso dip No. 1 and applying with a brush it will fill all cracks and crevices where lice and mites are most apt to harbor. Be as particular applying it as you would paint and it will last a year or more.

Williamstown, Mich. J. B. Y.

In Norway the decline of dairying has caused the government to adopt a system of rationing skimmilk. Since June 17 children under five years are allowed 1¼ pints daily, and persons over 15 years are limited to one-third pint daily.

DAIRY MARKETS

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Eggs—Ordinary, 39½@42c; firsts, 42½@43½c.

Cheese—Twins, 26@26½c; Young Americas, 27@27½c.

MILWAUKEE, Sept. 12—Butter—Creamery, tubs, 50@50½c; prints, 51@52c; extra firsts, 49@49½c; firsts, 47@48c; dairy fancy, 45@47c.

Eggs—Current receipts, returned, 40@40½c; cases, new included, 41@41½c; miscellaneous, cases, 40@41c; dirties, 33@34c; seconds, 30@31c; checks, 28@30c.

Cheese—Twins, 26½@27c; Daisies, 27½c; Young Americas, 27@27½c; Longhorns, Brick, 31@32c; Limburger, new, 1 lb., 27c; 2 lbs., 26c; Swiss, loaf, 45@47c; block, 34@36c.

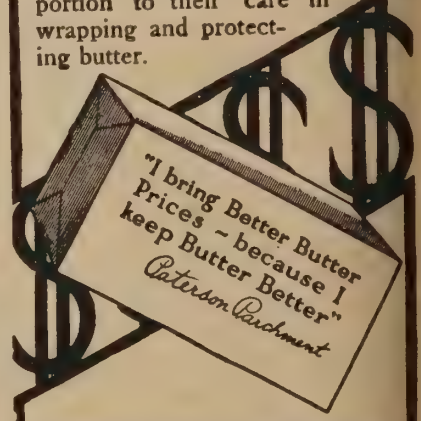
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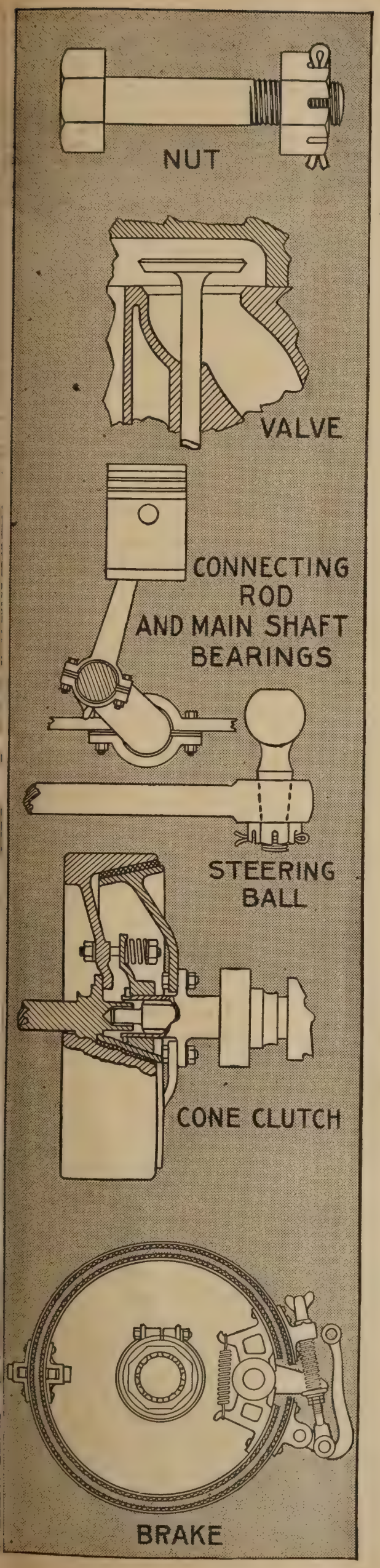
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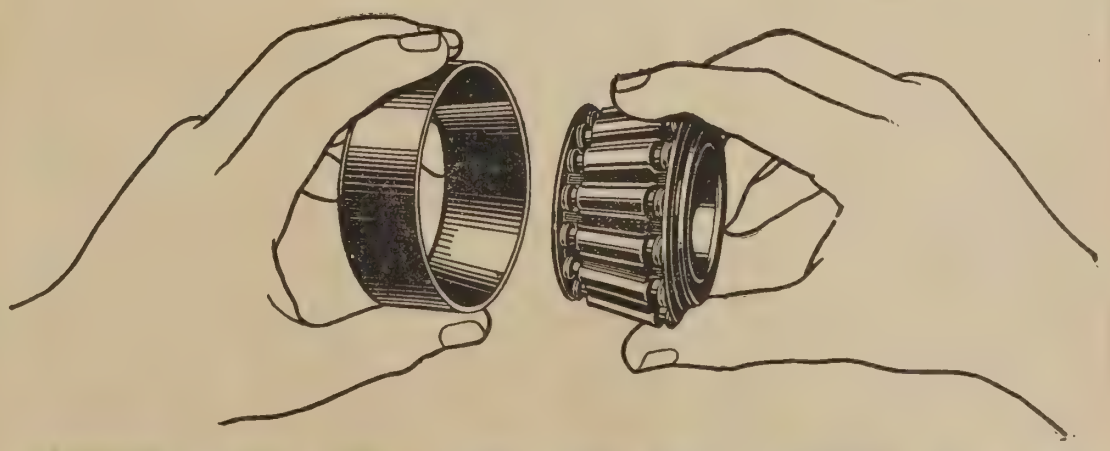
If the bearings at these points were not provided with some means of take-up the looseness that develops in any type of bearing would in time affect the operation of the entire machine.

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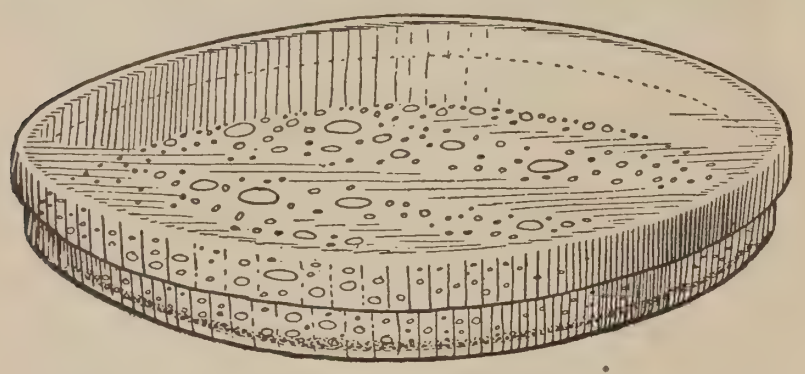
HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Counting Bacteria in Milk

You all know that milk contains bacteria, tiny organisms so small that they cannot be seen without the aid of a microscope. Sometimes these include disease bacteria such as those that cause tuberculosis or septic sore throat and, of course, such milk is not only unfit but actually dangerous for human use. More often, however, these bacteria are the kind that cause milk to spoil, turn sour, or perhaps be ropy or stringy.

Now, the milkman don't want milk that contains a great number of such bacteria. Such milk won't keep long and, of course, his customers would soon stop buying of him if he continued to deliver a poor grade of milk. Because of this, milk is, in many cities, graded or put in different classes. That which contains but a comparatively small number of bacteria is Grade A. Grade B milk contains more, and so on down.



THE DOTS AND CIRCLES IN THIS SHALLOW GLASS DISH SHOW THE APPROXIMATE SIZE OF COLONIES OF BACTERIA AFTER GROWTH ON AGAR,—AS THEY LOOK TO THE MAN WHO COUNTS THEM.—(New York Bulletin 139.

At once you wonder how anyone can count these bacteria and at first thought it does seem like an endless job, particularly when you know that there may be millions in a single bottle of milk. However, the bacteriologist who does this work takes a very small sample of the milk, a cubic centimeter which is about a teaspoonful. Then he takes 1,000 or 10,000 times as much sterile water, mixes the sample of milk in it and is ready for business.

Next, he gets some agar, a substance made from seaweed, and to this adds water, beef extract, peptone, and perhaps some milk sugar. The bacteria grow well in this mixture which becomes jelly-like when it is cool. While the agar mixture is still warm, a cubic centimeter of the milk and water mixture is added to it and the whole mass shaken well. It is then poured into shallow glass dishes and allowed to cool.

Why was all this done? There were too many bacteria in that first cubic centimeter of milk so it was necessary to dilute it, which was done with the sterile water. Now, don't you see that if we could count the bacteria in one cubic centimeter of the water and milk mixture, and then multiply that number by 1,000 or 10,000 we would have the total number in a cubic centimeter of the original milk.

That is exactly what the bacteriologist does. He leaves the dish of agar in a warm place so that each bacteria multiplies and forms a little colony that can be seen without any microscope. Then, by counting the colonies, he can tell how many single bacteria there were at first, and how many there were in the original sample of milk.

The illustration gives you a good idea of how such a dish of agar looks when the colonies are ready to be counted.

Let's Hear from You

Summer is about gone and a good many of you juniors who have been in business for yourselves are ready to market your stock and your crops. Perhaps you have done so already. Your work this summer should have done at least two things for you. You should first of all have learned to be a better junior business farmer. If you were raising a pig, your work must have taught you better methods of feeding, or if you had an acre of corn, you got some good experience along that line. The other result of your work was a profit in dollars and cents if you were successful.

Now, then, why not let the other fellows know just what you have been doing. They are interested in exactly that kind of work. Perhaps they've been doing it this summer and while some may have had better results than you have, others have not done so well. A letter from you telling how you succeeded and something about your way of working would not only be interesting to other juniors but it would actually help them, because certainly they should be able to learn something from it.

Don't simply write a letter saying you have been doing this thing or that. Write one that will tell about your work, just the way you'd expect other fellows to tell about what they've been doing. All of us would like to read such letters.

If you've a picture of your calf or pig or of your field, send that too. We would like to see it.

Just the other day we were talking with a dairyman who has several sons, one of them a boy of 14. We asked this father if the boys had stock of their own and he told us that the older boys had but that this one never took good care of what animals he had owned and so he would not let him have ony more.

In thinking about this afterward, we wondered if this might not be one reason why some of our Hoard's Dairyman Juniors were not in business for themselves. Have you had a chance to get some stock of your own and then perhaps fallen down when it came to the matter of caring for it? Did you ever get your father to let you have a calf or pig, take good care of it for a while, and then lose interest in the whole business, even to the extent of letting him take care of the animal?

We hope not. We would like to see every Hoard's Dairyman Junior in business for himself, but we certainly would not want any fellow to start unless he expected to finish. If you go to your father and show him that you not only want to get started but that you are willing to earn your start and that you're going to see it through, we believe he will be very glad to help you. Try it and see.

Just a few days after we saw the man referred to above, we called on another dairyman. We found him busy laying a floor in the barn and one of his sons, who could not have been over eleven or twelve, helping him. He was really helping, too, and doing fully as well as a man could.

Later during the course of the conversation, the father told us that this boy and his brother a year or two older had been his only assistants during harvest. Those two boys and their father cut and shocked 80 acres of grain. One fellow drove the binder; the other helped shock. And what was more they had it done about as soon as other farmers in that section. How's that for a record? That father has a right to be proud of those two boys; they certainly proved themselves the right kind of junior farmers.

Our government has taken and is taking thousands of young men from the farms because it needs them in the army. Someone has to fill their places and there is where you come in. You can't go as a soldier but you can feed one and can do a good deal toward filling his place on the farm. Just now it isn't a question of doing your part. That isn't enough; all of us have got to do all we can.

Buys Heifer from his Father

HOARD'S DAIRYMAN JUNIORS:—This is my second letter to the juniors' page. I did not see the other letter in print so I thought I would write another letter. When I wrote the last letter, I was sick with pneumonia for two weeks. You might think I was a tickled boy to get out-of-doors then. Now I am laid up with a wire cut. I had to have the cut sewed up.

I have a little calf of my own which I bought from my father. It is ten weeks old now and is a heifer calf. I am sending her picture to you. We have seven calves besides mine. We feed them a gallon of skimmilk twice a day, all the clover and timothy hay they can eat, and oats, bran, and oil meal. We are milking 19 cows now. We have seven head of horses, one herd bull, and 45 head of pigs. Eleven of our pigs are pure-bred Chester Whites. We are going to have all pure-breds next year. I have 110 chickens in all and three ducks. I hope to see this letter in print. Wishing the juniors good luck, I will close.

Wisconsin. ORVIN L. BURTON.



ORVIN BURTON, A WISCONSIN JUNIOR, AND HIS HEIFER CALF

Junior Letters

Hoard's Dairyman Juniors:—It has been a long time since I have written to the juniors. My Ayrshire is doing fine. My pigs are quite big ones now. We are still sending our milk to the condensery and like it fine. We got $102 for July from 12 cows. Our milk tested 3.3%. The cows are doing better now. We turned them into a clover field.

My brother's cat had 5 kittens. I have a pair of rabbits. They are Belgian hares. Could some of the juniors tell me what to feed them, what time they have young, and what kind of a pen to make them?

We had 55 acres of hay and 55 acres of grain. We are installing a litter carrier at the present. Our milking machine is working fine. We haven't got many apples this year.

My address is Marlette, Mich., R. F. D. 1.

Millard Laidlow.

Hoard's Dairyman Juniors:—I have not written to the juniors since I joined last year. We have ten cows but one is sick. One quarter is all swelled up. It has been that way for two weeks but is getting better now. I have four rabbits. The old doe has had two lots of young this year. The first lot died and when the others were about two weeks old a weasel got in and killed them all. Some of the juniors who have raised rabbits please tell me how to raise them for I have had no luck with them.

Daddy has twelve pigs. He gets about ten gallons of milk and feeds it to the hogs after separating it. I am going to organize a pig club next spring. Will some of the juniors please write me a letter? My address is Leedstown, Va.

Lewis Hayes.

Hoard's Dairyman Juniors:—It has been a long time since I wrote because I was busy helping my father this vacation. I have already told you about our agricultural club and it will end September the fourteenth. Then the prize will be given. My pig now weighs about 160 pounds and I hope to get a prize for it. I will write to you again after the contest and tell you all about it. My calf is growing fine and I turned him out in the pasture.

My father has a milking machine and I am learning to handle it. I put it on most of our cows. I cannot think of anything else to say so I will close wishing the juniors good luck.

California. Lino Franscioni.

Hoard's Dairyman Juniors:—Ever since the Hoard's Dairyman Juniors were organized I have had an idea that I knew the juniors would fall in with, but have never had a chance to write about it. Why can't the juniors of the different states in the Union correspond with each other? In this way the juniors of the North would learn about the juniors of the South, and the juniors of the East would learn about the juniors of the West. They could exchange pictures of their homes, pets, of the landscape, and of themselves. This would prove to be not only instructive for the juniors, but it would be great fun. They could learn about each other's way of farming, ideas, and, best of all, about

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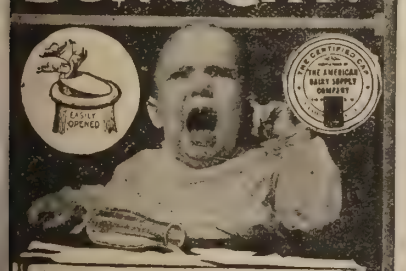
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the country and what the land is best adapted for. In this way if a junior, after he had grown up, decided to move to another state, he would know what to expect. So, you see the benefit derived by so doing. If any of the juniors would like this idea, they may write to George C. Strong, Water Mill, Long Island, N. Y.

I live on a small dairy farm on the eastern end of Long Island. There is not much dairying around here as the land is high in price, and pasture land is scarce, potato growing being the principal industry. But I wish it was otherwise, as I think that the dairy business is one of the most honest, healthful, and pleasant occupations anyone could wish for. I am sixteen years old and in the senior class in the high school, which is three miles away, but I do not mind that much as it is sport on a motorcycle and in bad or cold weather in winter the walk is pleasant and does me good. I am nearly six feet in height and a wonderful eater.

New York. George C. Strong.

Hoard's Dairyman Juniors:—It has been a long time since I have written but I have been very busy this summer.

We have been trying to stack grain, but we can only stack a half a day at a time as it rains a few days and then quits and as soon as it is dry enough to stack again it will rain.

Our barley started to grow in the shock. We have about thirteen acres of wheat yet to stack. This we think will go between 25 and 30 bushels to the acre. We have 45 acres of field corn and 12 acres of silo corn.

Papa gave my brother and me each a heifer calf this year. We are going to break them and drive them in parade at the Dakota County Fair.

Last winter we broke our two dogs so we can drive them single or double and we are also going to drive them in the parade.

We have two Scotch Collie pups for sale. The mother is a full blood and we have her pedigree. Our neighbors, who own the father, say that he is also a full blood but they have no papers for him.

We have 77 hives of bees now. We had 79 but the moths killed two of them.

We have fifteen spring pigs and two old sows. The sows eat chickens and our neighbor told us to feed them tankage and that would stop them. We did this for a long time but they kept on eating them so we are gong to pen them up and fatten them.

We have bought a light six car and we traded a bay mare in on it for $180, but we still have her here.

As my letter is getting long I will close wishing all juniors good luck.

Minnesota. Walter Nelson.

Hoard's Dairyman Juniors:—This is my fourth letter I have written to you. We have our oats all cut and shocked. Some of the people are threshing their grain. They have a 25 H. P. engine and 36-inch separator. We are thinking of getting a small threshing machine to run with our 12 H. P. engine. We have a small corn husker and a silo cutter. We grind feed for the pigs and cows with our engine, too. My little engine does all kinds of work like running the milking machine and pumping water and running the grindstone. We are going to thresh next week. My calf is getting bigger every day.

Well, I think it is time to close, hoping good luck to all the juniors. Gordon Hengstler.

Hoard's Dairyman Juniors:—I have not written for quite a while. We had a Brindle heifer come fresh last Saturday. She had a heifer calf that we think a great deal of as we only have three so far from our bull. In your letter you asked me if my colt was draft or roadster type. She is of the roadster type. I have her on pasture now; she is fat, sleek, and pretty. Yes, I still have my heifer. She is only giving about 11 pounds of milk a day now as she will be fresh in November. Our sow brought eight pigs. I traded my bull calf for one. Our sow will farrow again in September. Papa traded a horse for a cow, calf, and some wood and posts. I found a volunteer potato the other day with seed pods on it. We have all of our crops up. The frost killed our fruit this year.

Papa put up a silo and filled it with wheat, oats, oats and peas, and peas. The cows are on the stubble and we are feeding silage. There are only two or three other dairymen here besides papa, and I sold them Hoard's Dairyman.

I bought three rabbits, one gray and white one, and two white ones; the gray one died. I made a rabbit hutch last week. I liked the "Pettis County Calf Club" very well and would be glad if our agriculturist would organize a calf club. Wish the juniors would write to me. My address is Elgin, Oregon, R. D. 2. Robert Galloway.

Hoard's Dairyman Juniors:—This is my first letter to the juniors. Ralph Hutchins was up to my neighbors the other day so I went up to see him. He said that he had written a letter to the juniors.

I belong to the pig club and garden club.

I am 12 years old and in the seventh grade. I made two grades last year.

We are milking five cows. I milk two cows. We have ten heifers and one pure-bred Guernsey bull. His name is Krit.

My address is Lyndon, Wash., Route 1.

Clifton C. Alling.

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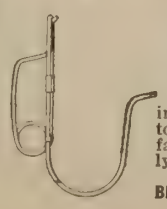
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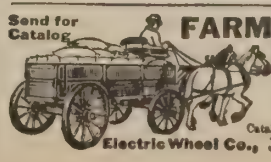
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Dispersal auction sale pure-bred registered Holstein cattle, New Douglas, Illinois, September 25th and 26th. Hundred and thirty head, mostly heavy springers. Eight serviceable young bulls from cows with records over thirty pounds of butter in one week. Cattle federally tested and sold subject sixty-day tuberculosis retest. Write for particulars. SAM GEHRIG, New Douglas, Illinois. 5-5

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

Holsteins and Guernseys. Registered and high grades, cows and heifers, service bulls. Carload or less. High grade calves $20 each crated. Write us, we have what you want. EDGEWATER STOCK FARM, Fort Atkinson, Wis. 22-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Save! Save! Save! On heifer calves. Holsteins $20; Guernseys $18. We raise them. Buy from us and save commission. Springing cows and heifers for sale. Our sires are of World's Record breeding. FRED JOHNSON, Iola, Wis. 7-3

For Sale—We are offering all of our registered Holstein cows over three years of age (10 in number) to settle a partnership. They are mostly due to freshen in late fall and early winter. All good large cows and heavy producers. Also have five registered bull calves at from $65 to $125 each. Address W. L. WAGGONER, Junction City, Wis., or T. J. Pitt, Fremont, Wis. 8-3

For Sale—21-pound granddaughter of Hengerveld DeKol due October 7th. Also a few choice heifers, all bred to King Korndyke Pontiac Lass 5th, due this fall and winter. All nicely marked. Also three bulls ready for service by above sire. ELMER HURELLE, Doylestown, Wis. 8-3

For Sale—30 head extra fine two-year-old grade heifers, due to freshen November to February, bred to registered bull. JAMES M. BROCKWAY & CO., Letts, Ia. 8-2

Holstein Bull sired by son of 44-pound cow. Five nearest dams over 28 pounds. C. MULKS, Riceville, Iowa. 8-3

Holstein grades—Sixty for sale; the best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minn. 8-4

For Sale—Registered Holstein-Friesians, young heifers, $75. Young bulls, $50. PAUL McNISH, Burton, Ohio. 8-5

16 cows—All nicely marked Holsteins; part springers, others to freshen in January. All bred to Colantha Mechthilde Madrigal No. 146511 H. F. H. B. Also Sharples Milking Machine. E. L. HOLZINGER, R. 7, Lancaster, Wisconsin. Farmer's Phone.

For Sale—30-lb. bull. Exceptionally fine, well bred, ⅔ white, 9 months old youngster. His dam and the sire's five nearest average 1,014 lbs. butter a year. JOHN PULS, Hartford, Wis. 9-3

Fifty choice Holstein cows for sale, both registered and grades, and tuberculin tested. We are in a position to ship to all points. Our shipping station is nine miles north of Bridgeport on the Berkshire division of N. Y. N. H. & H. R. Ry. This stock consists of some extra choice individuals. For further particulars address A. S. EDWARDS, Stepney Depot, Conn. 9-2

For Sale—Having stocked up with pure-bred Holsteins will sell my high grade Holsteins, pick, freshen about October 1. Tuberculin tested. W. GANZ, Lyons, Wis.

For Sale—Having sold my farm I offer for sale 59 dairy cows, mostly grade Holsteins; three fine, large young mules; three double unit Empire milking outfit practically new; milk vessels, farm implements, etc. F. A. MILLNER, Box 165, Norfolk, Va.

A 35.71-lb. Holstein bull, Sir College Cornucopia Korndyke 134430, 4 years old. Dam, a 24.976-lb. daughter of Hester Aaltje Korndyke 46.786 lbs. Sire, Sir College Cornucopia 2d, whose dam, College Belle Wayne, made 824.1 lbs. milk, 35.375 lbs. butter. Average for three nearest dams this bull 35.71 lbs. A straight, nicely colored, large individual weighing about a ton. As I can use him no longer will sell him Worth the money. S. C. SIMMONS, Belle Fourche, So. Dakota.

STOCK FOR SALE

Carload high grade Holstein cows and heifers. Priced for immediate sale. SIPPLE BROTHERS, Colby, Wis.

Registered Holstein bulls—Rich in the blood of King Segis and King of the Pontiacs. A few good females. JOHNSTONE & BALLANTYNE, Bassett, Iowa. 9-4

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

For Sale—Guernsey bulls from six months to year and half old. Write for pedigree and prices. S. M. WHITE & SON, London Mills, Ill. 6-6

For Sale—Closing out our grades. We offer several choice grade Guernsey cows and heifers. Most of them our own breeding. Reasonable prices. ST. AUSTELL FARMS, R. D. 3, Jackson, Mich. 8-4

For Sale—Guernsey bull calves sired by May Rose bull from a dam with 871 lbs. fat official record. Dams, granddaughters of Glenwood Boy of Haddon. F. W. KIMBALL, Waltham, Minn. 9-4

Guernsey heifers, three granddaughters of Ne Plus Ultra, $300 and $350 each. Bulls same breeding, $200. A. R. dams. TABER & MIGNIN, Castile, N. Y. 9-4

For Sale—Guernsey bulls from six to fifteen months old. Sired by Langwater Frenchman or Dairymaid's Glenwood of Pinehurst 3rd. Some are from cows with good A. R. records. DALE E. RUNDELL, Ore Hill Farm, Livingston, Grant County, Wis. 9-3

Seven high grade Guernsey bred heifers, sixteen months. The lot for $400. ORA BREITRICK, 852 N. Div. St., Appleton, Wis. 9-2

Cannot use longer, but wish we could. A great sire, strong in Glenwood blood. Sweepstakes winner over all. Coming five, and a sure breeder. Seven nearest relatives average over seven hundred fat. Photos and pedigree. Write: GLYN SARGEANT, Long Prairie, Minn.

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For Sale—Six registered Jerseys due to freshen October by one of best bulls in Michigan. H. F. GODWIN, Birmingham, Michigan. 8-2

For Sale—Carload choice Jersey heifers and cows, 3 fresh and balance from October 15th on. Come see them. BOYD BERDO, Washington, Iowa.

Jerseys, three registered Jersey heifer calves; Sophia's Tormentor breeding. Write for prices, descriptions. F. W. AXLEY, Seymour, Wis.

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

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Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

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AUCTIONEER

Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

STOCK WANTED

Wanted—To buy for cash registered Holsteins, young cows and bred heifers in lots of ten or more or will buy entire herds if priced right. LOCK BOX 97, Sterling, Illinois. 9-2

Wanted—To buy about 15 high grade milch cows, preferably Jerseys. Give price, records and average test. Want to hear from some one who has a clean herd of good producers. SANITARY DAIRY, Ft. Smith, Ark.

Wanted—October 9th, buyers for 21 head of registered and high grade Guernsey cattle. Write W. L. CHRISTIAN, Granger, Ind. 9-3

Hundred head registered Holsteins. Foundation stock. Good grades also. HOLSTEIN, Chardon, Oh. 9-2

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Duroc Jersey bred sows and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 6-4

Big growthy registered Poland China spring pigs, boars and gilts, not related. Also bred sows. CHAS. W. O'NEILL, Bridgeport, Wis. 5-5

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

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Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

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Having disposed of my dairy herd, will sell my Empire milking machine at one-half price. Am sending it to factory for complete overhauling and new rubbers. Guaranteed labor saver. Write L. L. DUNMIRE, El Paso, Ill. 6-6

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On account of selling my herd will close out the following equipment at bargain prices: Nine-unit Sharples Milker and pump, 24-bottle Babcock tester, 50-gallon Cherry coil pasteurizer, 150-gallon Creamery Package cheese vat, ninety-six Louden 1⅝ stalls. Everything in working order and first class condition. JAMES M. BROCKWAY & CO., Letts, Iowa. 8-2

For Sale—Emerson 12-20 tractor, late model, used only ten days. Hart-Parr 27-horse tractor, used eighteen months. Farm, electric lighting plant. This machinery is in good mechanical condition, and bargains for cash. HURDCROFT FARM, Monticello, Minnesota. 9-2

For Sale—Drop center Armleder milk wagon, used three months, almost like new. R. H. SCHILLIG, Davenport, Iowa. 9-2

For Sale—One Sharples mechanical milker, two units. Have gone out of dairy business. G. A. RENNER, Route 1, Camp Chase, Ohio.

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For Rent or Sale—100-acre farm near Brookside, Wis., fair buildings, about 70 acres under cultivation, balance pasture. WM. KIPP, Escanaba, Mich. 6-4

Dairy farm for rent or sale or chance to work. H. H. LYON, Bainbridge, N. Y. 8-2

For Rent or Sale—Hundred-acre dairy farm, joins city, well equipped; best wholesale milk price; good proposition to right party; possession any time; good money; best schools and churches; mild winters; healthy climate. E. V. FRITTS, Paola, Kansas.

For Rent—Dairy farm consisting of 360 acres. One of the best equipped dairy farms in the middle west. The gross sales from this farm for the year of 1918 will be $16,000. 125 head of cattle. Raise all the feed and grain on the farm. Want experienced dairyman with plenty of help of his own and $5,000 in cash. L. J. BYERS, Coldwater, Mich. 9-2

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Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

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Pedigree rye and winter sand vetch, properly mixed for seeding. VAN LOON, LaCrosse, Wis. 8-tf

Marquis Spring Wheat for seed. Resists drouth and hot winds better than any variety. Has out-yielded winter wheat for me ever since I have grown it. No more trouble than oats. The great Liberty crop. $2.50 per bushel, bags extra. R. F. JOHNSON, Assumption, Illinois. 8-tf

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Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

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We are in market for bright, sweet clover hay. Quote delivered price. ULSTERDORP, FARMS, Highland, N. Y.

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If you wish a farm in the best grass section of the south where alfalfa and all the clovers including Red White, Alsike, Sweet, Burr Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B GURLER, Macon, Miss. 25-tf

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO. Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H HANSEN, Macon, Miss. 11-tf

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For Sale by Owner—153-acre improved farm black soil, brick house, barn room for 4 head of cattle. Two miles from Waukegan, Ill on state cement road. One mile from high school, ¼ mile grade school, three railroads within two miles. Best of markets for farm products. $175.00 acre. Terms. D. W. WILLIAMS, Lake Forest, Ill. 6-4

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with building ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chicken when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis 7-tf

320 acres—Dairy farm near Ottawa; 2 sets improvements. Farm arranged just right for big returns. Well watered, shade, close school Write for full description and free descriptive booklet. MANSFIELD LAND & LOAN COMPANY, Ottawa, Kansas. 8-2

Free Maps of Mississippi, showing views and describing the famous black prairie alfalfa clover, corn, stock and dairy belt, located in Northeastern Mississippi, where Lincoln Hardbold of Iowa, the largest hog feeder in the world, has located; 300 miles of hard pike roads; good well and artesian water; excellent climate; three creameries; lots of grass; best hog, cattle, sheep and mule raising section in the South. K. M. WISHART, Aberdeen, Mississippi. 8-2

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A Small California farm earns more money with less work. Raise the crops you know about—alfalfa, wheat, barley, etc.,—also oranges, grapes, olives, and figs. Ideal for dairying, pigs, and chickens. No cold weather rich soil, low prices; easy terms; good roads schools and churches. Enjoy life here. Newcomers welcome. Write for our San Joaquin Valley, also Dairying and Poultry Raising illustrated folders free. C. L. SEAGRAVES Industrial Commissioner. AT&SF RAILWAY 1800 Railway Exchange, Chicago. 11-spl

230 acres, near Elkton, Maryland. Fully equipped dairy and poultry farm. Fine buildings. Land rolling, well watered, productive Station on property. $30,000. W. J. HAINES Elkton, Maryland. 9-2

Homeseekers in the sunny South write me for particulars of desirable farms for stock breeding, particularly for dairying, for sale; bargain prices. GEO. E. BROWN, Uniontown, Ala. 9-4

Will sacrifice farm for quick sale. 15 acres. For further particulars write MRS. M FITZGERALD, Owner, Winnebago, Wisconsin

Farm, stock, machinery and crops if desired state highway; ½ mile school, church, cheese factory, pickling station, stores. W. J. ROBINSON, Owner, Granton, Wis.

A Snap—Gently rolling 160 acres; 95 under plow; 35 good timber; clay loam soil; large house, barn 48x90; all stock (17 milch cows machinery and crops included in price; $77.5 per acre. THE E. L. C. CO., 366-M, Dept. 3 Merrill, Wis. 9-tf

You can help by spreading the news regarding the opportunities in Aitkin county, for those who want homes in an ideal dairy country, where the investment is small. Do this When you read this, tell all those around you to send for our literature. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg Duluth, Minn.

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For Sale—195-acre farm, good dairy barn with modern equipment, room for 60 cows, two good dwelling houses. Also 25 cows, 25 heifers, 2 male registered and high grade Holstein Will sell separate or all together. FAIRVIEW DAIRY, Harrisburg, Ill.

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Strout's New Fall Farm Catalogue just out! This big catalogue of the largest farm selling agency in the world goes over the top with truthful, helpful descriptions of money making farm bargains, many with stock, tools, crops, in 168 fine farming sections of 17 states. See details on page 27 of 320 acres, near conveniences, fine 12-room house, 75-ft. barn, silo, etc., timber pay for farm, if taken now 16 cows, pair horses, machinery, crops, all for $5,500, part cash. On page 16 is 140 acres, good house, big barns, cream sold at door, 2 miles town, only $1,100, including crops, $300 cash. Page 3, see 100-acre village farm, half mile depot, borders river, valuable timber, fruit, 9-room house, good barns, stock, tools, crops thrown in, all for $2,000. $600 cash. See sure on page 35, picture of fine home on 200-acre farm, pair horses, pure-bred Jersey cows, bull, hogs, tools, wagons, crops, everything sacrificed by aged owner for only $4,000, part cash. Write today for your free copy. This big, new catalogue of farm bargains will surprise and please you. E. A. STROUT FARM AGENCY, Dept. 3001, 312 Marquette Bldg., Chicago, Ill.

Finest improved farm in Michigan—360 acres in central Michigan, on state gravel road; railroad and interurban stop and loading switch on farm; short distance by interurban to good city with high school and state normal school; three sets of buildings, said to cost $40,000, including the best dwelling and barn in the state; three orchards, good fences, silos, windmills, and every improvement known for farm use and all in perfect condition; rich chocolate-colored clay loam soil, well tiled; 285 acres in high state of cultivation, balance pasture, abundance of water; one of the best stock farms in the U. S. A.; also fine for wheat, corn, oats, beans, sugar beets and hay; ideal climate; high-priced land all around; price $200 per acre; owner a business man who must either sell his business or farm; can borrow $30,000 on mortgage, but needs $40,000 at once; will give time or consider trade above $40,000; waste of time to answer unless you have $10,000 spot cash or clear property upon which can borrow $20,000 and will act quickly; plat and description sent on request. Address AMERICAN REALTY CO., 515½ So. 7th Street, Terre Haute, Ind.

Farms of all sizes and all prices for sale in this banner dairy section. Largest creamery in the world right here. **Write F. W. MEYER,** Barron, Wis. 25-spl

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From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

We are not quoting prices but paying all we can for merchantable second hand bags. Ship today. DANVILLE BAG CO., Danville, Ill. 7-tf

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Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Farm Wanted—If you will accept some city property as part payment for your farm write me. Have 30 families wanting farms. WALTER MILLER, 320 Brumder Bldg., Milwaukee, Wis.

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The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forestville, Conn. 3-10

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Old Process Cocoanut oil cake meal; velvet bean meal feed; ton lots or car lots. NEUSTADT & CO., 294 Ninth Ave., New York City. 7-4

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For Trade—30 acres of land, 10 acres broke, free from incumbrance, for Buick Six car, that has not been run to exceed 5,000 miles. EDWARD CUMMINGS, Oxford, Wis.

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Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

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Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

CREAMERIES

Creamery for Sale—Modern in every way with ice cream machinery, city water, sewerage, on paved street in city of 12,000. A chance for a hustler to make good. No other creamery within twenty-five miles. Write BROOKFIELD CREAMERY CO., Brookfield, Mo 9-3

PATENTS

Your idea wanted—Patent your invention. I'll help you market it. Send for 4 free books, list of patent buyers, hundreds of ideas wanted, etc. Advice free. Highest references. Patents advertised free. RICHARD B. OWEN, Patent Lawyer, 86 Owen Bldg., Washington, D. C. 7-spl

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—A dairyman who understands manufacturing butter and other by-products of milk, to take charge of a small Jersey herd. Give age, married or single, and salary expected. None but a worker need apply. Address BOX 193, care Hoard's Dairyman. 5-tf

Wanted—Single herdsman capable of handling help and managing herd of dairy cattle. Address BOX 198, care Hoard's Dairyman. 6-4

Wanted—Married man, to take charge of pure-bred Holstein herd, who has some help of his own. Location Central Kansas. BOX 199, care Hoard's Dairyman. 6-tf

Married herdsman wanted by October first for large Guernsey herd. Experienced feeding for records. New four-room house, close to school, milk, wood and garden. Wages $900 for year. Give age, experience and reference. HOMER F. RUNDELL, Livingston, Wis. 6-4

Wanted—Single man or stout, healthy, 17-year-old boy for delivering, bottling and dairy room work. Must be good milker—10 to 12 cows to milk—exempt from draft, honest, reliable and capable of learning the work and to run ton truck. Steady work. Wages $50 per month, room and board. Located just outside limits city of 100,000 in Northwestern Missouri. Address BOX 207, care Hoard's Dairyman. 6-4

Wanted at Once—Steady, experienced, single man, over draft age, to care for small herd of registered milking Shorthorns. One who can produce milking records and grow young stock successfully. No milk sold from the farm. Permanent position. Address E. A. POTTER, Lake Geneva, Wis. 8-2

HELP WANTED

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—Married man for general dairy work. Pure-bred Holsteins. Wife to board help. HOLMES DAIRY CO., Whiting, Iowa. 7-3

Wanted—Herdsman for Holstein-Friesian herd Northern Illinois, modern equipment. A. R. O. work. Give references; state wages. Address BOX 228, care Hoard's Dairyman. 8-2

Wanted—Single men for farm and dairy work, northern Illinois. Give references; state wages. Address BOX 229, care Hoard's Dairyman. 8-2

Wanted—Single man for general farm work. Must have knowledge of milking machines; prefer man with knowledge of Ayrshires. J. A. PRINGLE, Montesano, Wash. 8-2

Wanted—Good man for general farm work. $50.00 per month. A. G. BEEBE, Ladysmith, Wis. 8-2

Will give good, reliable couple without children one hundred dollars per month and board. Man to take charge of well equipped dairy, woman to cook for about five men. Could also use assistant. CHAS. G. ABBEY, Gilby, North Dakota. 8-2

Wanted—Dairyman capable of taking full charge of herd of pure-bred Holstein cows and get results, also man to drive dairy wagon. Give references and salary expected in first letter. Position open Sept. 1st. Address J. R. SMITH, Mgr., Colver Farms, Colver, Pa.

Wanted—Married man for dairy farm. Must understand feeding and care of cattle and calves, mechanical milker. Give reference and wages expected first letter. GEO. S. VOSBURGH, Richmond, Illinois.

Wanted—Two high class farmers to take charge of two choice stock farms. Must thoroughly understand farming in every branch, including dairying and hog raising. Apply to A. G. WHITNEY, St. Cloud, Minnesota.

A competent, reliable, married man to work 180-acre farm on shares or salary and furnish his own help. Must be a good dairyman and farmer. November 1st. Farm near Racine. Address 95-18th Street, Milwaukee, Wis. 9-2

Head teamster, single man on large Massachusetts farm. Understand farm machinery, good teamster, able to direct men. State age, wages desired. BOX 241, care Hoard's Dairyman.

Blacksmith on farm in Massachusetts, good shoer of horses, oxen, general repair work. Willing to assist certain lines farm work. Full particulars first letter, age, wages desired, experience, married or single. If married, family. Rent, fuel, etc. BOX 242, care Hoard's Dairyman.

Capable man for superintendent of dairies, to take charge of 150 cows and be responsible for all work connected with breeding and milk production. Good position for the right man. Reference required. BROADLAWN FARMS, Newtown Square, Delaware Co., Pa. 9-3

Wanted—Married man to take charge of dairy located near town. Thirty Jersey cows. Use Hinman Milker. Good house, water and garden. Excellent opportunity for right party. Address BOX 434, Greensburg, Pa. 9-tf

Wanted—Married couple or two single men. Must be good milkers and help on farm, $75 a month, board, room and washing. One mile from camp. Address EUGENE BELL, Camp Douglas, Wisconsin.

Wanted—Two women capable of caring for chickens and doing garden work on modern dairy farm. Sisters preferred. None but those seeking permanent positions need apply. State wages wanted and experience in first letter. ALDEBARAN FARMS, Stephen Bull, Proprietor, Racine, Wis. 9-2

Wanted—Dairy extension workers, men and women, southeastern states. Must have college training, agriculture or domestic science; ample farm and dairy experience, draft exempt. Work, travel, lectures, demonstrations, dairy development. Apply own handwriting, photograph, references. Address BOX 236, care Hoard's Dairyman.

Wanted—Farm hand, dairying and general farming. Wages $50 monthly with board and washing. Advance of $5 if satisfactory. Steady job. Also boy under draft age. GEORGE W. HUDSON, Mukwonago, Wis.

HELP WANTED

Wanted—Boys under draft age for general dairy work. Must be good workers and know how to milk. $50 per month, board and room to start. Modern barns and pleasant surroundings. Give age and experience in first letter. THE E. C. SCHROEDER FARMS, Moorhead, Minn.

POSITIONS WANTED

Can you use a man, 46 years of age, college graduate, experienced in feeding and showing cattle? Wire DOUGLAS DEMMON, 52nd and Sansom Sts., Philadelphia, Pa. 7-4

Married man desires position as dairy manager. Theoretical knowledge coupled with practical experience in all lines of dairying. If you have the opportunity, my ability, energy and tenacity will make your place profitable. MANAGER DIGGS DAIRY FARM, R. F. D. 1, Rockingham, N. C. 8-2

Mother and daughter would like to work together as cook and daughter to wait on the table and help in the kitchen; no washing or ironing; also son 16 years old who wants to work on farm. Please write in first letter all particulars and wages paid. Can be ready October 1st. References. Address BOX 243, care Hoard's Dairyman.

Dairyman and general farmer with family. Now have charge 55-cow bottling plant which I handle with my own help. Want healthy climate, good water and convenient house. No graduate but an honest, steady worker. L. A. MUDD, Sikeston, Mo.

Farm foreman and wife, having 2 girls, 7 and 9, seek position where both can work. Man good farmer, experienced herdsman; wife good cook, neat housekeeper. Address J. F. SOUGHTON, Waterloo, Iowa.

Are you seeking—Experienced manager for your large dairy and stock farm operated on sound, constructive, business basis? Salary or salary and share profits, or partnership. Married. Business and agricultural college training. Only considering large farms or ranches showing revenue commensurate with investment. Address BOX 240, care Hoard's Dairyman. 9-2

Wanted—Position as foreman and manager of dairy or stock farm by middle aged Danish farmer. Life time experience in farming, dairying, and raising of pure-bred cattle, retailing milk. Good references. State terms and conditions. Will work for salary or shares. CHRIS NIELSEN, care Dornwood Farm, Route 1, Topeka, Kansas.

Single man desires position as dairy farm manager or herdsman. Graduate of agricultural college, age 27, life experience on farm and the past 4½ years in charge of large herds in the East. Has made several good A. R. O. records and is familiar with production of certified milk. In deferred class. Good references furnished. BOX 238, care Hoard's Dairyman.

Position wanted by thoroughly proficient herdsman or manager. Any dairy proposition considered. Married, one child, years of experience, including one year of cow testing association and A. R. O. work, special dairy course graduate. Pure-breds desired. Excellent reference. Address OLIVER GIRKIN, Gilman, Iowa.

Situation wanted by married man as dairyman, manager or herdsman. Experienced in all up-to-date dairy machinery and A. R. O. work. No objection to boarding help. BOX 239, care Hoard's Dairyman.

Position wanted—As herdsman by single man over draft age; sober, no tobacco used. About 15 years of practical experience in testing, balancing rations, calf raising, plain veterinary work. Position must be A No.-1 in respect to equipment. Holsteins preferred, where 7-day and yearly work is done. State in first letter particulars and compensation you can offer. Address E. D., care Lew Dale, Lawton, Mich.

Position Wanted—As manager of stock or grain farm. Experienced first class man. Married, no children. Address E. R. B., 531 Dean St., Woodstock, Illinois.

Young married man, draft exempt, with six years' experience in general farming, desires position on farm. No children. References. BOX 237, care Hoard's Dairyman.

A Corn Crib Proclamation

To All Anti-American Rats:

Be not discouraged by the almost at cuteness of these Americans in building their cornhouses on little piers with curved slippery sheet-metal over the caps just under the floor joists. We find that these men soon forget what they have learned, and fall back into weak, careless customs.

This fall, when you begin to return from the fields to your winter homes, hopefully look to see if some man has not left a ladder conveniently leaning against the door, or—what is just as good—has used the shelter of the building to make a pile of farm tools reaching from the ground high enough up for you to climb within jumping reach of the cracks in the floor.

Once inside, you need not worry about these stairways being taken off.

WILHELM, KAISER.

September 7, 1918.

(Authorized for publication by U. S. Food Administration.)

Holsteins At Auction

FOURTH ANNUAL SALE

Southwestern New York Holstein Breeders' Association

RANDOLPH, NEW YORK, SEPTEMBER 27th, 1918

70 Registered Holsteins—All Over Six Months of Age Tuberculin Tested.

In this sale will be found 70 high class representatives of the best herds in Southwestern New York. They are all of good age, in sound physical condition and will be guaranteed as represented. Several of them have good A. R. O. records, others are from tested dams, and are sired by prominent and highly bred bulls. The females that are in calf are bred to some of the best bred bulls of the breed. A wonderful opportunity to buy cattle of the better kind.

You should attend this sale. If you can't buy a herd buy a heifer.

Sale Managed by Liverpool Sale & Pedigree Co., Inc., Liverpool, N. Y.

The principal dairy states will waste, this winter, 3½ Billion Pounds of Milk

Simply by failing to get it; failing, too, when it would be easy to produce that increase for a world market that demands every possible ounce of food.

Surely this is not the time to overlook any opportunity for increased dairy production and profit. It is no time for waste or neglect. The bending of every effort toward bigger dairy results, for both patriotic and personal reasons, is the duty of every dairy farmer. Here is one way in which the dairy farmers of the principal dairy states could add this winter 3,600,000,000 more pounds of milk. At $3 per cwt. this would mean $108,000,000 more profit.

These are not wild figures. They represent bed-rock facts, and they mean that if all the cows in the principal dairy states were properly watered with James Drinking Cups they would add 3½ billion *more* pounds of milk to this winter's yield—milk that would be worth to the nation as a whole, and to you in part as a producer, at only $3 per hundred, more than a hundred million dollars.

A tidy sum for the dairymen of this country to think about, isn't it? A sum well worth saving in *any* year, but especially so in this period of advancing food prices, increased milk demand and costly feed.

Then there's your own question of labor, and the protection of your herd from disease, to be thought about in this great crisis. James Drinking Cups give each cow clean, safe water that no other cow has had her nose in. They do away with the hard, cold job of herding the cows out to the tank, herding them in again—chopping open the frozen tank.

There are two shortages for you to think about: The world-wide food shortage, and your own pocketbook shortage caused by your cows not getting all the water they want, *when they want it*, at the right temperature, day or night.

They will give more. All they need is the opportunity. James Drinking Cups spell that opportunity. The milk increase of the average cow will *pay for her cup* in 90 days. At the end of that time the account covering the complete installation will be *squared* as a result of increased profit, leaving you the cups for many years of money-making service, either in your present barn or when re-installed in a new one.

Do *your* part toward getting the extra millions which American dairy interests can produce by making milk out of water. Get *your* share of those dollars. It's easy to buy, easy to install and easy to operate James Drinking Cups. We've solved this great watering problem, and solved it *right*—just as we have so many other questions relating to sanitary barn equipment. Write today for booklet, "How to Make More Milk."

JAMES MANUFACTURING COMPANY
ES23 Cane Street, Fort Atkinson, Wis. Elmira, N. Y.

Apollo for Culverts

Rust-resistant, Durable, with Copper Steel base—

Apollo-Keystone Copper Steel Galvanized makes safe, substantial roadway culverts.



APOLLO is the highest quality galvanized product manufactured for Culverts, Flumes, Tanks, Roofing, Spouting, Garages, and all exposed sheet metal work. The added Keystone indicates that Copper Steel is used. Time and weather have proved that APOLLO-KEYSTONE Sheets last longest in actual service. Sold by weight by leading dealers. KEYSTONE COPPER STEEL is also unequaled for Roofing Tin Plates. Send for "Better Buildings" and "Apollo" booklets. They are valuable to all sheet metal users.

AMERICAN SHEET AND TIN PLATE COMPANY, General Offices: Frick Building, Pittsburgh, Pa.

"The Best Pumps I Ever Saw"

"I have three pumps of your make and they are the best pumps I ever saw," writes F. M. Polk, Tobinsport, Ind. No wonder! For they are backed by 69 year's pump-making experience. Remember, we *guarantee* every one of

GOULDS PUMPS
FOR EVERY SERVICE

to fully perform the work for which it is recommended. Write today for new free book, "Pumps for Every Service." Ask our Service Dept. to help you. Address Dept. 18.



Goulds Fig. 853 Lift and Force Pump for hand pumping



Goulds Fig. 1604 for pumping water and air into air-pressure water systems

The Goulds Mfg. Co.
Main Office and Works
Seneca Falls, N. Y.

BRANCHES:
New York Chicago
Boston Atlanta Houston
Philadelphia Pittsburgh

State Fair Big Demonstration

When you attend the State Fair this year, do not fail to see the exhibit of the

Milwaukee Air Power WATER SYSTEM
PUMPED FROM THE WELL

Learn how to end the drudgery of pumping and carrying water by hand; how to supply your house, barn and feed lot with an unlimited quantity of *fresh* running water.

This system requires no storage tank; water is forced direct from the well to the faucet—every drop fresh. Used with deep or shallow wells. All sizes and prices.

Free Book About Water Systems

See the System Working at these Fairs

IOWA—Des Moines—August 21 to 30. Block 72, Machinery Ha
MINNESOTA—Hamline—Sept. 2 to 7. Lot 26, Block 6, Commmonwealth Ave.
WISCONSIN—Milwaukee—Sept. 9 to 14. Main Machinery Street.
DAIRY CATTLE CONGRESS—Waterloo, Ia. Sept. 30 to Oct. 6. Spaces 111 to 119, Exhibit Building.

Milwaukee Air Power Pump Co.
876 Third Street Milwaukee, Wis.

Dealers:—Be sure to bring or send your prospective buyers of water systems to these demonstrations. We help you sell them.

When Alladin Rubs His Lamp

(Continued from first page)

have spent a mint of money in the past few months to further their evaporated and condensed milks—and no one doubts but that the object is rapidly being achieved. Their advertisements are decidedly attractive. They feature tempting new recipes and life size colored photographs of same so that it makes a born cook's hands itch to get into the kitchen to try her luck with their "tin cow". They have won their way, these advertisements, into a million housewives' hearts and their only rivals at present in their eyes are Carnation milk and some others, which so far have not exploited their products on quite such a large scale. What these people can do with advertising, what they put their tight dollars into—we can do. It is indeed a pity if either of these concerns or any other who buys our milk, can put up more money to sell it than we, the united producers, can put up. That would be too ridiculous a supposition.

We can be grateful, of course, to the condenseries for the only exploiting our product receives at present, but we should jump into the game "all over" at last and prepare the consumer to buy more bottled milk, more cheese, ice cream, and butter. Our aim would not be to raise prices exorbitantly—it would be to raise more cows, rather, than prices, and if possible, to reduce the latter as demand and consumption increased.

The Food Administration is now helping us nobly. Science is on our side and has proven that we are alone in the field as far as health goes. It only remains to take advantage of our position before it is everlastingly too late and stir the public into milk and butter and cheese fans also.

"Money makes the mare go" and today advertising is the force that drives us. It is time to call this force to our aid and let it put our products into the limelight. We can take a lesson from the automobile manufacturers, the Sunkist growers, the kodak man, and in a year find an undreamed of market clamoring for more dairy produce. Can't we manage to find the necessary sinews of advertising and also the milkman of the hour and then "go to it"?

Advocates Discontinuing Delivery of Milk

HOARD'S DAIRYMAN:—I have seen a good deal in the daily press about the cost of distribution of city milk and I see by your last issue you are also interested. The question in my mind is, "Why distribute?"

As a boy I was responsible for our family supply and went four squares twice daily for it. What pressing business have the city children today that would hinder them from the same errands? One of the great lessons of the present conditions is teaching the people to help themselves and be more independent of service.

A rough outline of my idea follows:

Selecting a city of good size let a straw vote be taken by precincts under police or volunteer supervision for or against the present system of distribution. Those precincts showing a lack of interest or no vote to continue as at present with no restriction on price.

Those wishing to change to be supplied as follows: Let the city accept bids from store keepers to handle the supply during, say, two hours night and morning, under proper board of health restrictions, the number of dealers to a precinct being proportioned according to population, successful bidders to be licensed, and license subject to forfiture for cause.

In such precincts no delivery to be made except wholesale,—small restaurants, etc., to go for their supply same as families.

Supply at these depots to consist of, say, two grades of milk according to fat content, one in bulk, and one bottled, and perhaps one grade of bottled cream. Price for this supply to be figured by a commission on a sliding scale as near just to producer and consumer as possible, delivery at depots and dealers' per cent to be a fixed sum. Excess supply at depots at close of delivery hours could be used by city institutions or taken care of by wholesale consumers.

Fixed hours would lessen burden on dealers and these depots would be easily inspected and city's responsibility on bulk milk would end on delivery to consumer. Those living in precincts having delivery and wishing depot milk would not be likely to have a great distance to go.

This would put the burden of distribution where it belongs, on those who wish to pay for such service. What distributors choose to ask because of curtailed routes would be nobody's business. The distributors would possibly oppose such a plan and perhaps the vote would have to be better guarded, but people are beginning to take things in their own hands and I believe some such plan would appeal to enough in moderate circumstances, and particularly to those of foreign birth, to give it a trial if properly presented and understood.

At most it would cost very little to experiment with some such plan and in event storekeepers failed to see the advantage of a string of customers twice daily, the city would be free to establish depots under the commission supervision.

Holland, Mich. H. W. H.

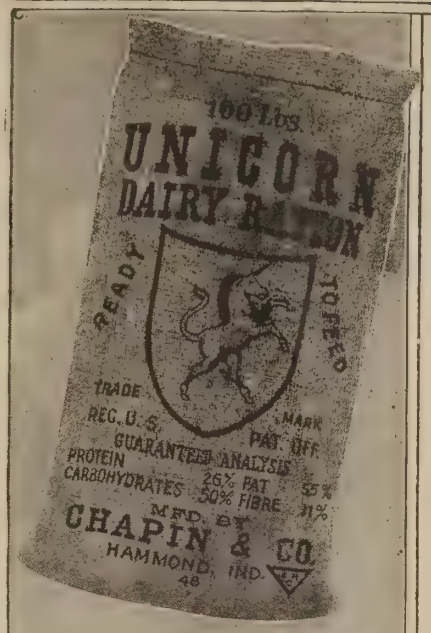
Sudan Grass Pasture for Cows

The New Mexico Experiment Station reports that a 7-acre plat seeded April 19 to Sudan grass was divided into two parts, and after 60 days 12 cows were turned on one of the fields. After a few days it was found that 12 cows were not sufficient to catch up with the growth the pasture was making, and 8 more cows were added for 12 days. The two fields were irrigated and pastured alternately during the season, the change being made at intervals of about two weeks. Heavy rains came about the middle of October, making these fields too muddy for use, and the cows were given a small grain ration, averaging 4 lbs. per head. The 12 cows were divided into two lots, and the grain ration was alternated from one lot to the other every 30 days.

The results of this part of the experiment indicate that it does not pay to feed a grain ration to cows running on good pasture. During the four months that the cows were on pasture they gained an average of 19 lbs. per head, and gave 27,422.5 lbs. of milk, which contained 1,096.9 lbs. of milk fat. The 8 dairy and beef cows that were temporarily on the pasture gained 18 lbs. per head in 12 days. The pasture carried an average of 2 cows per acre for four months. There was no indication of poisoning by pasturing this grass in November after the frost came. The results of this test indicate that Sudan grass should prove to be a valuable supplement to permanent pastures during the summer under dry land conditions.

Before the war the United States received dairy products from no fewer than 24 foreign countries; now these supplies have been largely stopped and it has become necessary not only to replace them at home but also to export large quantities.

UNICORN DAIRY RATION



¶ **Mr. Carter**, of Asheville, N. C., after visiting the dairy sections of Ohio, Illinois and Wisconsin to buy some superior milk cows, purchased a promising young heifer at Wauseon, Ohio.

¶ Mr. Carter discovered that **Unicorn Dairy Ration** was being fed to nearly all record breaking cows, and adopted it for his feed.

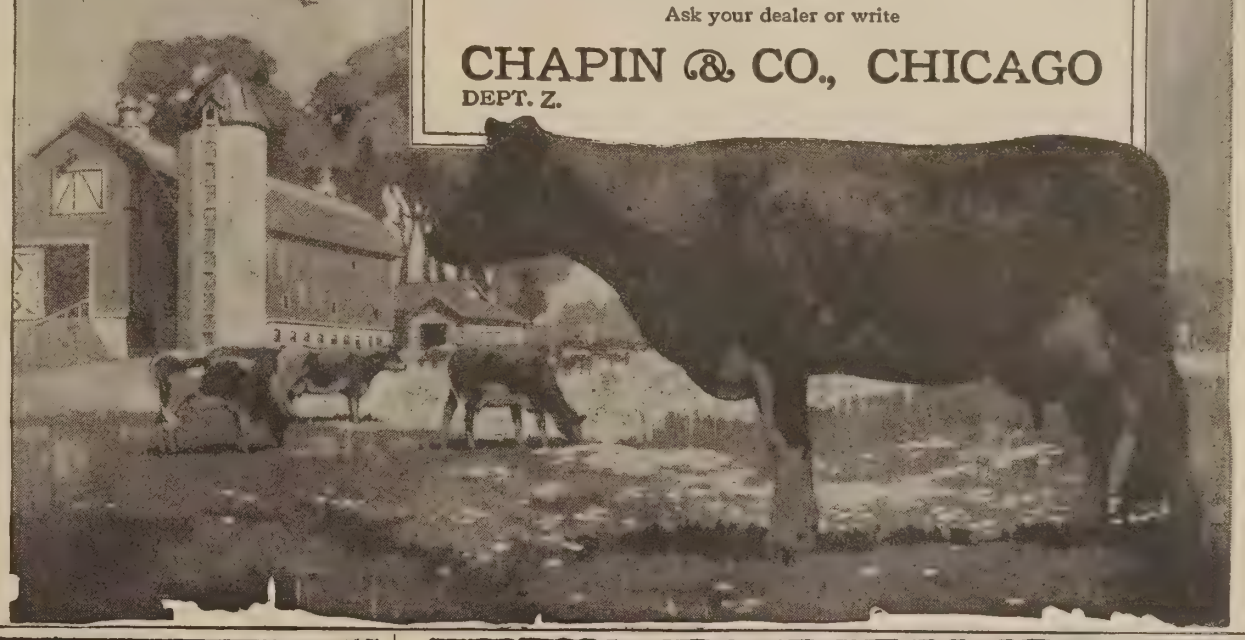
¶ In a 30 day test at 4 years old **Wauseona Pansy Korndyke Queen** produced **2080 lbs. Milk.** She was charged 72 cents per day for Unicorn Dairy Ration, roughage and labor, leaving a net profit of $2.50 per day.

Unicorn Dairy Ration

like **good** cows, costs more than the inferior article, but pays a larger profit.

Ask your dealer or write

CHAPIN & CO., CHICAGO
DEPT. Z.



Bossy is Boss

You can't *make* her relish feed she doesn't like—and unless she *does* relish her feed it won't digest properly or produce the most milk and butter fat. Feed her

Ce-re-a-lia Sweets

The scientific formula provides the proper food values. The molasses flavor assures palatability, digestibility, perfect assimilation.

THE EARLY & DANIEL CO.
301 Carew Bldg., Cincinnati, O.

B57

GET FULL VALUE OUT OF YOUR GRAIN

Grind it and **Feed** it on your own place, where **nothing is lost.** Besides roughage, live stock must have **Concentrates.** Ground Grain is the most **effectual** and **economical.**



BOWSHER FEED MILLS
"Always Reliable"

Crush ear corn (with or without husks) and **grind** all kinds of small grain. 10 sizes, 2 to 25 H.P.
Sold with or without Elevator
Write today for catalogue.
The N.P.D. BOWSHER CO.
South Bend, Ind. F1.

Mill Book FREE!



Shows how to grind the most digestible stock feed, table cornmeal, Graham, whole-wheat, rye or buckwheat flour—all with one N. & M. guaranteed genuine

FRENCH BUHR MILL



Any power. Lasts a lifetime. Boy can handle and keep in order. Make money grinding for neighbors, too. **Free Trial Offer** and book of mills sent free. Write today.
NORDYKE & MARMON CO.
1408 Morris St., **Indianapolis, Ind.**



Wagons That Stand Up

BEAR this point in mind the next time you buy a wagon—**Columbus and Weber wagons are guaranteed to stand up under capacity loads.** You don't have to be a wagon expert to buy a **Columbus** or **Weber** wagon safely. All you really need to know is the weight of your heaviest loads. Buy a wagon marked to carry that load and we guarantee safety and satisfaction worth more to you than all the talking points of all the wagons in the market put together.

Ask any dealer who carries **Columbus** or **Weber** wagons to show you just what we mean by this statement, or write to us for full information. Our wagons have many good features—the International fifth wheel, the sandboard wear plate, link end rods, folding end gate, superior material—more features than you will find on any other wagon. All these help to give the good service, long life and economy that you get with **Columbus** or **Weber** wagons. See the wagon or write to us before you buy again.

International Harvester Company of America
(Incorporated)
CHICAGO U S A
Champion Deering McCormick Milwaukee Osborne

Minnesota State Fair

(Continued from page 253)

grand champion, winning in his class over Oxford Gipsy's Lad, a $2,700 bull purchased at the 1918 Butler sale by C. C. Weber and W. S. Dixon. Jolly's Prince Jack, junior yearling junior champion owned by C. R. Brackett, made a good try for the premier honors among the males.

The grand champion cow was Fontaine's Gray Linnet owned by C. C. Webber. She was easily winner in her class, excelling her competitors in development of middle capacity and udder and vein capacity, as well as shape of udder. Brackett's aged cow, Fairy's Boy's Lobelia, would have offered good competition had she been in milk.

The list of awards follows:

Bull 3 years or over—1, Slade on Noble Prince Jolly; 2, Dixon on Oxford Gipsy's Lad; 3, H. L. Elliott on Combination Noble Judd; 4, Clark on Keepsakes Golden Lad 3rd; 5, Love on Jolly's Eminent Boy. Senior yearling bull—1, Schneider on Zenith's Jersey Lad. Junior yearling bull—1, Brackett on Jolly's Prince Jack; 2, Love on Golden Noble's Count; 3, Clark on Lady La Zone's Laddie. Senior bull calf—1, 4, and 5, Clark on Nerissa D's Jolly Boy, Miss Narcissis Lad, and Lad's Cream Boy; 2, H. L. Elliott on Bissa's Combination Chief; 3, Webber on Oxford Majesty of M. F. Junor bull calf—1, Slade on Panola's Oxford Jolly; 2, Webber on Fontaine's Majesty of M. F.; 3, Clark on Lad's Perfection; 4, Brackett on Corra's Dandy Noble; 5, Love on Belle's Friforshire.

Cow 4 years or over—1 and 4, Webber on Fontaine's Gray Linnet and M. H. Owl's Sayda's Lois; 2, Brackett on Fairy's Boy's Lobelia; 3, Clark on Lad's Lady LaZone; 5, Slade on Panola's Oxford Ixia. Cow 3 years, under 4—1, Slade on Fern's Oxford Ever; 2, Schneider on Maple Lawn's Songbird; 3, Clark on Cream of Meadow Creek. Cow 2 years, under 3—1, Clark on Eileen LaZone. Senior yearling heifer—1, L. C. Elliott on Mayflower's Cupid Pride; 2, Webber on Hamptonne's l'Etacq; 3 and 5, Clark on Lad's La Bute and Diamond Cream; 4, H. L. Elliott on Topsy's Cupid Jewell. Junior yearling heifer—1, Slade on Cupid's Oxford Panola; 2 and 3, Brackett on Mon Plaisir's Goldie 2d's Lass and Dandy's Cornubia; 4, H. L. Elliott on Mable's Combination Brenda; 5, Webber on Moreton Field's Golden Lena. Senior heifer calf—1, Brackett on Carola's Rosinette; 2, Clark on Lad's Favorite Sunbeam; 3, Schneider on Financial Fern Princess; 4, Fox on Mayflower's Dandy Jolly. Junior heifer calf—1 and 5, Clark on Lad's Cream Beauty and Irena Golden Lass; 2, Slade on Brenda's Princess Jolly; 3, H. L. Elliott on Noble Combination Pearl; 4, Brackett on Dandy's Viola Plush You'll Do.

Graded Herd—1, Clark. Young Herd—1, Brackett; 2, Clark; 3, Love. Calf Herd—1, Clark; 2, Brackett; 3, Love. Get of Bull—1, L. C. Elliott; 2, Clark; 3, Brackett; 4, Love. Produce of Cow—1, H. L. Elliott 2, Slade; 3, Clark; 4, Brackett; 5, Love.

Senior and Grand Champion Bull—Noble Prince Jolly. Junior Champion Bull—Jolly's Prince Jack.

Senior and Grand Champion Cow—Fontaine's Gray Linnet. Junior Champion Cow—Mayflower's Cupid Pride.

Guernseys

Exhibitors: A. W. Bragg, G. A. Chaffee, Everhardt Bros., A. L. French, Island Farm, Mayowood Farms, Ott Bros., Jno. D. Ruble, Geo. C. Stone, Victor Stiehl, Chris Skarr, M. S. and C. A. Skarr, and D. D. Tenney from Minnesota, and W. W. Marsh and Mountain Bros. from Iowa.

Judge: J. L. Hope, New Jersey.

Fifteen breeders with 117 entries led the strongest Guernsey classes into the ring which the Minnesota fair has ever seen. There were no unworthy animals, the entire exhibit being one of high merit.

The major part of the winnings were quite evenly divided among the Tenney, Island Farm, and Marsh herds, Mountain Bros. taking the only blue which did not go to one of these three. Particularly in the bull classes, the Cherub blood showed up well, bringing honors to the Marsh, Mountain, and Tenney herds in every class where the get of Imp. Hayes Cherub 2d or Ladysmith's Cherub appeared. Island Farm won firsts in the first three female classes shown, in the three- and two-year-olds on get of Gold Lassie's Julian whose get are making exceptionally good records of production.

Favor went to Ladysmith's Cherub as quickly as the aged bulls came into the ring. He was fitted and shown at his best by "Happy" Allen and had a more vigorous appearance, more scale, and more strength throughout than Imp. Kenilworth Gold, the Marsh winner at Des Moines, whose chance for honors depended on his smoothness and quality, superior rump and thighs, and the chance that the Tenny bull would start the circuit in the high flesh he carried at Minnesota last year. Mountain Bros.' Cherub's Winner came back to second place, defeating both the Marsh and Island Farm bulls which were lined up ahead of him at Des Moines.

Mountain Bros. won in the two-year-olds with Imp. Kitchener's Express but lost to the aged sire in senior championship. The yearling winner, Cherub's Prince, a strong, growthy bull which "Jimmie" Lee says will mature to near 2,000 lbs., did not receive the favor among the juniors which his development would seem to earn for him. Junior honors went to Cherub's Sergeant of Shorewood, a showier bull of a bit neater type.

Island Farm made its best showing in the females. Imp. Bella 2d Du Grand Fort, Sedalia and Des Moines grand champion, was a clear winner of the purple at Minnesota. She was dry as was her close contendor, Imp. Rosette of Marais Farm, from the Tenney line-up. The Island Farm cow was superior in scale and in depth, as well as in balance of udder as the cows showed, and easily held her place. Her two-year-old daughter gave her good competition for senior championship where the two met the three-year-old winner, Starlight May Rose, also from the Island Farm herd. In the senior heifer calves Island Farm won first and second with get of Beda's May King but lost to Tenney for junior championship on Cherub's Miss Madamoiselle of Shorewood.

The list of awards follows:

Bull 3 years or over—1, Tenney on Ladysmith's Cherub; 2, Mountain Bros. on Cherub's Winner; 3, Marsh on Imp. Kenilworth Gold; 4, Island Farm on Gold Lassie's Julian; 5, Stone on Caribou King Albert. Bull 2 years and under 3—1, Mountain on Imp. Kitchener's Express; 2, Ott on George of Chesney Farms. Senior yearling bull—1, Marsh on Cherub's Prince; 2, Island on Maxim of Linda Vista; 3, Chaffee on Cora's Noble King; 4, Stone on Caribou Romulus. Junior yearling bull—1, Marsh on Ruby's Cherub of the Prairie; 2, Mountain on Cherub's Glenwood of Iowanola; 3, Stone on Caribou Manager; 4, Mayowood on Governor's Sequel Chene; 5, Ruble on King Masher Major of Cloverlawn. Senior bull calf—1, Tenney on Cherub's Sergeant of Shorewood; 2, Stone on Caribou Corporal; 3, Mountain on Florinda's Winner of Iowanola; 4 and 5, Marsh on Lily du Prel's Prairie Gold and Marie's Cherub of the Prairie. Junior bull calf—1, Tenney on Cherub Ace of Shorewood; 2, French on Gay Lad of Fair Meadows; 3, Stone of Caribou Golden Secret; 4, Skaar on ————; 5, Island on Princess's Jewel of Island Farm.

Cow 4 years or over—1, Island on Imp. Bella du Grand Fort; 2 and 3, Tenney on Imp. Rosette of Marais Farm and Imp. Altha of Sarnia; 4, Stone on Sequel's Marie of Schuylkill; 5, Mayowood on Imp. Rouge 4th of Mt. Plaisant. Cow 3 years, under 4—1, Island on Starlight May Rose; 2, Skaar on Virginia of Pine Ridge. Cow 2 years, under 3—1 and 5, Island on Bella's Gold Lassie and Bella's Golden Lassie; 2, Tenney on Bell Buoy's Golden Lassie of City View; 3, Marsh on Ingleside Pretoria Vrangue; 4, Bragg on Select's Primrose. Senior yearling heifer—1 and 2, Marsh on Imp. Pro. Rose des Houard and Felios of the Prairie; 3, Skaar on Esther of Cor-Alfa Farm; 4, Stiehl on Clara's Hazel of Maplewood; 5, Stone on Caribou Mary. Junior yearling heifer—1 and 3, Marsh on Golden Cherry of the Prairie and Bopeep Queen 2d; 2, Mountain on Golden Queen of Iowanola; 4, Tenney on Pearl's Golden Secret Girl; 5, Skaar on Bonny of Cor-Alfa Farm. Senior heifer calf—1 and 2, Island on Beda Maid of Island Farm and Milvia's Beda of Island Farm; 3, French on Bonnie's Olive of Fair Meadows; 4, Mayowood on Gov. Fillpail's Pride; 5, French on Dairymaid's Rose of Fair Meadows. Junior heifer calf—1 and 3, Tenney on Cherub's Miss Madamoiselle of Shorewood and Cherub Ultra May Rose of Shorewood; 2, Mountain on Imogene of Iowanola; 4, Stone on Caribou



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Special Features

A beautiful granddaughter of Starlight's Excelsior that was never beaten in the show ring.

Two granddaughters of Imp. Froome's Queen, world's champion long distance cow.

A daughter and two granddaughters of Governor of the Chene, a premier A. R. sire, now on A. R. test.

Nine choice May Rose heifers.



BRAVO OF RICH NECK 4TH 50885

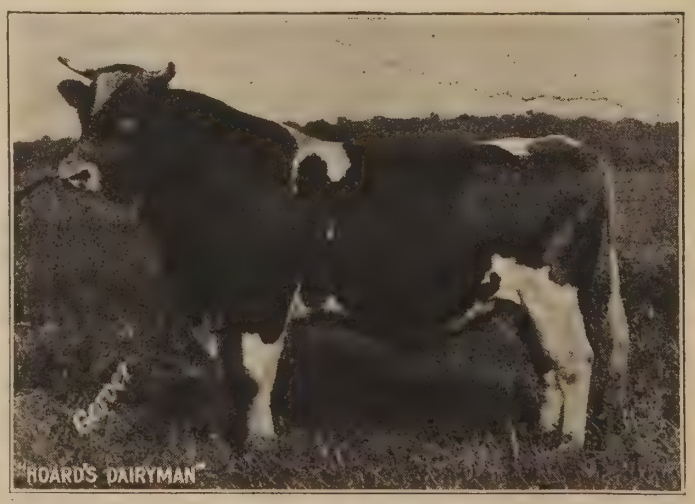
KLEMM'S
Guernsey Dispersion
Oct. 4th, 1918, Baraboo, Wis.

On account of the draft Mr. Richard F. Klemm, Prop. of the Sylvanite Dairy Farm, has found it necessary to sell 22 head of pure-bred Guernseys. This herd is on the *state accredited list* and contains much choice A. R. foundation stock.

Send for catalog to

RICHARD F. KLEMM, BARABOO, WIS.

Auctioneers: Col. J. E. Mack, Col. J. R. Love.



BRAVO OF RICH NECK 35937

The cut of our herd sire, Bravo of Rich Neck 35937, and those of his four daughters give some idea as to the individuality of the animals to be sold in this sale. These cuts also prove that the superior breeding of our herd sire is matched with faultless individuality and best of all, that he is capable of transmitting these desirable qualities to his progeny.

Bravo of Rich Neck is by Splendide of Rich Neck 16751 A. R., that has 3 daughters above 500 lbs. fat with first calf, and is out of Imp. Froome's Queen 28706 A. R. that has 5 A. R. records, two above 700 lbs. She is the world's long distance champion, carrying a calf 7 months on an average while making her 5 phenomenal records. Here is a chance to buy a real herd bull.



FROOME'S QUEEN OF SYLVANITE 83613

Other Attractions

An A. R. roll of honor daughter of Imp. Clara's Sequel, the greatest living imported Guernsey bull.

A May Rose yearling bull whose dam and grandam are class leaders.

Three May Rose cows on A. R. test, one by a grandson of Imp. King of the May, one by a grandson of Imp. Golden Secret, the third by a half brother of the $10,000 bull, Don Diavolo of Linda Vista.



BRAVO OF RICH NECK 3RD 50884

osie; 5, Mayowood on Wellington's Sequel. Graded Herd—1, Tenney; 2, Island; 3, arsh; 4, Stone; 5, Ott. Young Herd—1, arsh; 2, Island; 3, Mountain; 4, Stone; 5, aar. Calf Herd—1, Tenney; 2, Island; 3, one; 4, Mountain; 5, Marsh. Get of Bull—1, arsh; 2, Tenney; 3, Island; 4, Stone; 5, ountain. Produce of Cow—1, Island; 2, aar; 3, Marsh; 4 and 5, Stone.

Senior and Grand Champion Bull—Lady-mith's Cherub. Junior Champion Bull—herub's Sergeant of Shorewood.

Senior and Grand Champion Cow—Imp. lla du Grand Fort. Junior Champion Cow—herub's Miss Madamoiselle of Shorewood.

Food Facts of Other Lands

The Canadian wheat harvest is esti-ated at 280,500,000 bushels, about per cent above that of 1917.

The New Zealand government has ade arrangements to take over the tire wheat crop of that country at .41 per bushel. The present out-ok is for an average yield.

Rationing of cheese in Switzerland s been in force since June 1. The lowance is one-half pound per per-n monthly.

The prominence which the Ukraine ea of Russia has received as a urce of foodstuffs for Germany ids unusual interest to its flour and ead prices. On May 20 the price wheat bread in the Ukraine was out 40 cents per pound loaf; and ur 39 cents per pound. These ices, which are about four times as gh as in the United States, are sed on present currency equiva-nts.

Effects of inadequate food distribu-n on prices are shown in Russian ports. Late in April of this year, tter was selling in Moscow for 98 cents per pound, while in Petrograd, 406 miles distant, the price was $3 per pound.

This condition emphasizes the present importance in all countries of using locally produced foods as much as possible in order to insure adequate transportation and bring about fairly level prices for foods in general.

At the beginning of the 1918 crop year, the Prussian State Office for Foodstuffs and Eggs ordered that poultry keepers must deliver to the government from 25 to 30 eggs for each hen kept. In many districts, however, the minimum compulsory delivery was raised to 50 eggs. More lately the state office has ruled that one hen is to be allowed free for each member of the household, prisoners of war not included.—U. S. FOOD ADMINISTRATION.

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Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
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Excellent breeding and fine quality. Or, will exchange for grade cows—Holsteins or Durhams preferred.
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Willowmoor Ayrshires!
6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

THE PERFECT COW
For Information write to
AYRSHIRE BREEDERS ASSOCIATION
BRANDON, VERMONT


World's Champion Ayrshires
SHOW CALF—Bull, born July 5th, 1918, white with red markings. Sire:—Deubler's Favorite, 15669, great breeding, son of Kate's Good Git, and Auchenbrain Favorite Beauty 8th. Dam:—Imported Auchenbrain Ada 8th, a very handsome young cow with almost perfect udder and large teats, now on A. R. test and averaged over 50 lbs. daily for first month. Price, $100 for quick sale. Penshurst Farm, Narberth, Pa.

When writing to advertisers please mention Hoard's Dairyman.

Van Etta's Ayrshires
10 HEIFERS FOR SALE
I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.

Edelweiss Farms—Ayrshires
Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

REGISTERED AYRSHIRES FOR SALE
Some fresh cows. Also two choice young bulls.
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Crestmont Farm AYRSHIRES
Few Choice Bull Calves
BERKSHIRES — Several bred sows and gilts. Young boar and sow pigs. WORLD FAMOUS BREEDING. Reasonable prices.
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CHOICE BULL CALVES AT FARMERS PRICES
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AYRSHIRES
High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
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Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.
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Bollig Bros., Black Earth, Wis.
Adam Seitz, Waukesha, Wis.
Stephen Bull, Racine, Wis.
John DeMaster, Cedar Grove, Wis.
A. J. McNab, Secretary, Black River Falls, Wis.

Ayrshire Sale Extraordinary
At Dairy Cattle Congress, Waterloo, Ia.
Wednesday, Oct. 2nd, 1918
BEGINNING AT ELEVEN A. M.

Absolutely the greatest collection of top-notchers ever offered east of New York—Sixty head have been selected as follows:

Wm. Hunter, Grimsey, Ontario, World's famous Importer and Judge is sending ten wonderful head of his recent Importation from Scotland.

James Van Etta, owner of Cloverdale Farms, Lima Center, Wisconsin, has consigned his famous show herd of twenty head including the bull "Bargenoch Rising Star".

Mr. Stephen Bull, owner of Aldebaran Farm, Racine, Wisconsin, six head including Henderson's Laurie, the greatest daughter of White Cloud of Hickory Island, Jr. who has thirty-eight A. R. daughters averaging over 11,000 lbs. of milk each, 4.14 per cent.

Mr. H. B. Pazik, owner of Hazelwood Farm, Waukesha, Wisconsin, twenty head of his top-notchers.

Evamere Farm, Hudson, Ohio, twelve head consisting of eight grand foundation cows and four classy heifers.

The whole consignment consists of show winners, great breeding backed with A. R. records.

For catalog write

SALES MANAGER, D. M. HENDERSON, HUDSON, OHIO
Auctioneer:—Geo. W. Baxter.

Hog Regulations

The Wisconsin Department of Agriculture desires to encourage increased production of swine and will co-operate with farmers and breeders in every way possible. Safeguarding the industry from unnecessary losses is one of the activities in which it is particularly interested, and with this in mind the Veterinary Board, at its recent meeting, passed the following regulations governing the movement of swine into and within the state.

Regulation 1.—Swine cannot be removed from public stock yards to points within the state unless immunized by the administration of serum—or serum and virus—and held in clean pens for 3 hours before being loaded in clean and disinfected cars. They must also be shipped under a permit provided by the Wisconsin Department of Agriculture, and must be held in quarantine on arrival at destination for 21 days. The owner shall report weekly as to the condition of said swine which shall be released from quarantine at the end of 21 days provided they are apparently healthy. In force and effect after Sept. 1st, 1918.

Regulation 2.—It is hereby ordered that the use of garbage as hog feed is prohibited unless said hogs have been immunized by the administration of anti-hog cholera serum and virus. In force and effect on and after Sept. 1st, 1918.

Regulation 3.— It is hereby ordered that all stock yards be designated as exposed to hog cholera and that the railway companies shall be required to post in a conspicuous place a card furnished by the Wisconsin Department of Agriculture warning all farmers and breeders of the danger they incur by visiting such places. It is further ordered that these cards shall be renewed when destroyed by weather or other conditions. In force and effect on and after Sept. 1st, 1918.

The co-operation of farmers and hog breeders is earnestly requested in the effort to check losses from hog cholera and the following suggestions on the important points in hog cholera control are offered for their consideration. Comply with these simple precepts and in time we can eliminate the disease entirely.

Suggestion 1.—Don't buy swine out of a local or public stock yard unless they have been vaccinated, and even then they should be dipped in a disinfecting solution and kept isolated for 21 days before being placed with healthy hogs.

Suggestion 2.—Watch your herd closely at this time. Harvest activities—the movement of threshing crews, etc., makes this period most dangerous in the spread of hog cholera. If you notice any of your hogs sick, don't delay; isolate them at once, and have the trouble diagnosed as quickly as possible. Remember that hog cholera serum is a preventive—not a curative agent, and it should be used as early as possible.

Suggestion 3.—If hog cholera breaks out in your herd, vaccinate at once—destroy the carcasses of all dead hogs. Kill all hogs that do not fully recover, and clean up the premises as quickly as possible. Then spray thoroughly with a strong disinfecting solution.

Suggestion 4.—Don't ship light or unfinished hogs to market because cholera has appeared in your neighborhood. It is unnecessary and a needless loss. Vaccinate them and carry them to the finished product.

Suggestion 5.—All city garbage contains the germs of hog cholera and, therefore, garbage fed hogs are exposed to this disease constantly instead of once or twice in a lifetime as is the case with grain fed hogs. It is, therefore, absolutely necessary that hogs that are fed garbage should be protected against cholera by vaccination.

Bulletin No. 17, containing state and interstate regulations governing the movement of swine with suggestions in reference to hog cholera control, has been issued by the Wisconsin Department of Agriculture and will be sent free to all interested persons upon request.—WIS. DEPT. OF AGRICULTURE.

Dr. T. L. Harrington of Milwaukee, Wisconsin, sold his pure-bred Holsteins on September 12th and has entered the army as a commissioned officer. It is his intention to again take up the breeding of Holstein cattle after the war.

BROWN SWISS

Walhalla Farms
Pure-Bred Brown Swiss Cattle
Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
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FOR SALE
Brown Swiss Bull Calves
Bred from best strain of milk producing sires. Priced for quick sale.
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Few choice yearling Red Polled Bulls sired by Jean Du Luth Bonny Boy, he out of J. D. Beauty. Write for description and prices.
Duroc Jersey boar pigs. Few left, $50 each. Ship on approval. Pedigrees furnished.
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Our August and September RED POLLED OFFERING
40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.
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Registered Jersey Calves
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ASHLAND FARM DAIRY, Inc.
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Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale
Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
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13,036 lbs. MILK—720 lbs. FAT
is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.
His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.
His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.
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Our Present Offering Affords an Unusual Opportunity to secure a Fine Foundation For a Productive Herd and comprises
A young bull, solid color, and ready for service. There is not a weak line in his pedigree. His sire carries 37½ per cent of the blood of Hood Farm Torono, the great sire of high producers; the sire's dam is an 11,000-lb cow; and on the bottom line of the bull's pedigree there is an unbroken line of Register of Merit cows for five generations. Five he fe rs dropped respectively Feb. 23, '17; Feb. 26th, '17; Apr. 5th, '17; Sept. 21st, '17; and Oct. 24th, 1917. All are sired by Lookout Prince, 115074, whose first daughters to freshen are now under test and are "making good". Three of the five are out of Register of Merit dams; and all five have R. of M. backing; are finely bred for production and are good individuals.
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EFFICIENCY JERSEYS for the BUSINESS FARMER
We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over
700 Pounds of Butter in One Year
These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of
1132 Pounds of Butter in One Year
If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.
BOYCROFT FARM SIDNAW, MICH.

GRANDDAUGHTER OF NOBLE OF OAKLANDS

Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

Registered Jerseys
We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.
Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

Burn Brae Jerseys
Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

CEDAR SIDE JERSEY FARM
Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
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HILLCREST JERSEYS
Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

JERSEY BULL CALF
STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS
Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

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At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
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We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
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Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.
Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.
Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.
Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.
We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

FOR SALE
1 to 14-mos.-old bull calves with R. of M. dams having records from 282 to 492 lbs. fat. Class A. A.
14-month-old bull calf by a grandson of Noble of Oaklands (Dam, a 572-lb. cow). Sire, of 6 bulls Irene's Jacoba Premier 123720, a brother to Jacoba Irene, a former World's Record cow
Prices reasonable.
Byron E. Skillings, R. No. 5, Springfield, Ohio

Sophie's Tormentor JERSEYS
"Production" our Watchword
FOR SALE—Bull Calf No. 263, dropped June 9, 1918; solid color, black tongue and switch. Sire: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat from 9,450.9 lbs. milk, at 1 yr. 1 mos. of age; all four finished in Class AA, having carried calf an average of 183 days. Dam: Eminent Lady Blossom 346916, in the Register of Merit—489.69 lbs. butter, 85% fa in 1 year from 6,325.7 lbs. milk, at 2 yrs. 7 mo. old.
Price delivered in U. S. A. $150.
FAIRVIEW FARMS, INC.
R. L. Pike, General Mgr. Geneva, Ohio

We Offer An Exceptiona BULL CALF
Dropped in December 191
Sired by Majesty Star out of a Registe of Merit Dam. For particulars, addres
FINCH FARM, - DAYTON, OHIO

POLLED JERSEYS
Breeders' names and Spillman's "Inheritanc of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohi

Golden Sunset JERSEYS
We have a few elegant young bulls nearl ready for service at $100.00 each. The famou Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine Mo. (Just south of St. Louis.)

SWINE

Cedar Crest Farm Berkshire
Cholera Immune
The wonderful bargains we offered in Berkshire were so quickly taken advantage of that we have not single boar of serviceable age for sale and only a fe brood sows, weighing 250 to 300 lbs. bred for their fir or second litter and a limited number of unbred fa gilts. Our stock is right and our price is right. Wri us today for complete information. Remember—fir come first served—the quicker your order is placed th better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, I

Big Type Poland China Boars
of noted breeding now ready to be shipped. All of March farrow. Cholera immune and guarantee to please. I have culled them out very closely therefore have nothing but the best to offer. Sire by such noted boars as Big Ben H., Model Mastodon, Orphans Big Joe, Mow's Chief and others. Bu from a herd that has built its reputation and where you take no chances either on cholera or gettin "stung" on a pig for I stand back of everything I say and sell. Write at once and mention th paper.
F. A. MOREHOUSE, LANCASTER, WISCONSI

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— and —

High Grade Guernseys

to be held at Fair Grounds, Staunton, Va.

Friday, September 27th

This offering consists of animals rich in blood of King of the May and Governor of the Chene. The grades are large, extra good cows, some fresh, others due in thirty days. Thirty grades and thirty pure-breds. For catalogue address C. T. Rice, Sales Mgr., Oakton, Va.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. F. P. Frazier & Son, Props. W. K. Hepburn, Supt.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516 09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

TWENTY Guernsey — TWENTY IMPORTED

GUERNSEY HEIFERS

Will be offered at a SPECIAL PRICE if taken in lots of eight or ten head.

These heifers were recently imported, are very high class individuals and of the best Island breeding.

They range in age from 11 to 30 months, about three-quarters of the number are bred, balance open.

It is getting more and more difficult to import Guernseys and it will pay anyone to investigate this offering if they wish to add a few imported heifers to their present herd.

Frank S. Peer OSCEOLA FARMS Cranford, N. J.

Pinehurst Guernseys Produce

With farm care. 70 A. R. records average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *line bred Glenwood,* and *a line bred May Rose.*

W. Strawbridge, Moorestown, Burl. Co. New Jersey

FOR SALE **GUERNSEY**

FEMALES of All Ages

CHOICE BREEDING

ST. AUSTELL FARMS

R. D. 3 JACKSON, MICH.

For Sale: Bull Calves

to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Riche Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

---

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

Bailey Falls Farm

High Class Blood Lines and Individuality.

A Few Choice Young Bulls For Sale at Reasonable Prices.

BENT BROTHERS, PROPRIETORS, Oglesby, Illinois.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

PERGUE FARM **GUERNSEYS**

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

GERAR GUERNSEYS

Production, Reproduction, Quality

We offer bull calves of excellent individuality, carrying the same blood that has produced over 10% of the double letter class leaders and the record price heifer under two years. Prices $150 to $500. Age four to eight months.

Louis McL. Merryman, Cockeysville, Md.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, - - Perry, Ohio.**

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

GUERNSEY SIRE READY FOR SERVICE

FOR SALE:—McKerrow's Bijou Governor, Born April 1916.

Dam's A. R. records, 590 lbs. fat, 11595 lbs. milk at 2½ years. She also has one A. R. daughter. Sire: Governor's Whimsome, Champion Bull 1916 Wisconsin State Fair, a son of Governor of the Chene and out of a 575-lb. dam. *This bull is a splendid individual.* Other bulls out of cows with records up to 698 lbs. fat for sale. **GEO. McKERROW & SONS CO., PEWAUKEE, WISCONSIN**

HERD SIRE

2½ YEARS OLD

Well Bred, Fine Type, Gentle, Vigorous.

Sire: Golden Noble of Craigamoor 29215 a royally bred May Rose-Golden Noble bull.

Dam: An imported daughter of Alderney II that made 568.04 lbs. fat with first calf.

He is getting us some fine heifers but one of the owners is going to war and we must reduce our herd. Price $400 for immediate sale.

We also offer several bull calves for sale.

Franklin Land & Timber Co., Janesville, Wis.
A. P. Lovejoy, Pres. H. S. Lovejoy, Sec'y.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. **Roy Burton, Eagle, Wis.**

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. **His Dam** is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. **The Bull** himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.

Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place

Sire: Jewel of Koshkonong Place A. R.

Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.

W. G. Jamison & Sons, Appleton, Wis.

Young Guernsey Bulls

Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.

Helendale Farms, 702 Cedar St., Milwaukee, Wis.

GUERNSEYS A. R. RECORD COWS for SALE

Others of special breeding. Send for list of cows and heifers. **ROY C. BUZZELL, Stanley, Wis.**

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.

"McLERAN OF MINN. WRENSHALL"

FOR SALE

Entire Grade Herd

CONSISTING OF

75 Holstein Cows
75 Guernsey Cows

On account of labor shortage we have decided to dispose of all our grades, which are the cream of this herd and are the best that can be had. We will continue in the dairy business with our herd of pure-bred Guernseys.

DON'T STOP TO WRITE—COME AND SEE THEM.

McCanna's Edgewood Stock Farms

Burlington, Wisconsin.

C. Roy McCanna, Proprietor. H. A. Kuhtz, Manager.

50—HEAD—50

Registered Holsteins

AT AUCTION

Meadow View Farm, Parker, Colo.

Friday, October 11, 1918

50 Head of Registered Holstein Cows and Heifers **50**

from such families as Pontiac Korndyke, Hengerveld De Kol, and Rag Apple Korndyke. Now have judge De Kol Rag Apple at the head of my herd. This is one of the best bred and best producing herds ever put up at auction. You will make no mistake if you buy here. Train leaves Denver, Colo. at 7:30 A. M. Autos meet train at Parker, Colo. Col. H. E. Buchanan, the pure-bred live stock auctioneer of Denver, Colorado will conduct the sale.

N. R. D'ARCY, OWNER.

I ALWAYS HAVE HOLSTEINS FOR SALE

Write me before buying elsewhere.

L. E. CONNELL, FAYETTE, OHIO.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 5th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. C. I. Reamer, North Liberty, Indiana.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

Foundation Trio For Sale

Bull born Oct. 1917, would make a show calf, mostly white. His sire is by a son of the famous Judge Hengerveld De Kol, whose daughters are showing up great in short and long time test. The two heifers born in Dec. and March last, dandy good individuals, mostly white and sired by De Kol Goudgeld Pietertje who is siring a wonderful lot of fine individuals. Priced for immediate acceptance $250.00 F. O. B. Muncie.

RAY MEEKER, - MUNCIE, INDIANA.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Hazelhurst Stock Farms

Offer a Yearling Son of King Segis Pontiac Canary who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.

H. H. Wickwire & Son, Hubbardsville, N. Y.



Grade up your common stock with a pure-bred

HOLSTEIN SIRE

It won't be long before you'll have a fine money-making herd.

Holstein Bulls impress their characteristics upon any blood with which they come in contact, and their calves are thrifty from the start.

You can't afford to use a scrub bull. A Pure-bred Holstein Sire is soon paid for by the improved milking capacity of his daughters and the increasing value of the herd is all clear profit.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

The Fifteenth Sale of

Registered Holstein-Friesian Cattle

—BY THE—

Pure-bred Live Stock Sales Company

Tuesday and Wednesday, Oct. 1 and 2

at Brattleboro, Vermont

and will consist of 150 HEAD OF CHOICE CATTLE of all ages and both sexes from the herds of well-known breeders. Send for Catalog.

Holsteins For Sale

Extra Fine Breeding

5 Granddaughters of King of the Pontiacs.

9 Granddaughters of Spring Farm King Pontiac 6th.

All above are from 7 to 14 months old.

The best 3-year son of King of the Pontiacs also for sale.

Geo. S. Bigelow, Breedsville, Michigan.

Bull Calf, Born Jan. 6, 191

Sire—Colantha Johannn Champion 45674. 39 A. R. C daughters. Son of Colantha 4th's Johanna. 35. lbs. butter in 7 days, 1,247.82 lbs. butter in 365 day

Dam—Emblagaard Colantha Mahomet 279872 by Co antha Johanna Champion 45674. Record at 2 year 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.2 butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. 11 months. The price of this bull is exceedingly low We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Michiga

---

5 Holstein Bulls

Ready for Business At ½ Real Value

They are from world record sire and A. R. C dams. We are selling farm.

LONG BEACH FARM, AUGUSTA, MICH

The Traverse Herd

This is the chance you have been looking for. We will sel a few, good A. R. O. cows. One with 27.18 in and 110.85 in 30 days. Three others above 24 lbs Come and see them or write for descriptions an prices, but *hurry* for they will go quickly. Als a few bull calves for sale, the kind you will b proud to own. Pedigrees and prices on appli cation. State age desired.

Traverse City State Hospital, Traverse City, Michigan

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontia Korndyke, Hengerveld DeKol, Pontiac Dutch land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related t King Segis Pontiac Count and Colantha Johan na Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia

Look At This!

Johanna Rue Pau

No. 218657.

Sire:—Plum Hengerveld Segis No. 116622.

Dam:—Sweet Briar Johanna Rue No. 351579 Dropped February 22, 1917. An excellent indi vidual, 50% white, and a real high class bul to head your herd.

His breeding tells the rest.

I am offering him at a bargain because m herd is not large enough to warrant my keep ing 3 bulls. First check for $175, or accept ance by wire, gets him crated and in the Ex press Office at Atlanta, Ga., and registr transferred.

EWELL GAY, - ATLANTA, GEORGIA

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves sired by a son of the World's Record senior 4-yr.-old 1294.7 lbs. butter in 365 days, at $100 and up. Descriptiv catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

Dispersal Sale

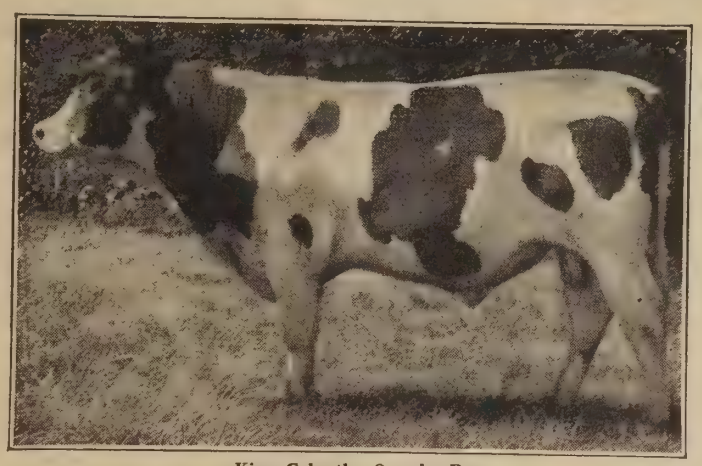
Redwood Holstein Farm Co.

Friday, Oct. 4th, '18

Redwood Falls, Minn.

63 - FEMALES - 63

Including 20 DAUGHTERS of our Senior Herd Sire



King Colantha Ormsby Bess

Sir Hengerveld De Kol Abbekerk

Sire of Milanhurst America De Kol

1,231 lbs. butter 1 yr.; 34.08 lbs. 7 days; 28.40 lbs. 8 months after calving (present world's record). She broke 8 world's records in one year.

50 COWS & HEIFERS 5 years and younger due to freshen this fall and early winter:—25 now have A. R. O. records; 25 are daughters of A. R. O. cows. We have granddaughters of JOHANNA DEKOL VAN BEERS, KING OF THE PONTIACS, ADMIRAL WALKER PIETERTJE and AAGGIE CORNUCOPIA JOHANNA LAD JR.

Will sell a few bulls including our Junior Herd Sire

King Colantha Ormsby Bess

A junior yearling sired by King Korndyke Colantha Ormsby, a grandson of Colantha 4th Johanna and Pietertje Maid Ormsby. His 15 nearest dams averaged 28.22 lbs. butter in 7 days.

Three animals in first three generations on his dam's side have won FIRST at the NATIONAL DAIRY SHOW.

He is of the *SIR PIETERTJE ORMSBY MERCEDES* breeding. Our youngster represents:

Individuality, Size and Production.

Glenn W. Gold, Wm. H. Gold, Owners,

Redwood Falls, Minnesota.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Bloomingdale Herd

...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

A. A. Courtelyou, Somerville, New Jersey

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.
We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.
This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby.
Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.
MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

HOME FARM HOLSTEIN FRIESIANS

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.
W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.
L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

A. R. O. Holstein Cows and Heifers

In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
WISCONSIN STAR STOCK FARMS, ED. M. SCHULTZ, Hartford, Wis.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.
J. D. McDONALD, WEST SALEM, WISCONSIN

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
WAYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall; ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go. **EDGEWATER STOCK FARM, Fort Atkinson, Wis.**

King Pontiac Champion

Leads All A. R. O. Sires

King Pontiac Champion, (81 A. R. O.) has the best balanced A. R. O. record of any living bull of the breed.

He does not depend upon a few sensational daughters for his prestige but upon the high average production of his get. His daughters excel in both long and short tests as well as in milk and butter.

Last year King Pontiac Champion led the 589 sires represented in the prize list by being represented 34 times, and in respect to 30-lb. daughters, did not even have a rival. The showing of his semi-official yearly daughters in both milk and butter also far surpasses that of any other sire.

Think of the 125 daughters of King now on the Pabst Stock Farm, 81 of which have already been credited with A. R. O. records, and the fact that King Pontiac Champion is now in his prime.

Is not this the kind of a sire to line up with when selecting a herd sire? Look over our list of young bulls—prices reasonable.

PABST STOCK FARM,
Oconomowoc, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.
DR. J. A. ROBERTS STOCK FARMS, OCONOMOWOC, WISCONSIN.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
C. A. SCHROEDER & SONS, West Bend, Wis.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

Holstein Bull Calves

One 27 lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Do You Need a Young Bull?



Mutual Fobes Longfield DeKol, 82959

One of His Good Young Sons for Sale

Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters although a comparatively young sire. His sire is one of the good sons of Mooie Mutual DeKol. His dam, a daughter of Homestead Jr. DeKol (71 A. R. O. daughters), made 30.04 lbs. butter and 630.80 lbs. milk in 7 days as a Jr. 3-yr.-old. At the same age she made 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days.—(A world's record when made.)

The Dam Of This Young Bull is Monona Josephine with 31.77 lbs. butter and 616.2 lbs. milk in 7 days. She is a granddaughter of Homestead Hengerveld DeKol and Dutchland Sir Pontiac Rag Apple (29 A. R. O. daughters). The first of her daughters to be tested made 22.82 lbs. as a jr. 2-yr.-old in the month of June. Two of her sons are in service at the head of first class herds.

The Calf Himself was born March 11, '18. He's nearly half white and a good individual, one of the kind that will develop into a big, straight, rugged herd sire. Moreover, he's bred right. Notice the milk production on both sides of his pedigree.

We Have other young bulls for sale. Write today or come and see us.

MILFORD MEADOWS STOCK FARM, Lake Mills, Wis.



Admiral Inka DeKol 229668

Who Wants This One at $150

A son of Admiral Walker Prilly 72923 whose dam has four seven-day records between 30.47 and 32.50. His dam, Netherland Inka DeKol 2d 135687, at 3 years butter 7 days 19.92, milk 445.80; at 2 years of age she made 14.04 butter, 297.10 milk.

YOHN'S STOCK FARM, Watertown, Wis

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.
Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis. Jas. McKone, Prop. Wm. Lucia, Manager.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. **His Dam:** Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4-year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.**

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.
L. K. LUSE, SUPERIOR, WISCONSIN.

For Sale — Registered Holstein Heifers

2 years old due to freshen soon. Herd on the accredited list. **Alvin Noyes, R. 5, Jefferson, Wis.**

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write
Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.**

BULLS

Send For Our Free Bull Calf

price list with a lot of choicely bred bulls on it at bargain prices or if interested in females ask for our female list.
WOODLAWN FARM, STERLING, ILL.

Buffalo Creek Farm

Offers a 3 months old son of a 24-lb. 2-year-old, sired by a ⅞d's brother of Segis Fayne Johanna, THE WORLD'S RECORD COW. Dam has a 305-day record of 11,288 lbs. milk and 503 lbs. butter. The 3 nearest dams average 29 lbs.
ARLINGTON HEIGHTS, ILLINOIS.

BUY THE BEST

I offer sons of Lord Fayne Valdessa No. 187263 whose two nearest dams average 33.31 pounds butter and 585.30 pounds milk in seven days. Dams are granddaughters of Colantha Johanna Lad, one of the greatest sires in the world. Have choice individuals from yearlings to calves at reasonable prices.
C. H. DAVIES, - SHIPMAN, ILLINOIS.

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.
Sale Catalogs Printed — Live Stock Printing Co., La Grange, Illinois

A Complete Dispersion

of the Avoca Lodge Farm Herd

120 Registered Holsteins to Be Sold

October 9th and 10th, 1918

8 Miles Southwest of Denver, Colo.



Korndyke Pietertje Colantha 96261.

Korndyke Pietertje Colantha, our senior herd sire, will be sold. He is the only son of Pontiac Korndyke having for his dam the only cow that ever produced a 30-lb. daughter at 24 months of age. She was the first cow that ever produced two 30-lb. heifers. He has 7 sisters with records from 37 to 47 lbs., and 10 A. R. O. daughters with records up to 24½ lbs. all made as 2 and 3-year-olds.

The only bull in the world backed by such a combination of breeding and production.

Orchard Grove Rag Apple, a son of Rag Apple Korndyke, is our Jr. herd sire.

In the Show Ring.—We showed the Grand Champion bull at the 1916 Colorado State Fair and the 1918 Western National. Our aged herd and get of sire groups were undefeated the past 2 seasons. We have won over twice as much prize money at the shows where we have exhibited the past 3 years than have any of our competitors.

We have fifteen daughters of Buffalo Dirkie Johanna, our $10,000 bull who was a son of "Johanna Colantha's Lad" and Oakhurst Duchess Clothilde, the dam of Duchess Skylark Ormsby.

We have cows that have milked 112 lbs. in a day, 22,000 lbs. in ten months and 43,000 lbs. in 21 months with butter records over 29 lbs. in seven days and 126 lbs. in 30 days, made under ordinary conditions in our dairy barn.

We have 50 granddaughters of Pontiac Korndyke and King of the Pontiacs. We have 30 cows and heifers that weigh from 1,600 to 2,000 lbs.

Catalogues will be ready on Sept. 15th. Write

Donley & Simpson, Props. P. O. Mt. Morrison, Colo.

G. M. Banks, H. E. Buchanan, Auctioneers.

Absolute Dispersal

Of Boardman Farms Herd

At Jackson, Michigan

Wednesday, Sept. 25, '18

of Registered Holsteins

One of the Oldest and Best Michigan Herds. No Old Worn Out Ones.

SIXTY HEAD OF FEMALES

in dairy working condition, headed by King Korndyke Oriskany Pontiac No. 143113, a four-year-old Grandson of Pontiac Lass 44.18 lbs. butter in 7 days. His dam has 31.33 lbs. in 7 days and she has 3 A. R. O. daughters. One of the best individuals in Michigan—all females bred to him—all sound, healthy, tuberculin tested. No reaction in years. Several good A. R. O. cows whose records can be increased. Son in France, owner in poor health.

Absolute Dispersion of a Breeder's Herd

The Entire Prairiedale Holstein Herd of 75 Head Will be Sold

at PRAIRIEDALE FARM, DIXON, ILL., OCTOBER 3, 1918

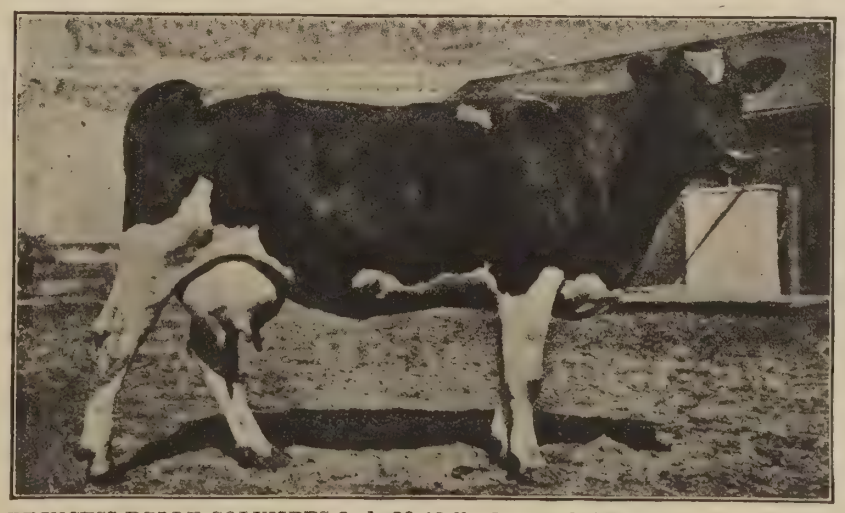
67 FEMALES—8 BULLS and BULL CALVES to be SOLD

Including 12 cows and heifers with records of from 23 to 29.48 lbs.—only 3 made at full age—and 32 daughters of these cows. In this group are 5 three-year-olds, with records of 23 to 27 lbs., a 29.48-lb. cow and a 28-lb. cow.

Four 20 to 22.46-lb. first calf 2-year-olds.

A 20-lb. 2-year-old daughter of Field's great herd sire, Dutchland Creamelle Korndyke Lad.

Seven cows and heifers, or stock from them, having averaged 624.4 lbs. milk in 7 days; 2 under full age.



PRINCESS BELLE COLUMBUS 2nd—29.48 lbs. butter, 629.10 lbs. milk in 7 days. 120.04 lbs. butter, 2715.9 lbs. milk in 30 days. She, 3 daughters and 1 Son will be sold.

MAPLECREST SIR DEKOL our herd sire, and 27 of his daughters will be sold.

He is a 31-lb. son of Friend Hengerveld DeKol Butter Boy (37 A. R. O. daughters, 5 above 30 lbs.). His dam (herself a 31-lb.cow) is a daughter of Pontiac Aaggie Korndyke and from Daisy Grace DeKol, 32.50 lbs. butter in 7 days, 1203 lbs. in 1 year.

39 cows and heifers bred to this sire will be sold—12 of them with records of from 23 to 29.48 lbs.

Every cow and heifer of milking age has a creditable A.R.O. record. Every one of the young stock, with one exception, has an A. R. O. dam. Every animal in the sale, except one foundation cow and our herd sire, was born on Prairiedale Farm. The milk from every cow has been weighed twice daily the year around since 1903. During the past 4 years the herd has averaged 10,214 lbs. milk per cow per year.

This is an exceptional opportunity to buy not only excellent Holsteins, but family groups as well. 20 cows and 37 of their daughters will be sold. In several cases a cow, and 2, 3 or 4 daughters are included. All cattle over 6 months of age tuberculin tested and every animal guaranteed a breeder.

R. R. Station, either Sterling or Dixon. Prairiedale Farm is midway between the two places, which are connected by an electric road.

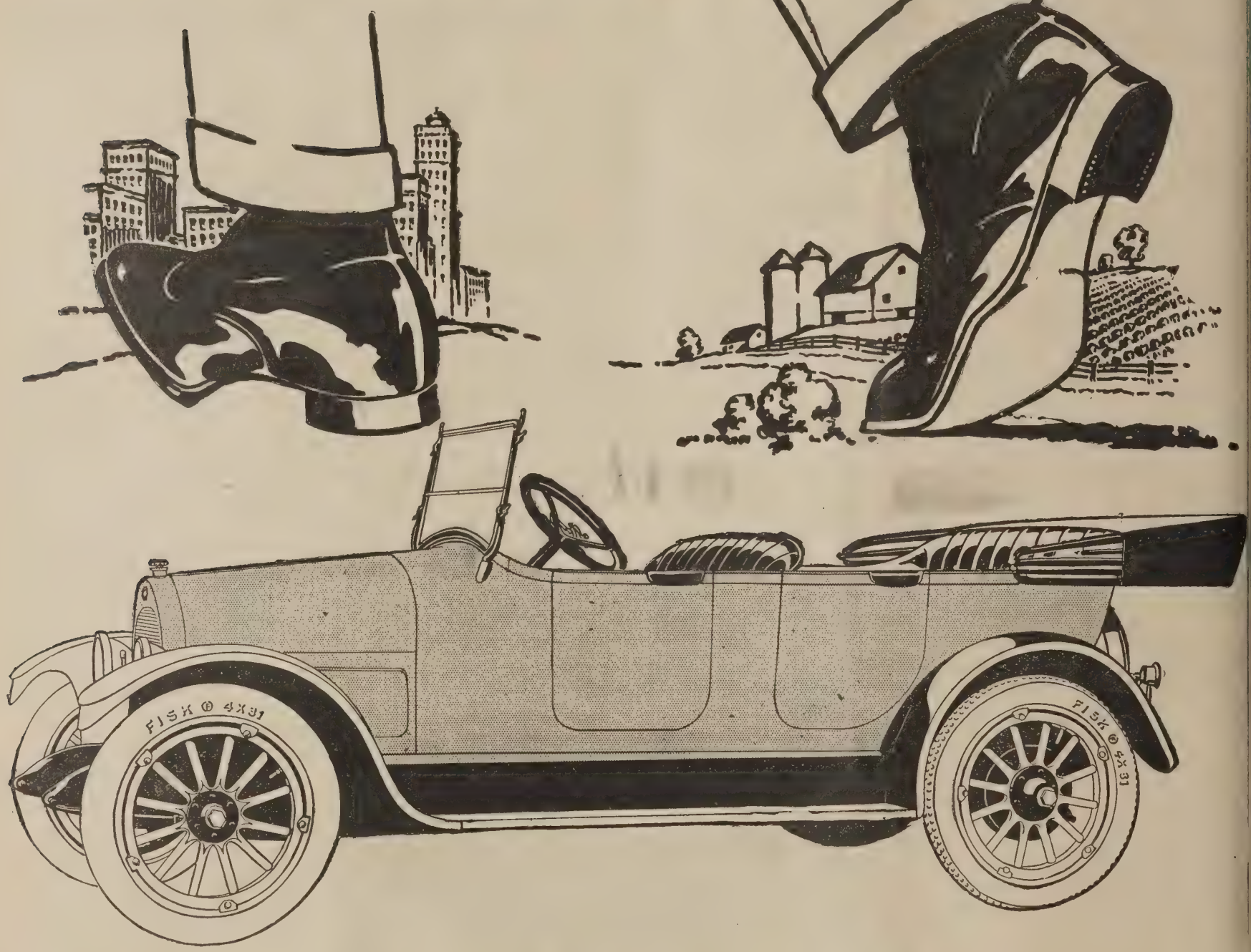
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Write today for your catalog to Galt & Spencer, PRAIRIEDALE FARM, Dixon, Ill.

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Makes a Bigger Man of the Farmer

FARMING is the biggest consumer of man-power; every farmer knows there is a shortage of man-power. Therefore every one must increase his efforts; he must do *more* work and more of it in *less* time.

A very large percentage of Overland cars are bought by farmers. They realize Model 90's value in multiplying their usefulness, saving their time, energy and increasing their efficiency.

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Select this beautiful, roomy Model 90 and you save money in the first cost and maintenance.

You cannot get complete satisfaction from less advantages than it gives—

And you cannot get as much value in any other car for the low price of this Model 90.

It has a powerful, fuel-saving motor; narrow turning radius; rear cantilever springs; 106″ wheel base; 31 x 4 tires, non-skid rear, electric Auto-Lite starting and lighting and vacuum fuel system.

Order *your* Model 90 now.

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Light Four Model 90
Touring Car $895

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URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



rt Atkinson, Wisconsin Vol. LV, No. 10 September 27, 1918

Hoard's Dairyman

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ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Wisconsin Holstein Meeting and Sale

The Holstein-Friesian Breeders' Association of Wisconsin will hold a sale in connection with its next annual meeting. Both sale and meeting will be held in the new sales pavilion at Fond du Lac some time in March and F. H. Everson, Lake Mills, will be sales manager.

This was decided at a meeting of the board of directors held at Fond-du Lac Wednesday, September 4th, and attended by S. H. Bird, president; F. J. Bristol, A. P. Kaye, R. J. Schaexfer, H. F. Schroeder, F. H. Everson, J. P. Riordan, and Charles Hampke.

There was a general discussion as to the policy of holding the sale and annual meeting at the same time, the directors agreeing that such a combination would tend to bring out a larger attendance for both events. On the matter of dates there was a division of opinion but the larger number favored March. There was considerable sentiment for deciding upon a permanent place for holding the annual sales, but after some informal discussion it was decided to defer action on that question for another year. Fond du Lac was an easy winner for the next meeting and sale, by reason of the fact that the sales pavilion just being completed by the Holstein Breeders' Sale Company is steam heated and will furnish comfortable quarters for stock and attendants in the most severe weather.

The sale committee consists of S. H. Bird, F. J. Bristol, and H. F. Schroeder.

Wisconsin. E. M. JENISON.

Those who believe so earnestly that "money will do everything" are most apt to be willing to "do anything for money".—Max.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

In Haying Time

In hayin' time the fields are gold,
And what a sweet breath on the air!
Of course, 'tis summer, growing old,
But in her yellow dress she's fair.
And, Mister Jim, with pitchfork, throws
The treasured grain, that nature grows.

In hayin' time, the fields are rich;
Another winter's store is in.
And August—like a harvest witch,
Waves wand above th' feedin' bin.
Right soon, that silo over there,
Will groan beneath its wonted share.

In hayin' time, the youngsters race
To ride a-top that scented load!
And sloping hills are filled with grace,
As we roll down the shaded road.
The herd must know that it will reap
This harvest when June's flowers sleep.

The Way It Goes

"Hawkins turned his dairy farm into a sort of hospital for sick folks, and asked 'em a fancy figger to stay there."

"Was the scheme a success?"

"Nope. The pure milk, cream, and butter and outdoor life did 'em so much good, that they got well and left before he could cash in."

Observations of a Dairy Optimist

Germs get into milk mighty easy and propagate fast. But then, germs know what is good fer them."

Every time I see a fine cow, all covered with flies and no effort being made to ease her of them, I feel like tieing a wasp nest around the owner's neck.

Wonders Never Cease

It was the first time Rastus had ever seen a milking machine at work in the dairy. He watched, fascinated.

"Well, what do you think of it?" the farmer inquired.

"Sho is some trick, Mistah Henry," was the reply, "whut won't folks do nex'. Befo' dey quit dey'll have dem pipes runnin' straight frum de cow inter de city folks kitching."

Little Esther saw a calf weaner dangling from the calf's nose.

"Oh look, mother!" she cried, "it's wearin' ear-rings in its face!"

Confessions of a Dairy Maid

"Since the new order of things on the farm, there is no more romance connected with my job. Once upon a time I wore a sunbonnet and a gingham gown, and tucked a sprig of purple clover in my hair. Poets wrote about me and I was the heroine of books. Some rich man always saw me in the doorway of the dairy house and married me. Now, however, the milking and the cream separating and the churning and the cheesemaking is done by electricity, all I do is press a button and go to the movies."

"I feel this way about that 'Work or Fight' rule," remarked Old Uncle Culpepper of Dairy Grove, "that if it comes to selecting between trench work and weanin' a calf, I'll go to the front."

"I see they have started milk depots in fire stations, out New Haven, Conn., way," said Joshua Milkteat, of Cream Corners, "which is a good idea. But it sure would cause a rumpus if every time a housewife wanted milk, she'd turn in an alarm."

DE LAVAL SEPARATORS

SAVE IN 7 WAYS

QUANTITY of cream that no other separator will recover completely, particularly under the harder conditions of every day use.

QUALITY of cream as evidenced by De Laval butter always scoring highest in every important contest.

LABOR in every way over any gravity system, and also over any other separator, by turning easier, being simpler, easier to clean and requiring no adjustment.

TIME by hours over any gravity system, and as well over any other separator by reason of greater capacity and the same reasons that save labor.

COST since while a De Laval Cream Separator may cost a little more than a poor one to begin with, it will last from ten to twenty years, while other separators wear out and require to be replaced in from one to five years.

PROFIT in more and better cream, with less labor and effort, every time milk is put through the machine, twice a day, or 730 times a year for every year the separator lasts.

SATISFACTION which is no small consideration, and can only come from knowing you have the best separator, and being sure you are at all times accomplishing the best possible results.



Easy to prove these savings

These are all facts every De Laval local agent is glad of the opportunity to prove to any prospective buyer. If you don't know the nearest De Laval agency write the nearest De Laval office, as below.

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50,000 Branches and Local Agencies the World Over

The Nebraska State Fair

W. V. DOBBINS, NEBRASKA

THE importance of the dairy industry in war-time in America was emphasized strongly at the Nebraska State Fair just closed. The state dairymen's association, the college of agriculture of the state university, and the buttermakers combined their forces in an attractive exhibit. Four Holstein and Jersey cows, top milk and butter producers, occupied quarters in the dairy building; a cottage cheese plant was kept running the greater part of the time; and lectures and bulletins by members of the university farm college staff were given. In the center of the building was a statue made entirely of butter typifying "The Spirit of 1918", which is food raising and food conservation. One figure represented corn, a second wheat, and a third a garden.

The cottage cheese factory was the center of interest, and great crowds surrounded it at all hours. This is part of the campaign of education to conserve meat by substituting for it articles equally rich in protein. Cottage cheese, the experts told their hearers, fills this need. Heretofore most of the skimmilk has been fed the calves and pigs. Its utilization in cheesemaking in Nebraska would produce muscle-building material equal to that in the bodies of 540,000 steers, said Professor Frandsen, head of the state farm dairy husbandry department.

The central fact sought to be driven home to the farmers who called was that they have been neglecting one of the richest sources of agricultural prosperity and one of the surest opportunities for profit making. Nebraska now possesses 720,000 dairy cows and its dairy products last year totalled between 60 and 70 million dollars. The cream business has grown into a large industry, between forty and fifty million pounds of butter being made in Nebraska in the last twelve months and distributed among consumers in twelve states.

Twenty-five million dollars, the value to the farmer of the cream sold, goes far to pay the running expenses of the farms while at the same time adding to its fertility and making possible a more intensive system of farming. The dairy turns out a finished product selling at a high price per pound and made from rough and cheap forage, corn, and alfalfa. Nebraska cows are producing an average of 150 pounds of butterfat per year, sold at from 40 to 50 cents a pound. Nebraska can easily double her butter production and turn into cash her surplus of cheap forage. These were the central facts about the industry driven home by the placards, bulletins, and lectures given.

The dairy cattle exhibit was not up to standard. The Nebraska portion was largely devoted to a showing of Lancaster county herds, which have witnessed a large development in the last year, while only two other states were represented.

The war note was struck in practically every exhibit on the grounds. Conservation of food, clothing, and shoes were taught in several camps advantageously located. Vegetable and fruit driers were in operation and contests were staged between teams in canning demonstrations. In the food conservation camp the dominant idea was how to provide palatable and proper substitutes for meats. In the clothing camp, demonstrations were given of the best methods of remaining well dressed by the use of made-over gowns and suits. In the shoe conservation camp, experts were constantly showing how many parts of shoes that have been thrown away in the past might be used and a good appearance preserved.

The tractor exhibit was many times larger than at the last fair. There were acres of tractors and farm motor trucks. These were centers of interest for thousands of farmers. The manufacturers have been remarkably successful in developing the small general purpose tractor, and were offering many varieties of farm trucks, the use of which is now admittedly economical in the grain growing sections.



COTTAGE CHEESE BOOTH AT THE NEBRASKA STATE FAIR

This booth was in charge of Professor Krause of the United States Dairy Division and Professor Luithly of the University of Nebraska. The booth was visited by a large number of people, and samples of the cheese were distributed. Here was conducted a campaign of education to induce Nebraska people to use cottage cheese freely as a substitute for meat.



"THE SPIRIT OF '18" REPRESENTING FOOD CONSERVATION AND FOOD PRODUCTION

The statue, shown at the Nebraska State Fair, was made entirely of creamery butter. The figures used in the "Spirit of '76" are here reproduced, but the art of peace is substituted for that of war.

A great new hog barn of concrete erected during the last few months housed the largest and finest collection of swine Nebraska has ever seen. The largest of the lot, weight 975 pounds, was raised in Gage County and is three years old. Nebraska has been growing in importance as a hog breeding state, but it required this big new building to fully demonstrate the magnitude of the industry.

The drouth that had first destroyed most of the wheat crop and then taken the greater part of the corn crop in eastern and central Nebraska was expected to make of the fair more of a live stock show, but the counties in western and southwestern Nebraska, where the rainfall has been plentiful, sent in large exhibits and brought the grain part of the big show up to the standard. In many of these counties the cash value of the crops raised exceeded the prevailing market price for land a year ago. Grains and grasses, potatoes, beets, and melons were there in abundance from the northwestern section, while the exhibits from the southwest rivalled the best that the older settled sections had been able to show in past years.

The fair, outside of the machinery and farm implement sections, was really a big food show. From the hog barn on the west to the horticultural and agricultural building on the east, exhibits were very largely devoted to food exhibits and conservation.

The attendance at the fair was practically the same as last year, in spite of the war and the rain and threatening weather of the first two days. The 1917 total was 200,763, while that of 1918 was 214,537. Wednesday is usually the big day in the matter of attendance, but rain on Tuesday cut this down materially, although 53,000 passed through the gates. Thursday broke all attendance day records with 65,562.

Lyon's New York Dairy Notes

HOARD'S DAIRYMAN:—We are just passing the picnic season and have fairly entered the fair season. Neither of these are as well attended, as a rule, as they once were. This is because of the large amount of work on the farm not yet completed to its usual date. Another thing that seems noticeable, and that is the rather worn condition of farmers and the women folks. I do not believe this is imaginary. I fear that farm folks are overdoing on the work schedule. It is doubtful if this is entirely excusable. We must all work about to the limit, but not to the danger point as to health.

At one of the picnics lately I heard an address by Prof. Du Bois, the director of the agricultural school at Delhi. His discussions were general in character, but being in the dairy section he took a look at the dairy situation. He finds that we have passed the danger point in dairy disintegration, something that was so apparent a year ago and well along into this year. Indeed on the first of July there seemed to be considerable doubt if all concerns would continue to buy milk as of old. There is less storage of butter than last year by some 13 per cent. Cheese storage was represented by over 92 last year, while now it is only 30, less than a third of the cheese in storage of a year ago. Condensed milk is stored in much less supply than last year. It is supposed, although not stated, that the supply of milk is rather under that of a year ago. It looks as though by spring, or before, that the dealers and consumers may be asking for milk. It is to be hoped that we can supply what is required, for we need to do all possible to cultivate a demand for milk. Some say that consumers and dealers ought to be compelled to go without, because they have rejected milk when it was offered them. There may be some argument in this but not sound argument. If people do not use milk freely they will learn to use something else. That will do us harm and at the same time it will be detrimental to their health. We want neither.

It is still apparent that we do not get the price we should have for the milk we sell. Prof. Du Bois quoted figures to show that from 1910 to 1914 feeds advanced in price fifty per cent while milk advanced only thirty-five per cent. During the last four years both have advanced a hundred per cent, but it will be seen that with the fifteen per cent less advance during the former four years we are still considerably off yet in milk prices as compared with feeds. Labor too has advanced and all costs of production are well up, and it would seem that there is justice in further advances in the price of milk. Possibly we may see some of this advance before spring, but of this we cannot definitely say now.

There is much responsibility on the Dairymen's League just now. Indeed there is a good bit of responsibility there all along the line. There is need of the wisest counsels in the management now. The League seems to have a pretty clear field for operations this fall and winter. Can they match the situation? It is this month that they set a price and presumably it may be for the winter. Conditions may demand that they fix a price for

(Continued on page 293)

The Wisconsin State Fair

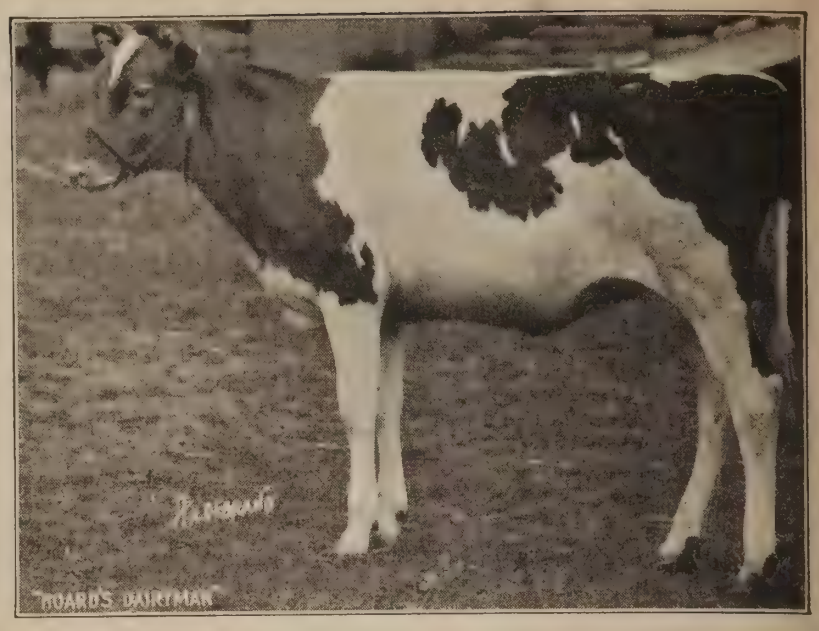
"WHEAT production doubled in 1918 over the pre-war period." Such is Wisconsin's reply to the nation's cry for more wheat. She has not for years considered wheat an important crop, but this year she has produced enough to supply over three bushels for every man, woman, and child within her borders. This, together with her other cereals, makes her more than self sustaining. Remembering, also, her responsibility as the premier dairy state, she has doubled her condensed milk production and though she has produced for several years over half the nation's cheese, this year she will increase her allotment by nearly twenty per cent. Being mindful of the sweet-tooth of her own countrymen and of the call for sugar, she has jumped her sugar beet production 75 per cent and will this year supply seventy million pounds of sugar, saying nothing of the increased production of sorghum, "the long sweeting" of our fathers.

A kind Providence has smiled on Wisconsin farms this year, but to it cannot be ascribed the whole achievement. At her state fair, held in Milwaukee Sept. 9 to 14, it was clearly shown by the quality of her exhibits and by other evidence that her farmers are making decided progress in developing more productive seed and in adopting improved methods of farm management. In addition, with the ideal of patriotic service as their inspiration and with less available labor, they have put their shoulders resolutely to the task before them and with patience and perseverance have worked from early dawn to late twilight that larger crops might be planted, cared for, and harvested.

Perhaps Wisconsin was somewhat boastful as to her accomplishments, but o'er-weening modesty is never a part of a state fair or competition. It is in the air and is infectious, so banners were shown detailing the progress and importance of Wisconsin. She claims first place in cows, butter, cheese, condensed milk, and silos. Exhibits showing that quality accompanies quantity were much in evidence. The cattle barns were filled with dairy cows of splendid capacity, the dairy building showed large exhibits of butter and cheese that impartial judges scored high, while the interest manifest in the many displays of silos and silo filling machinery was proof that farmers were convinced of the economy of the silo in live stock production.

The dairy cow will probably never yield first place in his affections, but going with her the Wisconsin farmer now claims first place as a grower of pure-bred grain and certified seed potatoes. The keen competition between counties brought out grains and fodders that give good foundation for a proper state pride. There were, of course, the large pumpkins and squash, renowned of legends of fairs from time immemorial. There were vegetables in quantity and quality that indicated the home gardener, the school garden, the truck man, and the farmer had not neglected these things. But interest was keenest in the quality and yields of grain, hay, and potatoes. As a ten-year average, the state claims leadership in yields per acre (without irrigation) for oats, barley, spring wheat, and flax; third in corn; and tied with California on sugar beets.

When harvests are fully completed Wisconsin will have grown 65 million bushels of corn, 8 million bushels of wheat, 94 million bushels of oats, 23 million bushels of barley, 7½ million bushels of rye, 32½ million bushels of potatoes, ½ million bushels of buckwheat; 70 million pounds sugar. Much of this is ascribed to the better quality of seed now available through the work of the state association of pure-bred seed raisers.



MARY OF MAPLE HILL, JUNIOR CHAMPION GUERNSEY HEIFER AT WISCONSIN STATE FAIR
OWNED BY FRUIT BROS., WISCONSIN



NOCKDAIR KING SUPERBA GLADICE, JUNIOR AND GRAND CHAMPION HOLSTEIN BULL AT THE WISCONSIN STATE FAIR
OWNED BY BAIRD BROS., WISCONSIN

It will surprise many to learn that Wisconsin has attained first place as a hemp growing state. It was only a few years ago that hemp was tried near Waupun as a smother crop, for which it proved its worth. The exhibit at the fair this year showed that it was also a profitable crop that yields gross returns of $75 to $100 per acre. There were shown various articles made from hemp, the latest of these being hemp binding twine that may eventually render the American farmer independent of the sisal trust and its exploitation. Improved machinery to reduce the labor cost of this crop is being developed and it now is felt that another profitable crop is available.

The award for the best county exhibit went again this year to St. Croix County. The contest was close and this county is deserving of full credit for winning the cup two years in succession. County Agent Olson proudly claims, "We raised the roof and grew the sign". The roof of the county booth was made of ears of seed corn strung on twine, while the sign, a crescent bearing the name of the county, was made with grains of various cereals. In discussing the awards, Superintendent Luther said Wisconsin was not only growing larger and better crops, but she was growing with them a mightier and better informed citizenship. Waupaca County was awarded second place and Sauk County third, with 26 counties competing.

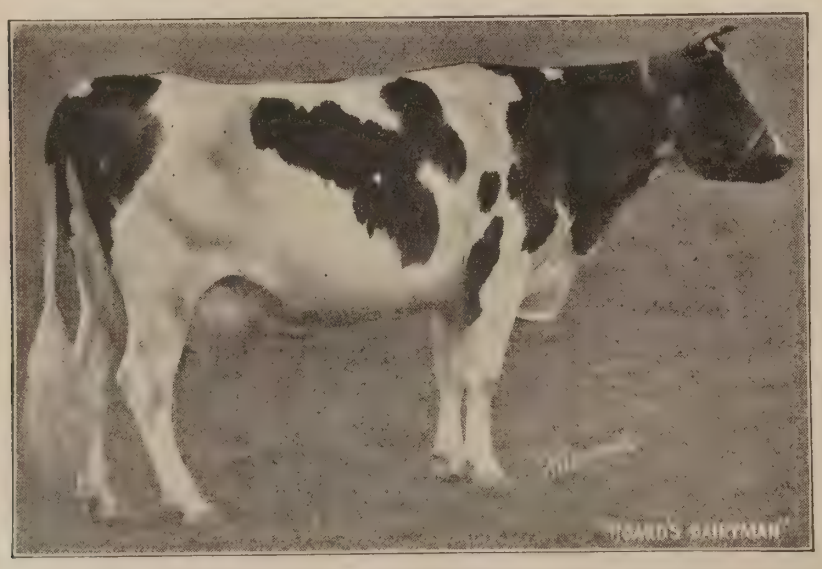
The horticultural building was very attractively arranged. The center aisle was tastefully built up with flowers and plants in such manner as to make an inviting walk, yet the effect was to increase the importance of the fruit display. That good fruit is in demand was shown by the eagerness with which visitors purchased Wisconsin grown apples even after passing by the loud-mouthed vendors of peanuts, popcorn, and ice cold drinks, to say nothing of the savory (?) smelling "hot dogs". Commercial fruit and apple growing is on the increase and every year it becomes a more important phase of the state's agriculture.

There was a creditable show of swine, with red, white, black, and spotted hogs that would please the eye and pocketbook of any farmer. Sheep, poultry, and horses were well represented, but Old Dobbin did not draw the attention or achieve his old time prominence of the era before the smell of gas. There are still men who like good horses, and it is a mistake to even intimate that well bred horses are not being grown or shown, for they are.

Farm machinery, tractors, automobiles, and all the various farm supplies were there in their usual number and were of vital interest to many. That the farmer is interested in improved machinery is an old story, but we were doubly impressed when told by an exhibitor of a water power plant that sells for approximately $500, that he sold three outfits in one day and had good prospects of several other sales. The farm home is coming into its own, and better living is promised farm folks as the years roll on.

War and resolute preparation for its successful consummation was everywhere in evidence. Soldiers, sailors, Red Cross nurses, and boy scouts were welcomed at every turn. The United States and British government's war exhibits made the Wisconsin fair as they have the other state fairs. That a better understanding of the meaning of the war will result seemed apparent as one watched the expression on the faces of those passing down the aisles. Straining eyes and compressed lips gave mute testimony of the thoughts of those who had just read the morning reports of the splendid achievement of the American army in cleaning up the St. Mihiel salient that has been a threatening point held by the Germans continuously since 1914. These men and women felt something greater and deeper than mere curiosity. The boys were "over there", and these were the things they would see and bear. If these people needed strengthening, their arm is now more firmly raised to strike the heavy blows and to suffer much that such victory shall be won as will bring an enduring peace.

The state fair of this year has seldom or ever been equaled in the quality and finish of its manifold exhibits. Commissioner Norgord, Secr



CANDE DEKOL WESTVIEW, SENIOR AND GRAND CHAMPION HOLSTEIN COW AT THE WISCONSIN STATE FAIR
OWNED BY MEADOW LANE FARM, WISCONSIN

tary Remey, and their co-workers are to be commended for their accomplishment; the fair was a credit to them. The weather was such as to discourage attendance, yet Thursday brought a record crowd. Seventy-five thousand people crowded the exhibit halls to suffocation, filled the grandstands, overran the sidewalks till the streets were just a mass of moving people. If more had come, the grounds could scarcely have accommodated them.

Dairy Cattle Exhibit

The showing of dairy cattle at Milwaukee this year was very much superior to that of last and was, in fact, fully equal to any that has been seen there for the last several years. As at a number of the earlier fairs, the Guernseys outnumbered any of the other breeds and taken as a whole they were of a little better quality than the others.

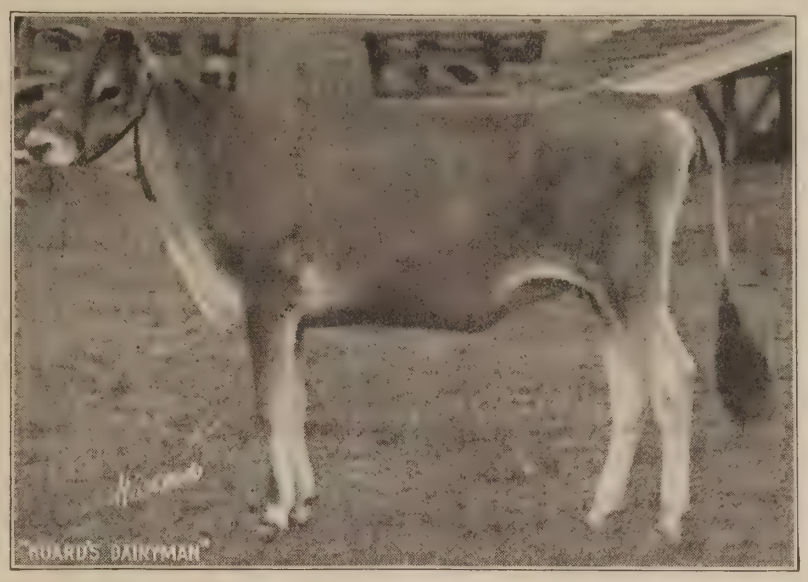
An innovation at this fair was the cattle exhibit made by Waukesha and Calumet Counties, Wisconsin. The former has long been known for the number and quality of her dairy cattle and her exhibit was all that might have been expected from such a community. Forty-two Guernseys, and about 30 Holsteins, and several Ayrshires were shown as representatives of Waukesha County cattle,—these in addition to a Holstein herd, a Guernsey herd, two complete Ayrshire herds, and one herd of Jerseys. The lists of awards that follow show plainly that the county has every reason to be proud of the representatives of their herds that were shown. This practice is an excellent one and will we hope be continued at future fairs, not only by the two counties that showed this year, but by others as well.

Guernseys

Exhibitors: Island Farm, Minnesota; Mountain Bros., Iowa; Goodhand Kingston & Son, Lewis McGrath, Arthur H. Peterson, Clovernook Farm, L. E. Gordon, Jr., C. J. Peik, Rundell Bros., and Waukesha County, including animals from the herds of Geo. McKerrow & Sons Co., F. E. Fox, Fruit Bros., Roy Burton, Geo. Lawson, J. M. Harvey, Wm. M. Jones, L. J. Wendt, G. W. Brown, J. R. Love & Son, John H. Williams, Geo. S. Love, H. Gaubatz, E. Hass, John Balen, C. J. Kuhtz & Son, and H. J. Ducken, all of Wisconsin.

Judge: Professor H. H. Kildee, Iowa.

As stated previously the Guernseys made the best showing both in numbers and quality. A majority of the classes were not only fairly well filled, but there was stiff competition in nearly all of them. Nine aged bulls were shown, most of them for the first time this year. Among them was Clara's Sequel owned by Rundell Bros. and well known in Guernsey circles because of the A. R. performance of his daughters. He is an excellent dairy bull, better in many respects than most of the others in the class. However, he lacked somewhat in style and finish and had to take second place, beaten by John Balen's Bonny Boy of Riverdale.



EAGLE'S CHRISTINA, JUNIOR AND GRAND CHAMPION JERSEY COW AT WISCONSIN STATE FAIR
OWNED BY J. K. DERING, ILLINOIS

Mountain Bros.' Imp. Kitchener's Express was an easy winner among the two-year-olds as he has been at earlier fairs. He is an outstanding bull of unusually good dairy type, with plenty of style and was, moreover, shown in the best of condition. He was senior champion and later defeated McKerrow's Chene King, owned by Wm. M. Jones and Geo. McKerrow & Sons Co., for final honors. The latter, a senior yearling, is an excellent young bull but he lacks the style and finish of his older competitor.

Among the females, the aged cows put up an excellent showing with 9 good entries. Imp. Bella du Grand Fort, Island Farm's entry, undefeated this season, maintained her record, winning in her class and both senior and grand championship. It was not an easy victory, however. Sonack of Hillstead, F. E. Fox's entry, a wonderfully good typed cow, pushed her hard for first place and had she been just a little better veined and carried a trifle more style, might have been the winner. The imported cow came into prominence again in the produce of cow class when her twin daughters carried off the blue.

Junior championship went to Mary of Maple Hill, Fruit Bros.' senior calf. Although the youngest in her class of 20, the calf was an outstanding individual of the very best type and an easy winner.

The awards follow:

Bull 3 years or over—1, Balen on Bonny Boy of Riverdale; 2, Rundell Bros. on Clara's Sequel; 3, Island Farm on Gold Lassie's Julian; 4, Mountain Bros. on Cherub's Winner; 5, Kuhtz on Dairy Maid's Criterion of Iowa; 6, Ducken on Parks Prince of Sima. Bull 2 years and under 3—1, Mountain on Imp. Kitchener's Express; 2, Kingston on Hopeful of Edgemoor; 3, McGrath; 4, Hass on Frank of Aurelian Farms; 5, Gordon on Craigamoor Golden Noble. Senior yearling bull—1 and 2, Jones & McKerrow on McKerrow's Chene King and Ultra King of Edgemoor; 3, Island Farm on Maxim of Linda Vista. Junior yearling bull—1, Mountain Bros. on

For Health and Economy Drink Milk—Eat Milk—Think Milk

DRINK MILK! Drink lots of it. Give it to the kiddies morning, noon, and night—and in between. Give them all they want. It's good for them. It's the cheapest and best food they can have.

Milk is indispensable to their physical growth and mental development. It builds bone. It builds tissues. It builds healthy minds.

It's the only food that contains enough of the protective elements that will keep them from degenerating into puny, rickety, little shavers.



Feed up a child in the way it should grow. Give plenty of good, wholesome pasteurized milk to the child, and use lots of it in cooking.

Dr. McCollum, of Johns Hopkins University, and other eminent scientists tell us so. Dr. McCollum spent over ten years at the Wisconsin Experiment Station investigating the diets of little animals whose digestive apparatus is practically the same as that of human beings. He fed these little animals a balanced ration of proteins, starch, sugar, and salt. Tallow, olive oil, cottonseed oil, and peanut oil constituted the fats of these rations.

For the first three months these little animals seemed to get along all right. But soon they lost appetite. They fell off in growth. They fell on the road to starvation.

And then Dr. McCollum fed the animals butterfat in place of the former fats in their ration. And immediately the little animals began to grow and thrive. It was evident that butterfat contained some elements necessary for growth that the other fats could not supply. These elements are the protective elements.

Dr. McCollum made other experiments. He took two little animals. He put them on the same diet, except that he fed the first as its 5 per cent fat ration, butter; and the second he fed oleomargarine.

At the end of the experiment, the butter-fed animal weighed 262 grams, and was bright-eyed and vigorous. The oleo-fed animal, on the other hand, weighed only 109 grams, and was puny, sluggish in movement, and had sore and infected eyes.

The butter substitute, though having almost the same energy and heat content as butter, lacked the growth-promoting, the protective elements.

Your children need milk, and butter, and cheese, and ice cream. Build your child's diet around milk. Give the child and yourself, too, a cheese sandwich instead of beef. Instead of expensive, non-nutritive luxuries, such as pies, eat ice cream. It's a good food, and easy to digest.

Drink milk—eat milk. It's the perfect food. And it's the cheapest food. It's nature's food.

One quart of milk is equal in food value to eight eggs, or three-quarters pound of steak. Eight eggs at present cost 28 cents. A quart of milk therefore would be a cheaper food at 25 cents. A quart of milk contains as much food as three-fourths pound of steak which would cost you 24 cents. A quart of milk that equals it in food value is worth therefore at least as much. You use gas and grease and spend some time in preparing steak for your meal. That costs you something. That makes the finished steak cost at least 28 cents, doesn't it?

But a quart of milk ***does not*** cost 25 or 28 cents. It costs a good deal less than that.



Health, vigor, enjoyment, and comeliness, all register in this pretty picture of a milk-fed child.

The United States Food Administration says:—"A quart of milk a day for every child, if possible, a pint without fail; a third of a quart for each adult."

Think it over!

It is necessary always to remember that the health and development of a nation depends upon the proper nourishment of its young, and that milk is not alone the best, but the cheapest among all animal foods.

(Copy of a pamphlet published by the Wisconsin Dairy Council and distributed at the Wisconsin State Fair.)

Cherub's Glenwood of Iowanola; 2, Wendt on Duke's Glenwood of Waukesha; 3, Lawson on Governor Lishman; 4, Jones on Ada's Governor; 5, Harvey on Don Diavola's May King of St. Austell. Senior bull calf—1, Fox, Brown, and Gaubatz on Aviator of Edgemoor; 2, Burton on Arion of Edgemoor; 3, Mountain Bros. on Cherub's Rullistrom of Iowanola; 4, Kingston on King Elder Lawn; 5, Island Farm on Beda's May King of Island Farm. Junior bull calf—1, McKerrow on Lishman's May Rose; 2 and 4, Kingston on Muskego Stars and Stripes and Muskego Moss Raider; 3. Clovernook on Clovernook Larry; 5, Gaubatz.

Cow 4 years or over—1, Island Farm on Imp. Bella du Grand Fort; 2, Fox on Sonack of Hillstead; 3, McKerrow on Bordeaux of the Courtil Bree; 4, Gordon on Juanita of Nelsonville; 5, Jones on Elizabeth's Beauty; 6, McGrath on Spring Meadow. Cow 3 years and under 4—1, Jones on Dora's Ada of Sunny Valley; 2, McKerrow on Imp. McKerrow King Bee; 3, McGrath on Ruth of Spring Meadow; 4, Island Farm on Starlight May Rose; 5, McKerrow on Imp. Bella of McKerrow Farm; 6, Love on Baby Gloria. Heifer 2 years and under 3—1 and 6, Island Farm on Bella's Gold Lassie and Bella's Golden Lassie; 2, Love on Imp. Fawn of Sarnia; 3, Kingston on Trislette Avenue of Swing Slope; 4, Mountain Bros. on Pollyanna of Iowanola; 5, McGrath on Harvest Sunset. Senior yearling heifer—1, Fruit on Beauty Blossom of Maple Hill; 2 and 3, Island Farm on May Rose of Island Farm and Gold Lassie's Beldame; 4, McKerrow on Governor's Surprise of McKerrow Farms; 5, Love on Meadow Lark of Glencoe; 6, Kingston on Raider's Minnie of Muskego. Junior yearling heifer—1, Kingston on Queen of Waukesha Stock Farm; 2, McKerrow on Holly Locks Governess; 3, Jones on Maria's Ada; 4, Gordon on Frisky of Gordondale; 5, Mountain Bros. on Baby Rose of Iowanola; 6, McGrath on Peggy of Spring Meadows. Senior heifer calf—1, Fruit on Mary of Maple Hill; 2 and 3, Island Farm on Beda Maid of Island Farm and Milvia's Beda of Island Farm; 4, Jones on Topsy Buttercup; 5, McKerrow on McKerrow's Claire; 6, Love on Forest's Romie of Hawthorne. Junior heifer calf—1, Mountain Bros. on Imogene of Iowanola; 2, and 5, McKerrow on Daisy Sark's Heirloom and McKerrow's Sunrise 2d; 3 and 4, Love on Governor's Yeksa Queen of Walnut Ridge and ———.

Aged Herd—1, Island; 2, Kingston; 3, Mountain Bros.; 4, Love; 5, McGrath. Young Herd—1, Island Farm; 2, McKerrow; 3, Mountain Bros.; 4, Gordon; 5, Love. Calf Herd—1, McKerrow; 2, Island Farm; 3, Mountain Bros.; 4, Cloverneok. Get of Sire—1, Brown, Kingston, Burton, Fox, McKerrow, and Jones; 2 Island Farm; 3, Mountain Bros.; 4, McKerrow. Produce of Cow—1, Island Farm; 2, Mountain Bros.; 3, Gordon; 4, Jones.

Senior and Grand Champion Bull—Imp. Kitchener's Express. Junior Champion Bull—McKerrow's Chene King.

Senior and Grand Champion Cow—Imp. Bella du Grand Fort. Junior Champion Cow—Mary of Maple Hill.

Ayrshires

Exhibitors: Adam Seitz, Hazelwood—Ferndell Farms, and Chas. C. Hill & Son, all of Wisconsin.

Judge: Professor H. H. Kildee, Iowa.

The Ayrshires did not make a particularly interesting show this year. Adam Seitz's entries were excellent as usual but the only real competition there was in most of the classes was between animals from this one herd. The cattle of both the other exhibitors were good animals, but neither owner was an experienced showman and the cattle, with one or two exceptions, were not in show shape.

All of the Ayrshires were from Waukesha County.

The final awards were as follows:

Bull 3 years or over—1, Seitz on Cavalier's Lord Roseberry; 2, Hazelwood—Ferndell on Cavalier Fond Hope of Spring City. Bull 2 years and under 3—1, Seitz on Cavalier's Lord Stuart. Senior yearling bull—1, Seitz; 2, Hazelwood—Ferndell on Just Right. Junior yearling bull—1, Seitz on Cavalier's Goldfinder. Senior bull calf—1, Seitz; 2, Simmons on Cavalier's Oliver of Pewaukee; 3, Hazelwood—Ferndell on Victor Fizzaway. Junior bull calf—1, Seitz on Cavalier's Rising Star; 2, Hazelwood—Ferndell on Lotis Bud.

Cow 4 years or over—1 and 2, Seitz on Bargenoch Silver Pet and Willowmoor White Lola; 3, Simmons on Silver Beauty of Bull Ruck Farm; 4, Hazelwood—Ferndell on Buttercup of Maple Shade. Cow 3 years and under 4—1, Seitz on Cavalier's Lady Mary Stuart; 2, Hazelwood—Ferndell on Ferndell's Felicity. Heifer 2 years, under 3—1 and 2, Seitz on Cavalier's Kilnford Dorothy and Cavalier's Lady Beautiful; 3, Simmons on Flosie of Pewaukee; 4, Hazelwood—Ferndell on Broomhill Pender's Pride. Senior heifer yearling—1 and 2, Seitz on Cavalier's Kilnford Bell 3rd and Cavalier's White Lady; 3, Hazelwood—Ferndell on Broomhill Pender's Brown Kate. Junior heifer yearling—1, 2, and 3, Seitz on Cavalier's Kilnford, Lady Beautiful, and Silver Dream; 4 and 5, Hazelwood—Ferndell on Lassie and Pender's Pride of Hazelwood. Senior heifer calf—1, 2, 3, Seitz on Buntie Bell, Silver Queen, and Cavalier's Hillhouse Rosebul; 4 and 5, Hazelwood—Ferndell on Felicity 2d and Silver Pet. Junior heifer calf—1, 2, and 4, Seitz on Cavalier's Silver Actress, Cavalier's Lillian Walker, and Cavalier's Lady Betty; 3, Hazelwood—Ferndell on Cavalier's Dahlia.

Jerseys

Exhibitors: J. K. Dering, Illinois; W. H. Clark, Wm. N. Knight, and F. D. Underwood, all of Wisconsin.

Judge: Wm. Howie, Wisconsin.

The Jersey entries this year were not up to previous years in point of numbers, nor were they of quite as good quality throughout. Fifty-four animals from four different herds were shown.

The bull classes were not large, neither were they very good in most cases. With but two entries in the aged bull classes, Trial's Noble of Oakland, Knight's entry, was unquestionably better than Clark's Keepsake's Golden Lad 3rd. The latter was a strong, rugged bull of the type popular with many dairymen, but was a little too coarse to win out. Knight's entry was an easy senior and grand champion.

J. K. Dering took junior championship on Rosie's Big Chief.

The female classes generally were very much better, the aged cows proving particularly good. Judge Howie took plenty of time to these, but finally decided in favor of Fenwick's Eminence, a very typy cow from Knight's herd. She was not showing in the best of condition, having recently freshened. Her udder had begun to break away slightly, and in competition for senior championship there were those who would have favored the winning 3-year-old, Stinson's Adoration, from the same herd. The judge, however, decided for the old cow.

Eagle's Christina, the winning junior yearling owned by Dering, was junior and grand champion. We believe that this decision could, to say the least, have been equally well reversed, because the heifer, while possessing quality and very fair style, was plain over the rump and decidedly lacking in capacity and heart.

The class of 4 cows in milk all to be owned by the exhibitor made the best showing of the entire Jersey exhibit, the entries of Knight and Underwood standing out particularly well. The animals in both entries were of very good type, and practically all of them showed in heavy milking form. Mr. Knight's cows, while not so well fitted, had plenty of scale without any coarseness, and showed a little better type throughout. The Underwood group was, however, a close second.

A. J. Glover and Professor Kildee placed the ribbons in this class, Mr. Howie having bred some of the entries.

The awards follow:

Bull 2 years or over—1, Knight on Trial's Noble of Oakland; 2, Clark on Keepsake's Golden Lad. Senior yearling bull—1, Dering on Rosie's Big Chief. Junior yearling bull—1, Clark on Lady La Jones' Lassie. Senior bull calf—1, 2, and 4, Clark on Merissa D's Jolly Boy, Lad's Cream Boy, and Miss Narcise's 5th Lad; 3, Knight. Junior bull calf—1, Clark on Lad's Perfection; 2, Dering on Cedar Crest's Jolly Tar; 3, Bealhen.

Cow 4 years or over—1 and 5, Knight on Fenwick's Eminence and Fenwick's Rosinette; 2 and 4, Dering on Fairy Boy's Eulinda and Yolanda's Fairy; 3 and 6, Clark on Lad's Lady La Zone and Madame La Bute. Cow 3 years and under 4—1, Knight on Stinson's Adoration; 2, Dering on Fairy Boy's Violette; 3, Clark on Cream of Meadow Creek. Heifer 2 years, under 3—1, Dering on Eagle Chief's Fairy; 2, Clark on Eileen La Zone; 3, Knight on Eminent's Safety Bell 2d. Senior yearling heifer—1, Dering on Eagle's Chief's Eulinda; 2, and 3, Clark on Diamond Queen and Lad's La Bute. Junior yearling heifer—1 and 2, Dering on Eagle's Christina and Eagle's Yolanda Girl; 3, 4, and 5, Knight on Fanny's Bonnie Fox 2d, May of Oak Grove 2d, and Trials of Pretty Maid. Senior heifer calf—1 and 2, Dering on Blue Bell of Cedar Crest and Eulinda of Cedar Crest; 3, Knight; 4, L. P. O'Keefe; 5, Clark on Lad's Favorite Sunbeam. Junior heifer calf—1, 2, and 5, Dering on Fairy Boy's Crown, Cedar Crest's Fairy Queen, and Venner's Fairy Maid; 3 and 4, Knight.

Aged Herd—1, Knight; 2, Clark. Young Herd—1, Dering; 2, Clark; 3, Knight. Calf Herd—1, Dering; 2, Underwood; 3, Clark. Get of Sire—1, Dering; 2, Knight; 3, Clark. Produce of Cow—1, Dering; 2, Knight; 3, Clark.

Senior and Grand Champion Bull—Trial's Noble of Oakland. Junior Champion Bull—Rosie's Big Chief.

Junior and Grand Champion Cow—Eagle's Christina. Senior Champion Cow—Fenwick's Eminence.



TRIAL'S NOBLE OF OAKLAND, SENIOR AND GRAND CHAMPION JERSEY BULL AT THE WISCONSIN STATE FAIR
OWNED BY WM. N. KNIGHT, WISCONSIN

Holsteins

Exhibitors: A. F. Wendlandt, Minnesota; Jno. L. Fisher, Rust Bros., Emil Titel, Walter Seefeld, S. S. Stack, J. F. Kloehn, E. S. Weeks, and Waukesha County, including animals from the herds of Baird Bros., Meadow Lane Farm, D. J. Howell, Carnation Stock Farm, W. J. Mann & Sons, Frank Ludwig, Wisconsin Masonic Home, A. B. Klussendorf, and C. V. Chapman, all of Wisconsin.

Judge: Professor H. H. Kildee, Iowa.

While less numerous than the Guernsey, the black and whites were well represented at Milwaukee this year and, aside from the older bull classes, their showing was very good.

Downing Pontiac Butterman Jr., owned by C. V. Chapman, won first among a ring of very ordinary aged bulls and later was made senior champion. The only really good aged bull shown was Ollie Johanna Sir Fayne, a son of that wonderful cow, Ollie Watson Prima Donna. This is a sire of excellent type but very bad hocks brought him down to fourth place.

The senior champion was not a good mover, was over fitted, and had a very plain tail setting, making grand championship honors easy for Nockdair King Superba Gladice, Baird Bros.' senior calf entry. The calf was an excellent individual, growthy and well fitted,—a winner over thirteen in its class.

The aged cow class brought out 15 entries with 3 outstanding ones to compete for first place, all of them A. R. O. cows. Vickery Vale Beechwood owned by Emil Titel is a wonderfully strong dairy cow, particularly when one considers that she is 11 years old. She was, however, a bit plain and dropped too much back of the shoulder to get her above third place. Jennie Segis DeKol Burke from Baird Bros.' herd, a cow that recently made 24.62 lbs. fat in 7 days, would ordinarily have been first. She was not, however, in the best of condition and had some inflammation in her udder so that Professor Kildee placed her below Cande DeKol Westview, an excellent dairy type cow in every way, whose most serious fault was her lack of scale. This last cow, owned by Meadow Lane Farm, was later senior and grand champion.

Farsee Superba Queen owned by Mann & Sons was junior champion.

An interesting fact regarding the final awards is that 9 of the winners in the calf classes, including two junior champions and one grand champion, were sired by King Superba, owned by Baird Bros., Mann, and Roberts. His get also took first and second in the get of sire class.

Complete awards follow:

Bull 3 years or over—1, Chapman on Downing Pontiac Butterman Jr.; 2, Seefeld on Rzcine Walker Johanna; 3, Wendlandt on Joe Oak DeKol Fobes; 4, Wisconsin Masonic Home on Ollie Johanna Sir Fayne; 5, Rust on Daisy Johanna. Bull 2 years and under 3—1, Fisher on King Segis Pontiac Isaac. Senior yearling bull—1, Rust on Ida Lotta Hengerveld Pontiac. Junior yearling bull—1, Titel on Sir Longfield Red; 2, Hardys on Bairdland Sir Creamelle Segis; 3, Fisher on Fisher Fan of Rock. Senior bull calf—1 and 2, Baird on Nockdair King Superba Gladice and Nockdair Beets Segis Chimes; 3 and 6, Mann on Farsee Superba Netherlands Pontiac and Farsee Superba Roxy; 4, Rust on Fruitland Aaltie Solo King; 5, Klussendorf on King Easle. Junior bull calf—1 and 4, Baird on Nockdair King Superba New Year and Nockdair King Superba Prize; 2, Mann on Farsee Superba King; 3, Meadow Lane Farm; 5, Carnation on Carnation Prince Elba; 6, Kloehn on Sir Walker Johanna.

Cow 4 years or over—1, Meadow Lane on Cande DeKol Westview; 2, Baird on Jennie Segis DeKol Burke; 3, Titel on Vickery Vale Beechwood; 4, Stack on Fannie Benitje Bug 2nd; 5, Rust on Ida Lotta 5th; 6, Fisher on Tyrena American Ivy. Cow 3 years and under 4—1, Mann on Farsee Soldene Segis; 2, Fisher on Pledge DeKol Fisher. Heifer 2 years and under 3—1, Baird on Nockdair Segis Longfield Gene; 2, Fisher on Alcartra Jewel of Rock; 3 and 6, Rust on Aaltji Sola Rosella May 2d and Beiumkje Clothilde Cornucopia 4th; 4, Wendlandt on Colantha Johanna Pietertje DeKol; 5, Weeks on Johanna Pontiac Barbetta Excell. Senior yearling heifer—1 and 3, Fisher on Fisher Woodcrest Canary and Valdiva Fan Ormsby; 2, Kloehn on Forest Walker Johanna. Junior yearling heifer—1, Kloehn on Forest Johanna Beauty; 2 and 3, Fisher on Columbia Rue Sarcastic and Gloria Rue Sarcastic; 4, Wendlandt on Lady Yerlet Piebe; 5 and 6, Rust on Aaltje Salo Princess Hattie 6th and Aaltje Salo Rosella Daisy. Senior heifer calf—1 and 6, D. J. Howell; 2 and 3, Baird on Nockdair Superba Pontiac Fayne and Nockdair Superba Pontiac Carona; 4 and 5, Kloehn on Lady Walker Johanna and Daisy Walker Johanna. Junior heifer calf—1, Mann on Farsee Superba Queen; 2, Kloehn; 3, Wendlandt; 4, Meadow Lane; 5, Fisher.

Aged Herd—1, Rust; 2, Wendlandt; 3, Fisher. Young Herd—1, Fisher; 2, Rust. Calf Herd—1, Baird; 2, Mann; 3, Meadow Lane; 4, Stack; 5, Rust. Get of Sire—1, Baird; 2, Mann; 3, Kloehn; 4, Fisher; 5, Wendlandt. Produce of Cow—1, Titel; 2, Rust; 3, Kloehn; 4, Fisher; 5, Wendlandt.

Senior Champion Bull—Downing Pontiac Butterman Jr. Junior and Grand Champion Bull—Nockdair King Superba Gladice.

Senior and Grand Champion Cow—Cande DeKol Westview. Junior Champion Cow—Farsee Superba Queen.

Corn silage and alfalfa make in themselves practically a complete balanced ration for dairy cows. Alfalfa hay fed to animals has much the same laxative effect on them as June pasture. A dairyman at Elgin, Illinois, having 50 cows, says that every month's feeding of alfalfa in winter gives him a month of practically pasture conditions. "The cows show the pasture-effect in the glossy condition of their hair and in the yield of milk, and have never before looked quite so well."—Hon. F. D. Coburn.

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Vt.	Craftsbury	P. E. Bassett	Aug.	364	1	42	C. E. Bilton
Minn.	Winona	H. A. Dierking	"	350	21	69	H. Greethurst
Pa.	Canton	M. D. Gniffing	July	514	23	65	J. O. Cawl
"	Laurel Hill	J. B. Park	"	426	14	56	J. M. Elliott
"	Troy	W. F. McMorran	"		20	57	F. C. Newell
"	E. Bradford	M. E. Neal	"	395	4	46	C. W. Newman
Colo.	Arkansas Valley	G. W. Barr	Aug.	408	7	56	Green Mt. Dairy
Wash.	Stillaguamish	H. W. Quimby	"	538	47	50	C. Olsen
N. H.	Claremont	N. E. Cross	"	255	12	74	L. P. Cross

Association Notes

Mr. F. M. Colcord, dairy field agent in Washington, makes the following statement concerning dairy conditions in several of the associations in that state:

"During the months of July and August I visited the Stillaguamish, Wahkiakum, and Duvall Associations. For a short period of perhaps five weeks the pastures were short in the vicinity of Duvall. However, in Wahkiakum during the months of June and July the pastures were almost knee high. The 22nd of August I visited the tester in the Stillaguamish Association and was surprised at the abundance of pasture. The young clover, red and white, appeared as tender and green as we might hope to find in May.

Having ideal pasture conditions, plenty of succulence for the summer and winter ration, such as kale for silage, either winter wheat and vetch, peas and oats, oats, barley, or perhaps corn, the cows do not know the change from green to dry feed.

The winters are mild on the west side. The pastures are good as a rule until very late and in some sections good all winter. Thus the cows are developed to a high degree of efficiency due to equable climate and an abundance of roughage. It is not due so much to individuality and the breeding as to development and producing a continual flow of milk for a long period.

Arkansas Valley, Colorado:—In August the condensery paid our members $2.75 per hundred pounds for milk testing 3.5 per cent. Milk retails for 12c and butter for 50c. Alfalfa hay is priced locally at $21 per ton; silage, $8; corn chop, $69; bran, $29; shorts, $31; and beet pulp, $40.

Eastern Bradford, Pennsylvania:—There have been several carloads of feed bought during the last month and a few cows sold out of our association. The July price for three per cent milk here was $2.19 per hundred pounds. The creamery paid 47c to 48c for fat and retails butter for 42c to 50c. Cheese retails at 32c per pound. Gluten costs $47.50 to $50 per ton; wheat bran, $50; and buckwheat feed, $40.

Laurel Hill, Pennsylvania:—Three per cent milk sold here in July for $2.17 per hundred pounds. The creamery paid 55c for fat and retails butter for 45c. Milk retails for 10c per quart. Gluten costs our members $49 and oil meal $57.

Canton, Pennsylvania:—The July price for milk here was $2.11, a test of three per cent being required. Gluten sells for $47 per ton; hominy, $50; hay, $12; silage, $5; Unicorn, $60; bran, $45; oil meal, $57; cottonseed meal, $59; and ground oats, $60.

Craftsburg, Vermont:—In August our creamery paid 50.5 cents for fat and retailed butter for 47c. The cost of Unicorn here is $62.50 in bulk and $67 in bags. Most men are feeding this, as other grains are hard to get.

Winona, Division A., Minnesota:—One pure-bred sire of high quality was purchased during the month and 21 high grade cows and heifers were bought to take the place of scrubs which were not paying. At the St. Charles Fair milk testing was demonstrated in a booth which attracted a great deal of attention. Field meetings are being planned so that feed may be bought cheaper. A stock sale is also being planned which will include pure-bred cattle and high grades. None of the members in the association fed grain in August.

Farm machinery is still advancing in price. It's well to remember, therefore, that a fence corner or an apple tree will not protect a machine from rain and rust.

Tillamook Association Engages Lady Tester



PEARL SNEDEKER

Miss Pearl Snedeker, who lived on a farm in Iowa until she was twenty-two years old, has recently resigned her position as teacher in the Albany High School to take charge of the testing association at Tillamook, Oregon. Miss Snedeker is very much interested in dairying, and says she much prefers the testing association work to teaching.

There are seven hundred and sixty-one cows in the association which she has charge of, which is located in one of the best cheese sections in the United States. The cheese factories in this section manufactured 4,974,382 pounds of cheese last year.

Miss Snedeker has a Ford car in which she travels from one dairy to the other and since all dairies are close to cheese factories, the testing is done in the factories where a steam tester is used.

During the month of July the 761 cows in the Tillamook Association averaged 759 pounds of milk and 31.68 pounds of butterfat per cow; 105 cows produced over 40 lbs. of fat apiece.

Oregon. E. L. WESTOVER.



UNCLE SAM

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The Whole Dairy Family Cow to Consumer

Bossy, her father and brothers—The man, woman or child who feeds and milks her—The man, woman or child who makes her milk into butter, cheese, ice cream, condensed milk, milk powder or any other shape or form and the man, woman or child who uses her milk in any form—all the folks who make or sell machinery and equipment she makes necessary

TO GO TO THE

National Dairy Show

Columbus, Ohio, October 10th to 19th, 1918

Where he is going to deliver to each one
A great war message
On the team work he wants to do with the dairy people
And how he wants
The dairy people and the consumers of their products
To work together—

This is a Call of Duty and Opportunity—Go!



and good milk means good Profits—for YOU! You have the good Cows. We can supply you with the

BETHALTO Water System

which will furnish abundant pure water, on tap, in your Dairy, Bathroom, Kitchen, Stables, Barnyard, Pastures, Garden — anywhere you want it—any time you want it—fresh from the very bottom of your Well or Cistern. Positively eliminates freezing troubles. Extremely simple, and stays in order. No trouble at all to install. You can install it, or we will.

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10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
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When Writing to Advertisers, Mention Hoard's Dairyman

Missouri Farmers Learn from Wisconsin Dairymen

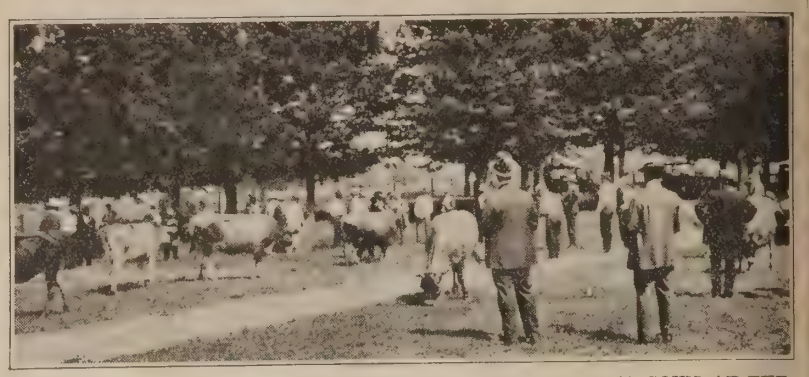
HOARD'S DAIRYMAN:—Thirty farmers from Northeast Missouri, under the guidance of Extension Agent A. C. Ragsdale of the University of Missouri, District Agent E. J. Trosper, and County Agent H. T. Neilsen, have lately made a dairy farm tour of Fond du Lac and Waukesha Counties, Wisconsin. The Missourians came from the "show me" state to see with their own eyes what the dairy business has done for Wisconsin and to study the methods that have proven most successful on Wisconsin farms.

These Missourians were entertained in Chicago and Milwaukee by auto tours of these cities arranged by the Associations of Commerce in each place. In Fond du Lac, Wis., the splendid co-operation of the Holstein, Jersey, and Guernsey breeders' associations and the Association of Commerce, in arranging for the two-day auto tour of the county, insured the Missourians a profitable and pleasant stay. The same courtesies were extended to them in Waukesha County. They visited representative farms of the various breeds and gave special attention to those things that had, in the main, been the fundamentals of success on each farm. Farm crop methods, home grown feeds, feeding practices, growing of young stock, cow testing, and good pure-bred sires were emphasized everywhere. The farm houses and barns were studied. One Missouri farmer says: "Well, it is not so much that these dairymen are more prosperous and have more money in the bank than most of o farmers that hurts me so much that these fellows live better than do. Why, nearly all of them ha running water in the house, elect lights, and all those things!" Anoth says to the leader of the party: "Y are going to have a hard time to g us to leave Wisconsin." All this mea these farmers from the "show m" state noticed everything, even the l tle details and they are going to p them into practice and show the oth fellow—their neighbors back in M souri.

These farmers learned lessons fr such men as Math. Michels, form president of the Wisconsin Sta Dairy Association; S. H. Bird, pre dent of the Wisconsin State Holst Breeders' Association; Charles Peterson, secretary of the Wiscon State Jersey Breeders' Associatio Charles L. Hill, Guernsey breed and a large number of other succe ful dairy farmers, each of whom t his story in a short, straight-forwa talk which he gave to these Missou ans when they visited his farm. P fessors D. S. Bullock and Reid M ray represented the University Wisconsin and gave their expert sistance to the delegation from M souri.

This is the second trip of this ki made by delegations of farmers fr Missouri, and A. C. Ragsdale, w has accompanied both delegations, of the opinion that occasional trips this kind are one of the most practi forms of dairy extension work cause each man sees and believes.

Missouri. A. C. RAGSDALE



MISSOURI FARMERS ON WISCONSIN DAIRY TOUR STUDYING COWS AT THE FARM OF CHAS. A. PETERSON, SECRETARY OF WISCONSIN STATE JERSEY BREEDERS' ASSOCIATION



DEMONSTRATION IN JUDGING THE DAIRY COW AT THE FARM OF CHAS. L. HILL, BY PROF. D. S. BULLOCK OF THE UNIVERSITY OF WISCONSIN TO MISSOURI FARMERS ON THEIR WISCONSIN DAIRY TOUR

"Condensed Milk and Milk Powder"

A revised and enlarged edition of O. F. Hunziker's book on "Condensed Milk and Milk Powder" has recently been published. This text is authoritative and is the most up-to-date and complete treatise which has appeared on the subject. Manufacturers, investigators, instructors, and commercial chemists have found the first edition highly valuable. The second is a complete revision of the first and contains in addition 75 pages new material.

From the preface of the new pul cation the following interesting sta ments concerning the changes in condensed milk business are taken

"Old processes have been modif and improved, new processes ha been invented, the equipment u for manufacture has underg changes, new tests have been devi for the determination of the comp tion of the finished products and entire status of the industry yielded to an unexpected, unforese and important evolution."

Lyon's New York Dairy Notes.

(Continued from page 287)

only a part of the six months' period this month, but all the news we get from headquarters indicates that a full six months' price is contemplated. Farmers did not like the monthly prices last winter and spring, but it is likely that there was less trouble by that method than otherwise under the conditions as they were at that period. Now it is a question whether anyone can see far enough into the future to determine what will be just to all parties for a six months' period. I am looking for a full period price to be fixed, but would as soon see it made for half of the time now and then see what the situation may be for the later months. Hope to see that fairly settled by the twentieth.

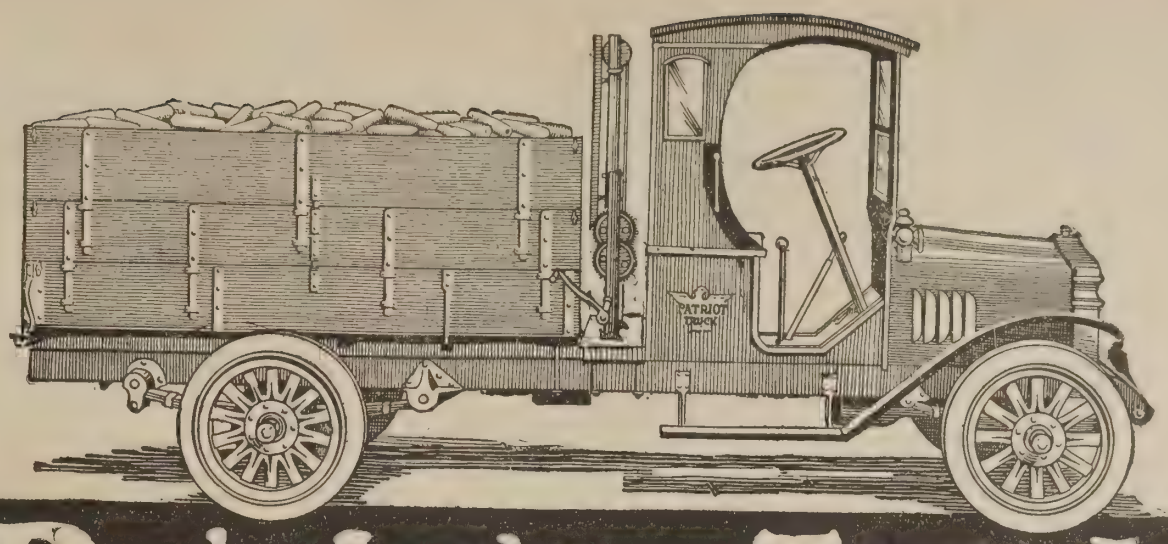
There is activity in the regions where milk was refused in July. At Walton where the milk was said to be too rich then, and the condensery refused to buy it except at a discount, and even the fluid dealers would take it only on commission, now full prices are being paid and there is competition in its purchase. At present I do not know of a locality that is not getting full league prices, unless it may be at some place where cartage is high, and it is not certain that these places are being cut. In cheese territory the milk dealers enter and take much of the product and the manufacture of cheese is of course less than it has been.

The speaker to whom I have alluded predicts rather short supply of good feeds and higher prices. Here we have another reason for higher milk prices before spring. Feeds have already advanced quite a bit since three months ago. Some are still saying that there is to be a good supply of wheat bran. I have had only one chance to buy bran this summer and then could get only one ton. A little wheat is offered now, but it is likely to be grabbed. The price does not seem to be higher than allowable, although it is higher than the Food Administration gave us to understand it would be. Cash at the car is now $43 a ton for the feed, and no bran to be had so far as I know. Small use to fix a low price on bran if we cannot get any. Possibly there will be a little before snow.

In closing his remarks one thing came out partly by direction and partly by inference. We grumble too much sometimes. We are not quite satisfied with our lot. We should be cheerful and inspire others with optimism. Not the careless sort but mixed with enough pessimism to make us careful and avoid trouble. We are not as hopeful and buoyant as we should be. Be as proud that we are farmers as is the lawyer of his profession or any other man of his. It may not be so much of a money making life but it is larger and more helpful. Who does not wish to be helpful? Farming ought to be rather more profitable than it is, but when it comes right down to the truth we do not want it to be profitable in the sense that some other occupations are profitable. Then we would miss the wonderful helpful influence of the farmer in the community and the nation.

It so chanced that after the addresses I had an opportunity to meet a man of an adjoining county who has been put forward by four counties as a candidate for Congressman. He is a real farmer. He told me that out of the 43 Congressmen in this state not one is a farmer, and if I am not mistaken the same thing may be said of the situation for many years back. The most important industry we have totally unrepresented for many years. Organization among farmers is likely to make some difference in this regard in the years to come. I do not fear that farmers will go too far in organization as have some of the labor organizations. This we have already cautioned against, and I am glad that it isn't done, but farmers are not likely to do that, I think.

New York. H. H. LYON.



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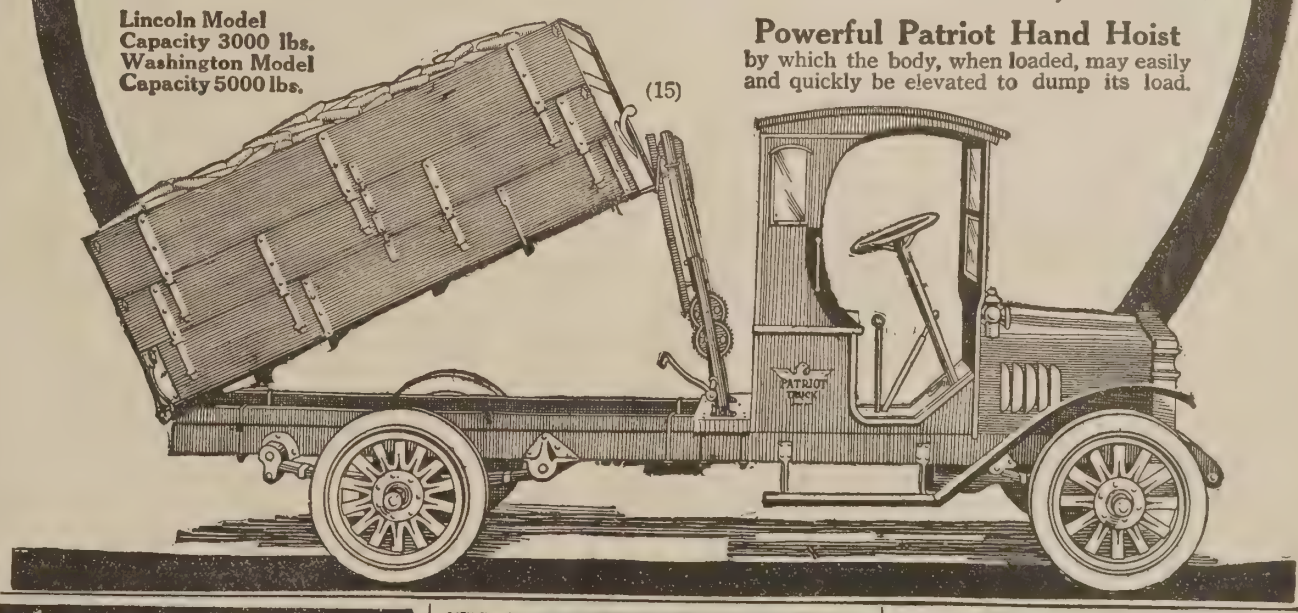
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by which the body, when loaded, may easily and quickly be elevated to dump its load.



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General Laboratories—Madison, Wis.
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Cow Waters Herself



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This was the average daily gain made by this sturdy calf, fed only on

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Blatchford's Calf Meal raises splendid calves at ¼ the cost of milk. The other ¾ stays in your pocket as **clear profit.**

Write for Pamphlet Shows you how to make two profits instead of one.

Blatchford Calf Meal Co.—Dept. 9646—Waukegan, Ill.



A strictly high grade wood panel dairy wagon. Ask for free catalog. Terms to suit. Pioneers in dairy wagon building with Sanitary Bottled Milk equipment. Also builders of metal panel enclosed body wagons. No check, split, warp or crack.

DE KALB WAGON COMPANY, P. O. Box E., De Kalb, Ill.

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Coming Events

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

The Gore Amendment

The following is the Gore amendment attached as a rider to the agricultural appropriation bill. Our comment upon this amendment will be found upon the editorial page.

"That it shall be unlawful, except as herein otherwise provided, for any person, firm, or corporation knowingly to ship, offer for shipment, or transport in commerce among the several states or for commerce with foreign countries any concentrated commercial feeding stuffs containing any damaged feed, mill, elevator, or other sweepings or dust, buckwheat hulls, cottonseed hulls, peanut hulls, peanut shells, rice hulls, oat hulls, corncobs ground, cocoa shells, clipped oat by-product, ground or unground hulls, screenings, chaff, or other cleanings derived from the preparation, cleaning, or milling of any seed or grain when separated from the standard product as an offal or by-product, or such preparation, cleaning, or milling, humus, peat, spagnum moss, ivory-nut turnings, ground cornstalks, flax-plant refuse, sorghum pulp, ground or shredded straw or hay, sawdust, cellulose, or dirt, or any other foreign material.

New York Butter Market

New York City, September 17:—Since last week quotations on butter have advanced a full three cents and the upper limit does not appear to have been reached. Demand continues to be keen and practically all fresh lots of butter are snatched up eagerly by buyers as soon as they appear. Supplies continue moderate with indications that there will be a gradual increase during the coming weeks of improved pastures and freshening cows. Already the influence of those factors is being felt. The one great factor which is limiting shipments of butter to this market is the one of local demand. The writer had occasion during the past week to visit a considerable number of creameries located in a middle western state. Almost invariably at each creamery he was told that the entire output was being used to satisfy local demand. Undoubtedly the local demand is no greater than normal but as the output of all creameries has been greatly reduced because of the hot, dry summer, local markets have reached out to get butter from plants other than those which have regularly supplied them.

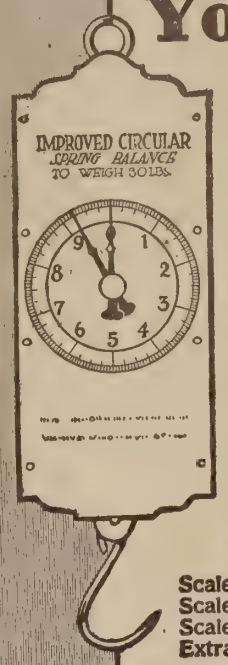
The following quotations on extras (92 score) by days shows the trend of the market: Wednesday, 53c; Thursday, 53@53½c; Friday, 53½@64c; Saturday, 54c; Monday, 55c; and today (Tuesday), 56c. Quotations on all grades of butter have kept pace with those on extras except that the range of prices on undergrades has been widened. That is a natural consequence of high prices as buyers are loth to pay extremely high prices for poor butter. Additional quotations today are as follows: Higher scoring

Sale Announcements

Oct. 1—Holsteins. Dispersion of Broadmead Farms Holstein Herd at Union City, Mich. Thos. B. Buell & Son.
Oct. 1-2—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Oct. 2—Ayrshires. Ayrshire Breeders' Sale at Waterloo, Ia., D. M. Henderson, Hudson, O., Sale Mgr.
Oct. 3—Holsteins. Dispersion Sale Prairiedale Farm Herd. Galt & Spencer, Dixon, Ill.
Oct. 3—Holsteins. The Dairy Cattle Congress Holstein Sale, at Waterloo, Ia., Roy L. White, Mgr., Waterloo or Woodstock, Ill.
Oct. 4—Holsteins. Redwood Holstein Farm Dispersion at Redwood Falls, Minn. Glenn W. Gold.
Oct. 4—Guernseys. Dispersion of Sylvanite Guernsey Herd at Baraboo, Wis. Richard F. Klemm.
Oct. 5—Martinsburg, Blair County, Pa. Holstein Consignment Sale. Auspices Martinsburg Pure-bred Calf Club. L. C. Honsaker, Martinsburg, Pa., Sales Manager.
Oct. 8—Holsteins. Dodge County Holstein Breeders' Consignment Sale at West Concord, Minn. C. L. McNelly.
Oct. 8—Holsteins and Chester Whites. Gunderson Stock Farm, Portage, Wis.
Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.
Oct. 18—Holsteins. Calumet Co. Holstein Breeders' Consignment Sale, Chilton, Wis. Royal Klofanda.
Oct. 10—Poland China Boars at Lancaster, Wis., F. A. Morehouse, Sec'y.
Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 21—Holstein Dispersion. Dr. A. D. Blackburn, Cuba, Ohio.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 24—Guernseys. First Annual Consignment Sale of the Massachusetts Guernsey Breeders' Association at New England Fair Grounds, Worcester, Mass. Leander F. Herrick, Sale Manager.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 29—Holsteins and Poland China hogs. Pleasant Valley Stock Farm, Thos. Maher, Brookings, S. D.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Nov. 6-7—Guernseys. Waukesha County Guernsey Breeders' Association Semi-annual Sale at Waukesha, Wis. F. E. Fox, Sec.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Pail Balancing Scale

Direct to You For $2.85



JUST the thing to determine the yield of each cow. Especially popular with cream handlers who weigh the cream as collected at the different farms.

On the dial of this scale is a loose indicator which can be adjusted and set by a thumb screw, at the O mark so as to balance the weight of the pail. Thus, the net weight of the milk is shown.

Two
Record Blanks Furnished Free
with each scale. These blanks contain the record of two milkings a day for one week for 14 cows.

Three Capacities

Scales, 30 lbs. capacity, by 1-20 lb. each	$2.85
Scales, 60 lbs. capacity, by 1-10 lb. each	3.60
Scales, 120 lbs. capacity, by 1-5 lb. each	5.80
Extra Records net per doz.	.15

Add 20c to your check for Parcel Post. Ask for our Dairyman's Catalog

Creamery Package Mfg. Company
68 W. Kinzie Street
Chicago, Ill.



If Cows Could Choose
They would ask for the—
Universal
natural milker
Alternates, Like Milking With Hands

It is the alternate suction and massage action of the Universal that largely accounts for its tremendous success.

It milks *nature's way*—permitting the cow to relax, because she does not have to release on four teats at a time.

While the gentle massage acts pleasantly on two quarters, stimulating the milk flow, the suction is milking two other quarters

With a Universal you *benefit the cow* and frequently *increase* the milk flow, *in addition* to saving your time and putting you on a modern, efficient money-making basis. Write us.

"YOU HAVE, IN MY JUDGMENT, THE BEST MACHINE ON THE MARKET."
Sunny Side Stock Farm,
Evans Mills, N. Y.
Per G. P. Ashbocker

The Universal Milking Machine Company
404 Mound Street, Columbus, Ohio.

than extras (93 score or above), 56½ @57c; firsts (87 to 91 score), 52@ 55½c; and seconds (83 to 87 score), 47@51c. Unsalted butter is quoted two cents higher than corresponding grades of salted butter.

When the Food Administration requisitioned 60% of available storage stocks the maximum margin (net) allowed dealers on such butter was placed at one cent per pound. Dealers, feeling that the margin is scarcely large enough to permit of sufficient profit to meet operating expenses, have entered protest to the Food Administration. In consequence, it is expected that some satisfactory adjustment of the order will be made.

W. B. LIVERANCE.

Dairy Cattle Congress

With a wealth of educational features that will appeal directly to the farmer, practically everything is in readiness for the ninth annual Dairy Cattle Congress to be held at Waterloo, Iowa, Sept. 30 to Oct. 6, inclusive.

The greatest dairy cattle in the country will be on exhibition. Herds are arriving from east, west, north, and south—herds that have appeared at all the leading state fairs where they captured the majority of cash prizes and blue ribbons. Although the showing of cattle last year was pronounced by experts to be the greatest ever seen in the West, indications are that it will even be eclipsed this year.

Exhibition hall, containing more than 48,000 square feet of space, will be a veritable school of instruction. There will be large displays of farm machinery, dairy equipment, and hundreds of booths containing articles of every description of interest to the up-to-date tiller of the soil and breeder of pure-bred cattle.

Educational exhibits will consist of booths arranged by the national and state food administrations. The fuel administration will also have a booth. Canning demonstrations and exhibits of garden products and handicraft are other educational features that will be of interest.

There will be in operation every minute of the day a working creamery. A tractor and motor truck exhibit, with daily demonstrations, will appeal to the farmer. Tractors shown will be of the light type, suitable for operations in the Mississippi Valley.

The annual convention of the Iowa State Dairy Association will be held October 3 and 4 in conjunction with the Congress. An interesting program has been prepared which will include addresses by M. D. Munn, president of the National Dairy Council; D. D. Aitken, president of the Holstein-Friesian Association of America; and many others prominent in dairying.

The Interstate Dairy Councils will also meet on Friday, October 4. This will be the first complete meeting of the organization and history is expected to be made before the meeting adjourns. Both afternoon and evening sessions will be held.

Dairy cattle sales, the cow testing association exhibit, and cattle judging in the new arena which has a seating capacity for 5,000, are additional features.

Iowa. E. S. ESTEL.

War and Posterity

Unavoidably many of the millions of men now struggling on the battlefields of Europe will not return to their homes. The absence of these millions from homes is inevitably cutting down the birth rate of every nation at war. With the flower of our youth engaged in the nation's defense, at a time when normally homes would be established, the natural growth in population is checked. The realization of these conditions prompts thought of national self preservation in the minds of leaders of all the great government and private agencies devoted to problems of our national life.

The Children's Year, launched by the Women's Committee of the Council of National Defense, under the leadership of the Children's Bureau of the United States government, is a campaign to preserve to the nation the lives of a hundred thousand children who normally die from preventable causes through the unconscious ignorance of parents.

The admittedly large percentage of army draftees, who fall short of necessary physical development for admission to the army, has directed the attention of all to deficiencies in our home life, as applied to the rearing of children born in American homes. The wonderful results attained in our American camps show that much may be done by an aroused people to insure stronger, healthier men and women. These are the motives which prompt the Children's Bureau, the Department of Agriculture, the Food Administration, and the Bureau of Education to join with the National Dairy Association in presenting to the American people, through the medium of its annual exhibition at Columbus, Ohio, October 10 to 19th, not only the aids and inspiration to greater dairy production, but the more vital consequences of the relation of dairy production to human preservation and welfare.

Hundreds of thousands of mothers and fathers have yet to learn the undisputed fact of science that nature locks up in milk an essential something necessary to the fullest development of child life. The cow, "the foster mother of half the human race", is so called because half the babes born to man must depend upon her milk and all children should, through their early life, have a liberal portion of milk and butter if they are to develop into strong, virile, prepotent men and women. The uses of these dairy products, the saving of these young lives, will be fascinatingly presented to the public by actual demonstrations in the use and preparation of dairy products by the Children's Health Conference, conducted by the National Children's Bureau, where parents may bring their children and have them examined by government experts, and where they may receive helpful suggestions for improvement in the development of their children.

Infant welfare workers, public hygiene authorities, visiting nurses' associations, mothers' clubs, home economics' associations, teachers of domestic science,—in fact all men and women engaged in the problems of conservation and improvement of child life, are invited by the government to take advantage of this first great Welfare Exposition held at the National Dairy Show, Columbus, Ohio, October 10-19 inclusive, 1918.

H. E. VAN NORMAN.

National Welfare Exposition at the National Dairy Show.

Indiana Milk Prices

At a meeting in South Bend, September 16th, of the milk producers and distributors, together with the county food administrator, the food administration set the price of milk to the producer at 30c per gallon for legal milk, 3.25%. The distributors are to charge the consumer 13c per quart Sept. 23rd. This covers the price for St. Joseph County, Ind.

IRA M. ULLERY, Sec'y & Treas.

Jersey Cattles Notes

For week ending Sept. 13, 1918:

Number of animals registered: Bulls, 165; cows, 414; total, 579. Number of transfers recorded: Bulls, 106; cows, 398; total, 504.



"You're mighty lucky to have those Lambertville Boots"

"You bet I am. They were the last pair in the store. There'll be mighty few Lambertvilles for some time."

"Why, I need a pair now. Surely I can get them somewhere."

"No sir-ee, not unless you happen on an odd pair that a dealer has left over. You see the Government's taking nearly all the factory can make."

"Gosh—Sherman sure was right!"

Lambertville enthusiasts are naturally disappointed at the scarcity of their favorite rubber footwear. Dealers, too, are disappointed because Lambertvilles meant good business, rapid turnover and good will wherever sold.

But everybody realizes that war is war and that the Government's demands come first. And no one will forget the boots, arctics, etc., that have set a new standard in rubber footwear. When it is possible, we will again supply dealers with our full line of rubber footwear.

Until such a time, we ask your tolerance of this unusual condition, over which we have no control.

LAMBERTVILLE RUBBER CO., Lambertville, N. J.

EDITORIAL COMMENT

Every right implies a corresponding obligation; every privilege a corresponding duty.

REGULATION IN SHIPPING FEEDS

Senator Gore has attached an amendment to the Agricultural Appropriation Bill which aims to control the interstate shipment of certain feeds when mixed with other feeds. The text of this amendment is published elsewhere in this issue.

We are opposed to the Gore Amendment. If legislation is required to govern the interstate shipment of certain feeds, it should be incorporated in a separate bill and opportunity given for discussing it. There are few men so well informed upon any particular subject as to give them sufficient knowledge to write a bill that would be fair and just to those whose business such legislation would regulate. If the Gore Amendment should become a law it would prevent the mixing of ground alfalfa with other commercial feeds for interstate shipment. It would prevent the use of wheat screenings, a valuable feed, to be mixed with other feeds for interstate shipment.

There are meritorious things about the Gore Amendment; for instance, it would prohibit the mixing of buckwheat hulls and rice hulls with other feeds for interstate shipment. It is our opinion that such materials as these should be prohibited by law to be mixed in feeds at any time. These feeds are not only worse than worthless, they are positively injurious.

The bill also provides that feeds of low nutritive value shall not be mixed with commercial feeds for interstate shipment. Some of these feeds are cottonseed hulls, oat hulls, ground cornstalks, etc. These feeds are used by commercial firms and by feeders for lightening the meal portion of the ration. In times of peace it is our opinion that legislation prohibiting interstate shipment of any feeding stuff would be unconstitutional. In times of war government necessity for shipping space might make it feasible to prevent the shipping of feeds low in nutritive value. In times of peace, however, we do not believe that the government or any other group of men has a right to say what kind of feeds a purchaser shall buy. Our feed laws inform the purchaser of the composition and the kind of feeds that enter into a mixture, and he must determine whether it will meet his requirements or not.

It is certain, however, that the Gore Amendment was hastily drawn and is so full of imperfections that, if passed, it would work injury to the feeders of this country. It should be "killed". There may be a necessity for legislation of this character. If there is, then a bill should be drawn incorporating the several feeds which might be omitted from interstate commerce and then a discussion should follow, by those informed regarding the value of feeds, before a committee to which the bill has been referred. Hasty legislation of good intent does not prevent working hardships upon those whom it is to govern. A bill of such importance needs careful consideration or there is danger of creating more evil than it will correct.

We believe there is opportunity for legislation which will prevent the use of materials of no nutritive value and which are injurious, and there may be a necessity for governing the shipment of material low in feeding value. For example, it is the practice of some feed manufacturers to mix about 800 pounds of cottonseed hulls with 1,200 pounds of cottonseed meal for producing one ton of cottonseed feed. There are few, if any, farmers in the North who require cottonseed hulls because cornstalks or chaffed straw would take their place.

A moment's consideration of the Gore Amendment will reveal the necessity of giving such legislation more serious thought than is possible where it is acted upon as a mere rider to the important agricultural bill and thus is made a question of purely incidental interest and small import.

OUR BREADSTUFF

Herbert Hoover has a family of about 220,000,000 people. At least this is the number of people fighting Germany, and it is Mr. Hoover's job to see that they receive proper rations.

Several months last year he requested that we use 50% substitute with wheat flour. This request continued until September 1st when word came that all that was necessary to use was 20% substitute with wheat flour. Substitutes include barley, corn, rice, potato flour, etc. When rye is used to supplement wheat flour, two-fifths of rye and three-fifths of wheat flour are required. He also informs us that a Victory Flour properly mixed will be placed on the market. This seems to us a very wise provision as it is often very difficult for the housewife to secure, at times, suitable substitutes. No loyal woman will object to making bread from Victory Flour and no loyal man will seriously object to eating such bread. We are willing to make this slight sacrifice, if it be one, for the cause in which we are engaged.

It is our opinion that wheat flour containing a little corn flour, or any other flour, is really more nutritious and nourishing than simply wheat flour alone. We may well have pride in the fact that we and our allies have been able to increase our breadstuffs so that it is only necessary to use 20% substitutes. We take it that our food administrator would not have lessened the amount of substitutes to be used if there were not an adequate supply of wheat to permit us to use 80% wheat flour.

Next year, the Department of Agriculture expects the farmers to grow 45,000,000 acres of wheat, 27,000,000 acres to be winter wheat. A yield of 1,000,000,000 bushels is desired, as against about 850,000,000 to possibly 900,000,000 bushels this year.

We can well be proud that through conservation we saved enough wheat to supply our allies and through extra effort have secured an adequate supply of breadstuffs for the coming year.

LIMITING CREAM STATIONS

Elsewhere in this issue of Hoard's Dairyman we publish an article from Mr. J. A. Boyer commenting upon our editorial entitled: "Limiting Cream Stations".

We fully appreciate that there is no necessity for two or three cream stations in one city, and that a cream station is unnecessary where a creamery is properly serving the farmers. We most heartily believe that farmers should build their own co-operative creameries and operate them on business-like principles. The cream buying station can not pay as much for fat as a well patronized and properly operated co-operative creamery. We believe, too, that the farmer who leaves his co-operative creamery to sell cream to a local cream station is working against his own interest and in time will be led to see his mistake. But, granting the advantages of the farmers' co-operative creamery and that the cream station is unnecessary, we believe a law preventing the establishment of more than one institution in a city for the purchase of cream would bring more dissatisfaction than the evil of having a creamery and several cream stations.

Our correspondent says: "If he," referring to the producer, "has not enough intelligence to ship his cream to his chosen centralizer, then and only then does he need a cream buying station." Whose business is it where and how a milk producer or cream producer markets his product? What farmer wants a law which will compel him to market his product in channels defined by law?

Under war conditions we are all willing to put up with anything to win the war, but in times of peace we do not believe that the milk and cream producers of this country desire to have laws prescribing how and where they shall market their products.

"IS COW MILK DOOMED?"

This is the title of a news item in one of the commercial journals published in Chicago. The article goes on to state that the chemical laboratories of A. D. Little, Inc., have announced the discovery of a process by which an ample supply of fresh milk can be assured to a city "without a cow within 10,000 miles". This product is made from cocoanut oil and powdered skimmilk. The process has been patented, but as announced has not been worked out on a commercial scale. It is also stated:

"We can get whatever type is wanted: thin milk, rich milk, half cream, full cream, or even thick, clotted Devonshire cream. It tastes like milk and cream, contains substantially the same bodies, is slightly more digestible than the original cow product, while its keeping qualities are fully as good if not better. If this new discovery should turn out practical, it will play havoc with our dairies, the incomes of the dairy papers, and the advertising of milk products, condensed milks, etc."

For a long time scientists have been attempting to manufacture a product which will take the place of cow's milk. So far, they have not been successful. While their product may show about the same chemical composition, yet chemistry does not reveal all the essential elements of a food product. Several scientists have demonstrated that milk contains certain substances necessary for growth and that when butterfat is eliminated from the milk, children are subject to certain forms of disease such as sore eyelids, skin eruptions, etc. This was prevalent in Denmark where a large amount of skimmilk had been consumed and butter substitutes used for milk fat. Doctors found that when the children were fed milk fat the sore eyelids and skin eruptions disappeared.

It may be stated, further, that this particular product requires the use of cows to produce the skimmilk, which in itself assures dairymen that no calamity is coming from this source to the dairy industry. To say that such a synthetic product is equivalent to milk is not stating facts, and we may be thankful as dairymen that the pure food laws will compel these inferior products to sell upon their own merits. We have a number of men who term themselves scientists that are ever on the lookout for manufacturing substitutes which, if consumed as their makers would like to have them, would soon make us a race of inferior people, both mentally and physically. The American is too intelligent to be misled in any considerable numbers into using substitutes, for they know their effect.

INDIVIDUAL RESPONSIBILITY

The Fourth Liberty Loan campaign opens on September 28th. The amount asked for has not been officially announced, but it is expected that it will be either five or six billion dollars. This is more money than any nation has ever asked of its people at any one time. America will respond, and its response will be one of the large factors in upholding the morale of the forces of the allied nations and in destroying the morale of the central powers, a morale that the American soldiers gave a stinging blow when the German advance was checked at Chateau Thierry.

But let us not indulge in any illusions. It will be no easy task to raise this sum of money, even in prosperous America. Let us put over-confidence and the insidious words of propaganda behind us and give heed to our country's call. It is our job, one we can not leave to our neighbor. It will call for sacrifice and devotion on the part of every loyal American citizen, and each man must accept the success of the loan as his individual responsibility, his great opportunity.

To raise this sum of money should be the chief business of every citizen while the campaign lasts. The farmer has responded nobly to his country's call for food, he has given liberally of his money, he has sent his sons,—a gift without price. Yes, the farmer has demonstrated his patriotism and his ability. In this matter of the Fourth Liberty Loan he will also acquit himself well. It is not a time for self excuse, for argument, or for shifting responsibility. It is the call of patriotic duty and a wholesome regard, not alone for public opinion, but a wholesome regard for the times that come when a man stands naked before the self analysis of his own soul. The man who fails will find that, in the quiet time when he is by himself, his own guilty conscience will point the scathing finger of scorn at him, a scorn more scorching than the public at large or the returning soldier can ever inflict, heavy as these may be to bear.

In the spirit of liberty and devotion, with the acceptance on the part of each of us of our own personal responsibility to do all and more than our share, the Fourth Liberty Loan can and will be made the most brilliant of all. Only when our duty has been well performed and the needs of our country are fully met, may we expect the Master's blessing: "Well done, thou good and faithful servant."

COUNTY ADVERTISING

The dairy cattle industry of two Wisconsin counties—Waukesha and Calumet—was given effective publicity at the 1918 Wisconsin State Fair.

Waukesha County was advertised as "The Dairy County of The World" in an attractive leaflet distributed among the visitors at the fair who were interested in dairy cattle. Proof for the claim was submitted in statements concerning the number and quality of the representatives of the four major breeds which Waukesha breeders own. It was set forth that Waukesha has more dairy cattle than any other county in the world, that it has more tuberculin tested cattle than any other county and will soon have all of its cattle tuberculin tested, and that Waukesha breeders stand back of their stock. A certain representative for each breed was named and inquirers were directed to address him for information.

A 48-page pamphlet enumerated the desirabilities of Calumet County as "The Garden Spot of

Wisconsin". The high food value of milk was illustrated by cuts and explanatory paragraphs. Prominence was given to the enterprise of boys who have engaged in calf club work; the memberships of the farm management club and of the county order of the Wisconsin Experiment Station were listed. The Holstein and Guernsey Breeders' Associations were listed with their officers and members. The educational matter contained made the booklet as valuable for home distribution as for calling the attention of state fair attendants to the virtues of Calumet County.

The publicity thus gained benefits these two counties largely. It awakens a new pride within their own confines as well as being directly valuable in increasing outside interest in the wares for sale by the farmers and breeders. Of such enterprise is progress made.

Raising Calves Without Milk

We have been trying to raise calves by the use of milk substitutes, giving whole milk the first week, then gradually changing to the calf meal. We have had very indifferent success; the calf usually lives through it but we have all kinds of trouble. They get the scours and get very thin and I do not think that they ever make as good cows as they would if they had a good start. Can you tell me how to raise them successfully in a way that won't cost more than they are worth. We would like to grade up our herd to pure-bred Holsteins, but do not feel justified in going to the expense of purchasing a good bull until we are sure we can raise the calves successfully.

Royersford, Pa. E. P. B.

Whole milk is the ideal feed for calves. There has been a great deal of work done in the attempt to find a substitute which will entirely replace milk in the calf's ration. While a number of feeds have been brought forth which prove generally satisfactory, we have yet to find a single one which will so well supply the calf's needs as its natural food, milk.

Figuring on the high value of well matured dairy heifers we believe that even at high prices a certain quantity of milk proves economical as a feed for calves. If substituting other feeds will stunt calves in their growth and make them less valuable as producers at maturity, it can readily be seen that to feed even rather liberal amounts of milk to young calves will prove in the end very profitable.

The practice which seems most desirable is to supply the minimum amount of milk, regardless of its cost, which will guarantee strong, healthy, growthy calves. In an experiment carried on at the University of Illinois, it was found that such calves could be grown when the minimum amount of whole milk supplied totalled about 150 to 175 pounds and when skmmilk was fed in addition to a total amount of 400 to 500 pounds. In addition to this quantity of milk good clover hay and concentrates were supplied the calves as early as they would be eaten.

For the first four days the whole milk from the mother was fed and at about the fifth day ten pounds of whole milk and two pounds of skimmilk were supplied and the mother's milk put in with the rest of the herd's. This quantity of milk was fed until the calves were about ten days old when the whole milk was gradually replaced by the substitution of skimmilk at the rate of one pound per day. The twelve pounds of skimmilk were then continued for about twenty days so that by the time the calf was six weeks old or a little less the milk was gradually reduced about a pound per day. By this time the calves were able to maintain themselves fairly well on choice clover and concentrates. Their growth was checked somewhat for a time but at maturity they had made good growth and were apparently as strong and vigorous as animals which had received considerably more milk.

The commercial calf feeds have been fairly successful and home-made mixtures have also proven valuable in feeding calves. In no case would we begin feeding these meals to calves under three to four weeks of age. Instead of following the practice which was used in the Illinois experiment, where milk is especially high in market value, it might be wise to begin when the calf is about three or four weeks old to gradually cut down on the skimmilk supply and to feed increasing quantities of a meal.

One of the satisfactory mixtures which may be made on the farm at a lower cost than the price of most calf feeds, with fully as satisfactory results, is one made up of equal parts of hominy meal, oil meal, red dog flour or shorts, and blood meal. Such a meal is quite satisfactory and if the management of the calves is in the hands of a good caretaker good results should be secured from its use. The blood meal has one of its several values in regulating the digestive system so that the calves are not apt to be troubled with scours as suggested.

Comparing Grain Silage and Hay

I wish you could give me the market value per ton of silage made from barley, rye, and oats, as I am selling some to my neighbors. Hay is worth $25 to $30 per ton, shorts $32, bran $30.

Forest Grove, Ore. I. J. H.

There is no real market value for silage and the best that we can do is to give an estimate. One hundred pounds of silage, composed of equal quantities of barley, oats, and rye, will contain approximately 26.8 pounds dry matter and 17.6 pounds total digestible nutrients. In 100 pounds of hay made from these same grains, there are 90.8 pounds dry matter and 49.2 pounds digestible nutrients. In digestible protein, two tons of this grain silage would be worth one ton of the hay, but giving credit for the higher relative carbohydrate content it would be fairly accurate to say that one ton of the grain hay is worth from two and one-half to three tons of silage. In comparing prices of these two commodities it is to be remembered that the price should be for the hay in the barn or stack and the silage in the silo, not the market value of the former.

What Price for an Acre of Corn

What is the value of corn silage? I have just purchased a farm and I have a cement silo 12'x42'. I wish to make arrangements with the former owner to put a portion of the corn crop now on the place in the silo.

Cement City, Mich. L. G. R.

Silage does not have any regular market value and it is next to impossible to estimate this with any degree of accuracy. During the past year silage has been sold in the silo at from $5.00 to $8.00 per ton and in some instances for more, the price varying according to the quality of the feed and the relative desire of the seller to sell and the buyer to buy. If there is any method of estimating the yield of ear corn per acre then possibly estimating the value of the silage on this basis would be most satisfactory as a basis of agreement with the former owner, paying him for the corn crop ensiled on the basis of its return to him if sold as ear corn. In other words, if the estimated yield per acre is fifty bushels and corn is worth $1.50 per bushel, then he would receive $75.00 per acre for the corn put into the silo.

Another method of estimating would be to pay for the silage on the ton basis, using its ear corn content to get the price. A ton of well-eared corn silage will contain from 4½ to 5 bushels of corn. Multiplying the 4½ or 5 by the current value of the ear corn per bushel would give a fair approximation of the amount of the silage. The amount of silage in a silo can be computed by using tables which have been prepared for this purpose.

Still another comparison of the value of silage, that is often made, is to compare it with timothy hay. On this basis one ton of timothy hay in the stack is said to be worth 2½ tons of corn in the silo. In other words, when timothy hay is worth $15.00 per ton in a stack, corn silage would be worth $6.00 per ton in the silo.

Mississippi Ration

Please give me a balanced ration out of the following feedstuffs at prices named: dried brewers grains, $55 per ton; wheat bran, $40; velvet bean meal, $48; cottonseed and oil meal, $52. These are the feeds that I can secure. I want cheapest feed out of the list.

Wesson, Miss. H. M. A.

Dried brewers grains supply nutrients at a somewhat higher cost than the other feeds listed. Also the two meals, velvet bean meal and cottonseed meal, are very high in protein content and supply about the same purpose. It would be desirable to feed only one of these meals, making a choice between the two dependent largely upon their market value. Because brewers grains are somewhat more expensive we would feed but a small quantity or would cut them out entirely. A high carbohydrate concentrate such as corn or hominy would add greatly to the value of the concentrate mixture. We recommend that a mixture be made up of 200 lbs. corn or hominy, 300 lbs. wheat bran, 100 lbs. dried brewers grains, and 150 lbs. of velvet bean meal or cottonseed meal.

The roughage part of a ration is fully as important as the supply of concentrates. Cows should receive all of a legume hay which they will consume. Alfalfa, clover, soy bean, cowpea, or velvet bean hay, fed in as large amounts as they will eat, makes a very good basis for economical milk production. Silage fed in addition at the rate of about thirty pounds per cow per day, except when the cows are on good pasture, also makes an economical basis on which to supply concentrates. In addition to the hay and silage the grain mixture recommended should be fed, to cows producing high testing milk, at the rate of one pound for each 3 to 3½ lbs. of milk produced. Cows producing low testing milk need but one pound of grain for each 3½ to 4 lbs. of milk produced.

Inoculating Alfalfa

Is inoculation from sweet clover soil as good as from alfalfa soil? Would both soil and chemical inoculation be a benefit or detriment? Does Grimm seed produce plants that withstand the winter better than other varieties?

Greenfield, Ind. J. W. R.

Soil from a sweet clover field that has made a good growth is satisfactory for inoculating a new seeding of alfalfa. It is just as desirable for this purpose as soil from an alfalfa field or the chemical inoculation. The latter method is considered more convenient by many people, and if the inoculating material is not too old and has been properly prepared it is, perhaps, somewhat more certain in its results. There would be no detrimental effect from using both the soil and chemical inoculation, but we do not consider this essential.

Because of its spreading root system, Grimm alfalfa will withstand winter weather better than the common alfalfa. However, one should be certain that he is securing the true Grimm seed as there is, comparatively speaking, but little of this seed on the market and its price is so much higher that there is a tendency to substitute other varieties for it. The Grimm has been tried in many states and has proven its worth. One of the most recent reports that we have received is that of a grower in Colorado who recently visited our office and stated that their seedings of Grimm in that section had withstood the winter much better than the common alfalfa.

Renting on the One-third Basis

In your issue of July 11th an article, "Renting Dairy Farms on Shares", appeared of which a paragraph on the general method of renting on one-third was written. Will you please inform me as to the subjects which generally appear in an agreement of this nature, and the usual form of drawing them up?

Milwaukee, Wis. E. H. S.

In reply to this inquiry, Mr. E. A. Boerger of the U. S. Department of Agriculture, author of the bulletin reviewed, writes:

"Probably too much stress was placed in the bulletin on this method of renting as only about 3 per cent of the tenant dairy farms we have visited were so rented. This system of renting is most frequently found where a son or a son-in-law of the landlord is the tenant and no written lease is used.

"I have come in contact with several methods of renting in which the owner furnished all the work stock, productive stock, and the machinery and tools, the tenant furnishing all labor, one-third of the purchased feed, and in return secured one-third of all stock increase and one-third of all crops and milk sold.

"Poultry usually requires a large amount of labor and on some one-third share rented farms I have visited, particularly in the state of Delaware, where much poultry is raised, the tenant got one-half of all eggs sold and one-half of all poultry increase. On such farms also where an intensive crop such as potatoes or tomatoes was grown, the tenant received one-half the sales from the intensive crop but only one-third of those of the ordinary field crops.

"On a dairy farm it would appear advisable to give the tenant one-third of all crops sold and of all dairy products sold and also one-third of all stock increase and require him to furnish one-third of all feed whether raised on the farm or purchased. In order to insure the proper repair of machinery, it would probably be advisable to require only one-third of the cost of repairs from the tenant.

"Were it not for the productive stock (cows, hogs, etc.) kept on the farm, the tenant could be given one-third of the crops grown and if there are other farms nearby on which the feed raised could be consumed, it might be best to do this and avoid the complication of giving the tenant one-third of the stock increase."

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MILKING MACHINES

The Recognized Standard

NEARLY every field of endeavor has its recognized standard—one manufacturer's goods that always loom up first in your mind when a product of its nature is mentioned.

It's true of cameras, pianos, locks, crackers, speedometers, watches and a host of other products.

And it's true of Milking Machines.

Visit the homes of prize winning stock of all breeds, go to the dairy farms whose chief object is the production of large quantities of milk or go to the small farmer who has only a limited number of cows. Everywhere you'll find the dominating milking machine to be the Empire.

Our 1918 Catalog No. 31, will tell you why or, if you choose, the local Empire dealer will demonstrate why. No charge or obligation.

Empire Cream Separator Company
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Write for This Beautiful 1918 Empire Milking Machine Catalog

Grove City Creamery Picnic and Dairy Show

HOARD'S DAIRYMAN:—The first pure-bred dairy stock show held by the constituency of Grove City, Pennsylvania, Creamery, took place on September 7, at Barmore Lake, in connection with the Third Annual Patrons' picnic. In point of attendance, exhibits, and enthusiastic interest the occasion was a distinct success. The rapid progress toward prominence in pure-bred dairy cattle raising achieved by the community under the stimulus and encouragement of the Dairy Division of the Bureau of Animal Industry, under whose direct supervision the creamery is operated, was reflected by the number and quality of the animals exhibited, and by the universal interest shown in all the exercises of the day.

The judge was Professor A. A. Borland, of Pennsylvania State College, who took opportunity, by briefly stated reasons for his placings, to make the competition a demonstration in the judging of dairy cattle.

After dinner, the audience assembled in a natural amphitheater and brief introductory speeches were made by County Agents W. S. Hagar of Mercer, and H. S. Adams of Butler. A representative of the Grove City National Bank, which has been effective in establishing so many pure-bred herds in the community, spoke briefly of the definite intention to make the show a permanent and stimulating influence in the region, to exclude absolutely the element of cheap and noisome "amusements" that have debased and disgraced the so-called agricultural fair, and to continue to encourage by importation and distribution of registered stock the development of pure breeding in the community.

Mr. Helmer Rabild of Washington, in charge of dairy extension, U. S. Department of Agriculture, made the address of the day. Mr. Rabild spoke with force and pertinence out of a wide experience both in his native Denmark and in this country and was heard with the keenest interest.

As an earnest of the future, and an index of the possibilities of the locality, the show afforded its promoters (the commercial associations of the world are in marked contrast to the spirit of the occasion) deep gratification. The several organizations established within the past two years by Mr. R. R. Welch, the indefatigable dairy husbandman of the creamery staff, are rapidly revolutionizing the local business of dairying and are in an aggressively flourishing condition. The three breeders' associations, the bull associations with their sires of world famous breeding lines, and the Accredited Herd Owners' Association with a membership of over one hundred, are making their influence felt over an increasing area.

The exhibitors at the show were:

Holsteins: Lida Armstrong, M. M. King, E. H. Conner, Franklin Glenn, Homer Knauff, Wilson McClelland, W. A. Richardson, W. W. Richardson, J. W. Hunter, George V. Reed & Son, A. G. Opre, F. H. McDowell, Ernest Hassel, P. P. Winger, J. S. Ramsey, W. A. Tinker, E. P. Weber, George Long, Walter Knauff.

Jerseys: E. G. Barnes, E. A. McDowell, W. H. Davis, R. K. Cummings, Glenn Humphrey, David Studebaker, Mildred Cummings, P. H. Helm, Homer Long, T. F. Ritchey.

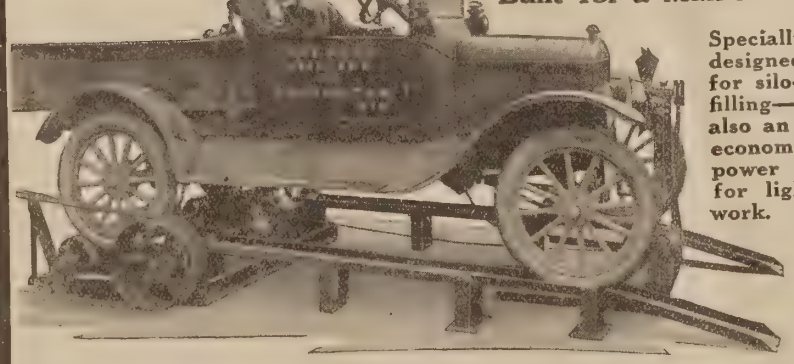
Guernseys: Hugh Fergus, J. M. Buchanan.

Pennsylvania. MORGAN BARNES.

The best time to do a good job is now. Putting it off makes it harder.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

The Auto Utilizer
A Real Power Transmitter Built for a Man-Size Job

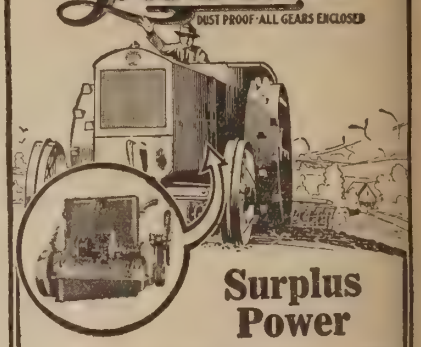


Specially designed for silo-filling—also an economical power plant for lighter work.

Equipped with Hyatt Roller Bearings Throughout. Tires Run on Rubber Covered Rollers
Use Any Make of Car up to 125 Inch Wheel Base. No Attachments to Car—No Jacking Up.
Price, $220.00 F. O. B. Factory
Order Today—Try It Out Before You Pay. FULLY GUARANTEED—WE BELIEVE IN IT
THE AUTO UTILIZER COMPANY, Burlington, Wis.

Keep Tab on Your Cows!
Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. HOARD'S DAIRYMAN, Ft. Atkinson, Wis.

The LAUSON 15-25
DUST PROOF ALL GEARS ENCLOSED



Surplus Power

The engine is the heart of a tractor. It must supply a steady flow of power. There must be power to spare. Soil conditions increase the draft at the drawbar. Wet grain requires more power at the belt pulley.

The LAUSON-BEAVER-valve-in-head motor has 30% surplus power. The valve-in-head principle is noted for its efficiency under heavy load. It burns kerosene successfully. It is dust-proof but accessible. The bore is 4½ inches and the stroke 6 inches.

Pulls Four Plows

The LAUSON 15-25 is rated a 3-plow tractor. And yet in the National Tractor Demonstration at Salina, Kansas, it pulled four 14 inch plows to an average depth of 7½ inches at the regular plowing speed of 2½ miles per hour through the entire demonstration week.

Designed for Belt Work

The LAUSON 15-25 is made to run the ensilage cutter, grain separator, corn sheller, feed grinder, rock crusher—any kind of belt work requiring surplus power.

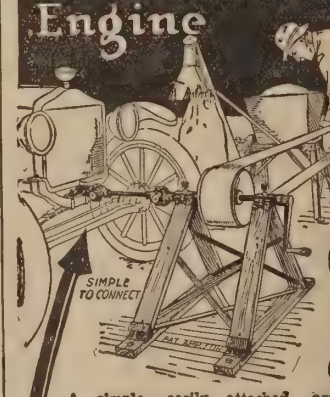
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Fits—Ford, Dodge, Overland, Reo, Chevrolet 490 and others.
Operates—Silo fillers, feed grinders, grain cleaners, pumps, saws, cream separators, bean hullers and all other farm machinery.
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110 HOLSTEINS
Oct 8th, 9 A. M.—Dispersion Sale

43 registered cows and heifers, 6 registered bulls, 60 high grade cows and heifers, 80% due to freshen fall and early winter. Tuberculin tested for last 5 years. Two yearly fat tests on mature females. 26 cows making over 400 pounds fat in year under ordinary farm conditions. Some direct descendants of King Pontiacs, King Segis, Johanna DeKol Van Beers, K. P. Pontiac Lass and Segis Fayne Johanna. Send for catalogue. Cattle sale starts in forenoon. 50 Registered Chester White Swine—The Right Kind

Also 14 horses and mules and every kind of farm machinery including Avery tractor and tractor machinery, and Sharples Milker.

Breeders for 32 years of Holsteins of vitality and yearly production. Mack and Elliason in the Box.

Gunderson Stock Farm, (Near City Limits,) Portage, Wis.

New York Prices Advance 40 Cents

HOARD'S DAIRYMAN:—The New York milk situation is clear if I get the correct interpretation. The price for October and probably for November and December has been made. No announcements are yet given out, and my understanding is that there are to be further conferences after the fifteenth. I have talked with dealers and league officials, but am not permitted to quote either. My understanding is that the October price will be at least forty cents advance over September. That would mean at least $3.30 a hundred for three per cent milk at 150 miles from New York. The average then up-state may be assumed as pretty close to $3.50 a hundred pounds. November and December may be a little higher. No one should assume these figures as accurate for they are not official.

So far as I have learned, the dealers are not raising objections over the price. In conversation with a general manager of one of the larger concerns yesterday he seemed very optimistic, and is looking around for more milk. He had just closed a long-term contract the day before, leasing a large plant, and that in territory where the test is high. We have been told that at present prices dealers cannot handle milk of tests that are high. In the case of condensers and those in the powdered milk business, if not in the fluid order, high tests seem desirable. Cream of the forty per cent grade now sells readily at twenty-four dollars, and this taken from the five per cent sort of milk at forty cents a pound for fat leaves the milk in good grade for condensing at three or even four per cent, and makes a big profit on the cream. The ins and outs of the milk business are intricate.

New York. H. H. LYON.

Line Up

It ain't the guns, nor armament,
Nor funds that they can pay,
But the close co-operation
That makes them win the day.

It ain't the individuals
Nor the army as a whole
But the everlastin' team work
Ov every bloomin' soul.

—Rudyard Kipling.

DAIRY MARKETS

MILWAUKEE, Sept. 19—Butter—Creamery, tubs, 54c; prints, 55@56c; extra firsts, 53@54c; firsts, 50@51c; dairy fancy, 46@48c.

Eggs—Current receipts, returned, 41@42c; cases, new included, 41½@42c; miscellaneous, cases, 40½@41½c; dirties, 33@34c; seconds, 30@31c; checks, 27@29c; recandled, 44@45c.

Cheese—Twins, 28@28½c; Daisies, 28½@29c; Brick, 29@29½c; Limburger, new, 1 lb., 27c; 2 lbs., 26c; Swiss, loaf, 45@47c; block, 34@36c; Longhorns, 28½@29c.

NEW YORK, Sept. 19—Cheese—Strong; state milk, common to specials, 24@28½c; skims, common to specials, 8@23½c.

Butter—Strong; receipts, 11,259; creamery, extras, 57c; state dairy, tubs, 43@56½c; imitation creamery, firsts, 43@43½c.

Eggs—Dull and weak; receipts, 12,162; nearby white fancy, 64@68c; nearby mixed fancy, 40@52c; frsh firsts, 44@52c.

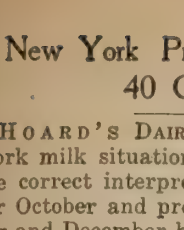
CHICAGO, Sept. 19—Buter—Creamery, extras, 58c; extra firsts, 58c; dairy, firsts, 54½@57c; seconds, 50½@53c.

Eggs—Ordinary, 41@42½c; firsts, 43@44c.

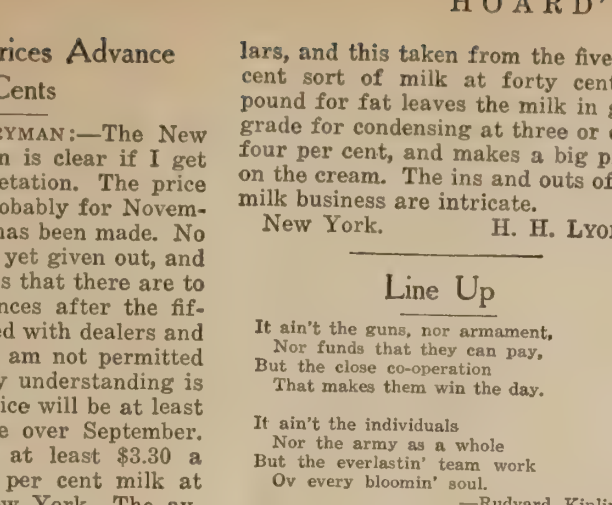
Cheese—Twins, 27½@28c; Young Americas, 29@30c.

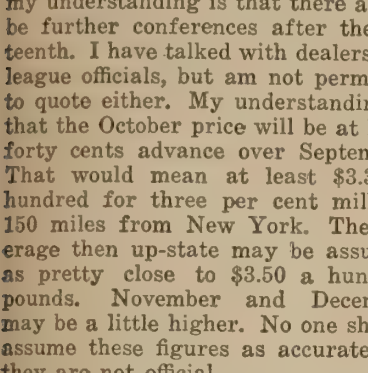
PHILADELPHIA, Sept. 19—Butter—Higher; western creamery extra, 58c; nearby prints, fancy, 63@65c.

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Detachable Water Bowls



WM. LOUDEN
Originator of Modern Labor - Saving Barn Equipment.





Removed and Sterilized —the Work of a Minute

Louden Detachable Water Bowl represents the greatest improvement for indoor watering of cows that has been offered to the dairyman in many years.

The Louden Bowl can be easily and quickly sterilized. It takes but a moment to raise the nose piece to a vertical position, lift up the bowl and slip it off—no rusty set screws to unloosen, no supporting levers to release, no collar connections or other trouble-making attachments to tinker with. No wrench or tools of any kind required. Yet it is an impossibility for the cow to budge the bowl, so rigidly is it held in place.

Increases Milk Yield—Reduces Labor

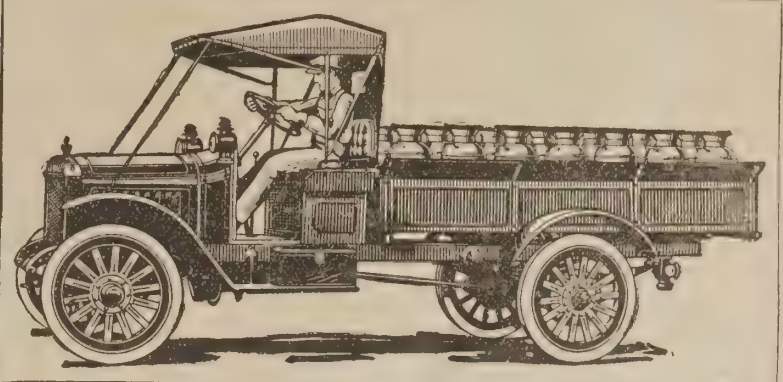
Milk is made up of about 87% water. The more water the cow drinks the more milk she will give. The average cow must have 10 gallons per day to keep up her milk yield. The Louden Bowl makes it possible for the cow to have a drink of pure, fresh, even-tempered water any minute of the day or night she wants it. Supply valve operates automatically—water stops flowing the instant the cow stops drinking—absolutely no waste.

Easily Installed in Any Barn —no expert help needed. Increased milk yield of cows, and daily labor saved, pay for the Louden Bowls many times over every year.

Illustrated Catalog Sent Free on Request, gives full information on our complete line which includes stalls and stanchions, feed and litter carriers, hay tools, animal pens, barn and garage door hangers, etc. "Everything for the Barn." *Write for it.*

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Haul your milk and cream to the best market

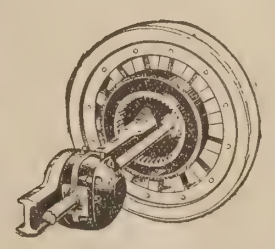


A Republic Motor Truck makes it possible for you to deliver whatever you have to sell to the *best* market.

You are not limited to the markets which lie within a six or seven mile radius of your farm. Many dairy-men are hauling their milk and cream with Republics, twenty miles and even further. They go where they can get the best prices and make the trip quickly and economically.

Republic Motor Trucks will make money for any farmer if given the opportunity. They combine every feature necessary or desirable for farm use.

The Internal Gear Drive delivers more power than any other form of drive. It permits the use of a separate load carrying axle of solid forged steel—the lightest and strongest axle known to engineers. It gives 45% greater road clearance, preventing stalling in mud or snow. There is less unsprung weight which means big savings in gasoline, tires and all upkeep expense.



The Internal Gear Drive delivers 92% of the motor power to the wheels. We know of no other drive that delivers as much.

Republic Trucks are easy-riding and easy to drive and care for. And there are seven models from ¾ ton to 5 ton capacity so that you can select just the truck needed on *your* farm.

Republic Trucks are built by the largest manufacturers of motor trucks in the world who build nothing but trucks and know just what is required for every kind of hauling. Last year more than twice as many Republics were produced and sold as any other make.

More than 1300 Republic Service Stations, distributed all over the United States, insure prompt efficient service no matter where you may be located.

See the nearest Republic dealer and write us for latest booklet.

Republic Motor Truck Co., Inc.
Alma, Michigan

REPUBLIC
Internal Gear Drive
MOTOR TRUCKS

Built by the Largest Manufacturers of Motor Trucks in the World

Better Butter Prices

Customers willingly pay *more* for butter they know is *perfect,* just as first churned.

Pioneer Parchment Paper keeps it clean and sweet. Makes butter *worth* more, and *sell* for more. The cost of Parchment Paper is small. The extra profit more than justifies it.

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While thousands of Styleplus suits will be sold, the big object is to show the public what values we can produce by centering our volume on a few grades, thus permitting us to manufacture scientifically at low cost.

This season when clothing prices are *up* you can buy a Styleplus at a price never considered unreasonable for a good suit of clothes. The Styleplus plan of supplying reliable quality at known price helps you more than ever in times like these.

Wear Styleplus Clothes and you march in Uncle Sam's great thrift army because you make both sides of your dollar count. Visit a Styleplus Store during the coming week.

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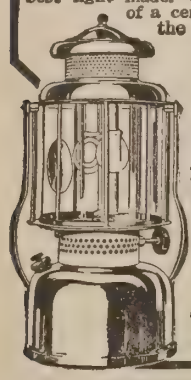
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Most Brilliant Light Made

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No wicks to trim—No globes to wash. No dirt or grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger if tipped over. Guaranteed Five Years—will last a lifetime.

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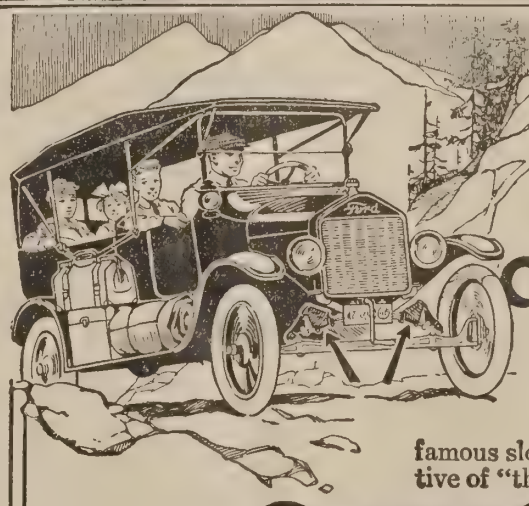
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Will Produce More Water with less Power than any other Pump. For Farms, Ranches, Pressure Systems and all other purposes.

Write for information.

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Chippewa Falls, Wis.



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THAT'S the addition Hassler makes to the famous slogan so truly descriptive of "the universal car".

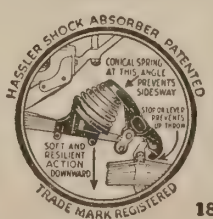
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A Hasslerized Ford will take you there, anywhere, and bring you back comfortably. Hasslers will give your Ford the long easy swing, the *glide* you formerly thought attainable only in a car costing $2,000 or more. No matter how rough the road, the wonderfully resilient, chrome vanadium coils will stand between you and every irritating jolt and jar.

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Write today for FREE TRIAL BLANK and we will have a set of Hasslers put on your Ford without a cent of expense to you. Try them ten days. Then, if you are willing to do without them, they will be taken off without charge. Don't ride without Hasslers simply because someone discourages you from trying them. Accept this offer and see for yourself. Nearly a million of the patented Hasslers now in use. Write today—Now.

ROBERT H. HASSLER, Inc.
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When writing to advertisers please mention Hoard's Dairyman.

Government Urges Young Men to Continue School Work

The Secretary of War has issued a bulletin urging young men who have a high school education or its equivalent to continue their education in higher institutions of learning for the purpose of preparing themselves for special services in the army, like aviation, artillery, engineering, gas defense, and for appointment to officers' training camps.

There is a shortage of men with the necessary preparation for these specialized services and the preliminary training needed for an officer. The government recognizes the seriousness of the situation and urges all men of suitable preparation to continue their education under the following plan.

At each college and university enrolling one hundred able-bodied students over the age of eighteen and under twenty-one, a military training unit will be created. The instruction will be given by officers and non-commissioned officers of the army. Enlistments in the unit will be voluntary. Students over eighteen but not yet twenty-one will be encouraged to enlist. Those under eighteen will be encouraged to enroll in the training unit.

Students who reach the draft age during any school year will not be called until June 30th following. The enlisted men will be on furlough status until called, will receive no pay or allowance except when attending summer training camp in which case they will receive transportation and rations.

Enlistment in the training unit will constitute an enlistment in the army of the United States. The members of the unit will not be called to the colors until they reach the age of twenty-one unless urgent military necessity compels an earlier call.

The plan outlined by the War Department is strongly supported by the Secretary of the Navy, the Secretary of Agriculture, the Secretary of Labor, the Secretary of the Interior, and the Commissioner of Education.

It is the settled policy of the government to advise young men under twenty-one who have the necessary preliminary education to continue their education at higher institutions, to enlist in the training units, and to prepare themselves for specialized military service, as by so doing they will render their government the greatest possible service.

It has been definitely decided to establish such a corps at the University of Wisconsin and undoubtedly similar units will be established at other colleges in the state. At the State University there will be special courses in infantry, artillery, engineering, wireless and the fundamentals of aeronautics. This course will be in charge of army officers and members of the faculty who have been taking special instruction at Fort Sheridan and other training camps.

Military work for the enlisted men will require about ten hours a week throughout the college year; six out-of-door drill, four regular class room instruction. The remainder of the time will be given to the usual academic courses. In addition there will be a summer camp of six weeks which all members of the training unit will be required to attend.

This is an important ruling of the federal authorities. It should be given wide publicity. Young men of suitable training should be advised that they can enlist in the army and at the same time continue their education and fit themselves for the higher military positions. By so doing they will be offering themselves to their country and be preparing to render services of exceptional value as soon as needed.

The State Council of Defense, re-

ılizing the importance of this deci-
ion of the War Department, urges
ou to give the widest publicity possi-
le to the end that parents, guardians,
nd the young men themselves may
now of it in time and make their
lans accordingly. The information
hould be put in the hands of every
esident of your county.

J. B. BORDEN, Executive Sec.,
Wisconsin Council of Defense.

Middle West Ayrshire Sale

In the past few years a number of
ublic auctions have taken place in
ıe East, offering Ayrshire cattle of
ıe very highest order, and in all
ases the Ayrshire public backed the
onsignors most encouragingly.

Now the Middle West is to have her
pportunity, for on Wednesday, Oc-
ber 2, 1918, there will be sold at the
airy Cattle Congress, Waterloo, Ia.,
collection of sixty Ayrshires, the like
f which has never been offered out-
de of the East. The consignors are
lacing their faith in the Ayrshire
eeders of the Middle West. They be-
eve they want topnotch Ayrshires.

Mr. Wm. Hunter, America's big-
est Ayrshire importer, is sending
ine head from his recent importa-
on. Mr. Hunter imports only the
ery choicest animals. His consign-
ent consists of five heifers due with
ıeir first calves in October, an 18-
onth-old bull, and three cows. These
ne animals will cause a sensation
hen seen,—for they are nine perfect
ecimens. From all reports his con-
gnment to this sale will cause a
ramble among the buyers for their
ssession. Mr. James Van Etta has
nsigned his sixteen finest animals,
cluding the great bull, Bargenoch
ay Cavalier's Rising Star. Mr.
ephen Bull, owner of Aldebaran
arms, is sending four great cows
ıd two yearling heifers, all of which
e very valuable animals. He is
rting with them only because he is
big enough Ayrshire enthusiast to
ant to see this sale composed en-
ely of topnotchers. Among his of-
ring is the cow, Henderson's Laurie,
e greatest daughter of White Cloud
Hickory Island 10377. The Eva-
ere Farm, Ohio, has consigned 12
ad of fine foundation stock, all of
eir consignment being strong ani-
ıls backed with A. R. records. Mr.
B. Bazik of Wisconsin is consign-
g ten head, selected from his herd
100. He is one of the breeders who
s been quietly building up and is
w ready to offer the public some
eal stuff".

Ohio. D. M. HENDERSON.

Abortion

ast fall we bought a cow and she aborted
7 months. I took a sample of her blood to
college and she reacted to the test. We
fed her but it was too late. Nine of our
s have now aborted in rapid succession.
luded in this number is a cow that gives
ween 15,000 and 20,000 lbs. of milk nor-
ly. What would you advise? We have 43
e-bred females. We are in such quarters it
mpossible to isolate them. Is it possible
practical to clean it out without having a
ırate barn, or would you advise marketing
bunch? They represent 7 years of breed-
and are a good bunch of cows and heifers.
andall, Ia. E. M. E.

We should advise you to retain all
's and heifers that are well grad-
up and profitable producers. The
ase in time will be likely to die out
you cleanse, disinfect, and white-
sh the stable and have the cows
perly disinfected by a qualified vet-
ıarian. Then use a disinfecting
ıtion on the floors and in the gut-
s at least twice a week. Syringe
the vagina of each cow and heifer
ry other day for two or three
ks before breeding, using luke-
m water containing thirty grains
ermanganate of potash to the gal-
or other disinfectant preferred by
veterinarian. So far as possible,
o the unbred heifers away from
cows and breed them to a different



But Champion 3450 Porcelain has three times the resistance to extreme temperature variation compared with the best previous porcelain.

Always dependable, Champions are now Super-Dependable. Insist on Champions for your motor—see that Champion is on the Porcelain as well as on the box.

Champion Spark Plug Company, Toledo, Ohio

EXTRA DOLLARS
From Surplus Milk

Capitalize on meatless days by converting your surplus milk into cultured buttermilk and delicious cottage cheese. Meatless days offer you the opportunity to build up a profitable business for your milk by-products. Market these products to your trade in that ideal container

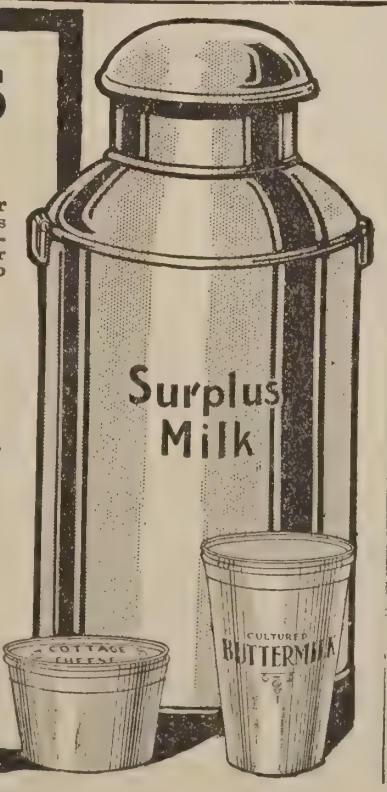
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Nearly a hundred experts under the direction of the U. S. Department of Agriculture are busy demonstrating new and palatable forms in which to serve cottage cheese. They are also educating housewives in its food value—more than equal to meat, pound for pound. They are building business for *you*.

Get our plan for making extra dollars from surplus milk. We'll send you samples and the Kleen Kup story—*free*. Write today.

THE MONO-SERVICE CO.,
Newark, N. J.



Can You Longer Afford to Haul by Team?



You Can't!
It's Too Slow—Too Costly.

BURLINGTON
INTERNAL GEAR - SHAFT DRIVE
BETTER TRUCK UNIT

attached easily and quickly to the front unit of your good old Ford—or any other car—will turn it into a real truck carrying your heaviest loads over all kinds of roads—at low operating cost.

Not a makeshift, but a proved success—and 7 Big Points better than other truck units. That's why you will want the Burlington.

FIND OUT ABOUT IT
Ask your dealer and write us

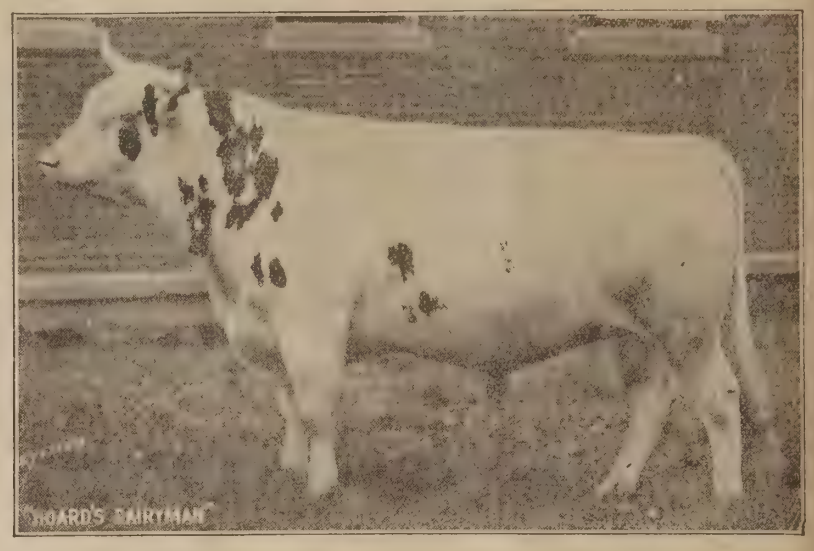
BURLINGTON MOTOR TRUCK CO.
Department B Burlington, Wis.

Entire Show Herd to Be Sold

At Waterloo Dairy Cattle Congress Ayrshire Sale

Wednesday, Oct. 2nd, '18

At Waterloo, Iowa



Bargenock Rising Star.

Bargenock Rising Star

our senior herd sire will be sold. He was undefeated among aged bulls at the 1917 shows. He is one of the best sons of that premier Ayrshire sire Bargenock Gay Cavalier, the champion show bull of 1912 and 1913.

We Are Also Selling

Madison of Cloverdale, our senior yearling bull, a consistent winner last year and this, and the 15 others that constitute our show herd.

Every animal tuberculin tested and guaranteed to be right.

This is an exceptional opportunity to buy some of the best show animals in the country.

JAS. VAN ETTA, LIMA CENTER, WISCONSIN

DODGE COUNTY HOLSTEIN

CONSIGNMENT SALE

At West Concord, Minnesota

Tuesday, October 8th, 1918

75 Head of Registered Holsteins 75
Most of them with good A. R. O. records

40 cows, 26 yearlings and two-year-olds and 9 bulls. Practically all the cows bred to freshen in October and November.

Sired by and bred to such well known bulls as:

Dutchland Creamelle Colantha Lad, a $5000 bull bred for yearly records.

King Pieter 14th 108354.

King Alcartra De Kol Pontiac 188621, dam 30.85 lbs. a grandson of the $50,000 bull.

Allamuchy K. A. Pontiac 160587, dam 34.13 lbs. He excels in both individuality and breeding.

Sir Winana Beets Segis 52927, one of the best Sons of King Segis and with daughters of his own up to 35.39 lbs.

This offering is of the popular producing blood lines, large, typy, well marked.

The kind that delivers the goods. The kind you will be proud to own.

Tuberculin tested by Minnesota State Livestock Sanitary Board.

All stock guaranteed by consignors to be as represented.

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THE BADGER LINE of FARM FEEDS



THE FEEDS WITH A HOMINY FEED BASE

FIVE famous Badger Feeds, each made from approved formulas, the result of years of careful feeding tests by practical feeders.

And the base of each Badger Feed is ***Badger Hominy Feed, the most nutritious single feed stuff known.***

Badger Hominy Feed needs no introduction. It has been known and used for many years by the most successful feeders in the country. It is a carbohydrate feed that can be used for all live stock—no other feed stuff will take its place.

Badger Hominy Feed is superior in feeding value to the natural grain because it contains a larger percentage of tissue building material than the whole corn and in the process of milling is partially cooked which makes it more digestible. In it is also included the mill run of Corn Germ Meal—the germ or fatty part of the corn from which the oil has been partially extracted. This makes Badger a far more valuable feed than any other ordinary hominy feed on the market.

Valuable as Badger Hominy Feed is as a base, it is too rich to be used economically alone except in a very few cases.

To secure the correct proportions of proteins, fats and carbohydrates, Badger Hominy Feed should be combined with various other feed stuffs.



But in these times of extreme labor shortage, successful feeders cannot take the time to mix their own feed. They know also that the feeds they mix themselves cannot be as scientifically accurate and dependable as feeds that are prepared under tested and approved formulas and are chemically correct.

The proteins, fats and carbohydrates contained in different feedstuffs differ not only in quantity but in quality. Each Badger Feed contains a different combination of ingredients so proportioned as to make it exactly the right feed for its special purpose.

Badger Feeds are proved money makers, to which thousands of feeders will testify. They will cover the needs of every class of stock on your farm. You will find them absolutely reliable, splendidly adapted to their specific purposes and unvarying in quality.

Get your supply of Badger Feeds now. See your dealer at once. Send for free samples and literature covering Badger Cream City Dairy Feed, Krause Dairy Feed, Badger Calf Meal, Badger Hog Feed and Badger Stock Feed.

Chas. A. Krause Milling Co.

Manufacturers of the Badger Line of Farm Feeds

Milwaukee, Wisconsin



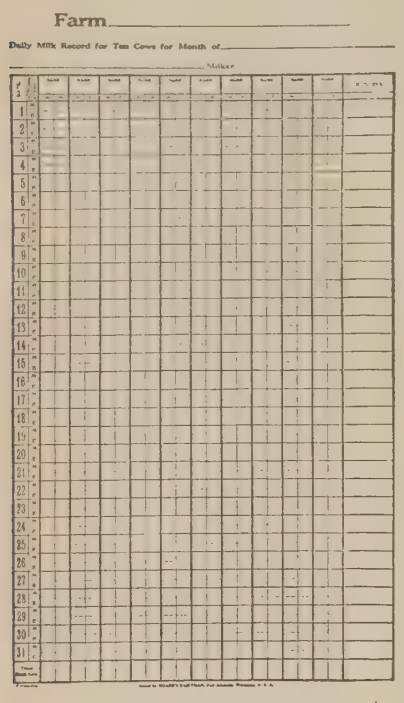
HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

Why Keep Herd Records

Why keep a record of what your father's cows are doing? Why is it important to know exactly how much they are producing and what their feed costs? Certainly there is one big reason that you will all think of at once. Are those cows all paying at least a reasonable profit or are two or three actually being kept at a loss? You can't guess at that sort of thing. The looks of the cow is not always a



A 30-day milk record sheet should be found in every dairy barn. Milk scales should be conveniently near and both used regularly. Every junior can see to this much.

sure indication. The only certain way is to keep accurate records and find out.

That one reason for keeping records is plain enough to any fellow who knows anything about dairy cows at all. It's the most important reason and perhaps it is reason enough, but it isn't the only one.

If your father is a really successful dairyman, he is improving his herd year by year, culling out the poorest cows and adding better ones. The records point out the poor cows as well as the good ones. Furthermore, since the most common way of improving a herd is to save the good heifer calves from the best cows, the herd records help with that too.

Nor is that all. Perhaps your father has some good grades in his herd. If he has, buyers have undoubtedly tried to buy some of them. Many of these buyers want to know how much a cow has produced before they buy her. Naturally they'll pay a better price for good producers than for other ones. There again those herd records prove profitable.

Still another point. How much grain do the cows get? Do you simply guess at how much to give each one? If you do you're undoubtedly wasting grain or else not feeding enough for most profitable production. Probably you're doing both. Feed each cow grain in proportion to her production. One pound of grain to every 3 or 4 pounds of milk is about right. You can't do this accurately unless you know how many pounds of milk a day each cow is producing.

And the best part of it all is that it really is not difficult to keep these records, nor does it take much time. Any boy of 12 or 14 can do it easily. Tack the milk record sheet up on an inside wall of the barn where it will be most convenient. Hang the milk scale near at hand and when you finish milking each cow, weigh the milk and put the weight down in the right square. A little addition at the end of every month does the rest. Testing is a little more trouble but this only needs to be done once a month. If you weigh the feed occasionally, say once in two weeks, you can tell about how much is used and figure out what it is worth. All it amounts to is a practical problem in arithmetic.

A Club for Your School

Why not have a real dairymen's club at your school this winter? You can't? Oh, yes you can if you're any kind of a hustler at all. How many pupils are there at your school between 10 and 16 years old? Five? Ten? Fourteen? There are enough for a good club anyway and besides there are perhaps several other fellows between those ages, not in school, that you will want in your club.

What kind of a dairymen's club do you mean? A milk record club. You know or should know that keeping milk and butterfat records is an exceedingly important part of the dairy business. If you don't know it or don't believe it, ask any one who has kept such records for a year or two and they will tell you it's not only important but necessary. You can do this work as easily as your father can, easier in fact, because he has so many other things to look after, and you'll find that it will be enjoyable work, too, if a whole club of fellows are doing it together.

How much will it cost to start such a club? It will not, or at least should not, cost you much of anything, not even much time or trouble. The only equipment you need to start with is a milk record sheet and milk scale for each member, and cows to be milked regularly. The first you can make for yourself using a large sheet of fairly stiff paper and a ruler, or you can buy them for a few cents. The second should be found in every dairy barn and if your father does not have one he needs it right away. If you can't get one, an accurate spring balance, such as your mother sometimes uses in the kitchen, can be used. The third will surely cause no trouble at all.

Now then, the next thing is to get this club started. Five or six of the fellows, maybe more, have to help with the milking anyway and you certainly ought to get them interested in keeping track of just how much milk each of their cows gives to see whether they do better or worse than the cows you milk. Get as many interested as you can, the more there are, the more interesting the work will be.

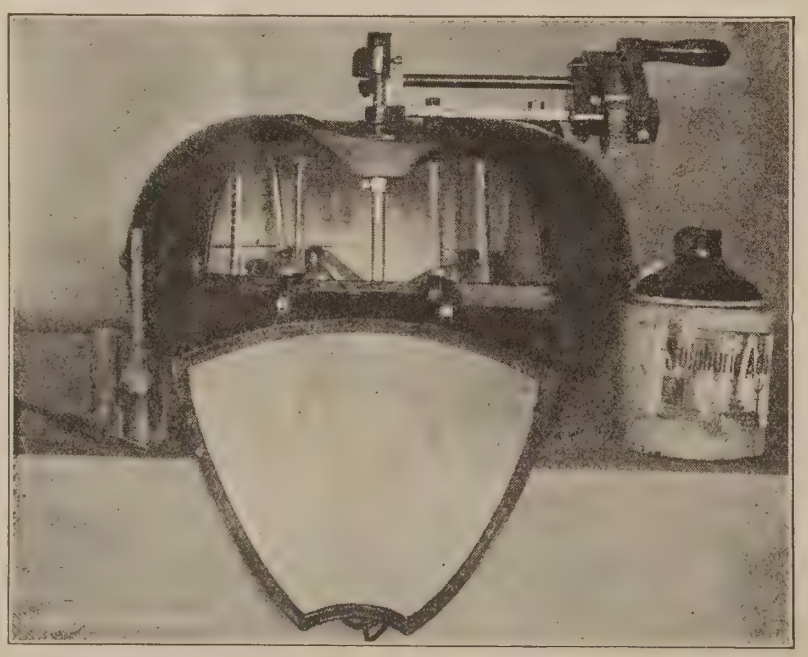
Is agriculture taught at your school? If it is, so much the better. Your teacher will be glad to help you get the club under way, and to answer difficult questions that may come up. He'll help you get or make the necessary milk sheets and later will, no doubt, arrange for testing the milk.

Once you get the fellows interested, have a meeting of all prospective club members, after school perhaps or at some other convenient time. At this time the work of the club must be explained fully, officers elected, and a club name selected. Further, decide on how many cows the records are to be kept, and for how long. As a rule, two, three, or four cows are enough because at least part of your members won't be milking more than that number regularly. The records should be kept for several months at least or better still for the entire school year.

Arrange to have regular club meetings where the work can be discussed and questions answered.

In this connection there is a good chance to learn something about feeding cows, too. Each fellow will be anxious to have his cows do a little better than the other fellow's which means he may have to improve the ration he is feeding. A good many of the unprofitable cows, and there are plenty of them in every community, would come nearer to paying a profit and perhaps actually prove profitable if they were properly fed, so you see that end of your club work will be an important one.

So far, we have spoken only of keeping milk records but to get the most out of this work, records of both milk and butterfat production should be kept. Whether or not it will be possible to keep butterfat records depends upon whether there is a Babcock test outfit that can be used. If there is one at school, you can use that. Or possibly some dairyman in the neighborhood has one he will be willing to let you use. If you can get one, by all means do so, but in any event keep a record of the milk produced.



A BABCOCK TEST OUTFIT WILL ENABLE YOU TO KEEP COMPLETE BUTTERFAT RECORDS

We have suggested a milk record club for your school this winter because we believe that you juniors who really want to learn to be business farmers will find it an interesting way of learning one of the important parts of the dairy business, something that too many of our present dairymen forget about. You fellows have to be more than juniors now. It's up to you to do all that you possibly can to take the places of your older brothers who have gone across. You want that dairy herd you're helping to take care of to be just as productive a herd as any in your section,—yes, and just a little more so, too. There is no way in which you can accomplish more with so little effort than by keeping milk and butterfat records.

We have not given you a list of directions to follow in organizing such a club because we believe you're enterprising enough to work them out for yourselves. Organize your club the way you and the other members want it. If you get stuck on some troublesome question, go to your teacher, he'll be more than glad to help you.

The main thing is to get it started this fall.

Junior Letters

Hoard's Dairyman Juniors:—I would like to become a junior. I read the junior letters every week and enjoy them very much. I am eight years old. I am in the third grade.

We have five cows. They are all Jerseys. I have a Jersey calf. She is a year old now.

My school started August 5th. We have a nice teacher.

We have 20 head of sheep and 22 head of hogs. We have 100 hens and about 200 young chickens and forty-one turkeys. I have a brother four years old and two sisters. One is seventeen and one fifteen. They are both going to high school this year. My brother has a little calf. We have a car, also two horses and two mules. We did not have a calf club at our school or a pig club. We live six miles from town.

As my letter is getting long I will close.

California. Nina Van Pelt.

Hoard's Dairyman Juniors:—I have been very busy. We have been peddling potatoes. I have made $17 so far. My brother and I took up some old iron and got $2.70 apiece. We are making about $100 a month off our cows. We have weaned all of our calves. We have sold all of them except the six best ones.

It looks rainy now. Our crops are not very good. We have our rye cut now and a little wheat, oats, and barley. My brother helps me take care of my potatoes. My young chickens are doing fine. They are worth 60 cents apiece here. I would like to have some of the juniors write to me. My address is Logan, N. D. My brother and I may go after a little puppy after dinner. I would like to see my letter in print.

North Dakota. Fremont Cook.

Hoard's Dairyman Juniors:—I am sorry that I haven't written before this time. I have been working out for about three months this summer. Most of our crops are looking fine now. Some of our neighbors got hailed out this summer. Our wheat died out this spring. We are going to plow our ground this fall. For the last three or four years we haven't had enough snow to keep the wheat alive.

I have one brother in the training camp. I wish that I could go to the camp, but I am not old enough. If this war keeps on one more year I will be 18 years old. Then I will enlist in the army. I hope the Americans will win this war before then. I don't see why the Germans treat the American prisoners like they do. I think it is because they are losing out in this war and another thing is because they

haven't any heart. It will all come back to them some day.

We are milking two cows now. One of our milch cows died about three months ago. She was sick about two months. We will have three milch cows next year if nothing happens to them. I think that I will close for this time, wishing all the juniors good luck. I would like to hear from some of the juniors. My address is R. F. D. A., Box 20, Miles, New Mexico. John W. Lemon.

Hoard's Dairyman Juniors:—I will answer the letter I received from you. I would have written before now but I have been breaking some stubble.

My cotton is going to be ready to pick right away. I'll have from four to five bales to stalk.

We need a rain. Corn and everything is burning up. I went to the pasture and got my heifer. She is looking good.

I will tell you how much grain we made. We had about 100 acres in grain and we made about 5,000 bushels of oats and we have 60 acres of corn and about 70 acres of cotton, renters and all.

I would like to hear from the juniors and will answer all. I am trying to help the government a little by buying one five-dollar stamp a month. I am going to buy one today. Texas. Garner George.

Hoard's Dairyman Juniors:—This is my second letter to the juniors. We have just finished harvesting and we soon will start to stack.

I have seven little pigs now and I am going to try to have them fit to sell by the first of January. We are going to build a new silo, and then we will have two. I think ensilage is a good feed for cattle.

I read Hoard's Dairyman every week and I think it is one of the best dairy papers you can read and I have seen a good many.

I have 28 little chickens and I am going to have about that many more. They are R. I. Reds and they are good layers. I also have a pure-bred Holstein calf I bought from papa for $125. I think it is a good one.

I am going to raise rabbits and I would like to hear from someone who has some rabbits to sell. My address is Medford, Minn., R. F. D. No. 2. Arthur J. Brady.

Hoard's Dairyman Juniors:—It has been a long time since I wrote. I have one more chicken that goes out in the pasture with the cows and catches grasshoppers. There are plenty of them.

We only had 17 acres of wheat, but we got 390 bushels and the 20 acres of oats made 560 bushels. We got $2.08 for wheat. We filled our cow barn with clover hay. We are not going to cut it any more. We are going to pasture it. I think we'll fill our silo to the top. Twenty acres of our corn is good. There are ears big enough to eat. The rest isn't very good.

Our sow had a litter of eleven pigs, two runts died. They are growing fine. We sold two fat ones for $100.50.

We are milking about thirty gallons a day. I do not milk as I have to work in the field until they're done.

If it doesn't rain we will not make anything with corn.

We are going to plow for wheat as soon as it rains. The ground is as hard as a brick. It has been a month since it rained.

I will close wishing the juniors good luck. My address is Brazil, Ind. Jesse Casassa.

Hoard's Dairyman Juniors:—It has been a long time since I wrote you my last letter, but you must excuse me as I have been very busy working in the dairy. As I had a little spare time, I thought I would write you and let you know that I am still alive. We have about six hundred and fifty quarts of milk to bottle every morning and about three hundred at night. I usually do the separating. We have a No. 25 separator.

The potato crop around this part of the country has been practically a failure, but the corn looks fine. We expect to fill the silo the middle of next month.

We have seventeen pigs, eleven of which are young ones.

We are now milking twenty-six cows and getting about five and a half cans a day.

I have to go for ice every afternoon with my uncle.

Our corn is fine but our potatoes are very poor. The corn is beginning to curl a little for the want of rain. We haven't had a drop of rain for over three weeks and the ground is as dry as a bone.

Well, as it is time to get to work, I will close.

New Jersey. Lewis L. Baldwin.

Hoard's Dairyman Juniors:—Hello, boys. Thought it was time I was writing to the juniors. I had almost forgotten that I was a junior.

Our peas are growing fine. They are almost ripe and then we will have another job on hand. Most all the people around here are raising peas, but they are cutting them for hay because little green lice crawl underneath the leaves and kill the plants. We have had pretty good luck with our crop because there are not very many lice on our plants.

We have all our hay hauled in except about an acre of clover. It is raining rather hard today so we can't work outside.

We feed our calves calf meal and bloat mixed with water.

I expect to go to high school at Nooksack, which is about a mile and a quarter from our place, but it don't begin till October. I think I will buy a bicycle so I can ride to school on it.

Wishing all the juniors good luck, I will close.

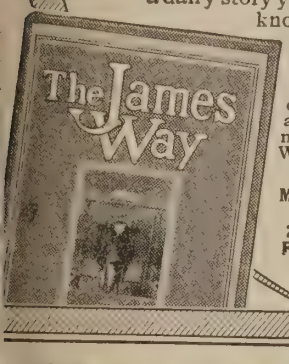
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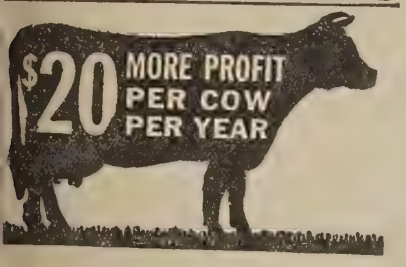
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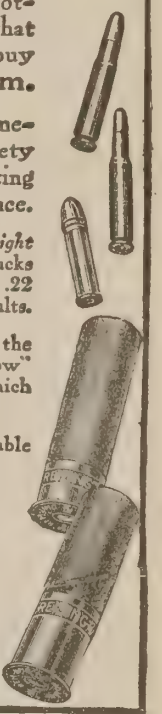
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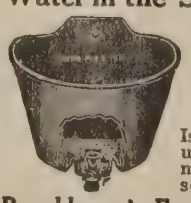
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Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—We are offering all of our registered Holstein cows over three years of age (10 in number) to settle a partnership. They are mostly due to freshen in late fall and early winter. All good large cows and heavy producers. Also have five registered bull calves at from $65 to $125 each. Address W. L. WAGGONER, Junction City, Wis., or T. J. Pitt, Fremont, Wis. 8-3

For Sale—21-pound granddaughter of Hengerveld DeKol due October 7th. Also a few choice heifers, all bred to King Korndyke Pontiac Lass 5th, due this fall and winter. All nicely marked. Also three bulls ready for service by above sire. ELMER HURELLE, Doylestown, Wis. 8-3

Holstein Bull sired by son of 44-pound cow. Five nearest dams over 28 pounds. C. MULKS, Riceville, Iowa. 8-3

Holstein grades—Sixty for sale; the best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minn. 8-4

For Sale—Registered Holstein-Friesians, young heifers, $75. Young bulls, $50. PAUL McNISH, Burton, Ohio. 8-5

For Sale—30-lb. bull. Exceptionally fine, well bred, ⅞ white, 9 months old youngster. His dam and the sire's five nearest average 1,014 lbs. butter a year. JOHN PULS, Hartford, Wis. 9-3

Fifty choice Holstein cows for sale, both registered and grades, and tuberculin tested. We are in a position to ship to all points. Our shipping station is nine miles north of Bridgeport on the Berkshire division of N. Y. N. H. & H. R. Ry. This stock consists of some extra choice individuals. For further particulars address A. S. EDWARDS, Stepney Depot, Conn. 9-2

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

Registered Holstein bulls—Rich in the blood of King Segis and King of the Pontiacs. A few good females. JOHNSTONE & BALLANTYNE, Bassett, Iowa. 9-4

Dispersion—Eleven fine, large, high grade Holstein cows. $1,200.00. GEORGE OLDS, Benton Harbor, Mich.

200 head registered and high grade Holstein cows and heifers. On account of shortage of help I have decided to sell my entire herd at private sale without reserve consisting: 40 registered cows and heifers, mostly all with A. R. O. records up to 26 pounds in seven days. 40 fancy, young, high grade cows exceptionally well marked, some fresh, balance will freshen in next forty days, $115.00 to $135.00. 50 fine, thrifty, large. two-year-old heifers, due in October and November, $90.00 to $110.00. 65 fine, growthy yearlings from 15 to 20 months old, are bred to freshen from December to February, $65.00 to $80.00. All stock bred, in calf to registered bulls. This herd is absolutely clean and guaranteed free from abortion and tuberculosis and will be sold as represented. Will sell with purchaser's privilege of 60-day retest. Descriptive catalog on registered stock ready October 1st. MAGEE DAIRY FARM, Chanute, Kans.

For Sale—6 grade Holstein heifers, bred. 4 pure-bred bulls, A. R. O. backing. Farm 1 mile northeast of Genesee Depot. J. W. HOWARD, R. 9, Waukesha, Wis. 10-2

For Sale—35 Holsteins, three-year-olds. Raised from best stock, bred to registered sire. Due to freshen November, December; large, nicely marked. F. H. HILLMAN & SONS, Greenwich, N. Y.

Pure-breds at auction October 12, 1918: Five Holstein heifers, two Guernsey bulls; good breeding. NELSON PECK, Doylestown, Wis. 10-2

Six registered Holstein females, including two A. R. O. cows and two 34-lb. bred heifers. JOHN C. FRENCH, JR., Roulette, Pa.

For Sale—9 young registered Holstein cows. Extra large; fine type. 31-lb. breeding. Five to freshen in November, two in January, two in February. GEORGE DREYER, Dousman, Wis.

STOCK FOR SALE

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

For Sale—Guernsey bulls from six months to year and half old. Write for pedigree and prices. S. M. WHITE & SON, London Mills, Ill. 6-6

For Sale—Closing out our grades. We offer several choice grade Guernsey cows and heifers. Most of them our own breeding. Reasonable prices. ST. AUSTELL FARMS, R. D. 3, Jackson, Mich. 8-4

For Sale—Guernsey bull calves sired by May Rose bull from a dam with 871 lbs. fat official record. Dams, granddaughters of Glenwood Boy of Haddon. F. W. KIMBALL, Waltham, Minn. 9-4

Guernsey heifers, three granddaughters of Ne Plus Ultra, $300 and $350 each. Bulls same breeding, $200. A. R. dams. TABER & MIGNIN, Castile, N. Y. 9-4

For Sale—Guernsey bulls from six to fifteen months old. Sired by Langwater Frenchman or Dairymaid's Glenwood of Pinehurst 3rd. Some are from cows with good A. R. records. DALE E. RUNDELL, Ore Hill Farm, Livingston, Grant County, Wis. 9-3

Seven high grade Guernsey bred heifers, sixteen months. The lot for $400. ORA BREITRICK, 852 N. Div. St., Appleton, Wis. 9-2

For Sale—Guernsey bull, Clover Lawn's Masher's Mayor, dropped January 26, 1918. He is an exceptionally good individual, nicely marked, sired by Gloriana's King Masher 27645; grandson of King Masher 11084; A. R., sire of 2 class leaders; and great grandson of Imp. Masher Galore 8572 A. R., sire of 2 class leaders. His dam, Nellie of Pomeroy 28311, was Minnesota champion, A. R. record, milk 8809.50, fat 531.79; milk 12436, fat 750.42. For information and price write ADOLPH HUMBLE, R. 2, Rushford, Minn.

For Sale—One imported, registered, young Guernsey bull one year old, Masher's Sequel 3rd., and one registered two-year-old bull. Both fine animals, very well bred and fit to be head of any herd. Price $200.00 each. H. V. OGDEN, Meadowview, Michigan City, Ind. 10-2

For Sale—My entire herd of high grade Guernseys, 16 cows, 14 heifers, all either in calf with or sired by my fourth pure-bred bull, May Rose Mar of Jean Du Luth, dam's record 13,368 pounds milk, 585 pounds fat in class F. Sire, May King of Linda Vista. Write for particulars. JULIUS STENBERG, Stillwater, Minn.

For Sale—8 choice registered Guernsey bulls, all of serviceable age. Guaranteed free of disease. Price $100.00 to $150.00 each. A. MARCKEL, Owner, Perham, Minn. 10-2

For Sale—Six pure-bred Guernsey bulls. They are large, straight backs, nicely marked and in good condition. Phone or write. B. L. RUNDELL, Hammond, Wis. 10-2

Top Notcher Guernsey Sire for sale—Cannot use longer but wish we could. A great sire, strong in Glenwood blood. Sweepstakes winner over all. Weight sixteen hundred. Coming five, and a sure breeder. Seven nearest relatives average over seven hundred fat. Photos and pedigree. Write: GLYN SARGEANT, Long Prairie, Minn.

For Sale—One thoroughbred Guernsey bull calf from Park's Isabella II. Advance Register cow, prize winner at three state fairs and the International. Price only $50.00 if taken without registration papers. J. O. NEIKIRK, Lombard, Du Page County, Illinois.

Pure-bred Jerseys: Two cows and four heifers with calves at side. ALBERT SHERRILL & SON, Three Oaks, Mich.

STOCK FOR SALE

Ayrshires—Pure-bred cows and bull calves for sale at bargain prices. A. J. McNAB, Black River Falls, Wis. 10-2

Four registered yearling Ayrshire heifers for sale. Also two high grades. J. T. HAIGHT, Koshkonong, Wis.

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Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

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Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

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Wanted—To buy for cash registered Holsteins, young cows and bred heifers in lots of ten or more or will buy entire herds if priced right. LOCK BOX 97, Sterling, Illinois. 9-2

Wanted—October 9th, buyers for 21 head of registered and high grade Guernsey cattle. Write W. L. CHRISTIAN, Granger, Ind. 9-3

Hundred head registered Holsteins. Foundation stock. Good grades also. HOLSTEIN, Chardon, Oh. 9-2

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Duroc Jersey bred sows; boars, and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

Registered Berkshires—April and May 1918 pigs; both sexes; best breeding. QUINEILO FARMS CO., Milwaukee, Wis. 10-2

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Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

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Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

S. C. Buff Orpington young and old stock for sale, April and May hatched. HENRY F. LINDQUIST, R. 1, Lafayette, Minn.

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Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

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Creamery for Sale—Modern in every way with ice cream machinery, city water, sewerage, on paved street in city of 12,000. A chance for a hustler to make good. No other creamery within twenty-five miles. Write BROOKFIELD CREAMERY CO., Brookfield, Mo. 9-3

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Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Marquis Spring Wheat for seed. Resists drouth and hot winds better than any variety. Has out-yielded winter wheat for me ever since I have grown it. No more trouble than oats. The great Liberty crop. $2.50 per bushel, bags extra. R. F. JOHNSON, Assumption, Illinois. 8-tf

Wisconsin grown winter sand vetch and pedigree rye properly mixed for seeding. VAN LOON, LaCrosse, Wis. 10-tf

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For Rent—Dairy farm consisting of 360 acres. One of the best equipped dairy farms in the middle west. The gross sales from this farm for the year of 1918 will be $16,000. 125 head of cattle. Raise all the feed and grain on the farm. Want experienced dairyman with plenty of help of his own and $5,000 in cash. L. J. BYERS, Coldwater, Mich. 9-2

I have two 320-acre farms well stocked with horses, hogs, cattle and machinery that I want to rent. Want to sell the horses and machinery and lease the cows and hogs to the renter. Renters apply to A. G. WHITNEY, St. Cloud, Minnesota.

For Rent on Shares—Modern dairy farm (100 acres) 1½ miles from this town, 25 miles from Chicago, good hard road; ¼ mile from school. 80 acres plowed; all new modern buildings, silos, etc. I will furnish cows (24) tenant, horses, machinery and tools. Possession March 1st. GEO. S. WALKER, Lemont, Ill. 10-tf

Wanted—To lease up-to-date dairy, 50 cows, ship whole milk, 40 cents gallon. References required. A. A. PIGFORD, Lumberton, Miss.

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

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The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forrestville, Conn. 3-10

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Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $30 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. H. HANSEN, Macon, Miss. 11-tf

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 347 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale or Exchange—Choice, improved 240-acre farm in Waupaca County. Complete set of farm buildings, 100 acres crops, 25 acres fine timber, pasture, etc. No waste land. Do not answer unless you mean business, but a rare chance to get a farm. Answer LOCK BOX 552, Oshkosh, Wisconsin. 6-tf

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

230 acres, near Elkton, Maryland. Fully equipped dairy and poultry farm. Fine buildings. Land rolling, well watered, productive. Station on property. $30,000. W. J. HAINES, Elkton, Maryland. 9-2

Homeseekers in the sunny South write me for particulars of desirable farms for stock breeding, particularly for dairying, for sale; bargain prices. GEO. E. BROWN, Uniontown, Ala. 9-4

300 acres, 8 miles Ottawa; 2 miles town. Fine large improvements, scales, etc. Fine water supply; 15 acres timber; 100 blue grass; 200 rich bottom land. Owner wishes to retire. Write for full description of any sized tract; free descriptive booklet. MANSFIELD LAND & LOAN CO., Ottawa, Kansas. 9-2

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

Another Snap—Gently rolling 120 acres; 20 cleared; 60 good timber; clay loam soil; frame house; new barn 30x60; stock, machinery and crops included; $5,500.00 We have good cutover land cheap. THE E. L. C. CO., 276-M, Dept. 31, Merrill, Wis. 10-tf

Wanted! 1,000 farmers to come and see or write for our Aitkin County literature. There's room for all, unequalled chances, for men of moderate means or for those wanting larger tracts. It's the ideal dairy country. No other like it anywhere. We can't describe it in this limited advertisement. Our literature illustrates it all. Get it. Read it these long evenings. It describes the successes of those already located here. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

270-acre farm $4,900—12 cows, pair fine horses and bull, 3 heifers, pair steers, poultry, 60 tons hay, other crops, full equipment tools, wagons, machinery, stove wood, etc., thrown in with this productive farm in fine section, no droughts, near world's best markets, 2½ miles fine town, 4 miles railroad city, mail delivered. Level dark loam, tractor-worked fields, meadows for big hay crops, 40-cow brook and lake-watered pasture, estimated 150,000 feet pine timber, 1,000 cords hardwood for waiting market. 400-tree sugar orchard, 200-tree apple orchard, other fruit. 12-room house, 2 barns 30x60, 40x90, all buildings good repair. Aged owner makes quick sale sacrifice, $4,900 gets all, easy terms. Read details page 8 Strout's New Fall Farm Catalogue, just out, of this and other forced sale bargains all sizes and prices with stock, tools, crops. Write today for your free copy. E. A. STROUT FARM AGENCY, Dept. 3001, 312 Marquette Bldg., Chicago, Ill.

For Sale—Equipped dairy farm of 350 acres, 100 cows, heifers, team, and implements. E. CHRISTIAN, Owner, R. F. D. 1, Richmond, Va. 10-3

MACHINERY

For Sale—Emerson 12-20 tractor, late model used only ten days. Hart-Parr 27-horse tractor, used eighteen months. Farm, electric lighting plant. This machinery is in good mechanical condition, and bargains for cash HURDCROFT FARM, Monticello, Minnesota 9-2

For Sale—Drop center Armleder milk wagon, used three months, almost like new. R. H SCHILLIG, Davenport, Iowa. 9-2

Ensilage Cutter—No. 24 "Hocking Valley" with 15-inch throat. Extra set cutter knives and shredders besides pipe and distributor pipe Used one season only—in 1917. CARLETON L. HALLOCK, Clayton, N. J. 10-4

Ice machines, several sizes, used, traded in or larger ones; same guaranteed like new; offer about half price; will erect and guarantee H. A. BORN CO., Chicago, Ill.

WANT TO RENT

Good, reliable, well experienced farmer wishes to rent farm on shares with everything furnished. HENRY EWY, 539-15th St., Milwaukee, Wis.

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C 17-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

FEEDS

Feeders—When in the market for car of feed or wheat screenings write for prices to SIEG. KUCZYNSKI, Milwaukee, Wis. 24-13

Old Process Cocoanut oil cake meal; velvet bean meal feed; ton lots or car lots. NEUSTADT & CO., 294 Ninth Ave., New York City 7-4

PARTNER WANTED

Successful dairy farm, dairy business, southern Pennsylvania wants partner or will sell. Address BOX 249, care Hoard's Dairyman. 10-2

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

A competent, reliable, married man to work 180-acre farm on shares or salary and furnish his own help. Must be a good dairyman and farmer. November 1st. Farm near Racine. Address 95-18th Street, Milwaukee, Wis. 9-2

Wanted—Married man to take charge of dairy located near town. Thirty Jersey cows. Use Hinman Milker. Good house, water and garden. Excellent opportunity for right party. Address BOX 434, Greensburg, Pa. 9-tf

Wanted—Two women capable of caring for chickens and doing garden work on modern dairy farm. Sisters preferred. None but those seeking permanent positions need apply. State wages wanted and experience in first letter. ALDEBARAN FARMS, Stephen Bull, Proprietor, Racine, Wis. 9-2

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Married man, to take charge of pure-bred Holstein herd, who has some help of his own. Location Central Kansas. BOX 199, care Hoard's Dairyman. 6-tf

Wanted—For November first, man exempt from draft, to care for small herd Jerseys and make butter on model farm in northern Ohio. House, milk and garden spot furnished. References required. State size of family and wages expected in first letter. BOX 244, care Hoard's Dairyman. 10-2

Wanted—Good, dry hand milkers, married or single, permanent position with good wages for right men. Address S. W. DORLING, Supt., Moose Hill Farms, Spencer, Mass. 10-4

Wanted—Experienced man, not subject to draft, to assist in Guernsey herd of about thirty cows; also to take charge of the bottling, separating, buttermaking, etc. Must be expert buttermaker. Best of references required. WADDINGTON FARM, Wheeling, West Virginia. 10-2

Wanted—Several young married men to work on stock farms in Turner County, South Dakota. Wages $75 per month. Address C. C. MILLER, Hurley, South Dakota.

Wanted—A first class herdsman who understands fitting cattle for show and official testing. We have pure-bred Shorthorns and pure-bred Holsteins. A good chance for an up-to-date man. Would like a married man without children, wife to cook in County Home. First class quarters to live in, everything furnished except clothing. Would consider single man also. Please state in first letter wages expected, also age and nationality. Address St. CROIX COUNTY ASYLUM, New Richmond, Wis. 10-2

Man to care for herd of registered Jerseys. Must be expert milker, fond of Jerseys and his work absolutely clean, over draft age and have good references. Could use married man without children if wife willing to work in farm house. Permanent position and good wages. RIVERVIEW FARM, 1997 Montreal Ave., St. Paul, Minn. 10-tf

HELP WANTED

Capable man for superintendent of dairies, to take charge of 150 cows and be responsible for all work connected with breeding and milk production. Good position for the right man. Reference required. BROADLAWN FARMS, Newtown Square, Delaware Co., Pa. 9-3

Wanted at Once—Sober, industrious, married man, with small family, for work on dairy farm; $65.00 per month, house, potatoes and milk furnished. R. E. JOHNSON, Hebron, Ill.

Wanted—To assist foreman in 40-cow dairy, one or two good dry hand milkers; honest, reliable and good hustlers; either married or single. C. A. PARKE, Assumption, Ill. 10-2

Wanted—By October 15 or sooner: Man past 45, with one or two assistants for milking in large dairy; wife or daughters if good milkers. Sanitary dairy, good surroundings; lady required to take charge of milk house and help milk; man to help in feeding, cleaning, etc. State wages required and references. R. F. JOHNSON, Assumption, Ill. 10-3

Wanted at Once—Man for general farm and barn work. Reference required. Pure-bred Holstein cattle. J. W. HOWARD, R. 9, Waukesha, Wisconsin.

Dairyman wanted for the Panama Canal—Must be experienced and competent to manage dairy of 320 cows, including selection for breeding and production, also management of pasture. Salary $150 month with increase to $175 month after six months' satisfactory service. Free steamship transportation from New York or New Orleans, and free bachelor quarters on Isthmus of Panama. Must be American citizen under 50 years, physically sound. Write CHIEF OF OFFICE, The Panama Canal, Washington, D. C. 10-2

Wanted—Married man for general farm and dairy work. High grade and registered Guernseys, best of equipment and good place to work; milking machine used. State wages wanted and references. RIVERSIDE STOCK FARM, Poskin, Barron Co., Wis.

Wanted—Single man for general work with Guernsey herd. One interested in good cattle and large records. $55.00 per month and bonus to start. Good chance for advancement. Address ISLAND FARM, Floodwood, Minn. 10-spl

Wanted—Young, experienced farm hand, not in draft, to work on large Guernsey dairy farm. Start at once. Good habits. $45.00 per month and board. HOMER F. RUNDELL, Livingston, Wis. 10-spl

Wanted—Experienced, married dairyman for Guernsey herd. Must be sober, capable and reliable, and understand feeding and care of cows. Wife to board two to four men. Good buildings and equipment. Give full particulars in first letter. BOX 250, care Hoard's Dairyman.

Wanted at Once—Working foreman, wife to board two men. Poultry on shares. State age, wages expected and experience. J. H. BURR, St. Charles, Ill.

Wanted—At once, young, honest, clean-cut man for milk route and station work. Opportunity for married man with boy or wife to assist. State salary expected and experience. CLOVER LEAF DAIRY, Pullman, Washington. 10-2

POSITIONS WANTED

Can you use a man, 46 years of age, college graduate, experienced in feeding and showing cattle? Wire DOUGLAS DEMMON, 52nd and Sansom Sts., Philadelphia, Pa. 7-4

Are you seeking—Experienced manager for your large dairy and stock farm operated on sound, constructive, business basis? Salary or salary and share profits, or partnership. Married. Business and agricultural college training. Only considering large farms or ranches showing revenue commensurate with investment. Address BOX 240, care Hoard's Dairyman. 9-2

Undersigned, 34 years of age, in failing health, wants position as milker in states of of Colorado, Florida or East. Good dry hand milker. Unable to do hard work, no hard lifting. No bad habits. Good home preferred. MAX SCHEFFLER, care Heiserman Hotel, Red Wing, Minn.

Married man wants position, general farm work on dairy farm. Address "H. B.", Hubbleton, Wis.

Married couple wants position on dairy. Swiss. State wages. No children. BOX 245, care Hoard's Dairyman.

Farm and dairy manager, thoroughly qualified in every respect, practical and scientific, married, age 46, highest references. BOX 247, care Hoard's Dairyman.

Farm Manager—Energetic, scientific, reliable desires position on large farm where ability is appreciated. Experienced in pure-bred stock, Advanced Registry, orcharding, tree surgery, spraying, modern farming and machinery. Can manage farm economically and produce results. Strictly temperate. References excellent. BOX 248, care Hoard's Dairyman.

Farm foreman and wife, having 2 girls, 7 and 9, seek position where both can work. Man good farmer, experienced herdsman; wife good cook, neat housekeeper. Address J. F. HOUGHTON, Waterloo, Iowa.

Two reliable young Hollanders, one married and one single, want positions on a dairy farm, on shares preferred. State all details in first letter. Address BEN VISSCHER, 2093 W. High St., Racine, Wis.

Limiting Cream Stations

HOARD'S DAIRYMAN:—Your recent article on limiting cream stations interests me very much and I ask for a brief space in which to express the thoughts and ideas of one who is only a stockholder in a farmers' co-operative creamery company.

There is no need to recite the difficulties and discouragements met by the real progressive men who organize a farmers' co-operative creamery company. After their time and energy have been spent in placing the business on a paying basis, along comes the cream budging station with its magnificent promises and away goes the "slacker" and the one who has been and will be the "Doubting Thomas" from the beginning to the end of time.

Now you admit the cream station could be eliminated as a war time measure in towns where creameries exist, but you fear there might be no one capable of deciding which station can best comply with certain sanitary conditions and observe rules and regulations to be complied with. Now we believe the farmer should be allowed his full freedom and that inalienable right which is his heritage.

If he has not enough intelligence to ship his own cream to his chosen centralizer, then and then only does he need a cream buying station.

Wisconsin. J. A. BOYER.

Number of Bull Associations Grows

Farmers are taking advantage of the opportunity to use pure-bred bulls which is afforded them by membership in a co-operative bull association. Eight is the net increase of co-operative bull associations for the year ended June 30, 1918, and eight others are now in process of organization, according to the Dairy Division of the United States Department of Agriculture. On July 1 this year 43 associations were in operation, as compared to 36 on July 1, 1917, one association in operation last year being disorganized. Fieldmen, county agents, and others working in co-operation with the department have had a part in establishing these associations. There is an average of 5 pure-bred bulls in each organization and an average of 225 dairy cows.

Dairy Cattle Congress

The ninth annual Dairy Cattle Congress will be held September 30th to October 6th, 1918, in its permanent home at Waterloo, Ia. This is the great yearly event of the dairy industry in the middle western states and the 1918 show promises, like each of its predecessors, to surpass every previous show as a comprehensive exponent of the great industry it represents.

The industrial world is facing gigantic problems different from any it has solved heretofore. These problems necessitate greater activity, more strenuous effort, and the necessity for greater achievement. People are asked to conserve along all possible lines and at the same time increase production. Events such as the Dairy Cattle Congress are for the purpose of encouraging both conservation and production and have not only the sanction but the hearty recommendation of the government.

From the standpoint of the visitor, the Cattle Congress is of twofold importance. In the first place, it brings him face to face with the latest achievements along manufacturing lines. It shows him what the manufacturing world offers in the way of labor saving machinery, and those conveniences which are fast taking the drudgery out of every phase of farming. Farther than this, one of the most difficult problems the farmer is called upon to solve today is that of help. How is he going to get his work done with labor conditions as they are? He cannot do more himself, yet the incessant call is for more production along every line. How is he going to meet it? The answer is, labor saving machinery, and here is where he may post himself on the latest things along these lines.

In the second place, the programs which form a most important feature of the Cattle Congress bring together the best authorities on subjects that are of vital importance to the men who believe in keeping thoroughly posted and up-to-date in their business. Dairying is a business just as much as merchandising or manufacturing. It is one of the most important lines of activity in touch with human life. This has been brought out with decided emphasis during the recent investigations that have been made along the lines of the foods that are best adapted to the nourishment of the human race.

Iowa. E. S. ESTEL, Sec'y.

PUBLIC SALE
MONDAY, OCT. 21
50—HEAD—50
REGISTERED
HOLSTEINS
Complete Dispersion of the Famous
BLACKBURN HERD

25 big, strong, fresh cows and nearby springers, 20 big 2-year-old heifers, bred to my 31-lb. herd sire and due to freshen this fall; 5 bulls (including my 2-year-old HERD SIRE) and several calves. Send for catalog.

Dr. A. D. Blackburn, Cuba, Ohio

EXTRAORDINARY MAN LOOKING FOR EXTRAORDINARY JOB.

American officer just returned after year's service in France wants to manage very large farm, ranch, or plantation; knows farming from actual experience and agricultural college training; is a go-getter with lifetime habit of making good; no straight salary accepted; will work only on profit-sharing plan. Address Box 251, care Hoard's Dairyman, Fort Atkinson, Wis.

The Racine TRADE MARK Soft Shirts

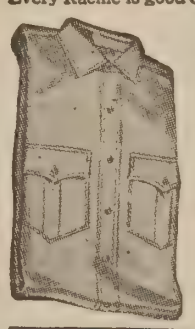
Collar Attached or Neckband
Cotton or Flannel

The Racine Army Shirt for real service U.S. ARMY

YOU'LL like their honest, broad-shouldered comfort—cut full, not skimped. Let muscles play and body "breathe." Reinforced where the "strains" come. Continuous facing on sleeves—making them "rip-proof"—"dirt-proof"—"non-gapping." Buttons sewed on to stay.

Old Reliable

Every Racine is good or we make good.



"Soft Shirt Specialists for 34 Years."

If you do not find the Racine Shirt promptly, write and tell us the name of your favorite dealer and we will see that you are supplied. Insist on the Racine.

The Chas. Alsbuler Mfg. Co.
Racine, Wisconsin

Milk Your Kicking Cow Without Spilling the Milk or Losing Your Temper



You don't need to sell the good cow with the bad habit. Correct the habit. Cure her of kicking while being milked and save yourself gallons of milk, bruises and possibly broken bones.

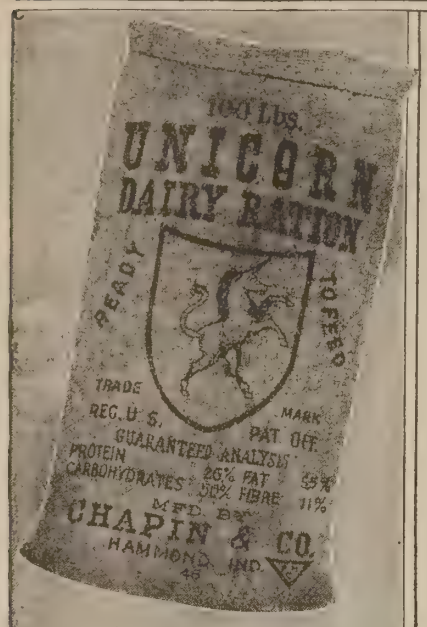
Kickless ELMCO Cow Clamp



Quickly applied.. Easily adjustable to cow of any size. Absolutely discourages any second attempt to kick while milking. Device also prevents cow from swishing tail while being milked. Saves time, temper and loss of milk. Completely removes danger of injury. Sells for but $3.75. Send us your order today or write for particulars.

E. F. Elmberg Co., 40 Main and Depot Sts. **Parkersburg, Iowa**
A representative wanted in your locality.

UNICORN DAIRY RATION



¶ **Mr. Carter**, of Asheville, N. C., after visiting the dairy sections of Ohio, Illinois and Wisconsin to buy some superior milk cows, purchased a promising young heifer at Wauseon, Ohio.

¶ Mr. Carter discovered that **Unicorn Dairy Ration** was being fed to nearly all record breaking cows, and adopted it for his feed.

¶ In a 30 day test at 4 years old **Wauseona Pansy Korndyke Queen** produced **2080 lbs. Milk.** She was charged 72 cents per day for Unicorn Dairy Ration, roughage and labor, leaving a net profit of $2.50 per day.

Unicorn Dairy Ration

like good cows, costs more than the inferior article, but pays a larger profit.

Ask your dealer or write

CHAPIN & CO., CHICAGO
DEPT. Z.



It's Much Easier

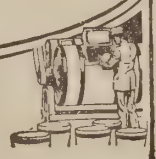
to sell butter that has the golden shade women want. All you need do is see that the butter you make is colored with

Dandelion Brand Butter Color

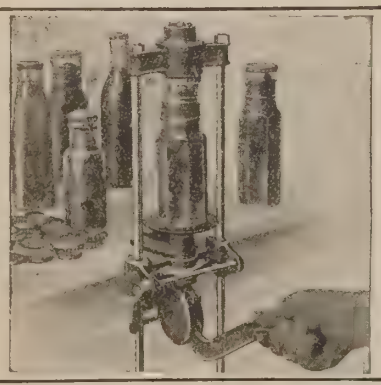


We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.

WELLS & RICHARDSON COMPANY, Burlington, Vermont.
Manufacturers of Dandelion Brand Butter Color



Dandelion Brand Butter Color
The color with the golden shade



A Better Way of Sealing Preserves, etc.

In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

The better and easier way is to use a MIDGET CROWNER and seal your bottles (up to 14 ins. in height and 4 ins. in diameter) with air tight Crowns (3 sizes).

In storing condiments of all kinds for future use you will find this the safest method of sealing.

Write for full particulars.

THE CROWN CORK AND SEAL COMPANY,
Baltimore, U. S. A.

GUERNSEY BREEDER'S JOURNAL

Indespensable to all interested in Guernseys or improving their herds of dairy stock. Well gotten up. Full of pertinent facts. Giving latest records of production. With Hoard's Dairyman 1 year, $2.75.

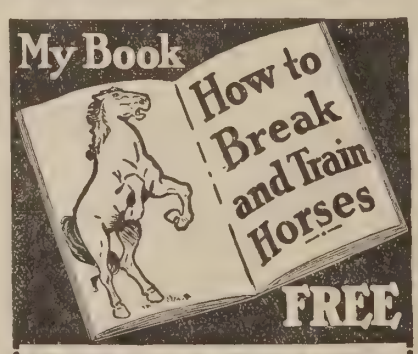
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GUERNSEY BREEDER'S JOURNAL
Peterboro, New Hampshire.

THE VERY LATEST
The 1916 Improved
STANCHION

Is giving thorough satisfaction, write to "HUMANE STANCHION WORKS," BARABOO, WISCONSIN, for Literature.

My Book



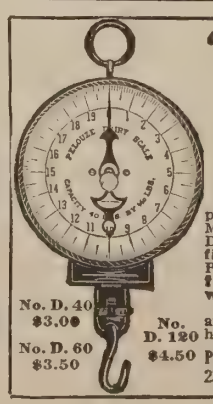
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MY free book will amaze you. See the big money that is being made by those I taught my famous system of horse breaking and training! Wild colts and vicious, unmanageable horses can be picked up for a song. By my methods you can quickly transform them into gentle, willing workers and re-sell them at a big profit. You can also earn fat fees breaking colts and training horses for others.

Write! My book is free, postage prepaid. No obligation. A postcard brings it. *Write today.*

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"PELOUZE" Dairy Scales

Three Sizes:
40, 60 and 120 lbs.
by Tenths of a Pound.

Guaranteed Accurate

Made to comply with Departments of Weights and Measures. Large Circular Dial, with distinct, black figures and graduations. Patented adjustable hand for obtaining the tare weight of empty pail.

Order direct or through any leading Dairy Supply house. Specify "Pelouze".

No. D. 40 $3.00
No. D. 60 $3.50
No. D. 120 $4.50

PELOUZE MANUFACTURING CO.,
233-242 East Ohio Street, Chicago.

Wisconsin College of Agriculture to Instruct Men in Students' Army Training Corps

Arrangements have been made by which a large part of the energy of the Wisconsin College of Agriculture will be devoted to instruction of men in the Students' Army Training Corps.

Students desiring to enroll in the College of Agriculture, in addition to the military drill which prepares them especially for service in the active field branches such as the artillery and infantry, will be given an opportunity to secure educational training in:

1. Special courses in agriculture having military significance.
2. A considerable portion of the required work for the Long and Middle Courses in Agriculture.
3. Fundamental work in science and other liberal arts.

This enables the student-soldier to get the ground work of his education while at the same time training for early military service is secured.

The government desires especially that young men get all of the general education possible before going into camp, for the demand for officers to handle the proposed army will be heavy and students with college training will have a better opportunity to enter officers' training camps or non-commissioned officers' schools.

VETERINARIANS AND STOCKMEN.—With the drafting of horses and mules by the thousand, comes the problem of their selection, their care, and management. The artillery and cavalry services and the remount stations desire men who can detect unsoundness, who can select the best horseflesh. The horses in the field need care when sick or wounded. The feed must be fed right. The horses must be driven and handled scientifically. Stock judging develops powers of judgment, decision, and observation. Men skilled in handling stock will find their duty an important one.

ENGINEERS.—The part played by the engineer in the war is an important one. The tank has been developed from the farm tractor. Concrete work, the drainage of trenches and camps, gas engine repair and management, the handling of tractors, mapping, drawing, surveying—these and many other courses can be offered in the college.

GARDENING.—At every cantonment here and in France the army does its best to help feed itself. War gardens, hundreds of acres in size, have to be planted, cared for, and harvested to supply vegetables to help keep the men fit.

PIGEONS AND POULTRY.—The Signal Service is training carrier pigeons with success for intelligence purposes. The war department has detailed an officer and squad to carry on experiments on night flying work with our experimental flocks. Poultry husbandry is of service at base quarters in providing fresh supplies for hospitals and utilization of camp wastes.

BACTERIOLOGISTS.—From the sanitary corps and from the hospital units comes the call for men trained in bacteriology. Fundamental training in the protection against disease and insanitary surroundings forms an important part of the war machine.

CHEMISTS.—The Chemical Service requires the aid and assistance of men having experience in handling and mixing chemicals. The Sanitary Service needs chemists expert in water analysis, in nutrition, and other lines. The field of explosives offers fascinating work. Still other chemists are making tests in aeroplane production, the treatment of timber for trench, railroad, and other forms of war use.

A. W. HOPKINS.
Wisconsin College of Agriculture.

Western New York

HOARD'S DAIRYMAN:—The dairy situation in western New York is undergoing some change, but on the whole it appears to be gaining on the other agricultural industries. Certain farmers are saying that they have made money from their cows lately for about the first time and they are prepared to carry more of them in the future. They say that though the necessity of being at home at about the same time every morning and evening to milk the cows is somewhat taxing, the work is by no means as hard as ordinary field work and they are willing to endure it so long as it is sure to bring profit. It need not be said here that in some cases the profit has come more from better methods of handling the cows than formerly, but that is not all of it.

Lately the automobile has come in as a factor in farm life and it seems to have helped the dairy farmer more than any other, unless it may be the truck raiser. The automobile means a quick trip to town with milk or cream and a whole day's work on the farm at the same time. Besides, it means that the farmer who has to milk a dozen cows can make a long trip if he pleases after milking time, or he can come home from a point a dozen miles away and take care of the milking without wasting much time. Then if he wants to go out again he can do so without much loss of time. A certain farmer, for instance, one day lately, went out with his automobile four times, always on business, such as going to mill and to the railroad, drove over forty miles, and did a fair day's work on the farm at the same time. With a horse this would have taken the whole day and it would have required a relay of horses then, if loads had been at all heavy. When the automobile tractor arrives, as it bids likely to do soon, the advantage will be still further increased.

There is now a new development in some districts in the form of a milk trade that is destined to eat into the cream trade unless the creameries bid up for the cream. The big demand for milk, the slow movement of the railroads, and the added independence of the farmer in these days of food shortages have pushed up the farm price of milk and now there is a move to pay six cents for milk at the farm and save the farmer the time of delivering it at the railroad. The price is said to be much better than the price paid for cream and it is going to create a diversion in that direction. The automobile truck will do the carrying.

At the same time, the careful farmer is sorry that he feels obliged to accept any plan that takes his milk off the farm. It starves his pigs and calves. As it is now, with a separator, all such animals thrive. The skimmilk is fed to them still warm and they grow as no other feed will make them, unless it be whole milk itself. To sell the milk is to deprive the farm of this big help. Some farmers are planning to save out the milk of a cow or two and with it try to keep up the pig and calf industry, but it will not be easy. Part of the little herds will have to go anyhow and the separator may have to be laid aside altogether.

New York. J. W. CHAMBERLIN.

Stabilizing Cottonseed Meal

In spite of the lower yield of cotton and the increased cost of production, the organized cottonseed producers have agreed with the Food Administration to stabilize the price of cottonseed at the average price of last year. This is a concession on their part to the cattle feeding and dairy interests in this country. The prices will vary from $64 to $72 per ton in carload lots, f. o. b., cars, depending upon the yield in oil.

Differentials have been fixed for crushing seed on the basis of last year's cost and regulated profit of last year, plus the increased cost imposed by change in labor, transportation, and supplies. As a result the price of meal is about $3 per ton higher than last year.—FOOD ADMINISTRATION.

A rainy day job: Make a hanging shelf and a screened cupboard for the cellar. Your wife will appreciate them.

IROQUOIS FARM
AYRSHIRES
High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

AYRSHIRES

AYRSHIRES
TEN HEIFERS
Twelve to sixteen months. Record breeding—good type and color.
HENDERSON AYRSHIRE FARM, Hudson, Ohio.

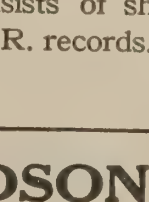
World's Champion Ayrshires
Extraordinary Bull Calf out of Imp. Torr's Tropicohn. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

Van Etta's Ayrshires
10 HEIFERS FOR SALE
I am offering for sale 10 daughters of Imp. Holehouse Wanderer, Jr. Champ. at Dairy Cattle Congress and National Dairy Show in 1913. All are long yearlings due to freshen in the fall and in calf to Bargenoch Rising Star, a consistent show ring winner, he a son of Bargenoch Rising Star, one of the best show bulls the breed has produced. Write me for further information. Jas. Van Etta, Lima Center, Wis.

Edelweiss Farms—Ayrshires
Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

REGISTERED AYRSHIRES FOR SALE
Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

CRESTMONT FARM AYRSHIRES
Are offered in several choice bull calves. Handsomely marked, nearly all white, from tested cows in Advanced Registry. "Finlayston" and "Baron's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. W. H. Druckemiller, Sunbury, Pa.


ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES
AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Willowmoor Ayrshires!
6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

Ayrshire Sale Extraordinary
At Dairy Cattle Congress, Waterloo, Ia.
Wednesday, Oct. 2nd, 1918
BEGINNING AT ELEVEN A. M.

Absolutely the greatest collection of top-notchers ever offered east of New York—Sixty head have been selected as follows:

Wm. Hunter, Grimsey, Ontario, World's famous Importer and Judge is sending ten wonderful head of his recent Importation from Scotland.

James Van Etta, owner of Cloverdale Farms, Lima Center, Wisconsin, has consigned his famous show herd of twenty head including the bull "Bargenoch Rising Star".

Mr. Stephen Bull, owner of Aldebaran Farm, Racine, Wisconsin, six head including Henderson's Laurie, the greatest daughter of White Cloud of Hickory Island, Jr. who has thirty-eight A. R. daughters averaging over 11,000 lbs. of milk each, 4.14 per cent.

Mr. H. B. Pazik, owner of Hazelwood Farm, Waukesha, Wisconsin, twenty head of his top-notchers.

Evamere Farm, Hudson, Ohio, twelve head consisting of eight grand foundation cows and four classy heifers.

The whole consignment consists of show winners, great breeding backed with A. R. records.

For catalog write

SALES MANAGER, D. M. HENDERSON, HUDSON, OHIO
Auctioneer:—Geo. W. Baxter.

Come to Headquarters For

COTTON SEED MEAL and CAKE

Velvet Bean Meal
Cocoanut Meal
Velvet Beans in Pod
(South's Cheapest Feed)

F. W. BRODE & CO.
Established 1875. *Incorporated 1915.*
MEMPHIS, TENN. Branch Office, Dallas, Texas.
"Our Brand On The Tag, Means Quality In the Bag."

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Pleasant View Herd

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK, WIS.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

RED POLLED

Our August and September

RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.
JEAN DU LUTH FARM NO. 2, Nickerson, Minn.

JERSEYS

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.
Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

GRANDDAUGHTER OF NOBLE OF OAKLAND 8



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 485 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

JERSEY BULL CALF

STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

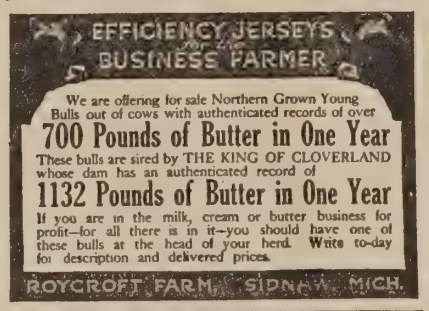
Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, Edgerton, Wis.

Lookout Farm Jerseys

Our Present Offering Affords an Unusual Opportunity to secure a Fine Foundation For a Productive Herd and comprises

A young bull, solid color, and ready for service. There is not a weak line in his pedigree. His sire carries 37½ per cent of the blood of Hood Farm Torono, the great sire of high producers; the sire's dam is an 11,000-lb cow; and on the bottom line of the bull's pedigree there is an **unbroken line of Register of Merit cows for five generations. Five heifers** dropped respectively Feb. 23, '17; Feb. 26th, '17; Apr. 5th, '17; Sept. 21st, '17; and Oct. 24th, 1917. All are sired by Lookout Prince, 115074, whose first daughters to freshen are now under test and are "making good". Three of the five are out of Register of Merit dams; and all five have R. of M. backing; are finely bred for production and are good individuals.
ADDRESS HENRY S. REDFIELD,
1925 Seventh Avenue, New York City.



Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.
ASHLAND FARM DAIRY, Inc.
ALTON PARK, TENNESSEE.

"The Hermitage" near Centreville, Maryland

Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

MERIDALE JERSEYS

For Sale: Five grandsons of Spermfield Owl 57088. Two 1000-lb. cows close up in their pedigrees. Address

AYER & McKINNEY
300 Chestnut St., Philadelphia, Pa.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.
Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.
Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.
Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.
We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

Sophie's Tormentor JERSEYS

"Production" our Watchword

FOR SALE—Bull Calf No. 263, dropped June 9, 1918; solid color, black tongue and switch. Sire: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter, 85% fat from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days. Dam: Eminent Lady Blossom 346916, in the Register of Merit—489.69 lbs. butter, 85% fat in 1 year from 6,325.7 lbs. milk, at 2 yrs. 1 mo. old.
Price delivered in U. S. A. $150.
FAIRVIEW FARMS, INC.
R. L. Pike, General Mgr. Geneva, Ohio

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, Ohio.

SWINE

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

BIG SALE

OF BIG TYPE

Poland China Boars

At Lancaster, Wis.

October 10th, '18

The Grant Co. Poland China Breeders' Association offers the greatest selection of boars ever gotten together in a sale ring. 45 head in all are offered—they represent 22 great sires and are the tops from 24 leading herds. Write for catalog mentioning this paper.

F. A. Morehouse, Sec'y, Lancaster, Wis.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.
His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.
His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

Big Type Poland China Boars

of noted breeding now ready to be shipped. All of March farrow. Cholera immune and guaranteed to please. I have culled them out very closely therefore have nothing but the best to offer. Sired by such noted boars as Big Ben H., Model Mastodon, Orphans Big Joe, Mow's Chief and others. Buy from a herd that has built its reputation and where you take no chances either on cholera or getting "stung" on a pig for I stand back of everything I say and sell. Write at once and mention this paper.
F. A. MOREHOUSE, LANCASTER, WISCONSIN.

THE GUERNSEY

stands for Economical production. More profit from every pound of feed. Do you want cows that will improve your Dairy? Write for free literature.

Guernsey Cattle Club,
Box H. Peterboro, N.H.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. W. A. Cloues, Mgr.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. F. P. Frazier & Son, Props.
W. K. Hepburn, Supt.

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

Choice Young BULLS

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Backed by Production at reasonable prices.
Raemelton Farm,
Mansfield, Ohio.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

FOR SALE GUERNSEY

FEMALES of All Ages
CHOICE BREEDING
ST. AUSTELL FARMS
R. D. 3 JACKSON, MICH.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.
Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

Harbor Hill Guernseys

We Bred and Developed
The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. F. G. Benham & Son, Canandaigua, N. Y.

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

Registered Guernsey Bull For Sale

DROPPED JULY 21st, 1917.

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and price write Folly Farm, Libertyville, Ill.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

DRAFTED!

Must sell our 2-year-old May Rose Bull

May King of Meadow Farm (40072)

Dam's record 544.27 lbs. of fat. Price $200.00.
BRIGGS BROTHERS, Charleston, Illinois.

GERAR GUERNSEYS

Production
Reproduction
Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.
Louis McL. Merryman, Cockeysville, Md.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. August Ziesing, Deerfield, Ill.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. L. V. AXTELL, Old Homestead Farm, Perry, Ohio.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

HERD SIRE

2½ YEARS OLD

Well Bred, Fine Type, Gentle, Vigorous.

Sire: Golden Noble of Craigamoor 29215 a royally bred May Rose-Golden Noble bull.

Dam: An imported daughter of Alderney II that made 568.04 lbs. fat with first calf.

He is getting us some fine heifers but one of the owners is going to war and we must reduce our herd. Price $400 for immediate sale.

We also offer several bull calves for sale.

Franklin Land & Timber Co., Janesville, Wis.
A. P. Lovejoy, Pres. H. S. Lovejoy, Sec'y.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. Roy Burton, Eagle, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. His Dam is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. The Bull himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

SARNIA

Imported and Home Bred Guernseys.
300 Head Imported

in 1917 are all sold. Several good cows for sale. Also young bulls from high class A. R. cows. Place your order early for bred heifers from 1918 importations. Send for sale lists.

Charles L. Hill & Son, Rosendale, Wis.

Young Guernsey Bulls

Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.

Helendale Farms, 702 Cedar St., Milwaukee, Wis.

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Don't Forget

Klemm's Dispersion SALE

of Registered Guernseys

OCT. 4, '18

Baraboo, Wis.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger: out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.

W. G. Jamison & Sons, Appleton, Wis.

GUERNSEYS A. R. RECORD COWS for SALE

Others of special breeding. Send for list of cows and heifers. ROY C. BUZZELL, Stanley, Wis.

GUERNSEYS

IOWANOLA GUERNSEYS

Imp. Kitchener's Express 43925 Jr. Herd Sire. Undefeated 2-yr.-old at 1918 Fairs.

His Sire:—Hayes Kitchener, a son of Imp. Rose de Houard's 50th. 685 lbs. fat (record made in England).

His Dam:—Haye's Express 9th—Milk, 10,225; 524 lbs. fat, record made while on show circuit a part of the time. A consistent winner at the shows as a 3-yr.-old.

This young bull is bred for both individuality and production. You must see him to appreciate him. We have some excellent young stock for sale.

Meet us at the Waterloo and Columbus shows.

Mountain Bros., R. 5, Des Moines, Iowa.

HOLSTEINS

Holsteins For Sale

Extra Fine Breeding

5 Granddaughters of King of the Pontiacs.

9 Granddaughters of Spring Farm King Pontiac 6th.

All above are from 7 to 14 months old.

The best 3-year son of King of the Pontiacs also for sale.

Geo. S. Bigelow, Breedsville, Michigan.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.

Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Michigan.

5 Holstein Bulls

Ready for Business At ½ Real Value

They are from world record sire and A. R. O. dams. We are selling farm.

LONG BEACH FARM, AUGUSTA, MICH.

The Traverse Herd

This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27.18 in 7 and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices, but *hurry* for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.

Traverse City State Hospital, Traverse City, Michigan.

4 FEMALES 4

We offer four cows due to freshen this fall and early winter. Good individuals, well marked and well bred. One in calf to a 31-pound son of King of the Pontiacs. Herd free from tuberculosis. These are priced to sell.

CEDARDALE STOCK FARMS, O. A. Thomas, RUTLAND, VT.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

YOU

Will be interested in our free price list of 100 head of choice, pure-bred

Holstein Cows and Heifers

or if interested in a bull calf send for our bull calf list. **Woodlawn Farm, Sterling, Illinois.**

CLEVELAND HERD

Offers Two Holstein Bull Calves

nine months old, good straight individuals, well grown. One is out of a 29.08-lb. 3-year-old, next dam a 26.10-lb. cow and the other out of a 20.33-lb. Jr. 2-year-old daughter of a 29-lb. cow. Both calves are sired by our K. V. P. Alcartra whose eight nearest dams average 30.52 lbs. butter from 611 lbs. milk. Also a few young A. R. O. cows bred to this bull and sired by King Segis Pontiac Veeman, one of the greatest sires of prize winning daughters in the world. If interested send for pedigrees, pictures and prices.

H. R. WEISKOPF, CLEVELAND, WIS.

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.

We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.

This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

Buffalo Creek Farm

OFFERS A SON OF

Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. **Albert R. T. Lillie, Supt., Arlington Heights, Illinois.**

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

Foundation Trio For Sale

Bull born Oct. 1917, would make a show calf, mostly white. His sire is by a son of the famous Judge Hengerveld De Kol, whose daughters are showing up great in short and long time test. The two heifers born in Dec. and March last, dandy good individuals, mostly white and sired by De Kol Goudgeld Pietertje who is siring a wonderful lot of fine individuals. Priced for immediate acceptance $250.00 F. O. B. Muncie.

RAY MEEKER, - MUNCIE, INDIANA.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

The Fifteenth Sale of

Registered Holstein-Friesian Cattle

—BY THE—

Pure-bred Live Stock Sales Company

Tuesday and Wednesday, Oct. 1 and 2

at Brattleboro, Vermont

and will consist of 150 HEAD OF CHOICE CATTLE of all ages and both sexes from the herds of well-known breeders. Send for Catalog.



Purebred HOLSTEINS

"Both milk and fat are produced at lowest rate in general by the cows consuming the most food." This conclusion is reached by Prof. H. H. Wing, Professor of dairy husbandry at Cornell, after a year's observation of the University experiment station's herd.

Holsteins are large and healthy, capable of converting large quantities of coarse feed into the best of milk suitable for all purposes.

If you are keeping cows for profit, investigate the large Black and White Holsteins.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. **E. A. POWELL, Syracuse, N. Y.**

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.

MARKHAM & PUFFER, - AVON, N. Y.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich.

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.

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Learn Auctioneering

at World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught. Write today for free catalog.

Jones Nat'l School of Auctioneering, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

55 Pure-bred Holsteins To Be Sold 55

AT UNION CITY, MICHIGAN, OCT. 1st, 1918.

This is a dispersion of our entire herd with consignments by Ray Parham, John Gintling, Wm. Tase, and Sidney Smith.

It includes a 2-yr.-old grandson of King of the Pontiacs and Pontiac Aaggie Korndyke, 8 2-yr.-olds ready to freshen, sired by a $3,000 son of King of the Pontiacs, a 24-lb. cow, and a 22-lb. daughter of Pontiac Aaggie Korndyke.

All animals guaranteed against contagious abortion and tuberculosis for 60 days.

Union City easily reached by jitney from Battle Creek and Coldwater.

THOS. B. BUELL & SON, - - UNION CITY, MICHIGAN.

Send NO Money!

Just send coupon below and we will forward to you at once, postpaid, a pair of our famous **NATIONAL FARM SHOES.** They are the greatest work shoe value ever offered. We are glad to send you a pair NO MONEY IN ADVANCE because they are built so full of wear and are so comfortable and so good looking that we know you will keep them. Send no money—don't pay until you get your shoes—mail the coupon only and shoes will come at once.



DIRECT TO YOU FROM THE SHOE MARKET OF THE WORLD

That is why the price is only **$3.65.** Why pay $5 or $6? Slip these shoes on in your own home. Note the splendid selected leather! Feel how soft and easy they are on your feet! Examine the "Indestructo" heavy leather sole. Customers write these shoes look good after 6 months of hard wear. If they aren't the best work shoe you ever saw, send them back and we'll return your money. You are the judge of the Style, Comfort and Quality. Use coupon TODAY and get your pair of these wonderful shoes while this special offer holds good.

BLACK OR TAN. ALL SIZES

SEND *Only this coupon, no money. It brings these splendid shoes to you prepaid.*

Boston Mail Order House, Boston, Mass.

Boston Mail Order House, Dept. H, Beach Street, Boston, Mass.

Send me a pair of **National Farm** shoes prepaid. I will pay only $3.65 on arrival. If I am not satisfied in every way I will return them and you will refund my money.

Size..... Color.....

Name .....

Address .....

ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY

YOUR COWS MADE PROMPT. REGULAR BREEDERS BY

STERILOID

STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for **FREE BOOK.** It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY, Dept. A. 398-408 Columbus Ave., New York City. Reference—Colonial Bank.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

Dispersal Sale

Redwood Holstein Farm Co.

Friday, Oct. 4th, '18

Redwood Falls, Minn.

63 - FEMALES - 63

Including 20 DAUGHTERS of our Senior Herd Sire

Sir Hengerveld De Kol Abbekerk

Sire of Milanhurst America De Kol

1,231 lbs. butter 1 yr.; 34.08 lbs. 7 days; 28.40 lbs. 8 months after calving (present world's record). She broke 8 world's records in one year.

50 COWS & HEIFERS 5 years and younger due to freshen this fall and early winter:—25 now have A. R. O. records; 25 are daughters of A. R. O. cows. We have granddaughters of JOHANNA DEKOL VAN BEERS, KING OF THE PONTIACS, ADMIRAL WALKER PIETERTJE and AAGGIE CORNUCOPIA JOHANNA LAD JR.



King Colantha Ormsby Bess

Will sell a few bulls including our Junior Herd Sire

King Colantha Ormsby Bess

A junior yearling sired by King Korndyke Colantha Ormsby, a grandson of Colantha 4th Johanna and Pietertje Maid Ormsby. His 15 nearest dams averaged 28.22 lbs. butter in 7 days.

Three animals in first three generations on his dam's side have won FIRST at the NATIONAL DAIRY SHOW.

He is of the *SIR PIETERTJE ORMSBY MERCEDES* breeding. Our youngster represents:

Individuality, Size and Production.

Glenn W. Gold, Wm. H. Gold, Owners,

Redwood Falls, Minnesota.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 ❖ Born February 1917 ❖
Black and white Black and White
❖ Born May 1917 ❖
Black and White
3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS HOLSTEINS 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, . . . GLYNDON, MINN.

SUMMER BULL BARGAINS

Eight bull calves, one to seven months old, all sired by *Aaggie Pontiac Grahamholm Lad* —that means all good straight individuals—from dams with good A. R. O. and cow testing ass'n. yearly records. Prices $100 to $350 each—some especial bargains at $125. Write us your wants.

U. L. Lashbrook & Sons, Northfield, Minn.

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Bloomingdale Herd ...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

A. A. Courtelyou, Somerville, New Jersey

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

King Pontiac Champion

Leads All A. R. O. Sires

King Pontiac Champion, (81 A. R. O.) has the best balanced A. R. O. record of any living bull of the breed.

He does not depend upon a few sensational daughters for his prestige but upon the high average production of his get. His daughters excel in both long and short tests as well as in milk and butter.

Last year King Pontiac Champion led the 589 sires represented in the prize list by being represented 34 times, and in respect to 30-lb. daughters, did not even have a rival. The showing of his semi-official yearly daughters in both milk and butter also far surpasses that of any other sire.

Think of the 125 daughters of King now on the Pabst Stock Farm, 81 of which have already been credited with A. R. O. records, and the fact that King Pontiac Champion is now in his prime.

Is not this the kind of a sire to line up with when selecting a herd sire? Look over our list of young bulls—prices reasonable.

PABST STOCK FARM,
Oconomowoc, Wis.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.
DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

Pure-bred and High Grade Holsteins

CAN FURNISH CAR LOTS OR LESS.
I have a car of yearlings on hand at $50 each. Several bulls from 8 months to 14 months old from A. R. O. dams. Write me for price and photo. High grade Holstein heifer calves, four weeks old, $20 crated.
Yohn's Stock Farm, Watertown, Wisconsin.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
O. A. SCHROEDER & SONS, West Bend, Wis.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM,**
W. G. Marshall, Prop., Whitewater, Wis.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.
L. K. LUSE, SUPERIOR, WISCONSIN.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.



Sir Korndyke Fytje Pietertje. Sire: Sir Korndyke Hengerveld De Kol. Dam: A 23.15-lb. junior 2-year-old daughter of Sir Pietertje Ormsby Mercedes 783 lbs. butter in 1 year as a 2-year-old.
Owned by Chas. J. Will, Menomonee, Falls.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to **W. L. BAIRD, Secretary, Waukesha, Wis.**

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write **MASONIC HOME FARM**
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A.R.O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Bonair Farm Holsteins

Sir Korndyke Fytje Pietertje 132719
The Only Bull whose sire, dam and full brother have all been first prize winners at any National Dairy Show heads our herd. His sons up to 6 mos. out of cows up to 26.76 lbs. for sale.
C. J. Will, Prop. Menomonee Falls, Wis.

Ready For Light Service

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

For Sale—Several Young Bulls

5 to 8 months old. Sired by a 30-lb. son of Rag Apple Korndyke, some are from A. R. O. dams and priced very reasonable. Wm. F. Mielenz, 312 First National Bank Bldg., Milwaukee, Wis.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

CHAS. BURBACH,
Waukesha, Wis.

MEADOW LANE HOLSTEINS

Get your next herd sire here from cows with 7-day and yearly records by our bull whose seven nearest dams average 33.77 in 7 days and over 1000 lbs. in a year.
AITKEN BROS., WAUKESHA, WIS.

SIR PIETERTJE ORMSBY MERCEDES 43rd

heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull **Maplecrest King DeKol 2nd.** A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

FINE BULL CALF

We offer a bull calf born Nov. 19th, 1917. A very fine, straight, growthy individual ¾ white; dam has 7-day A. R. O. of 24.6 lbs. butter and 567 lbs. milk. He is by a sire whose two nearest dams average 22.3 lbs. butter and 520 lbs. milk at 3 years. Price $125.00 if taken at once.
Miller Bros., R. No. 25, Oconomowoc, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

KING SUPERBA

Meet his sons and daughters on exhibition in the Waukesha County Live Stock Exhibit, at the Wisconsin State Fair. Combine individuality with production. For Sale—Sons of King out of our best cows. (See Baird Bros. ad.)
W. J. Mann & Sons, R. 2, B. 16, Waukesha, Wis.

MORE MILK—MORE MONEY

Get a grandson of this great cow, Milanhurst America DeKol, 143441, that produced an 8-gallon can and a ½ of milk per day equal to 13 tons, or more than her own weight each month for a whole year. If her milk was sold at 10c a quart her years production would amount to $1,300. A few choice bulls for sale, some of breeding age.
Dr. David Roberts Stock Farm, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.
Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. **His Dam:** Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4-year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

Do You Need a Young Bull?



Mutual Fobes Longfield DeKol, 82959

One of His Good Young Sons for Sale

Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters although a comparatively young sire. His sire is one of the good sons of Mooie Mutual DeKol. His dam, a daughter of Homestead Jr. DeKol (71 A. R. O. daughters), made 30.04 lbs. butter and 630.80 lbs. milk in 7 days as a Jr. 3-yr.-old. At the same age she made 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days.—(A world's record when made.)

The Dam Of This Young Bull is Monona Josephine with 31.77 lbs. butter and 616.2 lbs. milk in 7 days. She is a granddaughter of Homestead Hengerveld DeKol and Dutchland Sir Pontiac Rag Apple (29 A. R. O. daughters). The first of her daughters to be tested made 22.82 lbs. as a jr. 2-yr.-old in the month of June. Two of her sons are in service at the head of first class herds.

The Calf Himself was born March 11, '18. He's nearly half white and a good individual, one of the kind that will develop into a big, straight, rugged herd sire. Moreover, he's bred right. Notice the milk production on both sides of his pedigree.

We Have other young bulls for sale. Write today or come and see us.

MILFORD MEADOWS STOCK FARM, Lake Mills, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall; ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go. **EDGEWATER STOCK FARM, Fort Atkinson, Wis.**

FOR SALE

Entire Grade Herd

CONSISTING OF

75 Holstein Cows
75 Guernsey Cows

On account of labor shortage we have decided to dispose of all our grades, which are the cream of this herd and are the best that can be had. We will continue in the dairy business with our herd of pure-bred Guernseys.

DON'T STOP TO WRITE—COME AND SEE THEM.

McCanna's Edgewood Stock Farms

Burlington, Wisconsin.

C. Roy McCanna, Proprietor. H. A. Kuhtz, Manager.

A Complete Dispersion

of the Avoca Lodge Farm Herd

120 Registered Holsteins to Be Sold

October 9th and 10th, 1918

8 Miles Southwest of Denver, Colo.



Korndyke Pietertje Colantha 96261.

Korndyke Pietertje Colantha, our senior herd sire, will be sold. He is the only son of Pontiac Korndyke having for his dam the only cow that ever produced a 30-lb. daughter at 24 months of age. She was the first cow that ever produced two 30-lb. heifers. He has 7 sisters with records from 37 to 47 lbs., and 10 A. R. O. daughters with records up to 24½ lbs. all made as 2 and 3-year-olds.

The only bull in the world backed by such a combination of breeding and production.

Orchard Grove Rag Apple, a son of Rag Apple Korndyke, is our Jr. herd sire.

In the Show Ring.—We showed the Grand Champion bull at the 1916 Colorado State Fair and the 1918 Western National. Our aged herd and get of sire groups were undefeated the past 2 seasons. We have won over twice as much prize money at the shows where we have exhibited the past 3 years than have any of our competitors.

We have fifteen daughters of Buffalo Dirkie Johanna, our $10,000 bull who was a son of "Johanna Colantha's Lad" and Oakhurst Duchess Clothilde, the dam of Duchess Skylark Ormsby.

We have cows that have milked 112 lbs. in a day, 22,000 lbs. in ten months and 43,000 lbs. in 21 months with butter records over 29 lbs. in seven days and 126 lbs. in 30 days, made under ordinary conditions in our dairy barn.

We have 50 granddaughters of Pontiac Korndyke and King of the Pontiacs. We have 30 cows and heifers that weigh from 1,600 to 2,000 lbs.

Catalogues will be ready on Sept. 15th. Write

Donley & Simpson, Props. P. O. Mt. Morrison, Colo.

G. M. Banks, H. E. Buchanan, Auctioneers.

Need a Herd Sire?



We Are Offering One of His Sons, a Real One, From a 27-lb. Dam.

His Sire is Iowana Sir Ollie, shown above, a son of Canary Paul Fobes Homestead, he a 34.96-lb. son of Canary Paul. Iowana Sir Ollie is from Ollie Watson Prima Donna, 3 times an Ass'n prize winner with 31.10 lbs. butter and 618.7 lbs. milk in 7 days to her credit. More than that he is a wonderful individual, a bull that would show to advantage in any ring today.

The Dam of this young bull is Groveland Korndyke Cornucopia, 27.71 lbs. butter and 624 lbs. milk in 7 days. She is a daughter of Cornucopia Pontiac Johanna Lad, one of the good sons of King of the Pontiacs, and from an A. R. O. granddaughter of Sir Korndyke Manor DeKol (45 A. R. O. daughters, 3 above 30 lbs.).

This Young bull was born April 8, '18. He's well marked, about half white, and a fine individual,—a bull that really will make you an excellent herd sire. Finally, he's priced to sell.

Remember we stand back of every animal we sell. Write today for picture, pedigree and price.

NATHAN DICKINSON & SON, Lake Geneva, Wis.

A. R. O. Holstein

In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to **WISCONSIN STAR STOCK FARMS,**

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to **ED. M. SCHULTZ, Hartford, Wis**

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

WAYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now on yearly semi-official test and will complete records this fall and winter. Nearly every cow has completed cow testing records for three years and has produced up to 600 pounds of butter. These cows are never pushed to the limit. The bulls offered are sired by bulls secured from the E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butter. Bulls are heavy bone, straight, well marked and large for their age. They will and must please. We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby.

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG

Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenberg, Mgr.**



Look Ahead a Few Months

When the snow is knee deep on the ground and the mercury drops way down below zero, that's the time when feed will be as scarce as hens' teeth and next to impossible to get, yet that is just the time when you will need a good supply of feed on hand for your dairy cattle, cows, hogs and horses.

Look back over the conditions last winter when the railroads were blocked and many sections were on the verge of a feed famine (undoubtedly yours one of them), then put yourself on the safe side for this winter. Make your "fore-sight" as good as your "hind-sight" and when the snow flies in a month or two, you will be better off in milk production, in dollars and cents, and in satisfaction.

Order Your Fall and Winter Feed Supply Now

It is also equally important that you order the kind of feed that will give you BEST FEEDING RESULTS AT THE LOWEST COST.

Make the major portion of your feed order SCHUMACHER and you will have no regrets, because it most satisfactorily supplies the needs of not only dairy cows, but of all other farm animals as well.

SCHUMACHER FEED fed as the base of the dairy ration with high protein concentrates has more World's Records to its credit for big milk and butter production than any other feed.

BIG "Q" DAIRY RATION is a high quality protein feed and when fed in connection with SCHUMACHER you can balance your ration to suit the individual need of every cow in your herd so as to assure maximum production and good physical condition all year 'round.



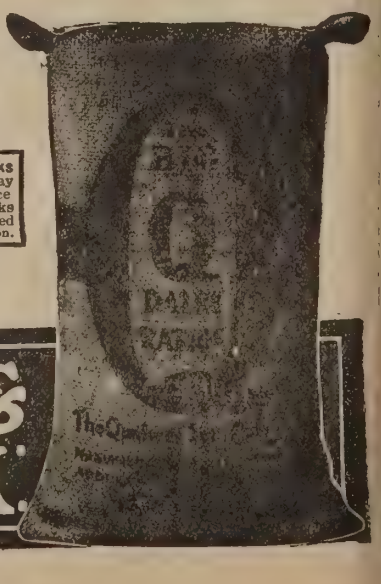
SCHUMACHER is also an ideal feed for young stock. It develops hogs faster and cheaper than corn and is a safe, palatable, easily digested ration for horses.

Place your feed order at once with your dealer. He can supply you now—later on he may not be able to. Make your order read enough SCHUMACHER and BIG "Q" for your dairy stock and enough more SCHUMACHER for young stock, hogs and horses, then you'll have a feed supply that can't be beat for all farm animals.

MEET US AT THE NATIONAL DAIRY SHOW, COLUMBUS, OHIO, OCTOBER 10TH TO 19TH. OUR EXHIBIT WILL BE OF SPECIAL INTEREST TO DAIRYMEN AND BREEDERS

15c apiece for Jute Sacks Your dealer will pay you 15 cents apiece for empty jute sacks of our brands returned to him in good condition.

The Quaker Oats Company Address, Chicago, U. S. A.



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SCHUMACHER FEED & BIG "Q" DAIRY RATION

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., OCTOBER 4, 1918. — Number 11

THE COW AND MACHINE MILKING

C. LARSEN, South Dakota State College of Agriculture.

THERE has been much discussion, pro and con, relative to the practicability of the milking machines on the dairy farm. Some will claim they are practical, others say they are not. This variation in opinion undoubtedly is due to the manner in which different people have succeeded in operating milking machines.

I personally know of one man who purchased a milking machine for milking a herd of unimproved cows. He used it but a short time. This machine was sold to another man and he succeeded. I know of another man, a breeder of pure-bred dairy cattle, who purchased and installed a milking machine. The herdsman used it a few months and then concluded that he would rather milk by hand. This particular machine was sold to another man, also a breeder of pure-bred dairy cattle, and he was successful in operating it.

Why this difference? It could not have been in the machine because when the milking machines changed hands they worked successfully. The difference was undoubtedly in the cows and in the operator.

In our experiments with the several types of milking machines, (B. L. K., Empire, Sharples, Hinman, Waterloo Boy, Calf-Way, Perfection, and Universal) we have found that the cow and the operator are very important factors in determining the practicability of the milking machine on the average dairy farm. My personal belief is that where any of the standard milking machines have been pronounced failures, the difficulties can be traced chiefly to the cows or to the operator. The operator acts as does a governor on an engine. He co-ordinates the machine to the work that is being done.

It is impossible for a person to harmonize the machine and its work unless he knows what kind of work the machine has to do. The operator must understand that extraction is not all there is to milking. There are three processes that must function together harmoniously.

Milk Secretion

First, the secretion of the milk. This occurs within the mammary gland. It is in progress all of the time. It is a natural function, and an involuntary act, and cannot be controlled by the cow and the milking machine operator. However, this secretion of milk is closely connected with the nervous system of the cow. Through the nervous system both the cow and the milking machine operator may affect, though not control, the secretion of the milk.

If the cow is frightened or made uneasy by the machine, or is made nervous in any way, the secretion of the milk does not proceed normally. Probably an occasional or temporary abnormal secretion of the milk will not seriously affect the cow and the work of the machine, but should this provocation continue, the production of the cow and the success of the mechanical milker would without doubt be hindered.



THESE COWS HAVE BEEN MILKED BY MACHINE FOR SEVERAL YEARS, WHICH IS PROBABLY THE BEST EVIDENCE AS TO THE PRACTICABILITY OF MACHINE MILKING

To secure the largest measure of success, as with any mechanical contrivance, the cow, the operator, and the machine must establish the right kind of co-operation, as is so well discussed by Professor Larsen in the accompanying article.

Second, the release of the milk. This is a very important part for the user of the milking machine to understand. The flow of the milk from the upper part of the udder to the lower part is controlled by the cow. The manufacture or secretion of the milk occurs in the mammary gland, chiefly in the upper part of the cow's udder. The cistern, or the milk reservoir, is in the lower part of the cow's udder, or just above each teat. These extreme upper and lower parts of the cow's udder are connected by means of a complex system of tubes and vacuoles. These serve to conduct and store the milk within the cow's udder. These milk ducts branch and rebranch. The opening and closing of these tubes or ducts are controlled by most cows.

If the milking machine in any way produces discomfort to the cow, she is likely to hold up her milk. A cow having a very distended udder, or giving a very large flow of milk, is not likely to do this, but if the discomfort of the machine is greater to the cow than the discomfort of retaining the milk, then the cow is likely to hold up her milk entirely, or to give down the milk little by little. This will either cause much stripping by hand or, if this stripping is not drawn, it will tend to dry up the cow early, and it may even cause diseased udders.

Milk Extraction

Third, the extraction of the milk from the cow. Aside from the small amount of milk (about one pint) stored in the milk cistern, the machine cannot extract the remainder of the milk without the aid of the cow. Some have used the milking machine as though milking was only a question of extraction. If this were the only point to consider, the milking machine would be almost perfect. This use of milking machines has in a measure given the public the impression that the extraction of the milk is all there is to the successful operation of a mechanical milker. The range of mechanical adaptability of the milking machines for extracting milk from different cows is certainly great. The cow is a living individual; the milking machine cannot be attached and milk drawn as though she were some inanimate object.

The general principles of milking described above apply to all cows, but individual cows differ. At the beginning of the lactation period cows are more nearly alike. The farther the herd of cows advances in the milking period, the greater the characteristics and peculiarities as to manner of milking will appear. It is these individualities that the milking machine operator should endeavor to learn, to make the milking machine do good work in the herd throughout the year, and one year after another.

Know Each Cow's Peculiarity

The operator should see that the teat cups properly fit the cow. Some of the machines have the universal teat cup. This cup has a wide range

(Continued on page 326)

Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Northwest Canada Butter Scores High

HOARD'S DAIRYMAN:—Manitoba butter made by J. Donald of the Russell Creamery won first honors in the dairy section of the Toronto Industrial Exhibition just past, with a score of 98.16, out of a possible 100, with every province in the dominion competing. Seven Manitoba creameries won thirteen prizes, the silver cup for the best butter on exhibition and two specials. Following are the classes in which they won prizes and the scores made:

	Score
56-lb. Box Salted Butter	
6th prize—Crescent Creamery	96.49
5th prize—Russell Creamery	96.55
7th prize—Shoal Lake Creamery	96.16
56-lb. Box Unsalted Butter	
4th prize—W. Weir, Winnipeg	96.82
6th prize—Russell Creamery	95.76
7th prize—Shoal Lake Creamery	95.69
40 Lbs. Creamery Prints	
1st prize—Russell Creamery	98.16
3rd prize—Shoal Lake Creamery	97.50
5th prize—Belmont Creamery	
6th prize—Shoal Lake Creamery	
56-lb. Box June Make	
2nd prize—Russell Creamery	96.72
7th prize—Shoal Lake Creamery	96.16

Alberta also made a good showing, P. Palleson, Calgary, winning one special and first for the 56-pound box of unsalted butter with a score of 97.39. Edmonton City Dairy third in the same class with a score of 96.99. In the class for creamery prints, Palleson of Calgary was second, and the Edmonton City Dairy fourth. In the class for 56-pound boxes of salted butter, Palleson was second with a score of 96.99.

In the class for boxes of 56 pounds made in June last, Edmonton City Dairy was first; Donald of Russell, Man., was second; A. Severson of Calgary, third; Palleson of Calgary, fourth; and after them came in Pictou County, Nova Scotia; Eugene Fauscher of Quebec; and the Ontario Agricultural College.

Illinois. G. LEININGER.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Letters Home

SOMEWHERE IN FRANCE.

DEAR MOTHER:—Yesterday we went into action and had five hours of steady fighting. How is Brown Betty, that cow Dad gave me? Our guns opened up on the Huns and we had them running like so many frightened geese. Is the calf all right and is she turning out the way I thought she would? But they sure feed us fine and we get three squares a day, fight or no fight. Making as much cottage cheese as ever, Ma? I think Gen. Pershing is great. All the boys love him. Did Pa get that new auto delivery truck he was wanting to take milk to market? Lots of love,

BILLY.

P. S. How many Holsteins have you now? The Germans have started shelling our trenches. Give my regards to the big bull.

Philosophy of the Oldest Dairyman

"More and more, stockmen are encouraging individuality in cows. It'll be so, finally, that an animal will be ashamed to not show a profit at the end of each year."

"A friend of mine has a Holstein and calls her Aggie Violet Evangelina Hermon Gladice, and, in spite of that handicap, she is a prize winner."

"In a recent cow testing meet out my way, eighty per cent were Holsteins and a quiet little Jersey went away with the honors, claiming as a record 530 lbs. of fat during the association year. If cows was women, wow, what jealousy there'd be!"

Cruelty to Animals

The little city girl had watched work in the dairy. She saw a mechanical milker in actual operation. Running, wild-eyed, to her mother, she exclaimed:

"Oh, Mumsie, they won't even let the poor cows rest after they've come home. Now they have them hitched up to big machines and are making them supply the power. Or, maybe, they are being tested to see if their hearts are all right!

"I'm powerful fond of fresh veal," said Uncle Abner Hostetter of Fairview Dairy, "especially when they serve apple sass on the side, but I can't help thinkin' how nice an' purty it looked when it was cuddled up close ter its mother."

Look at it any way you please, it's th' cows that are really buying them bonds."

Conserving Gasoline

(In a great many sections, the driving of pleasure cars on the Sabbath is prohibited, as a war-time measure. We wish to submit a list of essential exceptions to the general rule, for use on farms.)

That once-a-week visit to your best girl, thirty miles away.

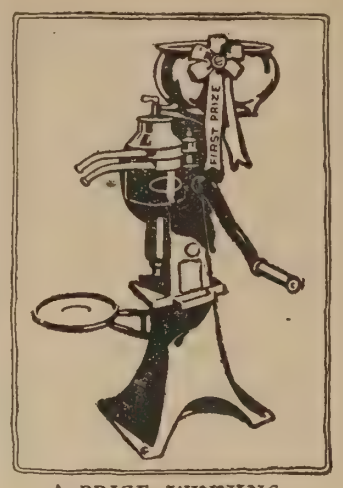
When Doug Fairbanks happens to play on a Sunday, at the movies.

Going to town for the Sunday papers to see how the war progresses.

Running over to convince a stubborn neighbor that he ought to buy more bonds.

To take a party of eleven visitors back to the railway depot, after they have been on the farm for a month.

All Fords looked upon as beasts of burden.



A PRIZE WINNING CREAM SEPARATOR

THE

DE LAVAL

CREAM SEPARATOR

Is a Winner!

Why don't you let it win for you?

AT the great national and international expositions, the juries have invariably acknowledged the superiority of the De Laval. They awarded the Grand Prize, the highest possible award, to the De Laval at the Panama-Pacific Exposition at San Francisco in 1915, as also at Buffalo, Chicago, St. Louis, Paris, Brussels, and all the great world expositions for more than 35 years.

What the world's greatest dairy experts, the men who operate the creameries and the big milk plants and dairies, think of the De Laval is best evidenced by the fact that 98% of the cream separators in use in such plants the world over are of De Laval make.

De Laval Produced Cream Makes the Best Butter

Since 1892 the National Buttermakers' Association has held butter-scoring contests each year in connection with its Annual Convention, and at every such Convention butter made from cream separated by a De Laval Separator has scored highest. This is a 100% record for the De Laval. No room for chance there. Only unusual merit made such a record possible.

Proof of the superiority of De Laval Separators and of De Laval produced cream has been piled up and multiplied so many times that it is no longer questioned. It is an accepted fact.

If you are without a cream separator, or in need of a better one, let the De Laval start winning a bigger cream profit for you NOW.



A PRIZE WINNING PRODUCT

See your De Laval agent immediately, or if you don't know him, address the nearest De Laval main office as below for any desired particulars.

The De Laval Separator Company

165 Broadway *New York*
29 E. Madison St. *Chicago*

The National Dairy Show

Columbus, Ohio, Oct. 10th-19th

Is the biggest event of the year in the Dairy Industry.

A full line of De Laval Separator, Milk Clarifiers, Whey Separators and Emulsors will be shown.

Come to Columbus
De Laval Bids You Welcome

The Indiana State Fair

C. R. GEORGE, INDIANA

THE 1918 Indiana State Fair was distinctly a fair for Hoosier farmers. More so than ever before the real farmer breeders of the state brought the best of their production to the fair and to be "Hoosier Made" have an added prestige to any exhibit. This new trend of things more than pleased the "men at the barns". They not only liked the idea of "an Indiana fair for Indiana farmers" but they appreciated the opportunity to meet their fellow breeders, to see their herds, and to match the good things of their own breeding against those resulting from the other fellow's skill and judgment. And when the Hoosier farmers came in to visit the fair during the week they took the idea. Many complimentary remarks about the county breeders' exhibits to be seen in the horse, cattle, and hog barns and about the large number of state breeders in contrast to previous years, when the "rich men's herds" from other states had dominated the barns and the show ring, could be overheard whenever one chanced upon a group of farmers who could appreciate the significance of these changes in the character of the exhibits.

"True it is", said one man in discussing this situation, "that the exhibits are not as uniformly good and high in quality this year as on some previous occasions when the ponderous drafters from France and Belgium and England reigned supreme in the horse barns and when the herds owned by wealthy "agriculturists" who could buy up the best show animals in the country and blend them into a show herd, were the chief places of attraction in the cattle, sheep, and hog barns". "But," continued this man, "the breeder who showed his stock for the first time this year has learned a big lesson about selecting his animals and selecting those of uniform type to make up the best herds and this same man will come back next year with a well fitted herd that will be a real credit to his name and to the quality of the herd that he has developed."

Interest in Labor Saving Machinery

One very hopeful observation, in view of the labor situation which our farmers must face next year, was the great interest taken in any exhibit which featured labor saving devices. The milking machine, the tractor, and other farm equipments that will reduce the man labor requirements could always be found in the center of a crowd of interested farmers and their wives and they were there not in curiosity as so often happened in previous years but to learn of and see the "pros and cons" of the different makes in order that they might buy more intelligently these implements that must quite largely take the place of the "Hired Man" and the "Boy".

Purdue Exhibit

The agricultural exhibits from Purdue University, which are prepared by the various divisions of the Agricultural Extension Department and staged in the Purdue building, had an increased significance this year in view of the wartime demand for increased production. The crops man featured an appeal for the increased wheat acreage that we must sow. He connected our stocks of wheat with the dreams of our soldier boys in France by means of a huge rainbow. Truly this is the "Pot of Gold" of which they dream and we must work and plan that this as well as other of their dreams may come true. The beef man featured the results of feeding experiments at Purdue to show how more beef can be produced with less feed, and the poultry man applied the "work or fight" ruling to poultrydom by featuring the need of culling out the non-producing hens from Indiana flocks. In this way each department told its story in such a way that the passerby could not but get the idea. And when he stepped into the room devoted to dairying it was all "bull". "Buy better bulls to increase the production of our dairy herds" first greeted their eyes and furnished the theme of this year's dairy exhibit. There they were—four bulls—two from Henry County Jersey Bull Association and two from the Fountain County Guernsey Bull Association to illustrate the principle and the practicability of the "bull association" idea. It was explained that the four bulls purchased by the Henry County Association were paid for by an assessment of $4.25 per cow which is certainly an economical way to provide for bull service when it is considered that these bulls are all out of high producing cows—over 500 lbs. of butterfat—and that barring accident they can be used for six or eight years.

In a similar way it was shown that the four good bulls in Fountain County had replaced 10 inferior bulls that were in service before the association was organized. The detailed pedigree of one of these bulls, Fontaine's Tormentor, showing the large production records of his ancestors, was worked out on a large scale. Nearby the production of his dam was compared with the production of the average dairy cow in Indiana. This was featured with tubs of butter and certainly the contrast was great enough to convince the most skeptical that a bull out of such a cow would be a powerful influence for the increased production of our dairy herds.

Dairy Products Exhibit

The dairy products exhibits at this year's fair were the best that have been held in the state for many years. The State Dairy Association interested the producers of milk and cream to exhibit in these classes and the State Buttermakers' Association got behind the butter exhibit and added special premiums in the form of an Indiana Buttermakers' Special. As a result the number of entries was good and the quality of the products was much above normal in all classes. The awards in the milk, cream, and butter classes were as follows:

Market milk, unpasteurized, exhibited by producer—1, P. H. Crane & Bro.; 2, C. A. Richards; 3, Mrs. J.

(Continued on page 322)



BEECHER WYTHE 2ND, GRAND CHAMPION HOLSTEIN COW AT THE INDIANA STATE FAIR

She is 14 years old, is the original foundation cow of Mr. Seberger's herd, has given birth to 12 heifer calves, and has produced approximately 90 tons of milk. She was formerly champion production cow of the state and is the dam of a state champion.
OWNED BY M. J. SEBERGER, INDIANA



UDDER OF BEECHER WYTHE 2ND, GRAND CHAMPION HOLSTEIN COW AT THE INDIANA STATE FAIR

At 14 years she is remarkable in her udder capacity, the unusual fore attachment, and the splendid balance.



THORNBURY'S PETER THE GREAT, JUNIOR CHAMPION JERSEY BULL AT THE ILLINOIS STATE FAIR AND GRAND CHAMPION AT INDIANA STATE FAIR
OWNED BY W. A. BREWERTON, ILLINOIS



HUGO'S ROSETTE, GRAND CHAMPION JERSEY COW AT THE INDIANA STATE FAIR
OWNED BY A. L. WHEELER & SON, INDIANA

The New York State Fair

H. H. LYON, NEW YORK

NEW YORK is called the Empire State, and in many respects deserves the title. For eight or ten years the New York State Fair has grown in importance and attractiveness. New buildings are erected each year and of a permanent character. Daily addresses are now a feature of the fair, besides many educational lectures. This year war interests took over a substantial portion of the preparations, and it was expected that the war would tend to diminish attendance. Possibly it did, but the attendance this year surpassed early in the week that of a year ago. Bad weather cut attendance later. Secretary McAdoo's train passed the grounds on the first day and was halted for the secretary to look out upon the fair grounds and receive the welcome of those present. It was at this time that the soldiers' and sailors' memorial arch was dedicated with several companies of soldiers present, and with Frederick P. Keppel, assistant secretary of war, as chief speaker.

Prominent Visitors

The fair was attended by notables, among these being Governor Whitman, who has been re-nominated, and by his opponent, Mr. Smith, both being from New York City, and very amateur in farm understanding. John Mitchell, State Food Commissioner, paid his respects to the fair and, in spite of illness, gave a short address. He urged conservation of food. Mr. Mitchell, although originally a coal miner, has won the respect of farmers, and, as a labor organizer, he urges organization and co-operation among farmers. He predicts that the strife between labor and capital will be seen to pass into oblivion. The object is now to produce as much as possible in all lines, to assist in bringing the war to a successful close.

The Dairy Building

New management was found necessary in the dairy building this year as the veteran overseer, George A. Smith, could not serve. George Hoague, now of the Department of Farms and Markets, took it over with several of the former assistants. A somewhat new feature was the manufacture and sale of products. Butter, cottage cheese, and ice cream were made and sold. Some 5,000 10-cent dishes of ice cream of superior quality were made and sold long before the fair closed, and the amount might have been doubled had there been help to handle it. A person sees the product made, then wants some of it. Prime goods of this sort help to advertise, and that is what is needed. Whey punch from the whey of the cheese was also made and sold and created interest.

In another booth Professor Way and his workers were engaged in demonstrating various tests. The apparatus has been displayed before but here we had the things in operation. The Babcock test, the moisture test for butter and cheese, and the salt test to determine the quantity of salt in butter were in operation, enlisting much attention. In addition the new Mojonnier tester for determining fat percentages was employed. This is a rapid method for more accurate work. The outfit costs about a thousand dollars, and its operation requires a special man at around ninety dollars a month, but in some of the large condensing and evaporating establishments and ice cream factories it is found very profitable to install the outfit on account of its accuracy and rapid work. Several moving and advertising machines were at work, and one legend I will quote: "The farmer who is using oleomargarine is greasing his path to the poorhouse."

Conferences Held

A number of conferences were held during the week of the fair. One of these was between representatives of the State Food Commission and some sixty feed manufacturers of the country. The State Department of Farms and Markets, the Dairymen's League, and several organizations sent representatives. It is said, just as farmers have been contending for a long time, that many inferior substances are substituted for sound grains in the feeds put upon the market. The commission objects to this, at least, unless the tag announces the ingredients used. The feed men insisted that they would be driven off the market if this rule is enforced. It would seem to a farmer that they ought to be if their mixtures will not stand this test. As Dr. Porter remarked, there ought to be co-operation in these war times between the feed dealers and manufacturers and the farmers of the state



MACEY'S GOLDSEEKER OF A. D. F., GRANDCHAMPION GUERNSEY BULL AT THE NEW YORK STATE FAIR
OWNED BY BORDEN'S FARM PRODUCTS CO., NEW YORK



WEATHERCUP'S GOLDEN LAD, GRAND CHAMPION JERSEY BULL AT THE NEW YORK STATE FAIR
OWNED BY C. I. HUDSON, NEW YORK

The Food Commission placed on exhibition samples of materials from which feeds are manufactured. In one glass case were clean materials such as gluten, hominy, oil meal, cottonseed meal, and several feeds, all free from hulls and other objectionable materials. In other cases were placed the materials of which other feeds are compounded, or "compounded feeds" as Dr. Jordan calls them sometimes. These were samples of buckwheat shucks, peanut hulls, cocoanut shells, oat clippings, mill sweepings, oat straw, and a sort of earth labeled humus. This is a remarkable showing, and something of the sort ought to be shown at League meetings and all gatherings of dairy farmers throughout the state. Many of these feeds are abominable. Dr. Porter said to the writer that as a director in the Federal Administration, a member in the Food Commission and commissioner in the State Department of Farms and Markets, he proposes to do all he can to put a stop to the sale of such feeds in the state

Milking Machines

Milking machines are more and more in evidence year by year, and each time there is an exhibition new makes put in an appearance. These days of labor shortage increase the demand for them. It is not surprising therefore that the state experiment station is devoting considerable time to the handling of these machines. Dr. Breed, chief bacteriologist at the station, tells me that city boards of health are rather inclined to discourage the machines. This is because health boards are making bacterial tests and they frequently find higher tests



BOGSIDE SPOTTIE 2D, GRAND CHAMPION AYRSHIRE COW AT THE NEW YORK STATE FAIR
OWNED BY IROQUOIS FARM, NEW YORK



WHITE TRAVELLER OF VILLAGE FARM, GRAND CHAMPION AYRSHIRE BULL AT THE NEW YORK STATE FAIR
OWNED BY KENT BARNEY, NEW YORK

where machines are used. The station has made efforts to ascertain the cause of this, and there seems to be reason for the opinion that higher tests go with careless handling, and that careful, intelligent work with the machine usually obviates this difficulty. Various methods of disinfection have been studied. Chloride of lime disinfects in some ways but after a while it is found that bacteria have entered the rubber tubing and made trouble. This alone is insufficient.

In making inspections it is found that many farmers are immersing the tubes and cups in a receptable where there is running water and with excellent results in some cases. Further investigation shows that this method is efficient only so long as the temperature remains below 60°. Salt brine cleans up the bacteria admirably, and might be of itself sufficient, but health boards seem concerned with numbers of bacteria rather than with kinds. There is a salt bacterium which does not affect milk, but does affect the count, and therefore the brine method alone hardly suffices. The addition of a little chloride of lime appears to destroy the brine bacteria with the result that tubes in the mixture remain sterile.

Big Cheese Exhibit

A state fair here would seem incomplete if there were not the "big cheese" somewhere about, made by H. A. Reese of Lowville. He has been on this job so long, has added equipment year by year until he is prepared at the West Martinsburg creamery for any sort of a stunt in the big cheese line. Not only does Mr. Reese make big cheese but he makes good ones. This fact is attested by the marvelously quick sale of the 6,500-pounder at thirty-five cents a "shy" pound. Nor is this all, for the first five pounds went higher. Lieutenant Governor Schoeneck cut out the first specimen of five pounds and Mr. Soule of Syracuse gingerly carried it off leaving a thousand dollars for it, the money to go to the Red Cross fund. This performance created a lot of enthusiasm and was witnessed by a dense crowd.

Farm Bureau Exhibits

The farm bureaus of the state are many and efficient. For some three years they have presented exhibits, the first year there being but three contesting if I remember correctly. The interest shown has been so great that this year ten prizes were offered. Ontario County took first; Cayuga, second; Madison, third. Then came Wayne, Warsaw, Columbia, Suffolk, Delaware, and Monroe. In several instances, counties are devoted to dairying almost exclusively and these exhibits were in the cattle building. Six counties were thus represented. Here Onondaga County took first on Holsteins, Rensselaer had first on Guernseys, Green came out first with Jerseys, and Otsego with Ayrshires. Two counties only were entitled to compete for the farm bureau sweepstakes on cattle, as these were all that presented three breeds, and here Otsego won the two-hundred-dollar prize. The other prizes were a hundred dollars each.

The department of farm mechanics at the college presented a model miniature ditching machine which was kept in operation by electricity, working in a sandy soil on a table. The best way to provide outlets for drains was also shown with streams of water flowing from them. The idea is first to provide sufficient fall beyond the outlet to present obstruction, and wire screens of wide mesh to prevent entrance of rodents, etc.

One booth was devoted to the production of home grown dairy feeds in New York. Sweet clover received a little attention, but alfalfa was emphasized mostly, and strong emphasis placed on hardy seed. Inoculation is regarded as very important, and the use of lime practically indispensable. In different sections of the state different amounts are advocated, but for the most part heavy applications are desirable, one to two tons, except for a small strip across the state. This was all shown on a map placed above the cards containing recommendations.

New York has given considerable attention to the draft horses for a few years. We purchase vast numbers of these animals from western farmers every year. Efforts have been made to promote draft horse breeding, and the state fair has had a very considerable share in encouraging this industry. The result is that quite a proportion of the draft horse exhibits were this year from this state. Percherons and Suffolks were quite in evidence. The George Urban Milling Company of Buffalo took several prizes, and G. E. Pretteplace of Norwich four-horse team prizes for the less than 6,000-lb. class, with his Suffolks. This size is regarded with favor by interior farmers of the state.

The Cattle Show

D. W. McLauray has been superintendent of the cattle exhibit for several years and he calls this year's exhibition of cattle the largest and best yet held. Practically 900 head of cattle were stalled in the fine and substantial cattle building, some 525 of these being dairy animals. While New York had a lesser area than some of her western competitors, and her farm lands are in many cases offered at ridiculously low prizes considering their productive value, her dairy herds are said to be producing milk to the extent, at farm valuation, of $150,000,000. She is still a great dairy state and her dairy industry naturally was well represented at the fair.

There were about two hundred exhibits of beef cattle. The dairyman is not supposed to linger long with these, but I must say that some of them are attractive. The Shorthorn breed had quite a number of attractions, and there are several pleasant things to say for the milking strain of this breed, even for an occasional farmer in New York State. In this connection I will mention the Brown Swiss, a good dairy animal, and represented by only two herds, there being forty-eight animals shown. These were by Forest Farms of Rochester and Hull Bros. of Ohio. They were the nicest lot yet of the Brown Swiss family that has come to the fair.

Ayrshires were in large numbers, with New York cattle such as those belonging to Kent Barney and Iroquois Farms in fine display. The former secured the champion and grand champion prizes. Among Jersey herds were those of C. I. Hudson and Ogden Mills. L. D. Cowden of Fredonia, as well as several others, had some fine show animals. Guernseys were there to the extent of 138, and A. G. Buckley of Valley Falls and Borden Farms of Richfield Springs had especially valuable animals. The latter got the champion and grand champion prizes.

E. A. Powell sent forty head out of the 178 Holsteins on exhibition. His Annie DeKol Butter Girl, now 13 years old, was placed as the first Advanced Registry cow in New York State. C. L. Amos came within one point with Glista Erica, a 26-pound junior four-year-old. Haeger of Illinois took champion and grand champion.

The U. S. Official Bulletin

Owing to the enormous increase of government war work, the governmental departments at Washington are being flooded with letters of inquiry on every conceivable subject concerning the war, and it has been found a physical impossibility for the clerks, though they number an army in themselves now, to give many of these letters proper attention and reply. There is published daily at Washington, under authority of and by direction of the President, a government newspaper—The Official U. S. Bulletin. This paper prints every day all the more important rulings, decisions, regulations, proclamations, orders, etc., as they are promulgated, by the several departments and the many special committees and agencies now in operation at the National Capital.

This official journal is posted daily in every post office in the United States, more than 56,000 in number, and may also be found on file at all libraries, boards, and chambers of commerce, the offices of mayors, governors, and other officials. By consulting these files most questions will be found readily answered; there will be little necessity for letter writing; the unnecessary congestion of the mails will be appreciably relieved; the railroads will be called upon to move fewer correspondence sacks; and the mass of business that is piling up in the government departments will be eased considerably. Hundreds of clerks, now answering correspondence, will be enabled to give their time to essentially important work, and a fundamentally patriotic service will have been performed by the public.—E. S. ROBERTS, Editor "The Official Bulletin".

COUNTY EXHIBITS OF HOLSTEINS AT NEW YORK STATE FAIR



ONONDAGA COUNTY



STEUBEN COUNTY

A feature of the New York State Fair cattle exhibit is the large number brought out by counties in competition for liberal prizes. Classes are offered for the best exhibits within a breed and a sweepstakes award of $200 is given for the county excelling in an exhibit in which three breeds must be represented. Onondaga County's Holsteins were placed first this year over those of other counties, winning the award of $100. Renssalaer County won first prize on Guernseys, Green County on Jerseys, and Otsego County on Ayrshires. In the sweepstakes class, however, only two counties were eligible since no others were represented by as many as three breeds. Otsego won the $200 prize.



MADISON COUNTY



CHENANGO COUNTY



Modernize Your Dairy

with the

Burrell (B-L-K) Milker

These four features found on no other milking machine make the Burrell the most efficient and most profitable machine on the market.

1. Automatic Controller—This device insures natural and thorough milking. It regulates automatically and provides just the right amount of suction at all times for each individual cow—less force for the easy milking cow and more for the hard milker.
2. Universal Single Compartment Cup—Only one size required for ordinary herds. No rubber lining to contaminate the milk; nothing expensive to wear out. Extremely simple.
3. Positive Suction Trap—A combination of check valve and trap between the milker pail and stanchion line. Absolutely prevents any dirty liquid leaking back into the pail. Reduces the bacteria count.
4. Partition Pail—This feature of our two-cow milker keeps the milk from each cow in a separate section. The only way to keep individual milk records without it is by using single pails, which is both expensive and inconvenient.

Write for our pamphlets, which, describe these modern features fully, and show why great saving results from the use of the Burrell Milker.

D. H. BURRELL & CO.,
501 Albany St., Little Falls, N. Y.

Makers also of "Simplex" Cream Separators and other "Simplex" Specialties—The Best in the World.



Be comfortable

THE nation promotes the comfort of the man who works that he may do more work. Are you so living that you can work and produce as never before?

Do you need a more modern home—a new one or the old remodeled?

Curtis Service and CURTIS Woodwork can help you.

We will send you—free—a book of home plans. Just let us know whether you are interested in houses costing more or less than $3000.

Then go to a lumber dealer selling CURTIS Woodwork. See some of it and look through the big catalog containing every design. Select the woodwork you want—for building or remodeling—from the standard designs shown in that catalog.

Then see to it that the woodwork you get carries this mark—CURTIS. There is no way to get as quick service in woodwork of equal quality for the same money.

The Curtis Companies, Service Bureau
1904-2004 S. Second Street, Clinton, Iowa

The makers of Curtis Woodwork guarantee complete satisfaction to its users. "We're not satisfied unless you are"

Save Fuel!

Fit your home with CURTIS Storm Doors and Sash. They will save fuel for the nation and money for you. Any Curtis dealer will gladly quote you prices.

1866
CURTIS
WOODWORK
"The Permanent Furniture for Your Home"

Doors	Bookcases
Windows	Mantels
Window and Door Frames	Window Seats
Storm Doors and Windows	Wall Panels
Screen Doors and Windows	Ceiling Beams
Stairways	Mouldings
Newels	Porch Columns
Sideboards	Porch Rail
Colonnades	Porch Balusters
	Everything in Woodwork

Every piece of woodwork you buy should carry this mark—CURTIS

The Indiana State Fair.

(Continued from page 319)

M. Smock; 4, Gleason. Market cream, unpasteurized, exhibited by producer—1, P. H. Crane & Bro.; 2, Mrs. J. M. Smock; 3, Gleason. Creamery butter—1, Schlosser Bros., Plymouth; 2, Schlosser Bros., Frankfort; 3, Fox River Butter Co., Muncie; 4, Schlosler Bros., Bremen; 5, Warren Creamery Co., Warren.

Exhibits of Dairy Cattle

The exhibit of dairy cattle at this year's fair was above normal in size and in the interest which it created on the part of both exhibitors and visitors. This new interest was largely brought about by a concerted effort on the part of the exhibitors and representatives of the State Dairy Association. Last year there were but very few Indiana bred cattle in the show and the movement to change these conditions was started at that time. A committee was appointed which met with the State Board of Agriculture and worked out a plan of action. A special futurity show for four classes of young stock in each of the Jersey, Guernsey, and Holstein breeds was arranged for and the state breed associations took up the problem of interesting their breeders. It was slow work because showing was new to most of our best breeders and the labor situation made it very difficult to interest them.

But the results of this first year's efforts were more than encouraging. Nine state breeders contested for the futurity ribbons in the Holstein breed and in one of the classes fifteen calves were lined up before the judge. The futurity show in the Guernsey and Jersey breeds was not so strong, the Guernseys being represented by five breeders and the Jerseys with three breeders. However, every breeder who did show was convinced that a strong show by state breeders was what we ought to have and they went back with the determination to interest others and come out strong next year. Each of these futurity shows included four classes, senior calves and junior yearlings, both bulls and heifers. Competition was limited to Indiana breeders and all entries had to be dropped the property of the exhibitors. This year's experience has shown that the junior yearling bull class is not a good one as too many breeders have their bulls sold before they reach that age. Some changes in the classification should be made before next year but the plan is a good one and it should live on.

The awards in the different breeds and classes were as follows:

Holsteins

Exhibitors: S. P. Scherer, C. M. Bottema, Morgan Brothers, Frances Bushore, Chas. Ohlfest, Arthur Hanrahan, M. J. Seberger, Michael Seberger, Sam Woods.

Judge: Professor C. S. Plumb, Ohio.

The showing of black and white cattle was distinctly an Indiana show as all of the nine exhibitors were Indiana breeders. The most interesting feature of the show was the two county exhibits from Lake and Porter counties. Each county sent a carload of their best cattle selected from different herds. It was their initial experience in the show ring and they lacked the finish of well fitted animals. However, the fact that each county carried off one of the grand champion awards as well as many other good premiums speaks for the quality and breeding of their cattle.

The outstanding animal of the show was the grand champion cow, Beecher Wythe 2, owned by M. J. Seberger of Lake County. She is now 14 years old and still a wonderful show cow. She was Mr. Seberger's original foundation cow and during her lifetime has produced 12 heifer calves and approximately 90 tons of milk. A few years ago she held the state champion record for yearly production over all breeds and two of her daughters have broken state records, one of them exceeding the yearly record of the old cow with 24,233.2 lbs. milk and 789.4 lbs. fat.



PINECREST KING FRANCE, GRAND CHAMPION GUERNSEY BULL AT THE ILLINOIS AND INDIANA STATE FAIRS
OWNED BY O. W. LEHMANN, ILLINOIS

The junior and grand champion bull, King Korndyke Isabelle Veeman, is the herd sire from the Morgan Bros.' herd in Porter County. He is an outstanding son of King Korndyke Sadie Vale.

The most interesting class in the entire show was a line-up of fifteen senior heifer calves. They were all bred in Indiana and consequently competed for ribbons in both the open and futurity classes.

The awards in the various classes were as follows:

Bull, three years and over—1, Bottema, on It Mona Pontiac. Bull, 2 years and under 3—1, Morgan on King Korndyke Isabelle Veeman; 2, Bushore on Una Land Korndyke Hengerveld. Senior Bull Calf—1, Scherer on Hoosier Pontiac Gerben; 2, Woods on Wood's May Colantha King Korndyke; 3, Bushore, on Unaland Prince Artis Burke; 4, Morgan on Indiana Peter Alcartra Burke. Junior Bull Calf—1, Bottema on Zelden Rust Zur Pontiac; 2, Scherer on Hoosier

King Segis Pontiac; 3, Michael Seberger on King Colantha Lyons Beryl.

Cow 4 years or over—1, M. J. Seberger on Beecher Wythe 2nd; 2, Morgan on Gold Coin Johanna 2; 3, Scherer on Friend Ivy Aaggie DeKol 3rd; 4, Bottema on Monk Fayne DeKol Ramona Thorne. Cow 3 years and under 4—1, Scherer on Hoosier Beauty Pontiac Korndyke; 2, Scherer on Korndyke Excellence; 3, Ramona Thorne. Cow 3 years and under 4—Heifer 2 years and under three—1, Scherer on Zeldenrust Segis; 2, Scherer on Jeek Queen DeKol May; 3, Bottema on Arbor Lawn Albina Daisy. Senior Yearling Heifer—1, Scherer on Zendenrust Soldene; 2, Hanrahan on Pearl Cornucopia DeKol Lass. Junior yearling heifer—1, Scherer on Hoosier Weitske Pontiac; 2, Scherer on Hoosier Pontiac Sadie; 3, Bottema on Zeldenrust Johanna Segis; 4, Bottema on Zendenrust Grace Segis. Senior Heifer Calf—1, Bottema on Segis Pontiac Calamity; 2, Woods on Wood's King Korndyke Ungulesche; 3, Scherer on Hoosier Roberta Korndyke; 4, Scherer on Hoosier Segis Weitske. Junior heifer calf—1, Bottema on Zeldenrust Princess Segis 2nd; 2, Ohlfest on Cloverleaf Priam DeKol; 3, Scherer on Hoosier DeKol Pontiac; 4, Morgan on Indiana Kate Alcartra Pietertje.

Get of Sire—1 and 2, Scherer; 3, Bottema; 4 Michael Seberger. Produce of cow—1, Scherer on Hoosier Segis Weitske. Junior heifma. Breeder's young herd—1, Bottema; 2, Scherer; 3, Morgan. Breeder's calf herd—1, Bushore; 2, Scherer; 3, Bottema.

Junior and grand champion bull—King Korndyke Isabelle Veeman. Junior champion heifer—Zeldenrust Soldene. Senior and grand champion cow—Beecher Wythe 2nd.

Guernseys

Exhibitors: Robert C. McNagny; P. H. Crane & Bro.; Mervin Eby; O. H. Mills; and L. A. Wood, all of Indiana; O. W. Lehmann, Illinois; Goodhand Kingston & Son, Wisconsin.

Judge: Chas. L. Hill, Wisconsin.

Two herds from outside the state together with representatives from five Indiana herds that were brought in for the futurity show made up the Guernsey show. The five state breeders brought out only eight entries but they won consistently throughout the show. The yearling bull, Hambro, of Lookwell Guernsey Farm, shown by Mervin Eby, won his way to junior championship in the open classes. He is a young bull of great style and finish and is out of the state champion two-year-old Guernsey cow. Another outstanding animal was the junior yearling heifer, Colleen of Killarney Farms, shown by Robert McNagny. She was an easy winner in her class and a strong contender for the junior championship ribbon.

Competition between the herds of Lehmann and Kingston was about evenly divided until it came to the championships when Lehmann forged ahead with his outstanding bull, Pinecrest King France, and his aged cow, Rag Apple, and captured the two grand championships. Considerable interest was manifested in the placing of Lehmann's aged cow, Rag Apple, over Kingston's Imp. Princess Du Braye 2nd. These two cows had been shown together at the Illinois State Fair and Rag Apple was placed down because of her fleshiness and the fact that she was far advanced in lactation. However, Judge Hill preferred this showy cow with extra good lines and a good head to the imported cow with her weaker top line and shallower barrel.

The list of awards were as follows:

Bull, 3 years or over—1, Lehmann on Pinecrest King France; 2, Kingston on Moss Raider of Muskego. Bull 2 years and under 3—1, Kingston on Hopeful of Edgemoor. Bull 1 year and under 2—1, Eby on Hambro of Lookwell Guernsey Farm; 2, Lehmann on Mixter Penrod of Bon Ayre; 3, Crane on Lady Grace's Woodland Boy. Senior Bull Calf—1, Kingston on King Elder Lawn; 2, Kingston on Muskego Princeling; 3, Crane on Rex of Crane Farm; 4, Mills on Woodlawn's Zimeri. Junior Bull Calf—1, Kingston on Muskego Stars and Stripes; 2, Lehmann on King of Chesney Farms; 3, Kingston on Muskego Moss Raider.

Cow, 4 years or over—1, Lehmann on Rag Apple; 2, Kingston on Imp. Princess DuBraye 2nd; 3, Lehmann on Gold Speck. Cow 3 years and under 4—1, Lehmann on Raymond Princess; 2, Kingston on Chywoone Lassie of M. L. Heifer 2 years and under 3—1, Kingston on Trislette's A of Sunny Slope; 2, Lehmann on Lilly Bell of Chesney Farms. Senior Yearling Heifer—1, Kingston on Raider's Minnie of Muskego; 2, Lehmann on Lilla of Chesney Farms. Junior Yearling Heifer—1, McNagny on Colleen on Killarney Farms; 2, Kingston on Queen of Waukesha Stock Farm; 3, Lehmann on Speck of Chesney Farms. Senior Heifer Calf—1, Kingston on Tristan's Golden Glory; 2, Kingston on Muskego Hope; 3, Lehmann on Top of Chesney Farms; 4, Lehmann on French Maid. Junior Heifer Calf—1 and 2, Lehmann on Faith of Chesney Farms and Pride of Chesney Farms. Get of Sire—1, Lehmann on Get of Pinecrest Kings France; 2, Kingston. Produce of Cow—1, Kingston. Graded herd—1, Lehmann; 2, Kingston. Breeder's young herd—1, Kingston; 2, Lehmann. Breeder's calf herd—1, Lehmann.

Senior and grand champion bull—Pinecrest King France. Junior champion bull—Hambro of Lookwell Guernsey Farm.

Senior and grand champion cow—Rag Apple. Junior champion heifer—Tristan's Golden Glory.

Jerseys

Exhibitors: A. L. Wheeler & Son, Edward E. Zike, and H. O. Shaw, all of Indiana; J. K. Dering, W. J. O'Hair & Sons, W. A. Brewerton, all of Illinois; and Henry County Jersey Bull Association, Indiana.

Judge: M. D. Munn, Minnesota.

Again the Jerseys led the other dairy breeds in the number of cattle exhibited but the margin over the Holsteins in this year's show was by no means as large as in former years. Three herds from outside the state competed with the herds of Wheeler, Shaw, and Zike and two entries from the Henry County Jersey Bull Association. The Wheeler herd was out for the first time in a number of years and that they have been doing some good consistent breeding during this time is shown by their many winnings in such strong competition. Their senior and grand champion cow, Hugo's Rosette, was an outstanding cow. Her large size and straight lines combined with plenty of refinement and quality and a strong mammary development made her a ringside favorite although Judge Munn found it difficult to decide between her and Dering's Yolande's Fairy.

Shaw was out again this year with another strong herd. His yearling bull, Belle's Togo's Lad, was an easy winner in his class and a strong contender for the junior championship. He is a bull of wonderful style and finish but lost the championship because of being a little slack in the middle. Another exceptionally strong entry from the Shaw herd was the senior heifer, Premier's Star Beauty. She was a ringside favorite from the beginning and when she was placed second to Eulinda of Cedar Crest it brought many protests from among the Jersey men present. Judge Munn criticized her for being a bit slack in the spring of her ribs but many felt that her better udder development was more important than this slight deficiency in spring of ribs.

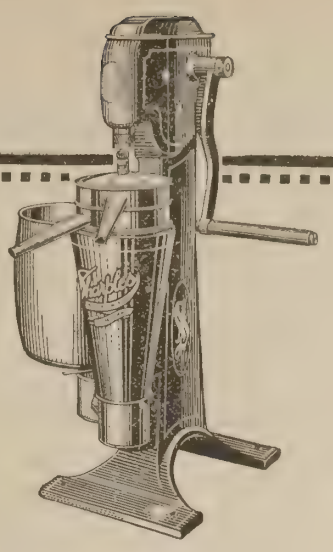
Dering was the strong winner from the herds outside the state especially in the female classes and the groups. He captured ten of the seventeen first prize ribbons and one championship.

The list of awards are as follows:

Bull 3 years or over—1, Zike on King Melia Ann's Jolly Boy; 2, Wheeler on Eminent's Attorney; 3, Brewerton on Raleigh's Acland; 4, O'Hair on Rosebud's Champion Lad. Bull 2 years and under 3—1, O'Hair on Sophie 19th's Tormentor 5th. Bull 1 year and under 2—1, Shaw on Belle's Togo's Lad; 2, Brewerton on Legacy's Jolly; 3, Brewerton on Jap's Interested Boy; 4, Dering on Roses Big Chief. Senior bull calf—1, Brewerton on Peter the Great; 2, Zike on Kink of Jolly Boy; 3, O'Hair on Sophie's Rosebud's Tormentor; 4, Brewerton on Rubaiyat Raleigh. Junior bull calf—1, Wheeler on Rosabel's Golden Eminent; 2, Dering on Cedar Crest Jolly Tar; 3, Shaw on Prince Premier Lad; 4, O'Hair on Sophie's Domino Tormentor.

Cow 4 years or over—1, Wheeler on Hugo's Rosette; 2 and 3, Dering on Yolande's Fairy and Fairy Boy's Ulanda; 4, Brewerton on Mauser's April Flower. Cow 3 years and under 4—1, Dering on Fairy Boy's Violette; 2, O'Hair; 3, Brewerton on Pennithorpe Thornbury. Heifer 2 years and under 3—1, Dering on Eagle Chief's Fairy; 2, Wheeler on Mapleshade Moselle; 3, Brewerton on Cowslip's Gentle Sultana; 4, O'Hair on Guenon's Fern Rosebud. Senior yearling heifer—1, Dering on Eagle's Chief's Eulinda; 2, Shaw on Leader's Silver Jewel; 3, O'Hair on Rosebud Rose; 4, Brewerton on Etta Brookhill. Junior yearling heifer—1 and 2, Dering on Eagle Chief's Christina and Eagle Chief's Yolande; 3, Wheeler on Attorney's Aster; 4, Wheeler on Attorney's Arabis. Senior heifer calf—1, Dering on Eulinda of Cedar Crest; 2, Shaw on Premier's

(Continued on page 342)



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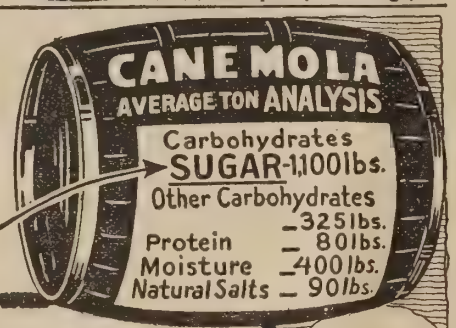
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Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Wis.	Sheboygan Falls	E. P. Lindow	Aug.	424	6	50	A. Arnold
Tenn.	Rutherford Co.	E. M. Prewitt	"	310	7	50	A. L. Jones
Wash.	Whitman—Spokane	R. C. Johnson	"	264	31	72	T. S. Griffith
Va.	Orange Co.	R. S. Gillispie	"	360	35	78	F. S. Walker
Wis.	Hebron	F. J. Molzahn	"	378		35	S. B. Simons

Association Notes

Rutherford County, Tennessee:—One of our members plans to improve his barn, another will erect a new silo, and a third is taking up Register of Merit testing. Production has increased from one to ten pounds to a cow in eleven herds. The creamery buys cottonseed meal co-operatively. Fifty-three cents was paid for fat in August. We are securing feeds at the following prices: Cottonseed meal, $58 per ton; bran, $38; alfalfa, $25; silage, $4; shorts, $39; and corn and cob meal, $1.40 per bushel.

Sheboygan Falls, Wisconsin:—Three unprofitable cows have been sold and one pure-bred bought. Twenty-two members are using pure-bred sires. All have silos and several have two. Those who have fed silage during the summer kept the milk flow of their herds up better and at a much lower cost than those who did not have silage. The cheese factory pays from $2.11 to $2.23 per hundred pounds for milk. Butter retails for 55c and cheese 32c. Feeds cost as follows: barley, 98c per bushel; gluten, $47 per ton; Big Q, $46; oil meal, $60; oats, $45; and alfalfa hay, $33. Pasture is very poor.

Whitman—Spokane— August milk sold here for $3.12 per hundred pounds, a test of 3.6 per cent being required. The creamery paid 52c per pound for fat, and retailed butter for 55c to 60c. Milk retails for 15c. Feeds are priced here as follows: Corn, $76 per ton; oats, $70; bran, $30; oil meal, $70; alfalfa, $32; and albers, $41.

Orange County, Virginia:—Milk is marketed from our association largely on a gallon basis, the August price being 35c per gallon, a test of 3.5 per cent being required. The creamery paid 82c per pound fat.

Fergus Falls, Minnesota:—Herman Telkamp owned the highest producing cow in the association, one which made 58.8 pounds of fat for the month. Two herds averaged above 25 pounds of butterfat. They were owned by M. C. Kronemann; his nine cows averaged 944 pounds milk, 39.8 pounds fat and that owned by Wm. Right, with ten cows averaging 987 pounds milk, and 34.1 pounds fat.

Walla Walla, Wash:—The large number of dry cows (61) for the month of August, is due to the fact that a great many dairymen have managed their cows so as to have them fresh in the fall of the year.

With hay at $22 a ton in the stack, and mill feed at $32 a ton, the dairyman that does not test his cows is in danger of paying the cow's board rather than having the cow pay her way. During the first of the week Mr. W. E. Gross sold at auction some of his old cows. Seventy-two head were sold averaging $112 each. Prior to the sale of each animal her cow testing association record was read which gave the buyer an idea of what he was spending his money for. Mr. Gross will be back in the association as soon as his young animals start to freshen. Mr. Gross' idea of the cow testing association records as a sale value were expressed in these words: "The cow testing association records helped the sale of my herd more than any other thing."

Dairymen's League Directors Hold Important Meeting

The Dairymen's League Directors' meeting in Syracuse, September 12th and 13th, passed several resolutions of the greatest importance to everyone connected with the dairy business.

The most important act of the directors was the adoption of the Warren formula for finding cost of production of milk. This method of determining costs already has the approval of the United States Food Administration. Space will not permit anything but a brief explanation of this formula here. The principle of the formula is that on the average it takes the following factors to produce a hundred pounds of milk testing 3.8%: 33.9 lbs. of grain, 43.3 lbs. of hay, 10.8 lbs. of other dry forage, 102.5 lbs. of silage and other succulent feed, 3.02 hours of labor and 25% of the cost of the above factors for miscellaneous factors such as pasture, depreciation, etc.

If the market values of each of the above factors are obtained, the sum will be the average cost of production of 3.8% milk. But, of course, it costs more to produce milk in some months than it does in others. To care for this variation and to find the cost of production for any particular month, the average monthly price as obtained above must be multiplied by a percentage factor which has been worked out as correct to give the proper variation for each month. This factor will be more than a 100% in winter and less in summer. For instance, suppose the average monthly cost for producing milk is found to be $2.80 per hundred (this figure, of course, is not correct, but is only given as an example.) To find the price for November when milk is high, the average yearly price, $2.80, would be multiplied by 119% which is the percentage variation factor for November; and to find the price for June, $2.80, the average price, would be multiplied by 70.6%, which is the percentage variation factor for June. The directors did not actually determine the October cost of production, but left it to be found by the executive committee using the formula and the present costs of each factor in the formula.

The formula has been worked out by Professor G. E. Warren of the College of Agriculture at Ithaca from the great mass of evidence on the cost of milk production which has been collected in the last few years. The formula is a scientific method of determining the cost of producing milk, and is fair to everyone concerned because prices made from it represent the real costs of production. It will be especially acceptable to farmers because it insures them fair prices for their milk by giving them costs on all the factors that go into the production of milk.

The directors voted to ask the dealers for a six months' contract beginning with October 1st but the prices will be determined from month to month by use of the Warren formu

a. The long contract will be very acceptable to dairymen and at the same time by the use of the formula they will get the benefit of the change in prices in cost of production.

Another very important resolution passed by the League directors was that of changing the zone where the base price of milk is set from 150 miles from New York City as it now is to 250 miles from New York City. The League has contended for some time that the based price for milk should be determined nearer the center of milk production, and that 150 miles from New York City was nowhere near the center of milk production.

One of the most important resolutions adopted by the directors was to vote back money to local branches for expenses. Every branch will receive 30c for every member that is paying his 1c per hundred League dues. This rule will cause much satisfaction and will put new life into local branches.

A more united or successful or important meeting of the League directors was never held. The spirit of hopefulness for better dairy conditions prevailing throughout the two days' sessions was justified by the knowledge that dairymen will obtain very fair fall and winter prices.—Publicity Department of League.

Cheese Exhibit at National

A big revival in the cheese industry, due to new dairy conditions brought about by the war, is forecast by promises of big cheese entries for the National Dairy Show to be held at Columbus, Ohio, October 10-19.

Ohio manufacturers alone are arranging to show two tons of Swiss cheese this year, against but one entry last year and none the year before. They are working in co-operation with the dairy department of Ohio State University with a view to demonstrate that as good Swiss cheese is made in Ohio as in Wisconsin and is good as any imported from Switzerland.

Big entries of cheese are promised also from South Carolina and Georgia. Wisconsin and New York, ranking first and second, respectively, in cheese making in this country, are expected to see to it that they will not be outdone by other states.

Ohio cheese manufacturers expect to form an association during dairy show week to boost the sale of Buckeye products. One hundred Swiss cheese plants are in operation now in the state.

Ohio men say the Swiss cheese industry started in this country at Alliance, this state, but that it was crippled by the rapid growth of cities in northeast Ohio, affording a big retail milk trade, and by the establishment of creameries and evaporating plants.

The war again has made cheesemaking profitable, and they expect the industry to expand rapidly the next few years. Ohio State University is arranging a special four or five weeks' course in cheesemaking for next winter.

Indicating the importance Canada, after four years of war, attaches to the dairy industry, is word that Quebec and Ontario will send eight to ten cars of dairy cattle of various breeds to the show. Canada was not represented at the show last year. Cattle entries are being made from remote parts of the country as well as nearby states. NATIONAL DAIRY SHOW.

The sacrifice of the American home, added to the efforts of the American farmer, has removed fear from the minds of our allies for this year, at least.

It is as much the duty of the consumer to eat less as it is the duty of the farmer to produce more.

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I will judge you not by an allegiance expressed in mere words.

I will judge you not by your mad cheers as our boys march away to whatever fate may have in store for them.

I will judge you not by the warmth of the tears you shed over the lists of the dead and the injured that come to us from time to time.

I will judge you not by your uncovered head and solemn mien as our maimed in battle return to our shores for loving care.

But, as wise as I am just, I will judge you by the material aid you give to the fighting men who are facing death that you may live and move and have your being in a world made safe.

I warn you—don't talk patriotism over here unless your money is talking victory Over There.

I am public opinion!

As I judge, all men stand or fall!

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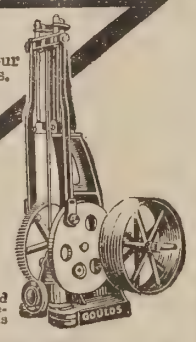
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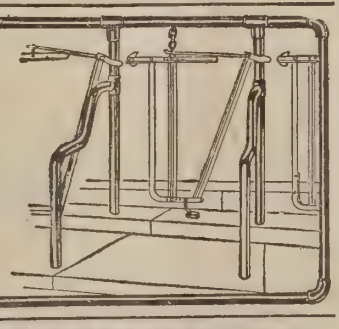
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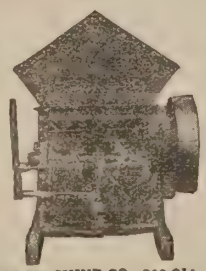


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The Cow and Machine Milking.

(Continued from first page)

of adaptability. Other machines have different sized cups to fit cows having teats of different sizes. Even though the teat cups are of the proper size, the operator should see that the teats are in normal condition. In cold, wet weather, the teats may wrinkle and contract. The operator should see that they are brought into normal shape and see that the cups get a straight and proper grip on the teats.

The operator should understand how to regulate the pulsation of the machine to suit the individual cow. The rate of speed of the pulsator varies with the different machines. Even the length of squeeze and the length of release in the pulsation varies. These the operator should understand how to adjust so as to make the machine do more efficient work without discomfort to the cow. A short, rapid pulsation is not suitable for a cow with long teats that is a hard milker. On the other hand, a long, slow pulsation is not conducive to rapid milking if the cow has short teats and is an easy milker. No rules can be laid down for this. The operator must use his own judgment.

Take Time to Prepare the Cow

In the experiments with the different kinds of milking machines, at the South Dakota State College, it has been thoroughly demonstrated that it does not pay for the operator to be in too big a hurry to attach the milking machine. Some cows respond to the milking machine immediately, but others do not.

In the College herd there is one cow that gives down her milk at once. When the machinery begins to operate, this cow longs to be milked as though she were expecting her calf. By the time the milker reaches the cow, she has released her milk supply. With such a cow, the machine can be attached at once after the teats have been slightly moistened and brought into normal condition. Other cows in the herd do not give down their milk until the operator begins to work gently with the cow's udder. Cows that are almost dry may hold up their milk for a minute or more. The point is, that the machine should not be attached until the cow has given down her milk. Take time to prepare the cow properly.

The Difference in Cows

The cows that have been, and are being, milked with the different milking machines in this experiment at the South Dakota State Experiment Station belonged to the following leading breeds of dairy cattle: Ayrshire, Holstein, Jersey, and Guernsey. In addition, various grades are also being milked by machine.

The individual cows within one breed and the cows belonging to the different breeds do not milk alike. This is true when milked by hand and it is also true when milked by machine. Each cow must be handled and milked differently. If all of the cows were handled and milked alike mechanical milking of cows could not be said to be an entire success, but by understanding individual cows and adjusting the mechanical milking process in accordance with the characteristics of the cow, all of the cows in the College herd have been milked successfully and practically with the different milking machines.

Nervous Temperament of Cows

There is much difference in the nervous temperament of cows. Some cows are quiet and appear never to be excited. Such cows pay little attention to whether they are milked by hand or whether they are milked by machine. Other cows, again, are sensitive. This is true whether they are milked by hand or by machine.

This nervous disposition of cows is probably shown most when the milking machine is first put into use. Most cows realize the change from hand milking to machine milking. When the machine is first used, most of the cows will turn their heads and look at the machine with an expression of nervousness in their faces. Especially is this true if the strange machine is operated by a strange man.

A few cows in a herd will at first refuse to give down their milk completely. However, if the machinery is operated by the regular attendant and the cow is properly prepared, the cows that will not milk well from the first are few in number. Indeed the number of cows that refuse to give down their milk when machine milking is first applied seems to be limited chiefly to the cows that are very nervous and give only a small amount of milk.

Machine milking should not be forced too fast. Allow the cows a reasonable amount of time to get adjusted to the new method of milking. Do not lose interest in mechanical milking if the amount of stripping is large at first.

Immediately after freshening, when cows are first taken from the calf, some cows reluctantly give down their milk. Excitement of any kind is likely to cause a cow to hold up her milk. Due consideration should be given to cows in this connection.

Cows That "Give Down" Slowly

The cows that give down their milk slowly may be put under three heads:

First, cows that do not readily give down their milk when milking begins. There is much difference in cows in this respect, no matter what method of milking is employed. Some cows give down the milk as soon as the milker approaches them. In fact some of the cows release the milk



THIS DRAWING ILLUSTRATES THE THREE PROCESSES THAT MUST WORK TOGETHER IN HARMONY IN ORDER TO PROPERLY MILK A COW, WHETHER IT BE HAND OR MACHINE MILKING

We are wont to think of extraction only, but we know that in hand milking a cow gives down a small quantity of milk from the first two teats and then we change to the other two. Release and secretion are concerned in the process and due consideration must be given to these if the best success is to be assured. Read, and then re-read what Professor Larsen has to say on this important topic.

oon as they hear the machinery in peration.

The manner in which the cow gives own her milk is a characteristic hich belongs to that individual. It s possible that in some instances it is habit. It is claimed by some that he habit of a cow in this respect may e influenced by regular milking time nd uniform method of starting a ow during the first lactation period. ersonal experience leads the writer o believe that, generally speaking, ne manner of giving down the milk natural, and therefore is an inerited characteristic.

Secondly, some cows give down ne milk very slowly or little by little. usually cows belonging to this class re not heavy milkers and such cows o not milk as well by milking mahines. This slowness of releasing ne milk may be due to two things: rst, the lack of ability of readily tting down the milk,—the milk ucts may not be sufficiently large o allow the milk to come down from ne upper part of the udder as fast as is being milked. This is a natural naracteristic and cannot be changed. econdly, it may be due to the cow illfully holding up her milk and reasing it only at intervals.

From the illustration it will be een that the milk ducts branch and ebranch. At the beginning of each ranch there are muscles, the closing nd opening of which are under the ontrol of the cow. If for some reaon the cow is nervous, she is likely o close these little gateways and to ontract the milk ducts, and in that ay prevent the free release of the ilk. Whether this slow release of ne milk is voluntary or involuntary, seriously interferes with the operaon of the milking machine.

Thirdly, there are some cows that eadily give down one-half to threeourths of the milk. The remainder released very slowly, and it is often eld up entirely by the cow when ilked by machine. Such cows show large percentage of milk in the orm of strippings. If such cows are iven time to release the milk fully efore the machine is attached, and ne work of the machine is not forced the last stage of milking, this form f slow milking can be perceptibly elped.

he Method Followed in Hand Milking

From a standpoint of the cow, it is ne different kinds of slow milkers nat are likely to cause most of the oubles encountered with milking achines. So far as the writer has een able to ascertain, the reason is obably this: Those who have ilked cows by hand know that about pint of milk can be drawn from all ows. It is not necessary to wait for cow to give down this milk. It is ored in the milk cistern in the low- part of the cow's udder. A cow as no control over this. The obtaing of this milk is mechanical. It is easy matter to make a milking achine successful if this were the ly part of the milking process. It ould simply be a question of extracon of milk from the cow's udder, r which all the present milking maines in use in the College herd have onderful adaptability.

In order for a milking machine to ntinue to do successful milking, th the operator and the cow play portant parts. The secretion, the lease, and the extraction are three ocesses that must function proper- and harmoniously together.

When this first part of the milk s been drawn, the hand milker must ait until the cow releases or gives wn her milk. Then the hand milk- proceeds to milk the two teats. a short time there is no more milk. ne hand milker then changes the opation to the other two teats. When there is no milk in these, he returns to the first two and so on until the cow is dry.

Machine Milking a Continuous Operation

The milking machine is unable to do this changing from one-half to the other half of the udder and to stop milking and wait for more milk. The milking operation is continuous. The machine is not conscious of the time when the milk supply runs low. The operator must supply the intelligence for the machine. Unless the milk has been released by the cow, it is not in the lower part of the udder to be drawn by the milking machine.

If there is no milk released by the cow, the suction and pulsation of the machine is applied to the internal udder tissue of the cow instead of on the milk. When this happens, there is much danger of the cow gripping herself, and not giving down or releasing her milk normally. The internal part of the cow's udder many times is sensitive to this action of the milking machine. Some cows even show signs of opposition and even discomfort by drawing up the stomach. When such a condition is reached, the milking machine and the cow are working at cross purposes and not harmoniously. The cow holds up her milk and the machine continues to pull. This condition the operator should seek to avoid, if he expects the milking machine to work successfully.

There is a difference between the action of the machine on cows that are holding up their milk and on cows that are entirely dry. The suction and pulsation on the cow's udder when dry or at any other time do not injure the cow herself, except in so far as to hinder her giving down her milk normally.

The operator must learn how each individual cow milks and adjust the machine accordingly. Some cows will give down the milk without any difficulty, even if the machine milks faster than the cow gives it down; while others again do not milk well unless the release of the milk by the cow goes on faster than the extraction of the milk by the machine.

Effect of Period in Lactation

Apparently some cows milk well by machine throughout the whole lactation period, while the other cows respond quickly and readily to the milking machine throughout the first part of the milking period, and during the latter part they are irregular.

This is true when milked by hand, and it is true when milked by machine. However, the hand milker can easily adjust the milking to the cow. He knows exactly when the slowness of giving down the milk begins. The adjustment of the working of the milking machine to suit such a cow is not so easy. Unless the milker is very familiar with the manner in which each cow of the herd behaves towards the milking machine, he cannot well adjust the machine.

Generally speaking, the latter part of the lactation period is not a good time in which to introduce the milking machine. Some of the cows are likely to hold up their milk often enough and long enough to cause the cow to dry up earlier than she otherwise should.

Effect of Abnormally Shaped Udders and Teats

The milking machines have a very wide range of adaptability for milking cows having unevenly shaped udders and teats of different size. However, if the udders of a few cows in the herd are abnormal, the adjustments will probably be so numerous that machine milking will be more or less discouraging.

Some herds contain cows, the hind udders of which may hang low; the

(Continued on page 334)

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Coming Events

Iowa Dairy Cattle Congress, Sept. 30—Oct. 6, Waterloo, Iowa. Manager, E. S. Estel, Waterloo, Ia.

National Dairy Show, Columbus, Ohio, Oct. 10—19. Manager, W. E. Skinner, 130 N. Wells St., Chicago, Ill.

Eckles to Minnesota

Professor C. H. Eckles has accepted the position as head of the Dairy Husbandry Division of the Minnesota College of Agriculture. It is expected that he will take charge of the division about October 15.

Professor Eckles leaves the University of Missouri after serving seventeen years at the head of the Dairy Husbandry Department. His work along production lines at that institution has given his name high place wherever scientific dairying is known. He is a national authority on subjects pertaining to the feeding and management and the breeding of dairy cattle. His experimental work gives him the foundation material in his text book, "Dairy Cattle and Milk Production", which is accepted as the best published on the subject and is used in nearly all agricultural colleges. More than forty scientific articles in experiment station bulletins and scientific journals have appeared over his signature and he is a joint author of the text book, "Dairy Farming". He has been invited to many states to discuss dairy problems at farmers' meetings and has been offered the chair of dairy husbandry in at least nine states.

Perhaps the largest service Professor Eckles has rendered the dairy industry is the graduate instruction he has given students. In addition to the under-graduate work of the Missouri Dairy Husbandry Department, he has directed the dairy graduate work of more men than has any other professor of dairying. More than one-third of the heads of dairy departments in the agricultural colleges of the United States are his former students.



PROFESSOR C. H. ECKLES

The State of Minnesota is fortunate in enlisting Professor Eckles' aid in building its dairy industry. His ability is proven by long years of consistent, practical accomplishment; he is splendidly qualified for his new work.

Sale Announcements

Oct. 5—Martinsburg, Blair County, Pa. Holstein Consignment Sale. Auspices Martinsburg Pure-bred Calf Club. L. C. Honsaker, Martinsburg, Pa., Sales Manager.
Oct. 8—Holsteins. Dodge County Holstein Breeders' Consignment Sale at West Concord, Minn. C. L. McNelly.
Oct. 8—Holsteins and Chester Whites. Gunderson Stock Farm, Portage, Wis.
Oct. 9—Holsteins. Dispersion of Avoca Lodge Holstein Herd at Morrisson, Colo. Donley & Simpson, Morrison, Colo.
Oct. 18—Holsteins. Calumet Co. Holstein Breeders' Consignment Sale, Chilton, Wis. Royal Klofanda.
Oct. 10—Poland China Boars at Lancaster, Wis., F. A. Morehouse, Sec'y.
Oct. 10—Holsteins. Fred E. Zimmerman, Washington, Ill.
Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 15-16—Holsteins. National Dairymen's Sale at Columbus, Ohio. E. M. Hastings Co., Sale Mgrs., Lacona, N. Y.
Oct. 16—Holsteins. T. R. Maurer & Co., Emporia, Kansas.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 17—Holsteins at Marshfield, Wis. W. W. Clark, Sales Mgr., Grand Rapids, Wis.
Oct. 18—Pure-bred Holsteins at Chilton, Wis. F. H. Everson, Mgr.
Oct. 18—Holsteins. Virginia H.-F. Club at Orange, Virginia.
Oct. 21—Jerseys. Robert I. Young, R. F. D. 5, St. Joseph, Mo.
Oct. 21—Holstein Dispersion. Dr. A. D. Blackburn, Cuba, Ohio.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 24—Guernseys. First Annual Consignment Sale of the Massachusetts Guernsey Breeders' Association at New England Fair Grounds, Worcester, Mass. Leander F. Herrick, Sale Manager.
Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 29—Holsteins and Poland China hogs. Pleasant Valley Stock Farm, Thos. Maher, Brookings, S. D.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Nov. 6-7—Guernseys. Waukesha County Guernsey Breeders' Association Semi-annual Sale at Waukesha, Wis. F. E. Fox, Sec.
Nov. 7—Holsteins. The Walworth County Holstein Breeders' Sale at Elkhorn, Wis. J. G. Voss, Manager.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Wheat Mill Feeds

HOARD'S DAIRYMAN:—There are three factors to make bran scare at the present time. There was very little flour milling in the late spring and early summer as most mills were out of wheat and the nation was obliged to use flour that had been previously milled plus the government's amount of substitutes. From March to July there was practically no wheat mill feed turned out, simply corn and barley mill feed.

Fixing the price of flour with prospects of a plentiful supply made it seem unnecessary for the flour buyer to buy freely or carry any in stock. The one idea of fixing prices is to make goods move fast because there is no money to be made by holding them. This same rule also prevents people from buying until the last minute, because why should they tie up their money with something that was not immediately needed?

The result has been that the flour mills are suffering greatly from lack of orders, many of them having their warehouses filled with flour. The result is a very light production of wheat feed.

Ordinarily we depend upon the lack of demand in summer to accumulate large supplies of wheat feeds for fall and winter use. This year we have not any accumulation and almost no stocks at all. It is true a bushel of wheat will produce so much bran when ground, but if the wheat is not ground until later on we can't get the bran now.

Another factor that most people overlook is a shrinkage of 10 per cent in the yield of wheat feed in a bushel of flour. The new government regulations call for closer milling which means that more feed goes into the flour. It is estimated by competent authorities that this shrinkage alone amounts to over 500,000 tons, based on our estimated grinding of flour for the crop year to supply one hundred and ten million people.

Last year a great deal of flour was ground and exported which left more feed behind. This year it is probably more expedient to ship the wheat because it takes less room in boats than does flour.

The third reason is the one that is known to everybody, that when a thing is very cheap the man nearest the place of sale has the best chance to get it. In previous years the large milling sections of the Southwest, particularly in Kansas, always had mill feed to ship east, but this year there was a drought and nothing came east at all.

Undoubtedly a great many farmers have bought bran in the West and fed it to other than dairy animals, something they never did before.

It is true bran is not equal in fattening value to corn or middlings either, but the price is so attractive that these feeds are fed to horses, poultry, beef, sheep, and hogs and the dairy cow does not get her share. The farmer is getting the bran, but not the dairy farmer.

The government is using considerable bran also for feeding horses. This is a new departure and requires a considerable amount.

It will be very difficult to artificially distribute mill feeds so as to supply all sections. A man that sells wheat to the mill claims that he is entitled to the bran, and it will be very hard to satisfy him if it is taken away from him.

There is no one who can decide how much bran each state should have and where it should be shipped from. This would puzzle a Solomon. If the method were pursued of making the mills ship the same amounts or ratio of amounts that they did to each state last year it does not follow that this would be equitable at all, because in some months some states were buying freely and others were not, and conditions might be reversed this year as far as their requirements are concerned. On the other hand, from January to March last year the western mills were not able to ship east and sold their feed in the West very largely. This is no reason that the same method should be pursued this winter.

It is very easy to insist that mill feeds be distributed, but we would like to hear some one suggest a practical way of doing it.

It must be remembered that commodities do not distribute themselves. It takes merchants, money, men, and warehouses to distribute all of the products of this country. Any one undertaking to do the distribution of millions of tons of feed must provide all this machinery of trade. In the past this has been done by the jobbers who have acted as bankers and warehousemen. Not being able to get any wheat feeds their work of distribution and their facilities are eliminated.

Illinois. R. W. CHAPIN.

The New York Butter Market

New York City, Sept. 24:—Butter certainly tastes of money these days. Never since the days of the rebellion has the consumer been asked to pay so much for his butter as at the present time. When the wholesale value of a tub of butter approaches $40 there is a feeling that there has been a material advance in the cost of living. But even at the present high prices the consumer is eager to get butter. The demand is stronger than it has been at any previous time this year. Whether or not that condition will continue with the advent of cooler weather is problematical. At the first approach of fall there has always been a marked tendency for the consumer to use oleo or some other so-called butter substitute. Without doubt that influence will be felt here in a short time. However, there are several factors that will tend to keep the demand for butter stronger than in previous years. In the first place, the consumer, whether laborer or professional man, is becoming accustomed to pay high prices for his provisions; secondly, the publicity that has been given butter and other dairy products as food necessary for proper maintenance of adults and for growth of children is bearing fruit in that demand for those products is becoming stronger each year; and, third, the government has placed an embargo on importation of certain nut products that are essential in the manufacture of nut margarines which will tend to limit their production. However, we may expect that the present excited feeling in the market will not last indefinitely, although prices will undoubtedly remain high for a long time to come.

Since last week the quotation on extras has advanced five cents. From Wednesday to Saturday the price advanced one cent each day. On Monday because of a slight accumulation of stocks, there was no further advance but today the quotation is up one cent. The extremely high price of butter makes it seem probable that there may be slight temporary fluctuations in prices of butter but extreme quotations will undoubtedly prevail all winter. Strong local demand is keeping considerable quantities of butter from the large markets. Larger shipments are expected in the near future because of the seasonal increase in production and because the high prices will to some extent curtail local sales. At the close today quotations were as follows: Extras (92 score), 61c; higher scoring than extras (93 score or higher), 61½@62c; firsts (88 to 91 score),

58@60½c; and seconds (83 to 87 score), 52@57c.

The Food Administration has increased the margin allowed holders of storage butter for stocks requisitioned by the government from one to two cents per pound. The increase was the result of a strong petition on part of such holders to the government as it was their contention that unless a wider margin were allowed many of them would lose money on their stocks. W. B. LIVERANCE.

Acts to Cut Price of Milk

HOARD'S DAIRYMAN:—Stephen G. Williams, chairman of the New York Milk Committee, has issued a call to Dr. Charles E. North, secretary of the National Commission on Milk Standards, for a meeting of that body to investigate the high cost of milk and to suggest, if possible, ways and means for milk price reduction. It is also suggested by him that the Commission disclose the effect, if any, that the high price of milk has had upon the health of the people, more particularly upon infants and older children who depend almost wholly upon milk for subsistence.

"There is need that plans be formulated and definite action be taken to increase the working power of the nation's individuals," states Mr. Williams in his call. "The first step in this direction should, in our opinion, be increased consumption of wholesome milk and other needed dairy products. War conditions make essential a considerable export of these dairy products, which, with the increased cost of production, have brought about unusually high prices. The effect that these have upon the health of infants and young children and upon the health and efficiency of the working population as well should be disclosed.

"Our committee believes the prices of milk and dairy products should be gone into deeply, and it desires a report from the commission as to whether they are in excess of what is necessary to give a fair return to the producer and distributor of milk and dairy products."

When interviewed by the writer, Mr. Williams said: "It is also the duty of the milk and dairy trade press, as well as ours, to aid in this work for it is both essential and patriotic. Every dairyman should keep good tab on his milk and milk products. A record should be kept for all the dairy products produced in one day and the producer should know exactly where every bit of it has gone. This is one of the requirements of our government."

New York. A. H. KOLBE.

Saskatchewan Creameries Unite

HOARD'S DAIRYMAN:—F. M. Logan, dairy commissioner for the Province of Saskatchewan, has resigned to become assistant general manager of the Saskatchewan Creameries, Limited. His successor is Percy E. Reed, formerly provincial dairy inspector.

The Saskatchewan Co-operative Creameries, Limited, for which Mr. Logan leaves the civil service, is an amalgamation of the 19 creameries which previously had been operated as local co-operative enterprises under the supervision and with the encouragement of the Dairy Branch of the Department of Agriculture. The new company is modeled on the plan of the Saskatchewan Co-operative Elevator Company, the greatest organization of its kind in the world, with thousands of farmer stockholders. The fact that government direction of co-operative enterprises has been a success, is shown by the government figures on output in 1916 placed at 4,310,669 lbs., compared with 66,000 lbs. annual output ten years earlier.

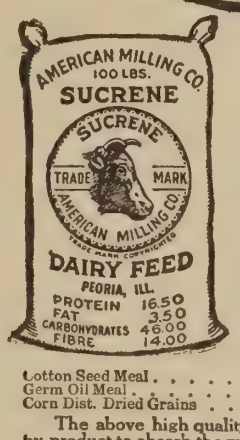
Illinois. G. C. LEININGER.

Save Grain for Bread



Feed Your Cows

SUCRENE DAIRY FEED



"We can no longer afford to feed our high-priced grains to dairy cows. We must feed them the by-products. It is not right to feed grains which are good human food to animals that can do just as well on feeds not fit for human consumption."
—Prof. Pearson, University of Illinois, before Chicago Milk Commission.

Cows Can Not Make Milk on Unbalanced Corn Rations

Profs. Henry and Morrison, Wisconsin Experiment Station, in "Feeds and Feeding": "With the high prices now ruling for feed and labor, on many farms, even where *good* dairy cows are kept, milk is being produced at little or no profit. Yet, by a wise selection of feeds other dairymen secure goodly profits from cows no better."

The poor results obtained when corn is not properly balanced was demonstrated at Illinois Experimental Station, where cows fed on correctly balanced rations gave 47% more milk and 39% more fat than cows fed on unbalanced corn rations. "This shows," says Prof. Henry, "the folly of expecting profitable production from such unbalanced combinations of feed."

Sucrene Dairy Feed—Scientifically Correct Combination of High-Quality Milk Nutrients

Composed of feeding materials universally recognized as high in milk-making and body-maintaining nutrition:

	Protein	Fat	Carbohydrates
Cotton Seed Meal	36.0	11.0	21.0
Germ Oil Meal	22.6	10.8	46.0
Corn Dist. Dried Grains	29.2	11.4	39.4
Ground and Bolted Grain Screenings	10.5	3.9	61.1
Cocoanut Meal	20.9	8.1	45.3
Pure Cane Molasses	...	...	66.0

The above high quality feeding nutrients in Sucrene Dairy Feed are combined with just enough clipped oat by-product to absorb the molasses and to supply the bulk which every good cow feed must have. They are mixed in exact proportions for milk production and body maintenance. Small percentages of calcium carbonate and salt are added for necessary mineral matter.

SUCRENE ALWAYS INCREASES MILK FLOW. All cows relish and thrive on Sucrene because of its variety, high degree of palatability and digestibility. They need no other concentrates. Sucrene alone, with the usual roughage, keeps them in better health, larger milk flow all year, at a substantial saving in feed cost.

Better order a ton from your dealer to avoid transportation delays. If he can not supply you write us. The coupon or a post card brings you literature on care and feeding of live stock which you will find of great value.

American Milling Company, Dept. 4, Peoria, Illinois

(Sucrene Feeds for All Live Stock and Poultry—18 Years the Standard)

Please send me illustrated literature on feeds checked below: (4)
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- [ ] Sucrene Calf Meal
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Camburn to Vermont Dairy Department

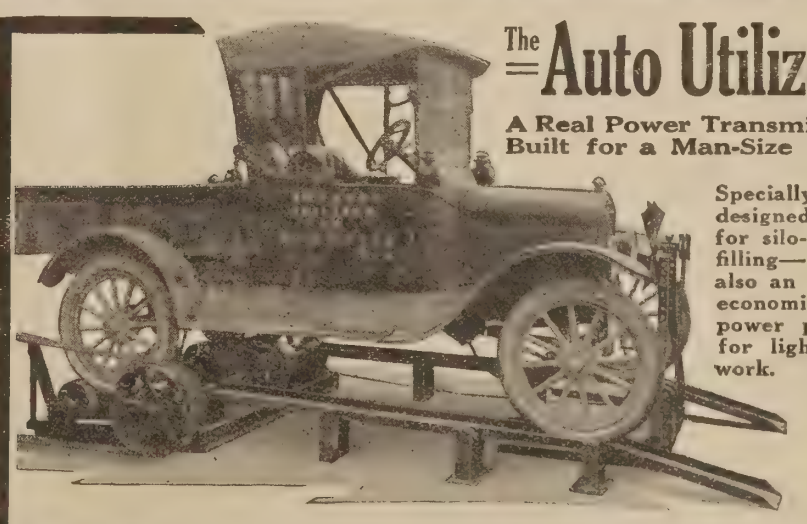
O. M. Camburn has been appointed Extension Specialist in Dairy Husbandry at the Vermont Agricultural College. He is a graduate of Iowa State College and for the past three years has been connected with the Dairy Division of the United States Department of Agriculture in general dairy extension work. For about one year, under a co-operative agreement with the State Department of Agriculture, he has been in charge of the cow testing association work in Vermont. He is thus well acquainted with New England conditions and the Vermont Department is to be congratulated upon securing the services of so competent a man.

Vermont. H. B. ELLENBERGER.

Figures collected during a recent child-welfare campaign in St. Louis County, Minnesota, proved that, owing to improper diet, a large majority of the children were subnormal in height and weight. Fifteen hundred of these have promised the agent to drink a pint of milk a day, or to "howl till they get it."

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THE AUTO UTILIZER COMPANY, Burlington, Wis.

EDITORIAL COMMENT

WISCONSIN has an average of nine cows to the farm. This, we believe, is the largest percentage of cow population of any state in the Union. Although the serious disturbance occasioned by the war has affected Wisconsin in common with other states, we see no letting down of interest in dairying. On the contrary, there is a very healthy growth of sentiment among our farmers to weed out the slacker cows and put their herds upon a practical paying basis.

There is a strong notion which prevails with a good many farmers who separate their own cream to the effect that it is more profitable to them to make a cream testing, say, 30 per cent or under rather than 40 to 50 per cent. They are utterly wrong in this for two good and sufficient reasons:

1. The low testing cream robs the farm of a large amount of skimmilk. Such skimmilk is easily worth 85 cents per 100 lbs. as a feed for calves and young pigs in these times.

2. Rich cream keeps sweet much longer. To those sending cream away at a distance this is an important point. Another reason is the saving in freight in proportion to the dollars' worth involved.

SERIOUS undertakings teach serious lessons. Our country is passing through a critical period in its history. We are making tremendous sacrifices of men, money, and time. Out of this, however, we are to derive tremendous benefits. New conceptions have been brought about regarding the place agriculture holds in a nation. It is teaching everybody its importance. Farmers see the necessity of planning so they may work more effectively. They are preparing their fields to grow larger crops; selecting better seeds to grow a better quality of grain; selecting better bred animals to improve their herds and flocks.

All these things are valuable and highly commendable, but one of the most important lessons which we are bringing out of this war, and it stands out clearly and sharply, is the sacred duty every citizen owes to his government. It is teaching all of us that the government is not something separate and apart from us, but it is of us. We are fast learning that if we are to have a strong, capable, and effective government, every intelligent citizen must devote some attention and time in order that good men may be selected to pass our laws and to execute them.

HOG CHOLERA

A timely warning is being sent out by the Illinois Department of Agriculture. Farmers are reminded that the season of greatest losses from hog cholera is at hand. They are urged to be on the lookout for symptoms of the disease in their herds and to report them at the earliest moment to officials assisting in its control. Costly experience in neglecting to take every precaution preventing the spread of the contagion when it is once in the herd has taught the necessity of the Department's admonition. Prompt co-operation with state and federal authorities is declared a patriotic duty since, "It will reduce hog losses to a minimum and will make hog raising (so essential in war times) one of our safest industries."

DEMAND FOR DAIRY PRODUCTS

Dairy farmers need not fear an over-production of dairy products. The large demand for butter, cheese, and condensed milk practically assures a good market for milk the coming winter.

The government has recently commandeered 60% of all the butter in cold storage. This means it is taking the butter of those who have stored it for their customers and not held for speculative purposes. The manufacturers of condensed milk have disposed of their surplus product and they are looking about for a larger milk supply. There is also an increased demand for cheese. There is less in cold storage now than a year ago and the demand is ever increasing. This is undoubtedly due to the education which is being carried on in various ways to inform the people regarding the food value of cheese. Meat is not as plentiful as it was a year ago and the prices are higher. The improvements in our shipping conditions and the large demand for dairy products in Europe give every assurance that the prices of dairy products will be higher this winter than last.

WHAT PHOSPHATE DID

It is becoming more and more apparent that in order to develop corn or wheat, especially, the soil needs to be fed some acid phosphate. Phosphorus is an element that helps to mature the corn crop and makes it possible to develop a plump, hard kernel. We had unusually good success in one field of 65 acres of corn this year, and we stated a few issues ago that phosphorus played a large part in helping to mature this crop early and to secure good, sound ears.

One of our subscribers, Mr. Byron A. Cass, has had a similar experience in Alabama and he writes us as follows:

"I have just read your comment on "What Phosphate is Doing" in the Dairyman of the 30th ulto. and must say that I entirely agree with you, as the result of considerable experience. Herewith I am enclosing some kernels of corn from seed which was planted May 17th, 1918. It was practically matured at 100 days from planting, phosphate being used. Incidentally will say that last season a field of this corn yielded upwards of sixty bushels of shelled corn per acre, and 70 pounds of shucked ears gave 61½ pounds of shelled corn."

ANOTHER "SAFE" BULL

"——— he had never before shown any indications of an ugly disposition, and has not since been unruly."

These words are from the report of a recent fatal case of carelessness with another "safe" bull. This time the accident is in Ohio. A prominent Jersey breeder placed his confidence in an animal never to be safely trusted and was gored to death, leaving a widow, two sons, and a daughter. The bull was turned loose to go to an outside water tank and returned to his stall to be fastened again, when he turned suddenly and crushed out the life of his owner.

May these details supplement repeated warnings to those who continually expose themselves needlessly to death by carelessness with bulls. The fact that this Ohio loss was caused by a bull only two and a half years old emphasizes the wisdom of making it a permanent rule on the farm to trust no bull, regardless of how "safe" he may be.

SUPPLY AHEAD OF DEMAND

The agricultural field is occupied with a great many well meaning workers who are actively engaged in promoting new ideas of farm management, more correct understanding of the relation of scientific principles to improved practice. In short, trying to make the average farmer a more intelligent and prosperous farmer. No doubt something has been accomplished by these praiseworthy efforts, but if we look the men over carefully we will see that not more than one in ten has any real hunger and thirst for the knowledge thus offered. These few men—the one-tenth—proceed to work out the ideas they have gained and put them in shape so that they will show results. Some of the nine-tenths see what is being done and copy after it to a feeble extent. But our agricultural educators and workers are in constant danger of forgetting that men don't eat or drink unless they feel hungry or thirsty.

The first step toward the improvement and better education of the farmer is that he shall really want the knowledge that is offered him. The great hindrance with the great mass of farmers in absorbing such knowledge is a lack of ability to read and understand our so-called farm literature. We spend millions of dollars in pushing upon the farmers a lot of unread and little understood bulletins, circulars, and other literature.

From his earliest childhood up, the average farmer has had but little contact with that sort of reading. His schooling was confined to a few months in the year in the country district school where such subjects as are treated upon in bulletins were never considered or studied. No wonder then that most farmers have but little hunger for such information. It is a clear case of supply getting ahead of demand.

A TEMPLE FOR AGRICULTURE

At the recent meeting of the Federal Board of Farm Organizations a resolution was passed for the erection and endowment of an agricultural temple in the city of Washington. The resolution states that agriculture is the most important and most fundamental of all occupations; that the city of Washington offers unusual opportunities for the farmers of America to unite their interests and demand their needs; that commerce and other great interests have established general headquarters for the purpose of making their demands and desires promptly and effectively known to Congress; that the farmers of America have never had such headquarters and have suffered greatly from the lack thereof; that at this time there is need for united action among the farmers and that a national headquarters for the organized farmers of America can render a greater service than ever before.

A committee of seven was appointed by the chairman with the power to prepare plans and, when such plans have been approved by the general council of the National Board of Farm Organizations, to raise the necessary funds for establishing a temple of agriculture.

The agricultural interests of this country are large enough and of sufficient importance to be represented by an organization in the city of Washington. Agriculture has fared unusually well, considering how loosely and imperfectly it has been organized. If agriculture is to secure the national legislation it is entitled to, it must be organized. Men who thoroughly understand the needs of agriculture and who have vision must be selected to represent the farmers at the national capital. We have many farm organizations, perhaps more than needed, but so far not one of them has been organized on a sufficiently broad basis to care for all the activities of the industry of agriculture. The National Board of Farm Organizations is a step to unite the farm organizations that they may act as a unit.

BRIGHT FUTURE FOR DAIRYING

Some of our dairymen are more or less discouraged. The prices of dairy products have failed to advance as rapidly as the prices of other farm products. There has been, too, the shortage of labor, which has caused them to work long hours and this in itself is likely to bring periods of depression and lead to discouragement.

It is our belief, however, that the prospect for the dairy industry is brighter than it has been in many years. As soon as the war is over there is going to be an unlimited demand for dairy products and a good demand for dairy cattle. We believe the dairy farmer who starts breeding his cows to a pure-bred dairy bull will reap a good reward in the future. The man keeping scrub cows will not gain the same profit as the man keeping the high-producing animals.

There is going to be a large demand for good grades and pure-breds. In a personal letter to us, Commissioner E. S. Brigham of Vermont, who is devoting one-half of his time to the Food Administration, makes the following statement:

"It seems to me that the outlook is very promising for the dairy industry and that prices will materially advance before the season is over because of the great demand from abroad. The cost of production will, of course, very materially increase because of the shortage of fodder and feeding grains. Labor is also bound to be very high in price. Whether the net return to the purchaser will be much greater is a question because of advanced costs. I look for conditions to be very favorable in the future for the dairy industry."

We can well afford to heed the prophetic judgment of Mr. Brigham for he is in position to have a clear understanding of the demands abroad for dairy products and dairy cattle, because of the position which he holds in the Food Administration.

Grinding Oats—Frosted Corn

We are paying $40 per ton wholesale for soft wheat bran and $45 if you get it from the grocery store. Oats here sell for $1 per bushel. We are very anxious to substitute oats for corn in our winter ration, as we believe it will be almost impossible to secure corn, but we are unable to get the oats crushed. Will feeding them whole injure the cattle? How would you mix a ration, to feed with clover hay and silage, from wheat bran, oats, and cottonseed meal? If you could get corn bran at $30 a ton to mix with this would it pay? Will frost bitten corn hurt cattle? I think we'll have a lot of it.

Paragould, Ark. H. FARM.

Especially with high producing cows there is a considerable advantage in crushing oats. We do not know that it pays better to grind oats than simply to crush them, but believe that when cows are working their bodies sufficiently hard to make a heavy flow of milk it is expensive to require them to grind the oats themselves. There is no danger of injuring cows from feeding whole oats, and good returns will be received from including oats in the ration, although the cows will hardly make as economical use of them as though they were ground

or crushed, wasting, according to experiment findings, as much as 20 per cent of the nutrients contained in the oat kernel.

With clover hay and silage, a splendid basis for an economical dairy ration is had. We would feed clover hay in as large quantities as will be consumed and would supply silage in addition at the rate of about thirty pounds per cow per day, varying this somewhat with the size of animal. A mixture of 300 pounds oats, 200 pounds bran, and 100 pounds cottonseed meal will give fairly satisfactory results, if fed to heavy producing cows at the rate of one pound for each 3½ to 4 pounds of milk produced. High testing cows should have a somewhat more liberal supply, perhaps at the rate of one pound for each 3 to 3½ pounds of milk produced. This grain mixture would be considerably improved by the addition of a high carbohydrate concentrate such as corn, barley, or ground barley. If one of these feeds can be secured at a price which compares well with the cost of other concentrates, it will pay to include one of them in the grain mixture, making the mixture of 300 pounds of one of these feeds, 200 pounds oats or bran, and 100 pounds cottonseed meal.

Whether corn bran will suit the purpose better than wheat bran depends upon the cost per ton. The difference here quoted makes the purchase of corn bran more economical than that of wheat bran. Corn bran is somewhat lower in feeding value than wheat bran though it fills the same place in a general way in the ration.

There is no danger that frosted corn will hurt cattle unless it is allowed to mold and form poison from this. If it has a good appearance and does not develop mold which is noticeable it can be fed with safety.

Age for Vealing Calves

At what age may a calf be butchered for veal? What laws, if any, are there regarding the interstate shipment of veals? I have been told they must be six weeks old, but if I can sell them younger, I believe it would be more profitable.

Has the Food Board ever made any rules regarding veals? I think not myself, but there is such a general opinion to the contrary here, that I would like to know the truth. One butcher told me that he was not allowed to butcher veals. I told him I thought it was queer as they were quoted on the city markets at good prices.

Aurora, Mo. O. G. R.

The U. S. Department of Agriculture has oversight of the interstate shipment of meat animals and it does not prescribe the age limits for veal calves. It does, however, provide that calves, pigs, etc., too immature to produce wholesome meat shall be condemned as unfit for human food. Carcasses are considered too immature when the meat has the appearance of being water-soaked, is loose, flabby, tears easily, and can be easily perforated with the fingers; when its color is grayish red or good muscular development is lacking; or when the tissue about the kidneys is dirty yellow or grayish red, tough, and intermixed with islands of fat.

It is ordinarily not found profitable to feed veal calves, particularly dairy veals, for over four weeks, and we are under the impression that calves of a younger age are accepted on the markets. However, the determination is largely based upon the size of the calf and we are informed by local shippers that the market will not accept, as a rule, veals under 50 lbs. weight. This is not live weight but represents the carcass, including hide, etc.

Our reports from the Chicago market show that in 1917 the average live weight of the veal calves received was 137 lbs.,—the average price paid for these being $13.75 per 100 lbs. In March, 1918, the average weight was 148 lbs. and the average price $15.50 per 100 lbs. The range in weights of veals from dairy districts was from 90 to 130 lbs. In June, the Chicago market reported an average weight of 139 lbs. and an average price of $15.55 per hundred. These, of course, are the prices paid at the stockyards and regular shippers doubtless paid somewhat less than this.

We are not advised as to the particular laws governing the sale of veals in Missouri but those states having laws, as a rule, forbid the sale of veal calves under 4 weeks of age. Should further definite information be desired, it may be secured by writing the State Commissioner of Agriculture at Columbia and the State Food Administrator at the same place.

There are no laws or regulations forbidding the sale or killing of veal calves of proper age. These have been proposed from time to time but none of the men proposing these have been able to put them across. However, there is an attempt being made to discourage the vealing of heifer calves as it is felt that there is a large demand for these animals and the future of the cattle business is dependent upon saving them. However, it would be a foolish and well nigh unenforcible regulation to attempt to prohibit the killing of veal calves. We have commented upon this matter on various occasions, at which times we have gone into some detail as to the impracticability and absurdity of any such regulations.

Cottonseed Meal vs. Oil Meal

The price of cottonseed meal has been fixed at $53 f. o. b. mills in Arkansas, Alabama, Mississippi, and Georgia. This makes it figure about $63 Boston rate.

According to Henry and Morrison a good grade of oil meal contains about the same amount of digestible protein as good 36% cottonseed meal. The oil meal contains 140 lbs. per ton more of digestible carbohydrates, which is equal in feeding value to the digestible nutrients from three or four bushels of corn.

The present price of oil meal figures out about $60 Boston rate. Therefore, you might say that the oil meal gives at least $6 more feed value for $3 per ton less money.

It looks like cottonseed meal is due for a decline to us to make it more in proportion with other feeds. What do you think about this proposition? What do your readers think of it?

Ohio. D. Bros.

So far as chemical analyses are concerned, it may be stated that prime cottonseed meal and oil meal have practically the same feeding value. There is a difference, however, in the properties of these feeds, and which is not measured by chemical analysis.

It is our belief that a feeder can afford to pay more for oil meal than for cottonseed meal when there are no succulents such as silage or roots to form a portion of the cow's ration. When there is silage it does not make very much difference whether the feeder uses cottonseed meal or oil meal, but we would prefer oil meal if we could obtain it at the same price, even to use with succulent feeds. Where there is nothing but dry feeds, we would pay several dollars more per ton for oil meal than cottonseed meal, because oil meal has a laxative effect upon the animal's digestion.

We are satisfied that feeding experiments have not yet determined all the qualities of oil meal, but we do know from practical experience that it is a most excellent feed for dairy cows. If an animal is run down, out of condition, so to speak, and given a little oil meal regularly it will usually show its effect in a very short time.

Neither oil meal nor cottonseed meal should be fed in large quantities, that is, not more than two pounds per cow per day to obtain the best results. We appreciate there are instances in the South where 6 to 7 lbs. or more are fed daily to an animal, but we are satisfied that with such amounts the best results are not obtained.

Whether the price of cottonseed meal will be any lower than at present we are unable to say. We must bear in mind that there is a shortage of feed and it is quite possible that cottonseed meal will be picked up at the price stated in this letter, even though oil meal can be purchased a little cheaper at the present time. The chances are that the price of oil meal will advance to be on an equal basis with cottonseed meal. It is our opinion that our readers would prefer oil meal to cottonseed meal at the same price and many of them would pay a little more for it. We are willing, however, to let them answer for themselves.

Best Milk Utensils Metal

Can you give me any data in regard to the use of different metals as milk containers, especially tin and aluminum? Is it equally as safe to use one as the other, and does any chemical action at all take place when milk is allowed to stand in either one? I understand that at a recent dairymen's convention, this question was discussed, especially in regard to aluminum and if it is possible I should like to have some definite information on the subject.

Pittsburg, Pa. M. H. W.

Aluminum has some advantage over tin as a material from which containers for milk are made. Aluminum does not rust and is easily kept clean. Also, the fact that aluminum vessels are made without the seams, which appear so commonly in tinware, is an advantage.

However, if a tin vessel is kept clean and if it is made without seams, which are most difficult to keep clean, it is fully as satisfactory as aluminum. If the tin is allowed to rust, which happens frequently when it is not given the proper care, it would, of course, be much less desirable as a container for milk. Also, if milk is allowed to become sour in tin containers the acid formed may have a slight effect on the metal. We judge this action under ordinary conditions to be unimportant in its relation to the milk itself.

We have no statistics on this subject but believe that so far as any chemical action with the two metals is concerned, one will be as satisfactory as the other. An advantage goes to aluminum, however, in the matter of cleanliness and also in the matter of durability.

Supplementing Skimmilk for Calves

I am raising several calves on skimmilk. Please advise me what is best and cheapest to put with the skimmilk to take the place of the butterfat taken from the whole milk.

Sherman, Mo. A. L. R.

In addition to skimmilk it is customary, in many cases, to feed young calves ground flaxseed, starting with one teaspoonful at each feeding and gradually increasing to not more than a tablespoonful. This is fed in addition to the hay and regular meal mixture, and is intended to replace the butterfat taken from the milk.

On Hoard's Dairyman Farm we are feeding according to the following plan: Calves are left with their dams for the first two or three days, or longer if the dam's udder is inflamed. We feed whole milk until the calves are two to four weeks old and then gradually change to skimmilk. There are some feeders, however, who discontinue the whole milk at two weeks of age. Choice alfalfa or clover hay is kept where the calves can obtain it and also either whole oats or a mixture of whole oats and shelled corn is supplied where they may have access to it at any time. After the calves are weaned, the grain is ground, using either corn and oats in equal parts, oats alone, equal parts of corn, oats, and wheat bran, or a mixture consisting of three parts corn meal, two parts ground oats, and one part oil meal. The amount of whole milk fed depends on the individual calf's ability to take care of it, and the strong, vigorous calf is put on skimmilk at two months of age. With each feed of whole milk a cup of hot water is given. Skimmilk is fed as long as available, and we seldom stop until the calf is at least six months old.

It will be found that calves even as young as two weeks old commence to nibble the hay and they will soon commence to eat the oats. These, however, should never be soaked or fed with the milk. To a certain degree it does not seem logical to feed young calves whole oats or corn, but actual experience leads most men to prefer feeding in this manner. After the calves get where they consume quite a bit of this feed, it is found preferable to feed twice a day all the whole grain they will clean up readily and later, say at 6 months, change to the ground feed or the regular ration that is being fed to the cows.

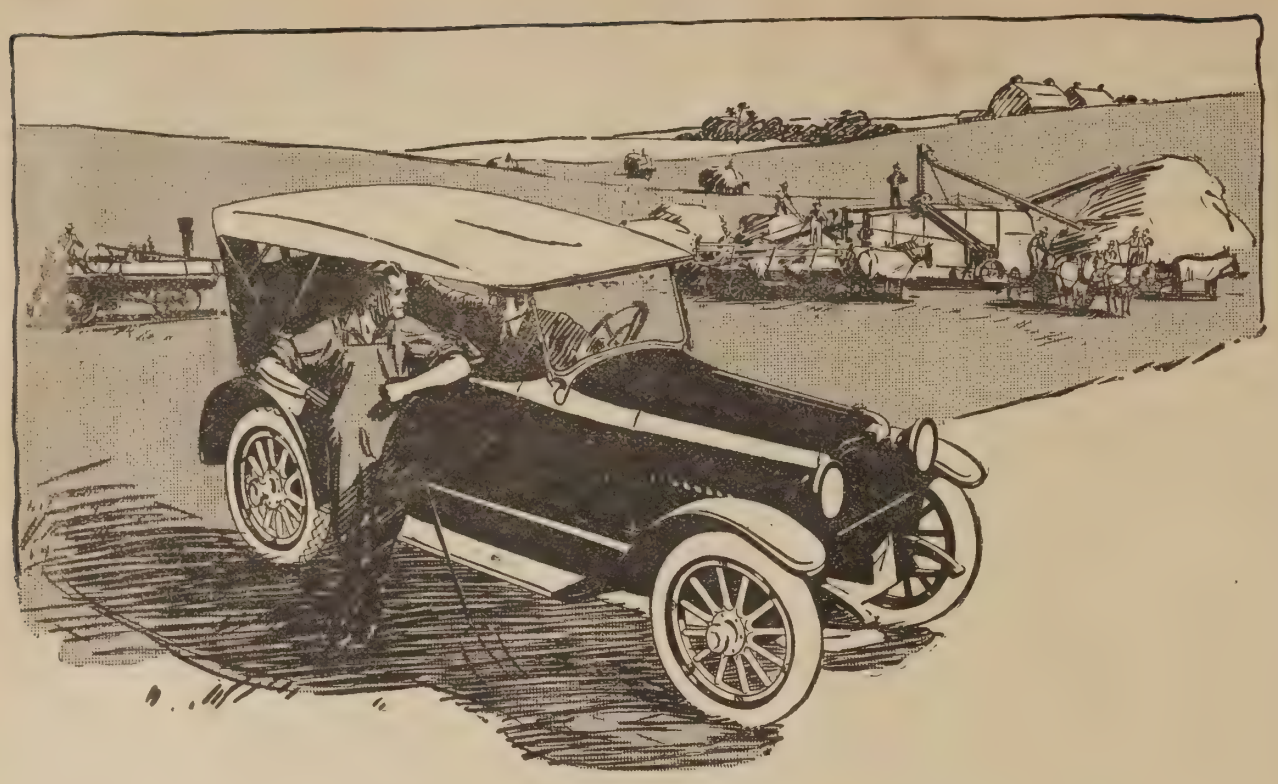
Rye for Cows and Hogs

Have a quantity of rye that I would like to know whether to sell at $1.55 per bushel or feed to hogs or dairy cattle. Hogs are selling at $.24. Do not have any skimmilk to feed so would have to buy tankage or middlings at the government price.

North Jackson, O. R. W. A.

Whether it will be economical to feed this rye to hogs and cows depends, of course, upon the cost of other feeds. We calculate that rye at the price quoted would be worth about $53 per ton. In feeding either cows or hogs it would be found somewhat less valuable than corn, though it is about equal, pound for pound, to barley. In feeding cows the allowance should be limited to a supply not greater than two or three pounds rye per cow per day, since heavy feeding of rye causes the production of milk from which hard, dry butter is churned.

In feeding hogs or dairy cows, rye should be used in a mixture of grains rather than fed alone. If the hogs can be run on an alfalfa or clover pasture and fed skimmilk in addition, rye will do very well. Otherwise, it should be fed with some such feed as tankage or meat meal, or should be combined with ground oats in order that the percentage of protein may be increased somewhat. Rye may be fed in addition to a liberal supply of a legume hay or abundant pasturage, in a mixture with other grains, such as ground oats, or wheat bran, and a high protein concentrate. Such a mixture might be made by using 200 lbs. ground rye, 200 lbs. ground oats or bran, and 100 lbs. cottonseed meal or oil meal at the rate of one pound for each three to four pounds of milk produced.



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Perhaps, you yourself are a Soldier in the "Twilight Army." On hundreds and thousands of farms the "Twilight Army" has been helping to harvest the crops, to fill Uncle Sam's Granaries, to feed The Boys "Over There."

They closed the stores in thousands of little towns at four o'clock every afternoon, and everybody went out to the harvest fields to work—until it was too dark to work longer. And it was the Motor Car, thousands of Motor Cars, that gathered and marshalled and transported from town to field and back to town that huge army of soldier-harvesters. So have you and the "Twilight Army" solved the Food Problem for Our Boys and Our Allies.

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It isn't necessary, therefore, to tell you what the Motor Car means to make your crops profitable, to make your time count, to help Win the War. It is the well-designed car, the well-built car. the dependable car, the economical car, the car with reputation and character back of it that means the Preferred Investment. Such a car is the Paige.

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—and handle more customers. Half the time and milk losses come from lack of best equipment.

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—THIRTY-FIVE plans to select from. Above cut is one of them. Filled trays load from rear—all bottles in easy reach from seat—any capacity wanted. De Kalb Dairy Wagons in Platform, Three-spring or Low-down, Short-turn gear, with or without above equipment. Ask for free catalog.



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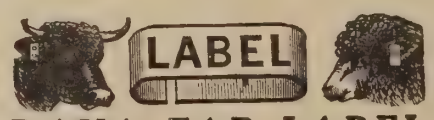
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Liberty Bonds as Insurance

HOARD'S DAIRYMAN:—From the standpoint of the farmer the investment of his money in Fourth Liberty Loan Bonds to the extent of his financial ability is a measure of insurance and future safety, the benefits of which can hardly be exaggerated.

In some sections of the country this year weather conditions made the production of profitable crops an impossibility. The fact that prices for all farm products have been very high made the crop losses easier to bear, but unquestionably crop failure was a serious setback financially to the farmers in many cases.

Suppose in years past these farmers, who have witnessed their farm dividends melt away under the scourge of drought or hot winds, had invested their money partly at least in United States government bonds on which they would now be drawing income. Would this not be now a welcome addition to the farm income?

As a general proposition the farmer has his entire investment tied up in his farm property. Generally speaking, the farmer as a bondholder or stockholder is a negligible factor.

In buying Fourth Liberty Loan Bonds now he will be insuring himself against crop failures in the future. He will not have all of his eggs in one basket. In a much larger degree than ever before he will be independent of temporary crop losses. With the government paying him an income he will not be obliged to borrow money at high rates to tide himself over such periods.

Where this year the crops have been good and the returns large, due to exceptionally high prices, unusually large subscriptions should be made. They should not only be sufficient to raise the quota allotted to any such district. The quota should be oversubscribed as soon as the bonds are placed on sale.

In districts where the returns have been less favorable, there will be the necessity for the farmers, nevertheless, to strain every nerve to raise their quota. This may entail greater sacrifice than in other sections, but no one will be exempt from doing his duty, and the future income and future safety will more than compensate for temporary inconvenience, while every subscriber will know that whatever his apparent sacrifice it will be small indeed compared to the sacrifices demanded from and given by the fighting men of the nation.

Share in the great work of winning victories for the nation, and also by subscribing for Fourth Liberty Loan bonds; take out the best kind of insurance in the world.

Because the casualty lists are adding to the gold stars in the service flags in every neighborhood; showing how trivial the financial sacrifice is compared to the sacrifice of those upholding the nation's honor with their very lives.

Because it is the plain duty of every American citizen and no farmers are shirking their responsibility, whether it is in giving their boys to the army and navy, furnishing the food reserves for the allied world or in subscribing to the limit of their financial responsibility to Fourth Liberty Loan Bonds.

Illinois. GEO. A. KING.

National Dairy Council Meets

The annual meeting of the National Dairy Council has been called for Columbus, Ohio, October 14 at 10:00 a. m. by President M. D. Munn of St. Paul. The meeting will be held in connection with the National Dairy Show which will be in progress at that time and will be held at the convention hall of the exposition grounds.

Oregon Dairy Council

HOARD'S DAIRYMAN:—The serious condition of the dairy industry in the state of Oregon led to the formation in August of a volunteer organization known as the Oregon Dairy Council. The president is O. D. Center, head of the Extension Department of Oregon Agricultural College. The chairman of publicity is W. K. Newell of the Food Administration; the secretary, E. C. Calloway, city milk chemist of Portland. The men of this council after organizing went to work immediately to look for ways and means whereby they could save the dairy industry of Oregon. The feed was scarce and labor dear and the dairymen were getting discouraged and were killing off their cows. The health of the children was menaced.

They commenced by working diligently on a campaign of dairy education. The people soon commenced to respond by using more milk and the dairymen began to sit up and take notice that some one had become interested in them. The farmers of Hermiston got together and bought a whole carload of fine Jerseys. We will feed these this winter, they said, and when the spring comes we shall reap our reward. The far sighted farmers saw that a cow fed even though at a loss is a better investment than a cow killed for so much beefsteak. The Oregon Dairy Council's educational campaign is progressing splendidly. The educational director has secured the co-operation of the public schools and had a week's program September 16 to 21 in which the children wrote essays, heard lectures, and were told interesting stories about the value of milk as a food.

The Food Administration has cooperated generously and the state Dairy and Food Commissioner and Bureau of Health have given their assistance. The head of the Home Economics Department of the great Oregon Agricultural College, Miss Eva Milam, has urged the encouragement of a greater use of milk, asking all her county chairmen and assistants to have a share in the work. The girls' polytechnic school has given special attention to teaching milk recipes. The women's committee of the Council of Defense and the Oregon Federation of Women's Clubs have given their endorsement and support.

A prominent dairyman said of the work, "I will try to encourage the dairymen to keep their cows alive. I shall not kill mine so long as I can get a bit of feed. Milk means life to the nation. We never could have sent forth such a fine army to fight the Hun if it hadn't been for milk. Kill the cows now and the future generations are doomed." Albers Bros., one of the leading feed and hay houses, say there is plenty of feed but it is high priced and the dairymen, if they pay high prices for feed, must get good prices for milk and the people must realize that.

The Oregon Dairy Council financed an educational exhibit at the state fair at Salem, showing the food value of milk. Dr. E. J. Labbe, just back from Europe where he helped in the feeding and care of hundreds of Belgian refugees, was the Dairy Day speaker on Sept. 24th. The next night C. F. Lareen of North Dakota, and W. I. Pew of Iowa, spoke.

Oregon. E. H. HOLMES.

Reason for Sugar Shortage

The shortage in sugar in the United States is due to the fact that we must supply our allies from what was formerly almost the exclusive supply for this country.

Before the war, Germany, Austria, Belgium, and Russia were large exporters of sugar, and each country in Europe got almost its entire sugar supply from European sources.

Since the war, Germany and Austria have ceased to export sugar and the sugar factories of France and Belgium have been entirely destroyed by the German army. The result is that the sugar produced by Cuba, the West Indies, and Hawaii, together with that of the United States, has now to be divided with our allies instead of all being consumed in the United States.

Sugar is one of the most essential foods for the soldiers, and we feel that after this brief explanation there is no true American that will not be willing to limit his sugar to two pounds per month as requested by the Food Administration in order to enable them to send sugar to our own soldiers and our allies.

How much sugar per month is each person allowed?

Two pounds per person per month.

How much sugar may be purchased at a time?

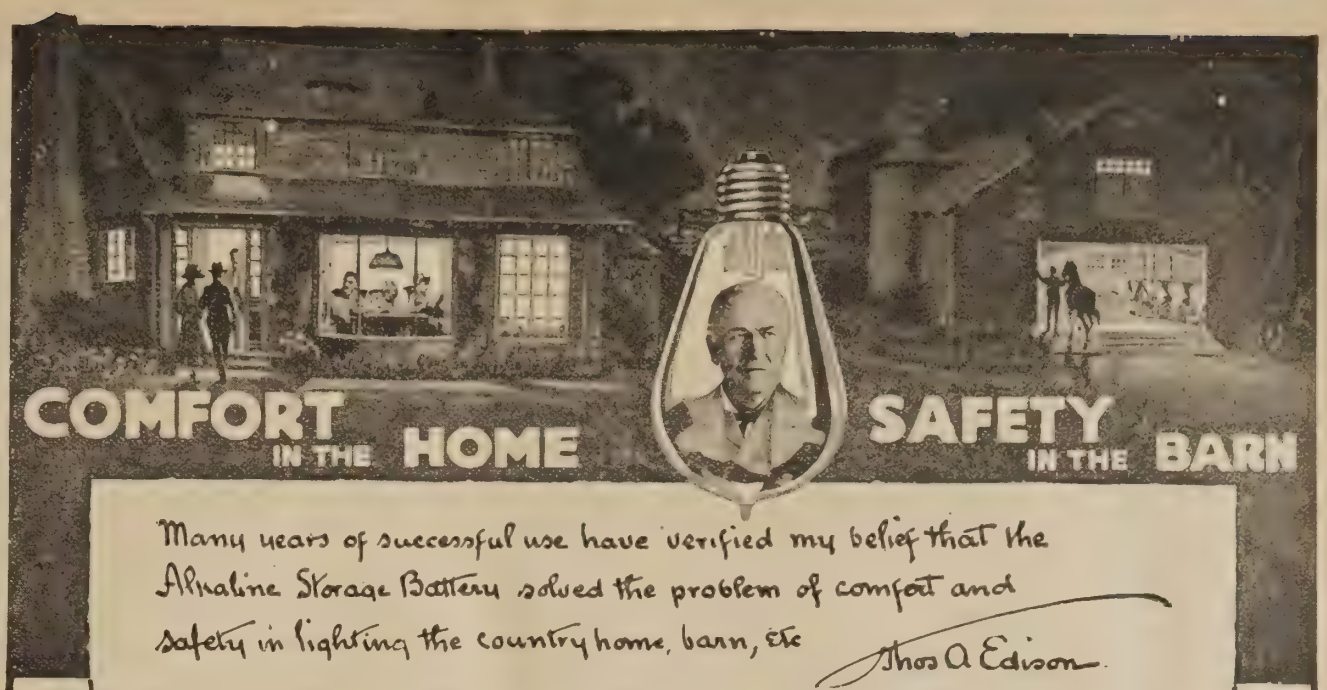
To city or village customers two pounds at a time. To country customers five pounds at once.

How may sugar be obtained for canning purposes?

Permits must be obtained by purchaser from county food administrator or local deputy. Maximum amount to be sold at one time is ten pounds. Further ten-pound allotments may be granted by local deputy or county administrator to can fruits actually in hands of consumer.—WISCONSIN FOOD ADMINISTRATION.

Legume hays.—The cheapest source of protein is generally legume hays, including clover, alfalfa, and cowpea hay. If an abundance of any one of these hays is on hand, the problem of making an economical balanced ration is very much simplified. The use of these hays makes it unnecessary to buy any large quantities of bran, oil meal, or cottonseed meal for ordinary dairy cows, and makes it possible that the principal grain used be corn, which usually is our cheapest grain. Even cowpea or alfalfa hay alone, with corn for grain, makes a fairly good ration for an ordinary cow, and such a ration could be substituted with good results for that of timothy hay and corn fodder. If hay is to be sold it should be timothy hay and not clover or cowpea hay.—C. H. ECKLES.

Conservation is the All-American job—an army of four million soldiers must be fed from this year's crop.



When you decide to install an Electric Power and Light Plant, ***be sure to get the Edison Alkaline Storage Battery.***

There are many excellent electric plants to be had. Practically ***any*** of the reliable makes can be purchased with the Edison Storage Battery, when specified. Several highly efficient plants are regularly supplied with the Edison Battery. We emphasize:

YOU CAN SPECIFY AND SECURE THE

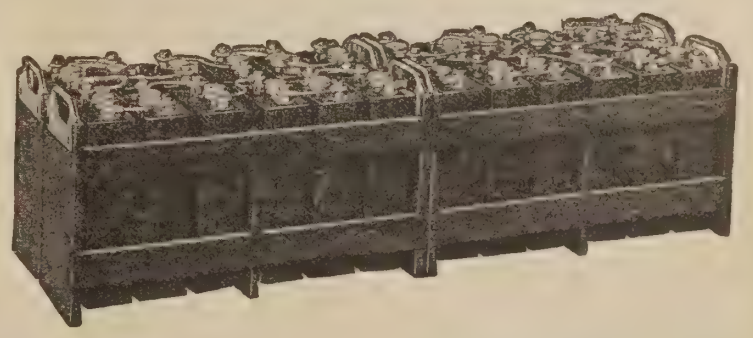
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WITH *ANY* RELIABLE POWER AND LIGHT PLANT

Remember that the Storage Battery is the "heart" of the plant. It must be dependable for service 24 hours every day. No matter how good the engine, generator, and switchboard may be, you cannot be certain you have the ***right*** plant for your home ***unless*** it is equipped with the Edison Storage Battery.

The Edison is the only battery built entirely of steel—rugged, easy to operate, hard to wear out. In fact, it can be used year after year with no expense for repairs or replacement of parts, and needs no attention other than adding a little distilled water occasionally. *That* is the kind of battery *you* want!

Ask the Dealer. If he will not supply an Edison Storage Battery with the power and light plant he has to sell, write us at once and we will put you in touch with a dealer who will.



EDISON STORAGE BATTERY CO., 262 Lakeside Avenue, Orange, New Jersey



Start Your Moulted Hens to Laying



THE world is calling for more poultry and more eggs. Everybody must speed up—it's a patriotic duty. Now's the time to get ready for regular fall and winter laying.

DR. HESS POULTRY PAN-A-CE-A

Will start your pullets and moulted hens to laying promptly

Remember, going through the moult is like going through a long spell of sickness. The egg organs become dormant, but why let nature bide its own time to revive the egg organs? Feed a tonic.

Dr. Hess Poultry Pan-a-ce-a contains *Nux Vomica* and *Quassia*—tonics that promote digestion, that tone up the dormant egg organs. It has *Iron* for the blood, and *internal antiseptics*. This combination will keep your whole flock healthy and start your pullets and moulted hens to laying.

IMPORTANT: If your hens are not yet over the moult, supply them with Pan-a-ce-a daily to give them strength and vitality to force out the old quills and grow new feathers. Always buy Pan-a-ce-a according to the size of your flock—a penny's worth for each hen to start with. There is a package for all sizes of flocks.

You have no chances to take. The dealer in your town who sells Pan-a-ce-a will refund your money if it does not do as we claim. 30c, 75c and $1.50 packages; 25-lb. pail, $3.00; 100-lb. drum, $10.00. Except in the far West and Canada.

Dr. HESS & CLARK, Ashland, Ohio

Dr. HESS Stock Tonic
Keeps Hogs Healthy
Drives Out the Worms

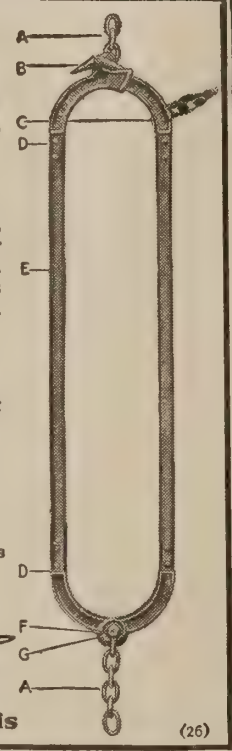
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Porter's Stanchion

Cow-Proof, Durable, Comfortable



Here is the ideal cow-stanchion, made by Porter with the Porter experience and guarantee behind it. It combines all good qualities that possibly can be put in a stanchion.



Porter Points See Them in the Picture

A—Chains at Top and Bottom give maximum Flexibility
B—Locked by "Cow-Proof" Latch.
C—Stanchion holder regularly furnished with each Stanchion.
D—Perfect Fit and Smoothness make joints Sanitary.
E—Round tubing prevents injury to animal.
F—Extra large bearing surface at hinge insures long life.
G—Clevis and bolt hold hinge firmly in place.

Porter's Stanchion makes for "Comfortable Cattle" and that means more valuable herds.

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Write quick for full information.

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We buy all kinds at highest market prices—and pay the freight. Ship us your second hand bags, or at least write us what you have so we can quote you. Satisfaction guaranteed. Our check goes out the day the bags come in.
LINCOLN BAG CO., Dept. H, Springfield, Illinois.



The Cow and Machine Milking

(Continued from page 327)

part of the udder that hangs low usually gives the most milk and the part hanging high usually gives the least. The portion of the udder that hangs high carries the greater part of the weight of the teat cups. Weight applied to the teat cups causes the cow to milk out quicker. This means then that one portion of the udder will milk out quicker than the other. At times this may cause the teat cups to fall off. The skin of the empty part of the udder may fold, air may be let in, and this may cause all of the cups to be released.

It is evident that the length of the rubber tubes could be adjusted so that the weight on all of the four unevenly placed teats would be the same, but this would mean a change of tubes or cups each time such a cow is milked.

In addition, the empty part of the udder may be affected by the suction and pulsation. When a cow is being milked, and she is giving down her milk properly, the mammary organ is relaxed. So far as known, the cow cannot close one part of the udder and relax on the other part. If a cow has milked out entirely on the fore quarters, and not on the hind quarters, the suction or vacuum applied to the front quarters probably extends through the teat, the milk cistern, the ducts and vacuoles, to the gland lobules, and even to the alveolan cells. With some cows, especially the easy milkers, this long applied vacuum on the empty portion of the udder may be injurious. The probability is that if discomfort is caused to the cow, she will either have udder trouble in the empty part of the udder, or else she will tighten the muscles and shut off the upper part of her udder from this suction. This probable action of the cow would cause her to hold up her milk in the quarters that milk out last.

Again, there are cows having teats of uneven size and shape, and teats of poor quality. While it is true that there are very few cows having so abnormally shaped teats that the machine cannot milk them, with the aid of the right sort of an operator, it is also true that cows having well shaped and medium sized teats are easier to milk by machine and the teat cups are much easier and quicker to attach properly.

When teats are of proper size and shape, the milking machine gets a straighter and better hold, and there is probably less danger of having sore teats. In all the time that these different milking machines have been in use, there have been only three different cows that have been troubled with sore teats that could in any way be laid to the milking machine. These teats became hard, red, feverish, and a trifle swollen at the end. This soreness was probably due to a congestion of the blood caused by the steady suction. This soreness lasted but a short time. It gradually disappeared without removing the milking machine. It is possible that the quality of the teat may have been a partial cause of this trouble. These teats were naturally inclined to be a little hard and fleshy in consistency.

Usually a herd of cows would contain only a few cows that would be undesirable for mechanical milking from this standpoint. Minor difficulties in machine milking would be obviated if such cows were culled out.

Cows Well Adapted to Machine Milking

Cows that have the right nervous temperament, that give a large flow of milk, that give down their milk readily and quickly, that have symmetrical udders and squarely placed teats of proper size, are especially suited for machine milking. In the college herd, there are about 30 out of 40 cows that would come under this head. It is reasonable to assume that this herd is normal.

In the average dairy herd there is probably a similar percentage of cows that would give no difficulty at all in machine milking, if a prudent operator had charge of the machine.

In a herd composed largely of scrubs or unimproved types, and of range cattle, the percentage of cows that will milk successfully with the milking machine would undoubtedly run much lower.

From a commercial standpoint, the success of a milking machine is judged not so much from the large number of cows that will milk successfully, as from the small number of cows in the herd which cause the difficulties. If three or four cows in a certain herd appear to give a full flow of milk at one milking and a small flow at another, or if the teat cups fall off from one or more of the cows, or if one or more of the cows have caked udders, or if some of the teats are hard and sore at the end, or if a few cows go dry three or four months previous to freshening, the milking machine is likely to be blamed. It pays to eliminate the unsuccessful cows and have the herd composed of cows that normally give no trouble for machine milking.

Select and Breed Right Kind of Cows

The dairyman who expects to use the milking machine in his herd and use it successfully should realize that the kind of a cow is an important factor in making mechanical milking a lasting success. If there are cows in the herd that are defective in any or all of the above mentioned points, the owner should not expect the milking machine to be the greatest success. Such defective cows as a rule are not good appearing cows. They, as a rule, are not large producers and profitable cows. They should be culled from the herd.

If such cows are kept in the herd, their offspring should not be continued, especially if these defects and habits of giving down milk prove to be a dominant character and are transmitted to the progeny.

One of the most important things, in this connection, is to use great care in selecting a herd bull. The wise dairyman selects a bull that comes from large producing ancestors, that is of pure blood and of good type. In addition, the female ancestors should have good, nervous temperament, should have well shaped mammary organs, and should milk well. The male ancestors should be known to have daughters having milking characteristics that are suitable for mechanical milking. A tried sire known to put good mammary organs on his daughters is a good acquisition in a herd.

By thus applying care in this selection and breeding of the herd, in a short time there will be none of the cows left that cause the chief difficulties in the successful operation of a milking machine.

I have elaborated on the above points because they are important in the successful operation of a milking machine. In addition, the barn should not be too cold, and conditions for keeping the milking machine sanitary should be reasonably convenient.

Machine Milking for Nine Years

The milking machines in the South Dakota State College dairy barn have now been in constant use for more than nine years. As the time of usage increases, difficulties in mechanical milking decreases. This is due chiefly to three things.

First, the various manufacturers of milking machines are constantly making improvements and the South Da-

kota Experiment Station has had the immediate advantage of these improvements.

Second, the ability of the herdsman to successfully operate the milking machines improve. The present herdsman has been on the job eleven years, longer than have the milking machines. Milking is like anything else. The longer a person is at it the better he becomes. However, there are some persons who seemingly never can learn to milk by machine, the same as there are some persons who cannot learn to play an instrument properly. A successful musician is always in close touch with the sound of the instrument. An operator of a milking machine must understand and be in close touch with both the cow and the machine.

Third, the udders, teats, and suitability for mechanical milking of the cows in the herd have greatly improved during the last few years.

At the present time when labor is so uncertain and scarce, we could not dispense with milking machines. In case of necessity one man can milk all of the cows by machine, but he could not do so by hand.

Value of Shredded Fodder

HOARD'S DAIRYMAN:—The problem of providing roughage for winter feeding is one that concerns farmers who keep a good deal of live stock.



SHREDDING FODDER INTO BARN

The necessity of keeping and feeding live stock is shown in every report of the food conditions in this country and abroad. Next to hay, corn fodder is one of the most abundant roughages produced in the corn belt, and perhaps has never been utilized to as good an advantage as it should be.

While stover has not a high feeding value, it is an excellent dry roughage to feed with silage. Its feeding value may be improved by shredding the fodder into the barn. Feeding fodder or the whole stalk has always been a popular practice, but it is not possible to utilize so much of it as when shredded. Not much, if any, more labor is required to shred fodder than to get out each day or so during the winter months and haul in a load for the stock. When it is shredded into the barn it does not deteriorate in quality near so fast as when standing out in the weather.

I have heard old-time farmers say that better results could be obtained by feeding from the shock, but I always found that the same men recommended putting their hay in the mow in preference to shocking it in the field.

The quality of fodder depends somewhat on the time of cutting the corn. The leaves are a valuable part of the corn plant. If the corn is let stand until they have become quite dry many will be lost through shattering; also the stalks will contain more indigestible fiber than when cut when the corn is fully matured. Corn that is cut when it is glazed or mature and set in moderately sized shocks will cure nicely even though it carries a lot of green leaves.

We use a corn binder for cutting, finding the bound bundles convenient to handle. If we had had to depend on hand cutters last year it would have been impossible to get any cut at all. The binder cuts the cornstalk near the ground, and if the corn is cut at the right stage the butts make as good feed as the upper part of stalk when cut fine.

The best time to shred is as soon as the fodder is well cured. Fodder that stands in the field until January usually becomes very hard and dry, so that when it is shredded it pulverizes considerably and does not make the best feed. From October to the middle of November it is usually in prime shape to shred, and the corn husked from it by the shredder is dry enough to crib safely. If the fodder is a little damp when shredding, due to a damp atmosphere, we throw over it while shredding a mixture of lime and salt, mixed in the proportion of 1 of lime to 3 of salt, using about two or three gallons of the mixture to a hundred shocks. This prevents mold and does not depreciate the palatability, but the fodder should not be disturbed until through heating.

The labor required for shredding is about equivalent to that for siloing. Since so much labor has been drawn from the country the best means of meeting the shortage will be found in six to eight farmers owning co-operatively a small shredder. Scarcely a neighborhood will be found in which there is not a light tractor of some sort to operate it. In this way very little hired labor will be needed, while if a large capacity custom outfit is hired it will take a large crew to keep it going steadily.

Our ring has owned one of these small shredders for a good many years, and usually not more than two to four men were hired outside of the labor on the eight farms, there being eight in the ring. Usually the work is all finished before Thanksgiving. The cost of shredding has ranged near what it would cost to shuck the corn from the stalk by hand, and the shredder husks the corn as well as shreds the fodder into the barn.

Indiana. J. L. JUSTICE.

Moves Cattle from Drouth Areas

Large shipments of cattle from the drouth-stricken regions of Texas and Oklahoma to pasture land in Pennsylvania, Virginia, and other eastern states are to be undertaken by the railroad administration, upon request of the Food Administration. To make possible this food conservation measure a decrease of 25 per cent in freight rates has been granted, through recommendation of the Food Administration.

Cattle buyers in the East will purchase western stock outright, and shipments in trainload lots will begin as soon as the plan is completed.

Bonds speak louder than words.



CARBIDE GAS lights this farmer's home (and barns) and cooks his meals—safely, quickly, economically.

It is rendering this double service in over 250,000 country homes today. The farmer was the first to discover the value and use of Union Carbide, eighteen years ago.

Following its widespread use by the farmer, the miner discovered that Carbide miners' lamps were a great improvement over oil lamps. Today over 700,000 miners use Carbide.

Metal workers and machinists in shipyards, on railroads, and in machine shops discovered they could weld and cut metals quicker and more economically with Carbide gas (when combined with oxygen) than by any other method.

Contractors, stevedores, and farmers found out its superior advantages for flare lamps and torches.

These are some of the uses that nave made Union Carbide a big factor in all branches of industry.

Write us today for descriptive booklets by mail—FREE

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Fewer Accidents —Less Disease



Stalls floored with Circle A Cork Brick in the dairy barn of Mr. Wm. Zuengler, Adell, Wis.

Slips and falls, rheumatism, caked udders, strained tendons and bunchy joints are materially reduced and often eliminated entirely by paving your stalls and runways with

All genuine Armstrong Cork Brick bear the Circle A trade-mark

Circle A Cork Brick

For All Stall Floors

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Cork brick floors are an investment, pure and simple. They are warm, clean, comfortable and, being non-slippery, they practically abolish the danger of injuries due to slipping and falling.

"I was obliged to keep my milking herd standing on this floor *without straw or other* litter for twenty-one days—and did not have a sore or lame aninal when I turned them loose again." (Signed) W. H. BUTLER, Sandusky, Ohio.

Send for a copy of "Better Stall Floors"—a book that explains one way of getting more profit from cows. No charge—send a postal today.

Armstrong Cork & Insulation Co., 112 Twenty-fourth Stree PITTSBURGH, PA.

60—HOLSTEINS—60

Cows, Heifers, Bulls

Will Be Sold at Marshfield

Thursday, Oct. 17, '18

Butterfat is Worth 60c Per Pound
Cheese 30c Per Pound

You can buy a cow at this sale that will return you thirty or forty dollars per month. The dairy outlook was never better. Meet us at our sale and obtain some of our bargains.

Catalogs ready October 7th.

W. W. CLARK, Sales Manager,
Grand Rapids, Wis.

Jenney Silo-Filler-Husker



Husk your corn and fill your silo at the same time.

A Corn-Saver
A Labor-Saver
A Time-Saver
A Money-Maker

Husk the corn from your silage. Put that $1.50 corn in the crib and the corn stalks in the silo. THE JENNEY SILO-FILLER-HUSKER handles corn in any condition, picks out and husks the good ear corn while filling the silo, or puts it all in the silo when required. Capacity 12 tons per hour. Write at once for free book, "STOVER SILAGE", by Robt. T. Jenney.

HALL MANUFACTURING CO., Monticello, Iowa.

100 Ayrshires—Both Sexes For Sale

To make room for our young stock we are forced to dispose of approximately 100 head. We are offering animals of all ages and both sexes for sale. These cattle are backed by Advanced Registry Records, they represent popular blood lines, and many of them were show ring winners in 1916 and 1917. They are priced right. Write for further information to

H. F. PAZIK, WAUKESHA, WISCONSIN.

Death of Calf

I had two sick calves some time ago, one of which died. The other is still sick, not changing for better or for worse. The local veterinarian says they may have been poisoned by a weed. I have looked all over my pasture but failed to find any such weed. Whenever it rains there is a pool of manure water in my barnyard. The calves were observed to drink some of this water. In your opinion would this cause the sickness or death of the calves?

Gillett, Wis. G. S.

The post mortem lesions strongly suggest hemorrhagic septicemia as the cause of death and it would be well to have remaining cattle vaccinated against that disease. Meanwhile give them a change of pasture. If another animal dies the veterinarian should pack samples of affected tissues in cracked ice and sawdust, without a disinfectant or preservative, and send them to the veterinary department of the State Agricultural Experiment Station at Madison for examination. "Manure tea" would not be likely to cause the lesions described.

DAIRY MARKETS

CHICAGO, Sept. 26—Butter—Creamery, extras, 58@58½c; extra firsts, 58½c; dairy, firsts, 54@57½c; seconds, 51@53½c.

Eggs—Ordinary, 42@44c; firsts, 45@46c.

Cheese—Twins, 31c; Young Americas, 32@32½c.

MILWAUKEE, Sept. 26—Butter—Creamery, tubs, 58@59c; prints, 60c; extra firsts, 55@57c; firsts, 53@54c; dairy, fancy, 48@50c.

Eggs—Current receipts, returned, 41@42c; cases, new included, 41½@42c; miscellaneous, cases, 40½@41½c; dirties, 33@34c; seconds, 30@31c; checks, 27@29c; recandled, 44@45c.

Cheese—Twins, 31@32c; Daisies, 31½@32c; Brick, 29@29½c; Limburger, new, 1 lb., 29c; 2 lbs., 28c; Swiss, loaf, 45@47c; block, 34@36c; Longhorns, 32½@33c; Young Americas, 32c.

SHEBOYGAN, Sept. 24—On the Sheboygan dairy board on Monday eight factories offered 324 boxes of Longhorns, 71 of which sold at 32⅛c and 253 at 32c.

PLYMOUTH, Sept. 24—At the Wisconsin cheese exchange on Monday the following sales were made: 70 Twins, at 31c; 300 Daisies, at 31⅝c; 950, at 31¼c; Double Daisies, at 31c; 433 Longhorns, at 32c; 160 square prints at 31⅞c.

SPRING GREEN, Wis., Sept. 24—Offerings of cheese on the Spring Green dairy board of trade on Tuesday were 1,093 boxes of Single Daisies. Of these 919 boxes sold at 31¼c and 174 boxes sold at 31 5-16c.

HIGHLAND, Wis., Sept. 24—Dairy board sales were 290 boxes Twins at 31c.

APPLETON, Wis., Sept. 24—Five factories here offered 290 boxes of cheese on the call board. Sales were 131 boxes Twins and 78 boxes Double Daisies at 31c.

NEW YORK, Sept. 26—Cheese—Stronger; state milk, common to specials, 26@30c; skims, common to specials, 8@24½c.

Butter—Strong and higher; receipts, 8,164 lbs.; creamery, extras, 61½@62c; state dairy, tubs, 46@61c.

Eggs—Unsettled; receipts, 9,499 cases; nearby white fancy; 65@68c; nearby mixed fancy, 47@53c; fresh firsts, 48@53c.

PHILADELPHIA, Sept. 26—Butter—Higher; western creamery extra, 62c; nearby prints, fancy, 67@69c.

Cheese—Higher; 29½@30½c.

Eggs—Higher; nearby firsts, $15.00@15.30 per case; nearby current receipts, $14.40@14.70; western extra firsts, $15.00@15.30; do firsts, $14.40@14.70.

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It restores the reproductive functions.

It corrects the irregularity of cows and heifers that do not come in season.

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It does NOT cause straining.
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Prices, prepaid, $1.15, $2.75 and $5. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75.
C. I. HOOD CO., Lowell, Mass.

Public Sale

I will sell at Public Auction, at my Farm,

4 Miles South of St. Joseph, Mo.,

Monday, Oct. 21, 1918

40 Jersey Cows and Heifers

25 of these cows are guaranteed to qualify for the Register of Merit or your money back. These cows are all bred to Gamboge's Western King, whose dam will surely qualify in the 1,000-lb. class this year. Send for catalog.

ROBERT I. YOUNG
R. F. D. 5, St. Joseph, Mo.

100 GRADE HOLSTEINS

These are heifers, some already have calves, all bred, well marked. Price made to sell.

HENRY KRUEGER, OWNER,
Clayton, Polk County, Wisconsin.

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DISPERSAL SALE

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125 Registered and High-grade Holsteins 125

More A. R. O. backing than usually found in one herd. They are a choicely bred lot. Write for catalog and arrange to attend this big sale.

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THE business end of a Jersey is the udder. It's a money-making machine. One of the marvels of nature. Automatic and sure! The Jersey does not adulterate her own milk. She gets the utmost nutriment from the least feed. She gives it to you in milk richer in butter fat than that produced by any other breed. Hundreds of farmers who started with one Jersey now have herds bringing them a continuous income that makes them independent of crop conditions. The facts about Jerseys will surprise you. We send them FREE. Write to breeders for prices and pedigrees.

THE AMERICAN JERSEY CATTLE CLUB 351 West 23rd Street, New York City



More Dairy Herds for Texas

HOARD'S DAIRYMAN:—Many farmers of Texas are deeply interested in the plan which has been devised by the extension service of the State Agricultural and Mechanical College, College Park, for providing them with dairy herds. An announcement of the plans says:

"Those needing or preferring Jersey stock can best have their wants supplied from the Texas herds. The Guernsey and Holstein animals will be shipped down from the north during the cooler weather. Expert judges will be furnished by the Extension Department of the college and their services will be free.

"The plan is to buy enough for a car lot shipment to Texas common point rates places, and then distribute individual shipments from there. The cattle will go to the buyers at actual cost, which will include price paid for the stock, and a pro rata part of the expense for freight, feed bills, and the traveling expenses of the expert judges of the value of the cows as dairy purpose animals. Car lots will require at least twenty head for the more mature cows, 25 head for two-year-olds, and 30 for the yearling heifers.

"In districts where the fever tick prevails the cattle will first have to be immunized, either at starting point or better still shipped direct to the Agricultural and Mechanical College. They will be inoculated there free of charge, except for the cost of care and feed while here. For those districts only young stock, not over sixteen months old, should be purchased, even though they are to be sent to the Agricultural and Mechanical College. Older cows do not undergo the immunization process as satisfactorily, nor as safely, as the young animals. Calves and very young heifer stock often go through the course of the fever without the care of a veterinarian, and can be safely handled under expert supervision at the college.

"During the past year the delivered prices on this class of dairy stock for the Guernsey and Holstein breeds have ranged from $150 to $175 for well developed cows; high grade two-year-olds at $90 to $125; yearling heifers at from $25 to $50. Pure-breds ranged from $150 up. The grade cows mentioned usually have a capacity of five to eight gallons of milk per day, under good conditions.

"On the Texas market good grade Jersey stock, matured cows, can be had for $85 to $150; two-year-olds and yearling heifers at correspondingly low prices; registered stock, either cows or bulls, at $125 up.

"The two judges and buyers representing the Extension Service will leave for the North the first week in October. Those wishing to place an order either for a cow or several, or a carload, should get together and report to me at once. The age, number wanted, and range of prices to be fixed by the buyer or party wanting the stock. Drafts will be drawn direct by the parties who own the cattle, on the party buying, for the purchase price. Other expense will follow with the freight charges at destination."

Texas. W. D. HORNADAY.

Abortion

I have abortion started in my herd of cows. Will that take its course or is there a cure for it? If you know of a cure I wish you would let me know.

Norwalk, Wis. A. D.

There is no specific remedy for the contagious abortion disease but it may disappear or lose its effect in your herd after a time if you follow a systematic plan of disinfection under the direction of a qualified veterinarian. Cleanse, disinfect, and whitewash the stable and then use a disinfectant on the floors and in the gutters two or three times a week. Have the veterinarian disinfect cows that have aborted and before breeding any cow or heifer, syringe out her vagina on alternate days for two or three weeks with lukewarm water containing a disinfectant prescribed by the veterinarian.

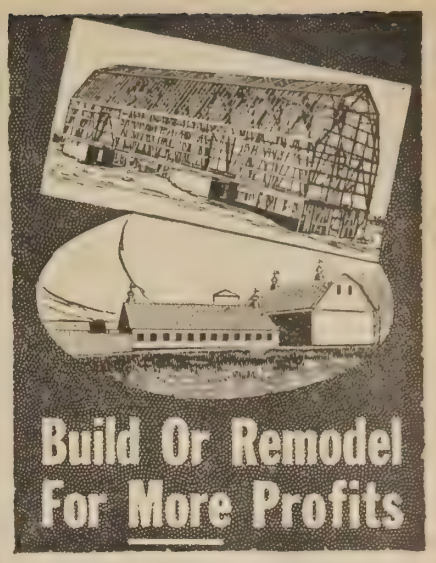
Fouls

I have trouble in my herd of Jerseys with foot thrush. It appears similar to the thrush that affects the frog of a horse's foot. The affected young animal loses flesh, goes lame in one front foot, and appears in bad general health. Animals run on grass pasture, no manure or stabling. One bull, after treatment of his affected feet with sulphate of copper, recovered, and now has recurrence in same foot two months later. Another similarly treated has recovered. Disease appears to be constitutional as well as a local trouble.

Eatonton, Ga. B. W. H.

The disease, no doubt, is "fouls" or "foul in the foot" caused by lodging of foreign matters between the toes or irritating from wading through rank growths of wet grass. Keep affected cattle off grass for a few days. Then saturate oakum or cotton with a five per cent solution of coal tar disinfectant and bind it upon affected parts by means of a narrow bandage. Renew the dressing daily. In mild cases an application or two of pine tar sometimes is all the treatment necessary.

Food saving was at first a fad; then a patriotic service; now a habit.





James planned and equipped dairy barns mean more milk and less work. Make your dairy barn an efficient work shop and profit maker. Install

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Give your herd contentment and comfort and they'll give you more milk. James equipment is the practical profit-maker that thousands of America's dairymen use. Tell us when you intend to build or remodel and for how many cows — we will send you the big "Jamesway" Book Free.

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Chamber of Commerce, H. A. Russell, Secy., Fort Scott, Kan.



The Farmer's Concrete Mixer
SHELDON Batch Mixer Price $11.50 Up

Concrete saves lumber and steel for ships. A Sheldon Mixer saves labor and gets the work done besides. Designed especially for the farmer. Highly praised by users. Farmers everywhere say it's the ideal machine for them. Used now in every State and in a dozen foreign countries. Small enough to move easily—big enough to keep six men busy. Lowest in price. Build your own feeding floors, silos, tanks, troughs, foundations, cribs and buildings.



Read What These Sheldon Owners Say

I and my hired man laid a feeding floor for my hogs, 24x24, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home.—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and like it very much.—DANA WEIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*.—WM. PARKS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out.*—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township.—JOHN ROSS, Spartanburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*.—D. M. BRUBAKER, Freeport, Ill.

FREE PLANS

Make your own concrete mixer. You can do it at a cost so low you can not afford to mix concrete by the shovel method. Along with our iron parts we send Free Plans and permit for making your own machine. A good way to get a practical mixer at a small expense. Or, we will sell you the complete machine, ready built.

Make Big Money at Concreting

If you buy a Sheldon Mixer for your own use, you can make many times its cost in a season by renting it to your neighbors. Or, if you want to go out with the mixer on contracts, you can easily earn $3 to $20 a day. Our customers are doing it right now. The jobs go to the man with a Sheldon Mixer every time.

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Shows our full line of mixers which are sold direct to you on strong guarantee. *Thirty days trial* privilege. No other like it. Patented. Two styles, hand and power. Mixes 2 1-2 cubic feet a minute. One man can operate it, but it will keep 2, 3, 4, 5 or 6 men busy. Continuous chain drive. Tilting dump. Easily and quickly moved. All parts guaranteed. Does work equal to $400 mixers. Be sure to get the catalog. Write today.

My New Special Offer

I want to tell you about my co-operative plan by which you can get my time-tried, thoroughly proven Sheldon Batch Concrete Mixer at little or no cost to you. I want ten men in every county to accept my special co-operative offer right now. Are you going to be one of the ten? Write and say: "Send me special offer."

The Sheldon will pay for itself on first small job. Takes the backache out of concrete. Makes possible those many small improvements that add so much to the value of your land.

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Real Gravely Chewing Plug is solving the tobacco problem for more men every day. Smaller chew. Better tobacco. The good taste lasts.



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Real Gravely Chewing Plug
10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia

When Writing to Advertisers, Mention Hoard's Dairyman

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Helping the Boys to Get Started

Presuming that I am speaking to people who are interested in raising better boys and better hogs, I will not bore you with the details of hog raising, but merely enumerate some of the things that have been done in Williamson County in helping the boys to get started, especially along the line of the pig club movement.

With sixteen Williamson County banks financing pig club boys, I am safe in saying that no deserving boy has yet been refused assistance in buying his pig or brood sow, where he was willing to follow the suggestions of the county agent. While some bankers have made different terms, given more or less encouragement, assistance, and boosting to the movement, Mr. T. B. Benson, cashier the Bartlett National Bank, has been one of our greatest helpers, boosting and materially aiding one of the greatest pig clubs in Texas. He has backed the boys, continued to take interest in them, kept them encouraged, and helped them through adverse circumstances, and while some pig clubs were content with grade hogs, and by following the best methods of feeding balanced rations made good money on the fat hog market, we set out to not only raise meat, but the very best breeding stock to be found in Texas, to supply other sections getting started later.

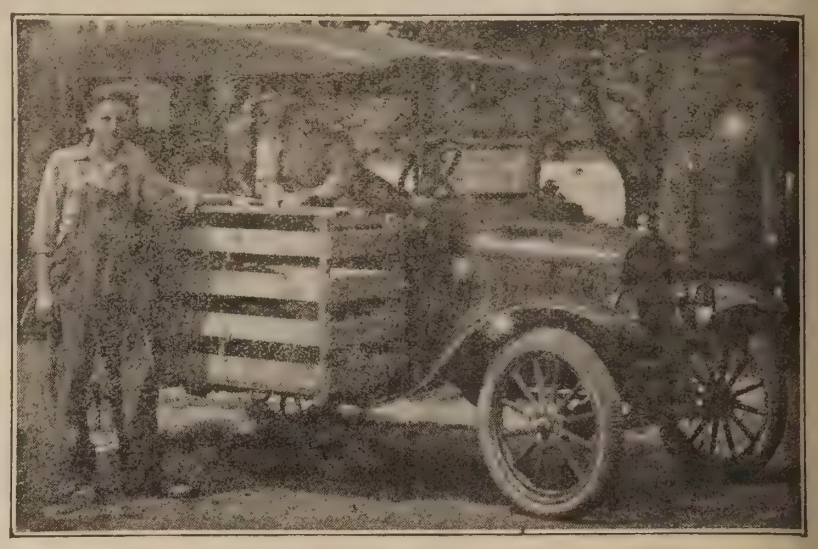
With two carloads of business men, we organized at eight schools in Bartlott trade territory, the Bartlett Boys' Registered Pig Club in one day. Mr. Benson financed the boys at 8% interest, taking their plain moral note with their father's permission in every case but with no endorsements or leins, allowing the boys two years, if needed, to actually make the money out of their hogs with which to pay their notes and further financing them with their feed bill, due to the severe drouth cutting short our feed crops. A solid carload of registered big-type Poland-Chinas, selected by the county agent from the leading Kansas breeders, the best in breeding that money could find, were shipped to the county and distributed to pig club boys in different sections, financed by several bankers. The Bartlett National Pig Club members got thirty sow pigs and one boar, three months old, cholera immune, weighing an average of 68 pounds each and costing $25 each.

During a severe drouth when all feeds were purchased at highest retail prices, by feeding balanced rations, utilizing waste, and pushing to the limit, each boy made a profit over the cost of production. From a meat hog standpoint alone, they were shown in 100 days for a $20 gold piece given by the bank to the boy making the best record which was a gain of 200 pounds. The average daily gain of all hogs shown was 1.25 pounds per day, the entire bunch weighing an average of 198 pounds each. A new class of hogs and a different viewpoint established for the community was destined to change the old breeders' viewpoint and create a greater interest in better hogs.

It has now been practically one year since the pigs were distributed; they are now sows weighing from 400 to 600 pounds. The first 12 farrowed 110 pigs, seven of them farrowing 11 pigs each. Now practically all have farrowed and in nearly every case a large litter. There has been a great demand among the farmers and other boys of the community for these pigs, many of which have been sold at weaning time for from $25 to $35, none for less, while several of the boys with the best litters have refused to sell their pigs now, preferring to keep their entire litter together, pushing them in the county contest, to win a Dallas Fair Scholarship for the 13 best litters, expecting to take their exhibits to the fair with the Williamson County big type Poland-China string of entries, there to show to other sections what this county's club boys are doing towards feeding the soldier boys. Incidentally they hope to sell their extras at fancy prices. One boy has been guaranteed $1,000 for his sow and litter of 11 pigs at Dallas this fall. He expects, however, to get more, as he will by then have his second litter.

One of the $25 pigs at nine months weighing 112 pounds, was shown at the fat stock show in Fort Worth. The day she was 12 months the owner refused $300, then $500, and finally refused to price her at $1,000. Today she is the mother of eight pigs, several of which are already sold to be delivered at four months for $100 each.

To show further the interest created by these hogs the boar pig now weighing around 600 lbs. at one year old, has served 62 sows, and the owner is now turning down all people wanting service except the club boys with big type Poland-China sows for their second litter. People have sent their sows for miles and he has probably done more towards breeding up a uniform type in a community than any other in Texas. We have eight of these boars of three different



PAUL LOGAN, STOCKWELL PIG CLUB, INDIANA, READY TO TAKE HIS GILT HOME

strains of breeding in the county which will, in due time, be exchanged. They are distributed uniformly over the county so that practically every section is being benefited by the importation.

When a man complains to the boys about having to pay them $25 for a weaned pig, as one year ago they hooted at the idea of the boys paying that price, saying no pig was worth more than $5.00, the boys show them where Mr. Walters of Kansas sold 49 head of sows and gilts at auction, six months after we had picked our carload from his bunch, for an average price of $400.61. They tell the farmer to leave them alone as they are worth more money and will easily sell for $100 each soon. The bank will help them carry them, but the farmer usually crates the pig and takes him quickly at the boys' price. There has so far been a greater demand than a supply with outsiders coming in wanting them, also. A number of breeders over the state are waiting for several pigs from the bunch to be shipped them for their own herds. Some have been sold to other county agents for starting their pig clubs. It is our purpose to continue redistributing these pigs over the county until our carload of meat hogs will all show the results of the carload of breeding hogs introduced through the boys. An inventory taken several days ago showed that by 13 club members with big-type sows, 90 registered pigs were being fed for the fall shows.

This story would not be complete without telling what our twice county champion pig feeder has done in twelve months from an original investment of $57.75 for an Ohio bred gilt that has farrowed two litters of pigs. These he sold for $326, keeping one pig that is now larger than the mother. He has two litters on hand. Most of the 15 pigs sold at $20 each to be taken at weaning time and he can get at least $200 for either sow, and will probably have two more litters to show at the fall fair. This is over $1,000 in cash and hogs on hand since last April.

The Bartlett National Pig Club boys now have their orders in for a carload of registered Holstein-Friesian heifers, to come from the best northern herds, to combine cows and hogs in their operations. This operation is also being financed by the same banker. It is needless to say that these bankers are being boosted by the club boys, that practically all the boys' notes have already been taken up, some have bank accounts, and on several farms the only clear money made during the past year was by club boys with their hogs. Especially is Mr. Benson pleased with the Bartlett National Club boys, their work and records, and what they are doing to build up the hog industry of a county and state. I am sure that other sections which have started with their grade hogs, needing good registered boars and sows to improve their herds, can find the best of breeding in Williamson County, right at home, and at better prices than they can possibly think of getting the same stock in the north. In a short time, all the hogs in this county will show that smooth, large, long, big bone, uniformity of type, the results of a vision backed by live bankers, co-operating with the



STOCKWELL PIG CLUB, INDIANA, AND THE 10 BIG TYPE POLAND CHINA GILTS THAT WERE BOUGHT FOR BREEDING STOCK



They wear like iron—

Mayer

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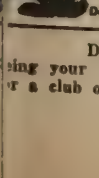
B-K keeps tubes and cups sweet and clean. Penetrates milk solids—kills the bacteria. Is clean—harmless—cannot taint milk. B-K makes rubber parts last longer—cannot harm metal. Used and recommended by Milking Machine Manufacturers for years. Cheapest in actual use—sold under guarantee. Get B-K today—end sour milk troubles. Send us your order and your dealer's name. Send for dairy bulletins and "trial offer."



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HUGE PROFITS easily and pleasantly made. We furnish stock and pay you $6.00 a pair and express charges for all you raise. Contract and book "Fortunes in Hares," 10c. Nothing free.



NATIONAL FOOD & FUR ASSOCIATION
Dept. 240 MILWAUKEE, WISC

DON'T PUT OFF

ing your friends and having them join r a club of subscribers.

county agent. Help the boys get started.—Address by OWEN W. SHERRILL, Williamson County Agent, before Texas Swine Breeders' Meeting.

Junior Letters

Hoard's Dairyman Juniors:—I read the page devoted to the juniors every week and it interests we greatly for I enjoy outdoor life.

I received my creed and fob some time ago which I appreciate very much.

We live on a farm of 100 acres in the northern part of New York, which is mostly made up of hilly ground. Our farm is stocked with Jersey cows, most of which are pure-breds, except for a few high grades.

We have three work horses, one of which has a little colt, two yearlings, and one two-year-old. We also just sold three horses.

Up until this year we have always made butter and therefore kept many pigs, but as it is so much work we send our milk to a station which pays by test.

I have a dog named Teddy and a little black kitten which I call Snowdrop.

Well, I must close, hoping that some of the juniors will write to me.

New York. Erma Rowlee.

Hoard's Dairyman Juniors:—Hello! How are you? I am still a junior although I have not written for a long time.

We have two little calves now and one of them is all white without a bit of red on it and the other is white and red.

Our school will soon start again and I will have the same teacher that I had last year.

We might have the threshers this month, but I don't think so.

We will soon have the Scott re-union. I can't think of any more to write so I will have to close my letter.

Utah. Fern Scott.

Hoard's Dairyman Juniors:—It is quite a while since I have written my first letter to the Hoard's Dairyman Juniors.

I am very much interested in the juniors' page and read it whenever I find time.

We have a silo. The silo is fourteen by thirty-four. We are fixing our barn now. We are going to put in a manure carrier and steel stanchions. We are going to make an ensilage truck.

I am riding a small patch of potatoes. I intend to have a larger garden next year.

I would be glad to receive letters from any of the juniors. I must close as my letter is getting rather long. My address is Darlington, Wis., R. R. No. 3. H. T. Sowls.

Hoard's Dairyman Juniors:—I have been intending to write to you and let you know just how things stand, but have been so busy haven't had any time. I take great pleasure in reading your paper and wouldn't be without it for anything. I believe it is the best dairy paper published. We have been taking it for several years now and will continue to do so.

Some three years ago I joined your Junior Boys' Club and also was your representative for Long Prairie and got a few subscriptions, but now I am so busy with the farm work and my brother will have to go to war soon, I won't have time to get any more subscriptions. Since I have joined your club I have got 150 chickens, a colt, a couple of calves, and a pig.

This year we have in 23 acres of potatoes besides wheat, oats, rye, corn, and other small grains.

Hoping that you will have good luck in your junior club and get a lot of subscriptions, I remain

Minnesota. Percy Boorman.

Hoard's Dairyman Juniors:—This is my fourth letter to the Hoard's Dairyman and I have seen one in print and hope to see this one. My calf is doing well now. I have her on good pasture now. I am going to keep her until she comes fresh. If the calf is a male I am going to sell him and keep the money.

I will close with good luck to the juniors.

Missouri. Johnnie Zigelhafer.

Hoard's Dairyman Juniors:—I guess you have forgotten me but I am still a junior.

In the last letter you wrote you asked me whether I am going to raise corn this year? Off of my first lot of corn this season I made 75c and I do not know how much money I will make off of my last lot of corn.

Night before last we had twin calves which are very fat for their age.

You asked me what was the matter with those grade Guernseys? My father had more stock than he could handle.

We are getting ready to fill our silo, but I do not know what day. We have 10 acres of corn to put in the silo and about 20 acres of yellow corn.

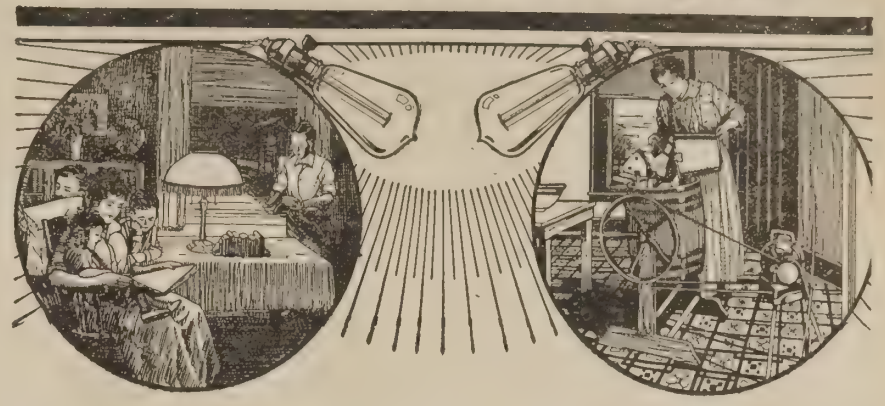
We have moved in town but I am on the farm 3 days in the week. My new address is 101 West Main St., Westminster, Md. I was out to the farm yesterday and ate too many grapes and I was very sick today, but I am better this evening.

I see there is only one other boy besides me in Maryland.

I guess I will close wishing that some of the juniors would write to me.

Howard Koontz, Jr.

DELCO-LIGHT
INCREASES FARM EFFICIENCY



Delco-Light in the Farm Home Means:

An abundance of clear, bright electric light throughout the house and barn.

Running water in house and barn. A modern bath room, fire protection. No laborious pumping.

Economical power to operate the washing machine, the churn, the cream separator, the vacuum cleaner and other small machines.

It means increased profits in time and labor saved.

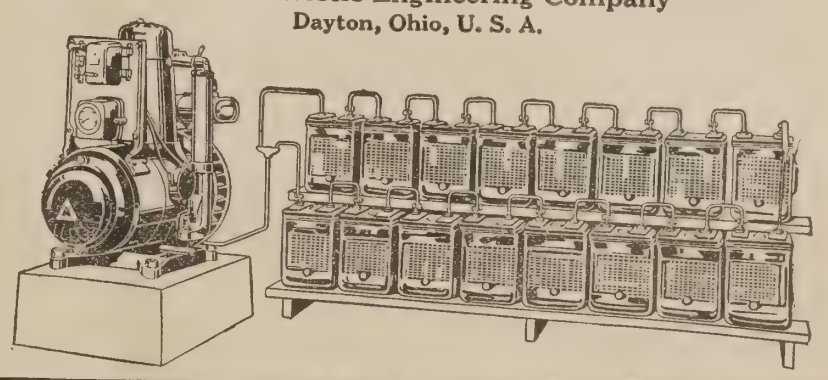
And a home that has in it the comforts and conveniences usually found only in the city.

Delco-Light is a complete electric light and power plant for farm or country home. It is self-cranking, air cooled; ball bearing. Has thick plate, long lived storage battery. No belts.

RUNS ON KEROSENE

There is a Delco-Light man in your locality. Write for his name and for the new Delco-Light book

The Domestic Engineering Company
Dayton, Ohio, U. S. A.



UNCLE SAM

wants

The Whole Dairy Family
Cow to Consumer

Bossy, her father and brothers—The man, woman or child who feeds and milks her—The man, woman or child who makes her milk into butter, cheese, ice cream, condensed milk, milk powder or any other shape or form and the man, woman or child who uses her milk in any form—all the folks who make or sell machinery and equipment she makes necessary

TO GO TO THE

National Dairy Show

Columbus, Ohio, October 10th to 19th, 1918

Where he is going to deliver to each one
A great war message
On the team work he wants to do with the dairy people
And how he wants
The dairy people and the consumers of their products
To work together—

This is a Call of Duty and Opportunity—Go!



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 8-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Holstein grades—Sixty for sale; the best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minn. 8-4

For Sale—Registered Holstein-Friesians, young heifers, $75. Young bulls, $50. PAUL McNISH, Burton, Ohio. 8-5

For Sale—30-lb. bull. Exceptionally fine, well bred, ⅔ white, 9 months old youngster. His dam and the sire's five nearest average 1,014 lbs. butter a year. JOHN PULS, Hartford, Wis. 9-3

Registered Holstein bulls—Rich in the blood of King Segis and King of the Pontiacs. A few good females. JOHNSTONE & BALLANTYNE, Bassett, Iowa. 9-4

For Sale—6 grade Holstein heifers, bred. 4 pure-bred bulls, A. R. O. backing. Farm 1 mile northeast of Genesee Depot. J. W. HOWARD, R. 9, Waukesha, Wis. 10-2

Pure-breds at auction October 12, 1918: Five Holstein heifers, two Guernsey bulls; good breeding. NELSON PECK, Doylestown, Wis. 10-2

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

For Sale—High grade cows and heifers in car lots. Look this stock up while at first annual consignment sale to be held at West Concord, Minn., Oct. 8, 1918. DODGE COUNTY HOLSTEIN BREEDERS' ASSOCIATION, W. P. Mann., Sec., Dodge Center, Minn.

A fine looking, pure-bred, three-year-old Holstein bull for sale. Out of a better than a 30-pound cow. Price $175. WM. JOHNSON, Sullivan, Wis. Telephone 278, Palmyra.

Holstein Bull—Ready for service; fine individual; practically white; splendidly bred; twenty-four-pound dam. $150. A. M. R. CROOKS, Gunnison, Colo. 11-2

Idaho Holsteins—High grade, our entire herd of 42 cows and heifers and 25 heifer calves. CRYSTAL RANCH, Weiser, Idaho.

Ten to fifteen head of registered Holstein cows and heifers. Well grown and good individuals at $150 and upwards. Prefer to sell in a bunch. Must reduce herd. J. M. WAGNER, Union Center, Wis. 11-3

Holstein Springers—7 heifers, junior two's. Send for photo. Price $110 each. ALBERT C. WOLLIN, R. 2, Johnson Creek, Wis.

For Sale—5 extra high grade Holstein cows, dairy type, beautifully marked and guaranteed sound. All bred to a fine son of Johanna De Kol 19th. MRS. MAY DOOHER, Itasca, Wis.

60 pure-bred Holsteins sold at the eighth semi-annual sale, Marshfield, Wisconsin. October 17, 1918. For catalog write W. W. CLARK, Grand Rapids, Wisconsin. 11-2

For Sale or Exchange—Bull Mercedes Segis Korndyke, whose dam made 536 lbs. butter as junior 2-year-old. Born Oct. 1913. Very gentle. Write for pedigree and price. J. E. RUNDELL, Roberts, Wis.

Waukesha County Holstein-Friesian Cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct from the breeder and know what you are getting. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 11-4

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

STOCK FOR SALE

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

For Sale—Guernsey bulls from six months to year and half old. Write for pedigree and prices. S. M. WHITE & SON, London Mills, Ill. 6-6

For Sale—Closing out our grades. We offer several choice grade Guernsey cows and heifers. Most of them our own breeding. Reasonable prices. ST. AUSTELL FARMS, R. D. 3, Jackson, Mich. 8-4

For Sale—Guernsey bull calves sired by May Rose bull from a dam with 871 lbs. fat official record. Dams, granddaughters of Glenwood Boy of Haddon. F. W. KIMBALL, Waltham, Minn. 9-4

Guernsey heifers, three granddaughters of Ne Plus Ultra, $300 and $350 each. Bulls same breeding, $200. A. R. dams. TABER & MIGNIN, Castile, N. Y. 9-4

For Sale—Guernsey bulls from six to fifteen months old. Sired by Langwater Frenchman or Dairymaid's Glenwood of Pinehurst 3rd. Some are from cows with good A. R. records. DALE E. RUNDELL, Ore Hill Farm, Livingston, Grant County, Wis. 9-3

For Sale—8 choice registered Guernsey bulls, all of serviceable age. Guaranteed free of disease. Price $100.00 to $150.00 each. A. MARCKEL, Owner, Perham, Minn. 10-2

For Sale—Six pure-bred Guernsey bulls. They are large, straight backs, nicely marked and in good condition. Phone or write. B. L. RUNDELL, Hammond, Wis. 10-2

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Registered Guernsey bull calves for sale out of A. R. stock. Gov. of Chene, May Rose breeding of imported stock at bargain prices. Also grade heifer calves and Poland China hogs. GLEN PALMER, Yorkville, Illinois. 11-spl

Top Notcher Guernsey Sire—Duke Stranford's Glenwood of Shorewood for sale. He's a sweepstakes winner over all dairy breeds. A sure breeder with great dairy backing, a perfect handler, weight sixteen hundred and coming five. Photos. Write: GLYN SARGEANT, Long Prairie, Minn.

One carload high grade Guernsey springers. Prices $90 to $110. M. SCHWARZ, Norwalk, Wis.

For Sale—Registered Guernsey heifer 23 months old. Price $125. GEBHARDT BROS., Palmyra, Mo.

Three registered Guernsey cows and heifers with calves at side. Write for particulars. HALL ROBERTS' ESTATE, Postville, Iowa.

Pure-bred and grade Guernsey cows and heifers for sale; to freshen this fall and early winter. MARATHON COUNTY GUERNSEY BREEDERS' ASSOCIATION, Geo. L. Rietz, Sec'y., R. 1, Athens, Wis.

Guernsey calves of excellent May Rose breeding. Low prices if taken soon. F. T. DUNLOP, West Grove, Pa. 11-4

For Sale—Registered Guernsey bull calf. Carries May Rose and Governor of the Chene blood. WALTER VAUGHN, Marion, Iowa. 11-3

45 Pure-bred Jersey cows at various stages of lactation. Only two over 7 years old. All raised here and selected in last 8 years. Sired by Hood Farm bull and tested for disease at various times. These cows will be sold in bunches of 10 or over as they stand in stable. THE RIFORD FARM, Proctorsville, Vermont.

For Sale—Yearling registered Jersey bull. Right. WM. E. ASH, Roberts, Wis.

Choice Jersey bull for sale, one year old; out of high-testing dam, official records. Priced to sell. E. E. WYATT, Tomah, Wis.

For Sale—40 head high-grade Jersey heifers. Will be fresh December and November. HARRY COVINGTON, Trenton, Ky. 11-3

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

Ayrshires—Pure-bred cows and bull calves for sale at bargain prices. A. J. McNAB, Black River Falls, Wis. 10-2

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

AUCTIONEER

Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

STOCK WANTED

Wanted—October 9th, buyers for 21 head of registered and high grade Guernsey cattle. Write W. L. CHRISTIAN, Granger, Ind. 9-3

To Illinois Breeders—Holsteins wanted. Three young foundation cows, must be good, sound, individuals, with A. R. O. records or from A. R. O. dams. Prefer them to freshen in October. Give full particulars in first letter. A. HOPPER, Sinclair, Illinois.

Wanted—Several good, young, registered, cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 11-6

SWINE

Duroc Jersey bred sows; boars, and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

Registered Berkshires—April and May 1918 pigs; both sexes; best breeding. QUINEILO FARMS CO., Milwaukee, Wis. 10-2

Grandly bred Berkshires for sale. Young ones of both sexes. From twenty dollars up. A. M. R. CROOKS, Gunnison, Colo. 11-2

Hampshire boars. Good individuals from February litters. EDGAR G. BUZZELL, Delavan, Wis. 11-2

Registered Chester Whites cheap. ARTHUR ROBERTS, West Bend, Wis.

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 11-tf

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

DAIRIES

For Sale—Exclusive and well established dairy in town of 1,600. 19 head registered and high grade Holsteins, including herd bull and some young stuff. Barns and silo just outside corporation. Price $2,000, including horse, dairy wagon, bottles, etc. D. A. YOUNG, Chrisman, Ill. 11-2

PARTNER WANTED

Successful dairy farm, dairy business, southern Pennsylvania wants partner or will sell. Address BOX 249, care Hoard's Dairyman. 10-2

CREAMERIES

Creamery for Sale—Modern in every way with ice cream machinery, city water, sewerage, on paved street in city of 12,000. A chance for a hustler to make good. No other creamery within twenty-five miles. Write BROOKFIELD CREAMERY CO., Brookfield, Mo. 9-3

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Marquis Spring Wheat for seed. Resists drouth and hot winds better than any variety. Has out-yielded winter wheat for me ever since I have grown it. No more trouble than oats. The great Liberty crop. $2.50 per bushel, bags extra. R. F. JOHNSON, Assumption, Illinois. 8-tf

Wisconsin grown winter sand vetch and pedigree rye properly mixed for seeding. VAN LOON, LaCrosse, Wis. 10-tf

FOR RENT

For Rent on Shares—Modern dairy farm (100 acres) 1½ miles from this town, 25 miles from Chicago, good hard road; ¼ mile from school. 80 acres plowed; all new modern buildings, silos, etc. I will furnish cows (24) tenant, horses, machinery and tools. Possession March 1st. GEO. S. WALKER, Lemont, Ill. 10-tf

For Rent—Dairy farm one mile from Beloit, Wisconsin. Excellent soil, good buildings. 425 acres. 200 acres in pasture. DON VAN WART, Agent, Parker Block, Beloit, Wis. 11-4

For Rent—Finely equipped farm; cows, horses, and machinery; about 120 acres under cultivation. Will give right man exceptional deal. No young children. Apply 314 CAPITAL BANK BLDG., St. Paul, Minn. 11-2

For Rent—Well improved grain farm. Two sets of improvements. Ready equipped with horses, mules, tractor, all machinery. Will rent on shares to good farmer with plenty of help. 500 acres farming land. Can give possession any time. Address BOX 254, care Hoard's Dairyman.

For Rent on Share Basis, March 1919—One hundred acres under cultivation, seventy-five in permanent pasture. Silos, Holstein herd, flowing well, electric light and power. Farm location, Algonquin, Ill. WM. PYOTT, 328 N. Sangamon St., Chicago.

AUTOMOBILES

1917 Ford for sale. In best of running order. First $500 takes it, cash or bonds. MAX ALBRECHT, Prentice, Wis.

FARMS FOR SALE

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO. Land Dept., Stanley, Wis. 1-42

Farms in the Mississippi Prairie Belt, improved and unimproved, only $50 to $65 per acre. Fine alfalfa, corn, grain and pasture lands, natural rich soil, level and slightly rolling. Good roads, schools and churches, creamery, etc. Main line of railroad. Best all the year around climate, artesian water. H. P. HANSEN, Macon, Miss. 11-tf

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chicken when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

If you wish a farm in the best grass section of the south where alfalfa and all the clovers including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. P. GURLER, Macon, Miss. 25-tf

Another Snap—Gently rolling 120 acres; 2 cleared; 60 good timber; clay loam soil; frame house; new barn 30x60; stock, machinery and crops included; $5,500.00 We have good cut over land cheap. THE E. L. C. CO., 276-M Dept. 31, Merrill, Wis. 10-tf

For Sale—Equipped dairy farm of 350 acres, 100 cows, heifers, team, and implements. E. CHRISTIAN, Owner, R. F. D. 1, Richmond, Va. 10-3

A Small California farm earns more money with less work. Raise the crops you know about—alfalfa, wheat, barley, etc.,—also oranges, grapes, olives, and figs. Ideal for dairying, pigs, and chickens. No cold weather, rich soil, low prices; easy terms; good roads, schools and churches. Enjoy life here. Newcomers welcome. Write for our San Joaquin Valley, also Dairying and Poultry Raising illustrated folders free. C. L. SEAGRAVES, Industrial Commissioner. AT&SF RAILWAY 1800 Railway Exchange, Chicago. 11-spl

Farms in the Mississippi Prairie Belt, alfalfa and clovers. Corn, hay and live stock proposition. Ideal climate, good neighbors, schools, churches, good roads. Main line of railroad. Close to large markets. Write now. H. P. HANSEN, Macon, Miss. 11-tf

We make it easy for you to get a start in Aitkin County. Nature has done much to prepare for the settlers. No soil richer, no climate more favorable. Especially for the stock, sheep and dairyman, this county is ready to produce immediate income. Clover and nutritious grasses, everywhere. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg, Duluth, Minn.

To Home Seekers—The Black Belt of Alabama is the garden of the south for stock breeding and dairying. Have a list of desirable farms, well located, for sale at $40, $50, and $60. Land equal in quality to Illinois farms selling at $200 and $250 per acre. Some samples: 3 of high class land, lying together 192, 200 and 350 acres at $50. One well improved 900 acres. Railway station on the farm 19 ms. from a modern creamery, at $4 Will divide and make 3 fine dairy farms Write me for particulars of others. GEO. BROWN, Uniontown, Ala.

195-acre improved farm, $4,400. Stock, tools, crops. Mile to depot town, short walk electric cars. 100 acres smooth, level loam tillage, acres wood and spring-watered, wire-fenced pasture for big herd; fruit. Good stock barn, horse hay fork, horse stable, hay barns, corn crib, granary, ice house, 2-100-ft. poultry houses, smoke house. Retiring owner includes 2 horses, 7 cows, wagons, 2 mowing machines, rake, roller, harrows, cultivators, potato hiller, potato digger, plows, harness, feed cutter, corn sheller, separator; long list tools, dairy utensils, crops and feed at time of sale; $4,4 gets everything; easy terms. See full details and picture attractive, 10 room house on page 37 Strout's Fall Farm Catalogue just out with many other money-makers with stock, tools, crops. E. A. STROUT FARM AGENCY, Dept. 3001, 312 Marquette Bldg., Chicago, Ill.

Dairy and Fruit Ranch on Western Slope, acres, good water rights and soil, grows 5 to alfalfa per acre and all kinds of fruit and berries. 20 acres now in alfalfa, 6 in apples. Modern 6-room bungalow, hot water, furnace. Other out-buildings good. WALTER RICHARDS, Grand Valley, Colo.

132-acre farm with fine modern buildings complete; bath, hot water, furnace, etc. Level sandy loam soil. Street car and R. R. station adjoining. Improved road to Lincoln Highway. One of the best farms in Ohio. Worth $200, will sell for $150 per acre, easy terms. Address, OWNER, No. 208 City National Bank Canton, Ohio. 11-4

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forrestville, Conn. 3-10

MACHINERY

Ensilage Cutter—No. 24 "Hocking Valley" with 15-inch throat. Extra set cutter knives and shredders besides pipe and distributor pipe. Used one season only—in 1917. CARLETON A. HALLOCK, Clayton, N. J. 10-4

For Sale—Power churn, 20"x32", shaft 1"x 2", pulley 6"x16". F. S. KENFIELD, Augusta, Mich.

For Sale—Two-unit Hinman Milking Machine, used two years, good condition, a bargain. FRED H. FOX, R. 5, Ashland, Ohio.

For Sale—2-unit Calf-Way Milking Machine. New; used as demonstrator only. Any reasonable offer accepted. Address P. O. BOX 617, Marengo, Ill. 11-3

For Sale—Doris 4-bottle filler, capper, tank; several 5-gallon milk cans. All in good condition. Write me. F. H. SMITH, 1303 Exchange, Lyons, Iowa.

For Sale—Perfection Milking Machine. Two double-units in good working order, at a bargain. BERNHARD BEHRENS, Grafton, Wis.

WANT TO RENT

Wanted—Small dairy farm on shares with everything furnished. Dairying a life-time experience. Small family. A. ROORDA, Fair Oaks, Ind.

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Boy or young man to help in dairy. Good home and fair wages. H. C. HURLEY, Rockville, Md. 11-3

HELP WANTED

Wanted—By October 15 or sooner: Man past 45, with one or two assistants for milking in large dairy; wife or daughters if good milkers. Sanitary dairy, good surroundings; lady required to take charge of milk house and help milk; man to help in feeding, cleaning, etc. State wages required and references. R. F. JOHNSON, Assumption, Ill. 10-3

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—Married man, to take charge of pure-bred Holstein herd, who has some help of his own. Location Central Kansas. BOX 199, care Hoard's Dairyman. 6-tf

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—For November first, man exempt from draft, to care for small herd Jerseys and make butter on model farm in northern Ohio. House, milk and garden spot furnished. References required. State size of family and wages expected in first letter. BOX 244, care Hoard's Dairyman. 10-2

Wanted—Good, dry hand milkers, married or single, permanent position with good wages for right men. Address S. W. DORLING, Supt., Moose Hill Farms, Spencer, Mass. 10-4

Wanted—Experienced man, not subject to draft, to assist in Guernsey herd of about thirty cows; also to take charge of the bottling, separating, buttermaking, etc. Must be expert buttermaker. Best of references required. WADDINGTON FARM, Wheeling, West Virginia. 10-2

Wanted—A first class herdsman who understands fitting cattle for show and official testing. We have pure-bred Shorthorns and pure-bred Holsteins. A good chance for an up-to-date man. Would like a married man without children, wife to cook in County Home. First class quarters to live in, everything furnished except clothing. Would consider single man also. Please state in first letter wages expected, also age and nationality. Address St. CROIX COUNTY ASYLUM, New Richmond, Wis. 10-2

Wanted—To assist foreman in 40-cow dairy, one or two good dry hand milkers; honest, reliable and good hustlers; either married or single. C. A. PARKE, Assumption, Ill. 10-2

Dairyman wanted for the Panama Canal—Must be experienced and competent to manage dairy of 320 cows, including selection for breeding and production, also management of pasture. Salary $150 month with increase to $175 month after six months' satisfactory service. Free steamship transportation from New York or New Orleans, and free bachelor quarters on Isthmus of Panama. Must be American citizen under 50 years, physically sound. Write CHIEF OF OFFICE, The Panama Canal, Washington, D. C. 10-2

Wanted—Experienced single herdsman for registered herd of Guernseys, 85 head, 35 in milk and 15 on A. R. test. Farm located 19 miles northwest of Duluth. All modern conveniences. Write giving references, past experience and least salary acceptable, to CARIBOU FARMS, 226 South 5th Ave. West, Duluth, Minn.

HELP WANTED

Man to care for herd of registered Jerseys. Must be expert milker, fond of Jerseys and his work absolutely clean, over draft age and have good references. Could use married man without children if wife willing to work in farm house. Permanent position and good wages. RIVERVIEW FARM, 1997 Montreal Ave., St. Paul, Minn. 10-tf

Wanted—Single man for general work with Guernsey herd. One interested in good cattle and large records. $55.00 per month and bonus to start. Good chance for advancement. Address ISLAND FARM, Floodwood, Minn. 10-spl

Wanted—Competent herdsman to take charge of high class Register of Merit Jersey herd. Experience in feeding, testing and show ring required. Married man, no liquor, exempt from draft. Give full particulars and references with first letter. Salary $900, house, fuel, garden plot and milk. FRANK C. BALDWIN, Fredericksburg, Va.

Herdsman, temperate, reliable, who understands feeding and proper care of cattle to take charge of 20 cows, young stock and calves. Universal Milker. Individual feed and production records of all cows. Location eastern Ohio. House, garden and milk provided. State qualifications and salary expected. B. F. YOST, Clarington, Ohio. 11-3

Experienced dairyman, single or married, for general dairy work and to assist herdsman with A. R. O. work in Holstein herd. Can use woman or boy as helper. Modern equipment. Give experience, reference and wages expected in application. STEVENS STOCK FARM, Sycamore, Ill. 11-3

Wanted—Assistant herdsman, single, for herd of registered Guernseys. Farm located 19 miles northwest of Duluth. All modern conveniences. 15 cows on A. R. test. Write giving experience, references and least salary acceptable in first letter to CARIBOU FARMS, 226 South 5th Ave. West, Duluth, Minn.

Wanted—A good man; must be good milker and farmer, understand machinery; $75 per month and board; steady job. GEO. G. BOWER, R. F. D. 3, Box 511, Elk Grove, California.

Wanted—Reliable, single man, American, exempt from draft, no smoker, to milk and care for herd of Holsteins, and help with farm work spare time. Modern equipment, including Empire Milker. Steady position. $65 month and board to start. Give reference and particulars first letter. BONNY BRAE FARM, White Bluffs, Wash.

Wanted—Married man to take charge of dairy located near town. Thirty Jersey cows. Use Hinman Milker. Good house, water and garden. Excellent opportunity for right party. Address BOX 434, Greensburg, Pa. 9-tf

Wanted—Single herdsman for small herd of registered Jerseys, $65 and found; farm hands $55; also young woman to work in dairy and milk five cows. M. C. GRINDLE, Sherborn, Mass. 11-2

Herdsman wanted for a herd of about 40 head of high quality Holsteins. Must be experienced in A. R. O. and yearly record work, and also be able to furnish good references. A good home and steady employment for the right man. Can also use a good second man. Must have good clean habits, and not be afraid to work. State wages expected, also nationality. O. J. GROVER, Glyndon, Minnesota.

HELP WANTED

Will give $1,000 per year, board and room, for man and wife without children, on grain and dairy farm; woman in house and man good dry hand milker. CHAS. M. FARGO, Doland, So. Dakota. 11-2

Herdsman wanted at once for a pure-bred Guernsey herd. Must be clean, reliable, and efficient. No cigarettes or booze. $75 per month and more with proven ability. Give references. MOUNTAIN BROS., R. R. 5, Des Moines, Ia. 11-2

Wanted—Dairymen, married, with some help to run milking machine; 80 cows, nice, six-room house; farm near Chicago. Address BOX 253, care Hoard's Dairyman.

Wanted—At once, young, honest, clean-cut man for milk route and station work. Opportunity for married man with boy or wife to assist. State salary expected and experience. CLOVER LEAF DAIRY, Pullman, Washington. 10-2

Wanted—A single man for general farm work, exempt from draft. Employment by the year. A splendid opportunity for the right man. Good wages and nice home surroundings. Farm twenty-two miles from Chicago. Please give references. Address A. H. CAIE, Room 1604, 20 E. Jackson Blvd., Chicago.

Wanted—All round single man, farm and dairy work. Empire Milker used. State wages and experience. Steady job for right man. FRANK BLASER, Oakdale, Wis. 11-2

Wanted—Experienced single man or married man, without children of school age, for general work on cow ranch. Can use wife to cook for small outfit. Address THOS. L. SPRINGER, Cimarron, New Mexico.

POSITIONS WANTED

Wanted—Management large farm or estate, by hustling American, middle aged, with small family. Cornell training and years of practical experience in all lines agriculture. Develop new place or renovate the old one. Strictly temperate. Highest credentials. No help boarded. Can bring some good men. Only first class proposition considered. Write fully as to conditions and terms. Address BOX 252, care Hoard's Dairyman.

Wanted—By reliable farmer a year around position on dairy farm. Good, honest and sober. RUD. PATAKI, Cheever, New Hampshire.

Farm Manager experienced in all branches of modern methods farming and stock raising. Have made some enviable records with Holsteins. Experienced in milk and creamery business on big scale. Age 35, married, no children, have been rejected for military service. Will not consider anything that does not offer quick advancement and substantial salary. My present salary is $3,000 yearly. Prefer place in western state. BOX 246, care Hoard's Dairyman. 11-2

Practical Farmer and dairyman wants position at once; age 40, married, exempt; capable, competent to take full charge. Reference. LOCK BOX 46, Flasher, N. Dakota.

Position wanted by manager, college graduate, married, thoroughly experienced in every branch of grain and stock raising. A. R. O. work. Address BOX 255, care Hoard's Dairyman. 11-3

Experienced farmer wants position by month or on shares. Married. No boozer or smoker. R. 3, BOX 86A, Whitewater, Wis.

The Mojonnier Fat Test

HOARD'S DAIRYMAN:—The methods of determining the percentage of butterfat in milk and its products may be classified as scientific and practical methods. In practically all cases the scientific methods, involving the use of delicate apparatus and expert laboratory technique, have been replaced by the so-called practical methods. Hence, many of our more delicate tests for determining the percentage of butterfat in milk are only of historic importance in the dairy industry.

It is of interest to note that the majority of our butterfat tests, including the scientific and practical methods, are based on one of two principles, the first being that butterfat is not soluble in certain acids. The ether solubility of butterfat is the principle involved in the second group of methods of analysis. The Babcock test involving the first mentioned principle has found universal application in the dairy industry.

The development of ether extraction methods of analysis in the dairy industry has resulted mainly in the development of tests which could not be applied to the practical side of the dairy work. However, in recent years an ether extraction method has been perfected which has and will continue to be a valuable asset to certain phases of dairy work.

In brief, the steps in ether extraction methods of analysis are as follows: A weighed sample of milk is mixed with alcohol, ammonia, ether, and petroleum ether. The casein is dissolved by the action of the alcohol and ammonia. This action permits the dissolving action of the ether and petroleum ether upon the fat to proceed. The purpose of adding the petroleum ether is to prevent the ether from dissolving non-fatty solids in the milk sample. The per cent of fat in the milk sample is then determined by the specific gravity of the fat-containing ether, or by the refractive index of the solution, or by the weight of the fat extracted by the ether.

Ordinary laboratory technique is not sufficient to successfully determine the percentage of fat in the milk sample by taking the specific gravity of the fat containing ether, or by the refractive index method. E. Gottlieb and B. Rose proposed a method which involved the weighing of the evaporated butterfat as a means of determining the per cent of fat in the sample. Their method, however, involved a process and apparatus which could not be successfully applied to the dairy work.

During recent years, the Mojonnier Brothers developed a practical ether extraction test. This test is rapid and accurate, and hence it is the only ether extraction test that is finding a general application in the dairy industry. Without a detailed discussion of the process of manipulating the Mojonnier tester, it is sufficient to say that well planned equipment, including vacuum ovens, are largely responsible for the success and accuracy of this method. The plan of separating the fat containing ether from the non-fatty solids by centrifugal force is used to great advantage in developing rapidity in the process. (The apparatus provided for the operation of this test includes apparatus for making total solid determinations.)

This article would not be complete without a brief discussion relating to the economic importance of the Mojonnier test. The Mojonnier test is accurate to .02%, whereas other tests have an accuracy of .1%. At a plant purchasing 3,000 pounds of fat daily, in the form of 3% milk, an over reading of .1% means that the plant is paying for 100 lbs. of fat which are not received. In the same case an over reading of .02% would result in paying for 20 lbs. more than are actually received at the plant. Similar cases could be cited to illustrate the importance of using accurate methods of analysis where dairy manufacture is pursued on a large scale.

J. C. MARQUARDT.
California College of Agriculture.

A rainy day job: Clean and oil the harness.

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

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Don't throw away a single bag—they're worth money to you. Prices are way up now. Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity. Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.
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Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

The Indiana State Fair

(Continued from page 323)

Star Beauty; 3, Dering on Bluebell of Cedar Crest; 4, Brewerton on Thornbury's April Flower. Junior heifer calf—1, Dering on Venner's Fairy Maid; 2, Shaw on Bell's Premier Lady; 3, Dering on Fairy Boy's Crown; 4, O'Hair on Golden Rosebud's Beauty.

Get of sire—1, Dering; 2, Wheeler; 3, Shaw; 4, Brewerton. Produce of cow—1 and 2, Dering; 3, Shaw; 4, Brewerton.

Graded herd—1, Wheeler; 2, Brewerton; 3, O'Hair. Breeder's young herd—1, Dering; 2, Shaw; 3, Wheeler; 4, O'Hair. Breeder's calf herd—1, Dering; 2, O'Hair.

Senior champion bull—King Melia Ann's Jolly Boy. Junior and grand champion bull—Peter the Great.

Senior and grand champion cow—Hugo Rosette. Junior champion heifer—Eulinda of Cedar Crest.

Ayrshires

Judge: Professor C. S. Plumb, Ohio.

Only one herd, that of Adam Seitz of Wisconsin, contended for the premiums in the Ayrshire classes. Professor Plumb tied the ribbons in the bull classes much as they had been tied at Illinois, giving the grand championship to Cavalier's Lord Stuart and the junior championship to Cavalier's Netherall Chancelor. In the female classes the placings were changed. Bargenoch's Silver Pet was given the senior championship over the Illinois champion, Cavalier's Kilnford Dorothy, and the first prize junior heifer, Cavalier's Silver Actress, was given the junior championship over the junior yearling, Cavalier's Kilnford Lily.

Output of Mill Feeds

To acquaint farmers with conditions prevailing in the mill feed industry, the Food Administration outlines developments that may be useful as a guide when purchasing feeds. Most of the European countries have gathered their harvests and are now grinding wheat. The foreign demand for flour from the United States has slackened and has been replaced by a considerable demand for American wheat.

Shortage of animal feeds prevails among all the western allies, which now prefer to purchase wheat rather than to buy flour and mill feed separately. Wheat can be loaded very rapidly aboard ship on the American seaboard by mechanical conveyors. This operation consumes much less time than loading the equivalent of wheat as flour and its by-products and saves space.

One result of this development is a temporarily light production of wheat mill feeds in the United States. It should be recognized, however, that even with normal production of such feeds, the demand was expected to exceed the supply since the schedule of fair prices established for feed at the suggestion of the Agricultural Advisory Committee has made it very cheap, much cheaper in fact than it is worth compared with other feeds of equal nutritive value.

The reduced output of wheat mill feeds is accompanied fortunately by an unusually large production of certain coarse grain products. Food Administration regulations provide for an extraction from barley of only 55 per cent flour, leaving nearly 45 per cent of the barley berry for feed which is remarkably rich and nourishing. Barley feed in itself is not a substitute for bran, but needs to be mixed with other light material, such as oat feed, to give bulk. There is an ample supply of oat by-products at prices averaging less than the cost of bran.

As a result of the large wheat crop the "fifty-fifty" rule requiring the purchase of equal amounts of substitute cereals with wheat flour has been modified and this is expected to increase the output of American flour mills and result in more mill feeds.

The Food Administration recognizes

How the packer is saving millions out of waste

—and how this results in higher cattle prices for the stockman



The development of by-products out of waste means a saving of about one hundred and fifty million dollars annually—a sum sufficient to keep New York's six million people supplied with meat for six mont

THERE was a time when the steer was handled solely for its edible meat, its hide, and its tallow.

The remainder of the animal, in weight totaling many millions of pounds annually, was thrown away—a sheer waste.

Today virtually all of this former waste is utilized. Over 250 articles are now contributed by the steer to human needs, and a larger proportion of the animal is saved for human food.

At the time of writing $135 is, on the average, the price paid for the average beef animal to the stockman by Swift & Company.

But if the old order of waste still prevailed and only the hide and tallow were saved, Swift & Company would be obliged either to pay not more than $125 to the stockman, or to charge the public higher meat prices.

Thus, you see, by-product utilization results in a saving of about $10 per animal—a saving which, when multiplied by the total number of cattle dressed annually by Swift & Company, over two million, amounts to more than twenty million dollars annually. This saving goes to the stockman in higher cattle prices and to the consumer in lower meat prices.

If applied to the entire number of cattle dressed annually in America, approximately fifteen million, this saving would amount to about one hundred and fifty million dollars annually.

The real development of by-products came with the development of the larger packing organizations.

Success was attained not easily, but by patient effort, by exhaustive experiment, by intense specialization. It has been a big job and has called for big methods—a job far beyond the resources of the old, unorganized system of local meat dressing.

Not only are the by-products saved but their value has been increased through better handling of hides, fats, and other edible portions of the steer.

Swift & Company is glad to have had a part in this development. It is an achievement of thrift—an achievement that has made possible today lower meat prices to the consumer and higher prices to the producer of cattle than would have been possible under the old methods.

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A nation-wide organization owned by more than 22,000 stockholders

Water in the Stable a Neeessity



THE "BUCKLEY" DEVICE

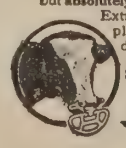
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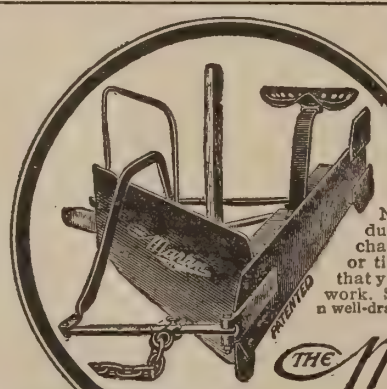
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LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but **absolutely prevents sucking.** Extremely easy to put in place. Endorsed by dairymen everywhere.





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All-steel, reversible, lasts a lifetime. Cuts V-shaped farm ditch, open drain, tile or irrigation, down to 4 ft. deep; cleans old ditches; grades roads; builds farm terraces, dikes and levees; works in any soil, wet or dry. 2, 4 and 6 horse sizes; large size fine for tractor. Does work of 100 men. Solves all dirt-moving problems. Write and find out how to make big crops sure. New, free book on drainage, irrigation and terracing. Address

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that the amount of brewers grain is less than normal and distillers grains have almost disappeared from the market. Corn by-products, though uncontrolled in price, are plentiful. The period for which these conditions are likely to prevail is undetermined, but the situation will be materially changed when foreign orders for flour from this country are again filled. —U. S. FOOD ADMINISTRATION.

Editor's Note: Barley feed such as described is excellent, but the past winter there were varying qualities on the market. In buying, get a guaranteed analysis or learn the milling conditions at the local mill. Oat feed as offered on the market is now selling on the market in sacks at $16 to $18 per ton. It consists largely of reground oat hulls, and is about as valuable as oat straw or corn stover. It may lighten up the ration, but there are cheaper feeds available on most farms. There are oat feeds that are valuable, but the new commercial product going by that name is what was formerly blown into the furnaces and burnt.

Further, we do not agree with the statement that the barley feed needs to be lightened. Ground barley is not a particularly heavy concentrate even if none of the kernel is removed for making flour. Taking away 55 per cent of the meat of the kernel increases the proportion of hulls and makes the barley feed, as it is termed, light enough.

Southern Forage to Conserve Feeds

By requesting farmers in southern states to greatly increase their acreage of cover crops and winter pasturage, the Food Administration lends its support to a campaign, which the states themselves have begun, to conserve mill feeds and coarse grains. The success of this program will depend on the broad vision of southern producers who realize that their response will increase the aggregate amount of feed for live stock in the United States. This in turn means more meat, more milk, and larger food resources both at home and among the allies.

Throughout the country, especially in those northern states where insufficient live stock feed is grown, there is urgent need of mill by-products for dairy cattle and for hogs, also cottonseed meal as an important part in animal rations.

John M. Parker, Federal Food Administrator for Louisiana, makes these suggestions which have been transmitted to Food Administrators in the southern states.

"With the lessening of man power both for planting and harvesting crops, the small grains can be used to great advantage where heretofore the planting has been extremely limited. Wheat, oats, rye, vetch, and the clovers planted in most of the southern states at any time before the middle of November, will start a vigorous growth and will not winter-kill except in very extreme weather.

"On properly cultivated and prepared fields, these grains and legumes will afford not only rich and nutritious pasture nearly all winter, but in the spring will make reasonable grain returns as the grazing does not seriously affect productivity. A vigorous campaign along these lines will be an inestimable benefit in conserving those feed products so vitally needed. This southern effort when carried out in co-operation with the Department of Agriculture and demonstration agents, will bring about great relief and great saving."

The plan as outlined may be modified to meet local needs and to best conform with farming policies and methods in the states concerned. American farms, the Food Administration points out, constitute the dominant reservoir of meat products from which the needs of our own troops and the allied armies and populations must be met. Every additional acre of forage crops and winter pasturage will thus not only increase our feed supplies, but add directly to available meat exports.

Dairymen who ship their milk to the cities will be interested to know of efforts by the U. S. Food Administration to secure for them more prompt returns of milk and cream cans. At Topeka, Kansas, two additional cars have been added for handling empty cans and the service has been greatly improved. At the suggestion of the Food Administration, the express companies are sending out circulars calling attention to the need for quick service in returning cans to shippers.

Moline-Universal Makes Wonderful Record at National Tractor Demonstration

Develops 20 H.P. on the draw bar and we only rate it at 9 H.P. Think of it!-

Officially Accredited with 26.48 H.P. at the belt- We rate it at 18 H.P.

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1918
National
Tractor Farming Demonstrations
A. E. HILDEBRAND, MANAGER
Demonstration
July 29-Aug. 2

Salina, Kansas, July 29, 1918.

MOLINE PLOW CO., MOLINE, ILL. — DEMONSTRATION GROUND, ATTEN: S.C.TURKENKOPH.

Dear Sir:—
We beg to report the following performance of a Moline Universal tractor 9-18 H.P. Serial No. 19002 Motor No. 10002 under test for draw bar horse power.
Conditions:-
Soil: Stubble ground- loose on top firm underneath.
Load: Plow. two fourteen inch plows.
Dynamometer : Hyatt Recording.
Draw Bar Pull: Average for one minute in maximum.
Time: Recorded by dynamometer.
Hitch: Horizontal - centered.

TEST NO.	GEAR	DRAW BAR PULL	SPEED MILES PER HOUR	DRAW BAR HORSE POWER	REMARKS.
2A		2155#	2.18	12.5	Average plowing
2B		2135#	3.52	20.05	maximum

OBSERVERS:
G. H. WOOLLEY JR.
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ENGINEERS IN CHARGE.
MANAGER OF DEMONSTRATION.

IN previous advertising we have stated that the Moline-Universal was conservatively rated at 9-18 h. p. Just how conservative is shown by the astonishing official tests made at the National Tractor Demonstration which showed the Moline-Universal to have an excess of over 11 h. p. on the draw bar and 8 h. p. at the belt.

Certainly these tests show beyond question of doubt the efficiency of the Moline-Universal. For each 169 lbs. of weight the Moline-Universal developed 1 h. p. on the draw bar. Compare this with the ordinary tractor which develops 1 h. p. for each 250 to 300 lbs. weight—and you will clearly realize the greater efficiency and corresponding greater economy of the Moline-Universal.

However, we shall continue to rate the Moline-Universal at 9-18 h. p. A tractor to give satisfactory service and stand up for years under the strain of tractor work must have reserve power, and the greater the reserve the better. Under normal conditions the Moline-Universal has from 50 to 100 per cent reserve power. Think what this means.

Ninety-eight per cent of its entire weight is on the two big drive wheels where every ounce is available for traction. The Moline-Universal is scientifically constructed and utilizes its weight to best advantage. It has no dead weight.

From the above report you will see that the Moline-Universal developed 20.05 h. p. at 3.52 m.p.h. pulling two plow bottoms 9 to 10 in. deep in exceptionally hard plowing. At 2.18 m.p.h. it developed 12.5 h. p. The difference in speed accounts for the extra draw bar pull. At 3.5 m. p. h. under average conditions the Moline-Universal will plow as much in a day as a 3-plow tractor traveling at 2.25 m.p.h.

Just the Right Size

If the Moline-Universal were built to pull a 3-bottom plow, it would be too heavy for light work. As the Moline-Universal is now built it has ample capacity for all ordinary plowing needs, and at the same time is equally suited for light operations such as cultivating, haying, harvesting, etc. which require far more work hours than your heavy work.

You are chiefly concerned in getting your work done quicker and better than you ever did before. You have no fixed power requirements. One day your work may be heavy, the next day light—and the light work is just as important as the heavy. Thus, you must have a tractor which will do both heavy and light work efficiently and economically, and the Moline-Universal fully meets both these requirements. You have plenty of power when you need it and when you don't want it you have no extra expense—as you would have with a heavy tractor for light jobs.

Remember this—here s what the Moline-Universal Tractor will do for you:

(1) Gives you plenty of power for all your work, both heavy and light.

(2) It does all farm work including cultivating.

(3) One man operates both tractor and implement from the seat of the implement in all operations.

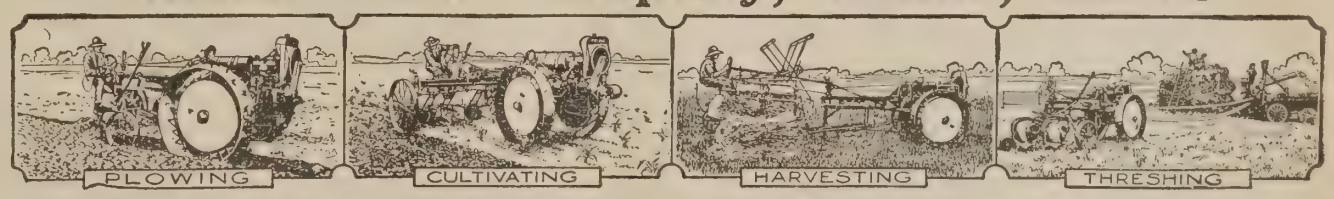
(4) Electric lights enable it to be worked nights to make up for unavoidable delays.

(5) Because of self-starter, non-robust labor can operate tractor successfully.

(6) So well made and has so much reserve power that it will give many years of service.

Send for free catalog which gives detailed description of the Moline-Universal Tractor. Address Dept. 18.

Moline Plow Company, Moline, Illinois



RO-SAN Indoor Closet

The original chemical closet. More comfortable, healthful, convenient. Takes the place of all outdoor toilets, where germs breed. Be ready for the long, cold winter. Have a warm, sanitary, comfortable, odorless toilet right in the house anywhere you want it. Don't go out in the cold. A boon to invalids.

GUARANTEED ODORLESS

The germs are killed by a chemical in water in the container. Empty once a month as easy as ashes. Closet guaranteed. Thirty days' trial. Ask for catalog and price.

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Cash, Payments, or No Money Down. Operate at half the cost. Save $15 to $200, proven in my factory book, "How to Judge Engine"—FREE. Money back if not satisfied on my new 90-Day offer.—ED. H. WITTE, Pres.

Witte Engine Works 1641 Oakland Ave., Kansas City, Mo. 1641 Empire Bldg., Pittsburgh, Pa.

THE SELF-OILING WINDMILL

has become so popular in its first three years that thousands have been called for to replace, on their old towers, other makes of mills, and to replace, at small cost, the gearing of the earlier Aermotors, making them self-oiling. Its enclosed motor keeps in the oil and keeps out dust and rain. The Splash Oiling System constantly floods every bearing with oil preventing wear and enabling the mill to pump in the lightest breeze. The oil supply is renewed once a year. Double Gears are used, each carrying half the load

We make Gasoline Engines, Pumps, Tanks, Water Supply Goods and Steel Frame Saws.

Write AERMOTOR CO., 2500 Twelfth St., Chicago



Use the feed that's mixed for you!

It's mixed right and makes more milk

Complete! Balanced! Ready to Feed!

Here's a better feed than you can mix! It has just the right percentage of protein, fat and carbohydrates. It has been tested till it's proved and now we're ready to prove it to you by a guarantee of better results than you ever had.

International Ready Ration

Is Easier—Safer—Better to Use



Banish the fuss, muss and bother of mixing. Do away with the danger of poor quality ingredients. Avoid any risk of shortage of material for mixing.

Makes More Milk

International Ready Ration is better than the ordinary home mixed 20% protein feed. It is perfectly balanced, bulky and mildly laxative. Its use will produce more milk from every cow and keep your herd in the best condition. Quality as well as results are guaranteed.

Try It Order a ton today from the nearest International dealer. If he is not conveniently near you, send your request to us. We'll give it prompt attention.

Manufactured only by

INTERNATIONAL SUGAR FEED CO.

Minneapolis, Minn. **Mills at Minneapolis and Memphis**

Also makers of International Special Dairy Feed—the original guaranteed ration for cows—made to mix with home-grown grains or can be used alone.

Gossard Breeding Estates Spring Sensation

Entire Willowmoor Ayrshire Herd Goes to Indiana

H. W. Gossard, proprietor of the Gossard Breeding Estates, Indiana, sprung one of the biggest live stock sensations of the year when he purchased almost in its entirety the great breeding herd of Ayrshire cattle known internationally as the Willowmoor herd owned by J. W. Clise of Washington.

The purchase consists of eighty-four cows in milk, four bulls, and twelve heifers, an even hundred animals. The purchase includes some of the finest producing Ayrshires in the United States, including last year's two French cup winners, Willowmoor Happy Girl C, and Willowmoor Lily 5th. The herd contains the choicest breeding as well as striking individuality. Production has characterized this herd for years, special efforts being made to breed for scale and production. Only the choicest bulls have been used and Mr. Clise's judgment certainly has been vindicated, as no less than five of the leading ten Advanced Registry sires of the breed made their reputation at Willowmoor Farms. Beuchan Peter Pan has forty-three entries averaging 10,315 lbs. milk, 460.55 lbs. fat; Morton Mains Queechy has 46 entries averaging 9,868 lbs. milk, 399.64 lbs. fat; Holehouse White King, 36 entries averaging 10,220 lbs. milk, 399.10 lbs. fat; and Willowmoor Robin Hood, 31 entries averaging 9,878 lbs. milk, 434.14 lbs. fat. This is the blood predominating in the Willowmoor herd. This herd has produced no less than six world records, at this time holding the world Ayrshire fat record with Lily of Willowmoor, 22,596 lbs. milk, 955.56 lbs. fat, her fifth entry. Other notable cows developed there include Gerranton Dora 2d, 21,023 lbs. milk, 804.79 lbs. fat; Willowmoor Vesta 4th 17,755 lbs. milk, 753.18 lbs. fat; Willowmoor Etta 3rd, 16,621 lbs. milk, 666.06 lbs. fat. The Willowmoor herd has maintained a uniformly high testing herd. For 40 months and in 1,838 individual official tests this herd has averaged in butterfat 4.239%.

On September 14th, seven cars of stock left Washington consigned to Indiana, and due to arrive about October 1. Over and above the Clise purchases, the Gossard Breeding Estates have made extensive drafts on the E. B. McFarland herd of California, and Good Hold Farms of Ohio. Included in the McFarland purchases is a bull calf out of Willowmoor Vesta 4th, the junior four-year-old champion of the breed in milk production. This youngster has been purchased at a new record price for the breed. The Gossard purchases within the past few weeks total over 150 head.

Mr. Gossard has secured Mr. Cuthbert Nairn as herdsman. Mr. Nairn is a splendid man for the position. He has had considerable experience both at Highland Farm and Penshurst Farm and his presence at the helm should help spell success for this new Ayrshire breeding establishment.

Mr. Clise has retained some twenty-five animals at Willowmoor. He has built up a wonderful herd and every Ayrshire breeder hopes that he will long continue as a breeder of the "perfect cow" which he has so popularized in the show ring and by the records made at the milk pail.

Vermont. J. G. WATSON.

Farmer Johnson read in his daily paper that the government was going to make an effort to "stable-ize" the dairy industry.

"Well," he said, "I have always known that good stables are a mighty important thing in dairying."

Nothing Is More Important



DO YOU think of *Digestibility* as being just a big, vague word which has little or nothing to do with anything in particular in your line of business?

Or do you think of *Digestibility* as being something which really has some definite connection with the amount of money to be made from the dairy?

There isn't a thing about the dairy business any more important than *Digestibility*.

BUFFALO CORN GLUTEN FEED

When you pay a good price for coal to burn in the heater, and get a lot of clinkers, you don't think you have gotten your money's worth, do you?

You are up against the same thing in feed. Feed that runs 'way down in *Digestibility* is just as poor a buy as clinkery coal.

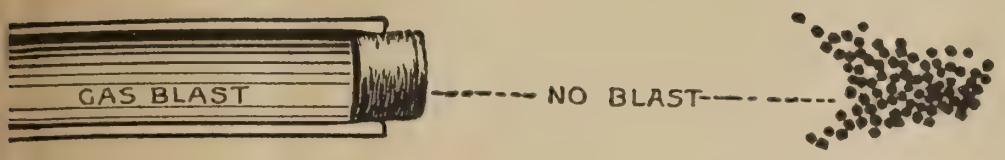
Feed has to break down and get through the cow's digestive tract in order to make milk. Unless a big share gets through, you lose.

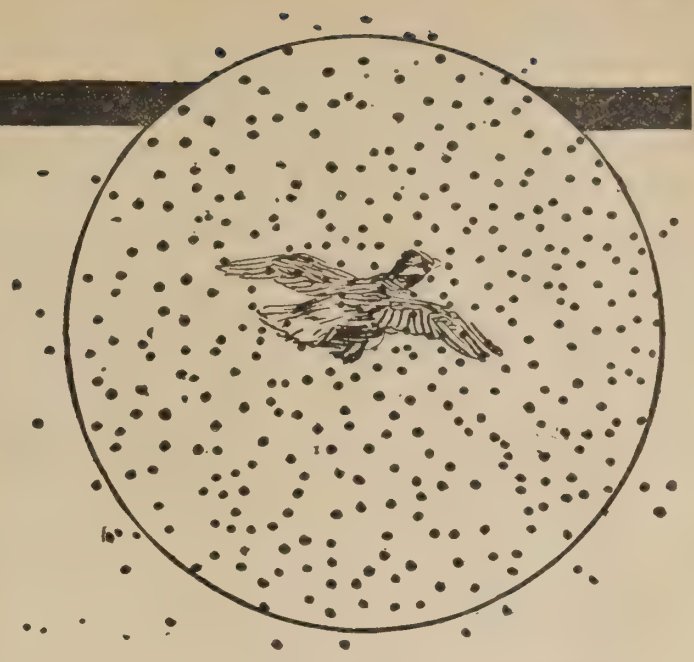
1,614 of the 2,000 pounds in a ton of Buffalo Corn Gluten Feed are milk-bucket possibilities. Look over the list and see what runs higher in *Digestibility*.

REFUND!

Keep the branded Buffalo Corn Gluten Feed sacks together and take them to your dealer for refund.

Corn Products Refining Co. NEW YORK CHICAGO





The Winchester pattern. 320 pellets, out of a possible 431, or 74% of the shot charge, evenly distributed. No birds get through

How many birds get through your shot patterns?

IT is not enough to know that your shells shoot hard, that they are sure fire and water-proofed. ***It's the pattern that counts.***

The secret of good patterns is in the *wadding*. Good, close shooting, evenly distributed patterns are the direct result of a correct system of wadding scientifically adjusted to the bore of your gun.

The wadding, like the piston head of a gas engine, must give the explosion something solid to work against so that the shot may be *pushed* out evenly.

It must expand and fill the tube of the barrel, completety sealing in the gas behind it. No gas must escape to scatter the shot.

It must offer just the right amount of resistance to the explosion so as to develop uniform pressure and high velocity without danger of jamming the pellets out of shape at the "choke" or muzzle constriction.

The illustrations at the side of this page show actual test patterns as high as 63% faulty, the result of poor wadding.

The Winchester system

The Winchester System of Wadding is the result of repeated experiments to determine the most efficient control of the gas blast.

The special construction of the *Base Wad* gives what is known as *Progressive Combustion* to the powder charge.

Combustion spreads instantly through the powder charge. By the time the top grains of powder become ignited the *full* energy of the burning powder behind is at work. Though the explosion is almost instantaneous, it is none the less *progressive*, the final energy and maximum *velocity* of the completely burned powder being developed at the *muzzle*, where it is needed.

Meanwhile under the heat of combustion, the tough, springy *Driving Wad* has expanded to fill the barrel snugly all around. No gas escapes. It is completely sealed in. The wadding *pushes* up the shot evenly.

At the muzzle the shot pellets slip out without *jamming* while the wadding is *checked for a brief interval* by the constriction of the muzzle. *It follows some distance behind the shot pattern.*

The shot cluster travels on, unbroken by gas blast or wadding, and makes the hard-hitting, uniform pattern for which Winchester shot shells are world famous.

Fish-Tail Flash. All Winchester smokeless shells are made with the new Winchester No. 4 Primer—the quickest and most powerful shot shell primer made. Its broad *fish-tail* flash gives instant and thorough ignition. Every grain of powder is completely burned up before the shot charge leaves the muzzle.

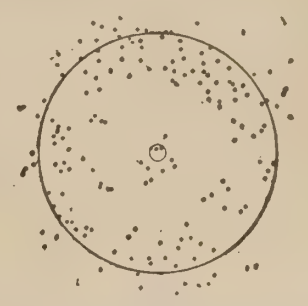
The Crimp. The required degree of pressure necessary in seating the driving wads is worked out in combination with the *hardness* or the *softness* of the *crimping* required for any particular shell.

Water-proofing and Lubrication. In the cold damp air of the marshes or under the blazing sun at the traps, Winchester shells will always play true. Winchester water-proofing process prevents them from swelling from dampness. Special lubrication of the paper fibres prevents brittleness and "splitting" in dry weather.

Uniform Shells. From primer to crimp, Winchester shells are constructed to insure the maximum pattern possible from any load and under all conditions. 25,000,000 rounds of ammunition are fired every year in testing Winchester guns and ammunition. $100,000 is spent annually in the inspection and testing of finished shot shells alone.

Clean hits and more of them

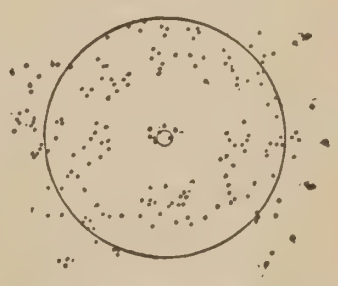
To insure more hits and cleaner hits in the field or at the traps, be sure your shells are Winchester Leader and Repeater for Smokeless; Nublack and New Rival for Black Powder. Write for our Free Booklet on Shells. **Winchester Repeating Arms Co., Dept. E-31, New Haven, Conn., U. S. A.**



Effect of bad loading of wadding increases breech pressure. Violence of explosion "jams" and mutilates pellets. Actual test target 160 pellets, out of a possible 431, or 37% of the shot charge



Effect of weak wadding pierced by the gas blast. The blast blows into the shot cluster, scattering the pellets in all directions. Low velocity and poor penetration. Actual test target 178 pellets, out of a possible 431, or 41% of the shot charge



Effect of hard wadding fitting barrel loosely. Unchecked by friction or muzzle choke, it is blown through the shot cluster scattering the shot. Actual test target 221 pellets, out of a possible 431, or 51% of the shot charge



WINCHESTER

World Standard Guns and Ammunition

Southern Indiana Dairy Convention

The 1918 Southern Indiana Dairy Convention will be held at Seymour, Indiana, October 30-31 and November 1. A program of unusual interest is being prepared which will include practical demonstrations and discussions of the important problems that will confront the dairy farmer during these times when war conditions and war prices are having a big influence on the dairy industry. In addition to this program there will be a variety of other features to interest those who attend the convention. A large exhibit of dairy supplies and equipment, a show of dairy cattle, a calf club show, judging contests, milking contests, and on the last day a sale of pure-bred dairy cattle will be held.

This year's convention has been located at Seymour so as to reach the people of southeastern and south central Indiana in the same way that the 1917 convention reached the people of the "pocket" in Southwestern Indiana. But this year's meeting is being planned on a much larger scale than was the first annual meeting held last year. The Seymour commercial club is backing this year's show in a very strong way and a very complete organization has been formed to interest the farmers from a large number of southern Indiana counties.

This convention was established last year by the Indiana State Dairy Association in response to a definite demand on the part of the dairy interests in southern Indiana. It offers an excellent opportunity for the association to carry its work to the farmers in this section of the state where the dairy business is developing very rapidly.

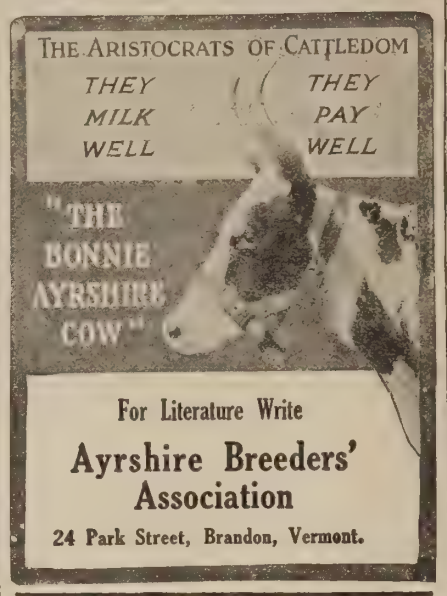
C. R. GEORGE.
Sec. Indiana State Dairy Ass'n.

Curing Mammitis

R D. Sanford of Oregon writes, "I have had great success curing mammitis or garget by bathing the udder thoroughly with strong vinegar and salt. I then anoint with carbolic acid and lard mixed together."

Wear your old clothes and buy Liberty Bonds.

AYRSHIRES



For Literature Write
Ayrshire Breeders' Association
24 Park Street, Brandon, Vermont.

Edelweiss Farms—Ayrshires
Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

REGISTERED AYRSHIRES FOR SALE
Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

World's Champion Ayrshires
Extraordinary Bull Calf out of Imp. Torr's Tropicohn. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

Ridgewood Farms
WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr.

CRESTMONT FARM AYRSHIRES
Are offered in several choice bull calves. Handsomely marked, nearly all white, from tested cows in Advanced Registry. "Finlayston" and "Baron's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. W. H. Druckemiller, Sunbury, Pa.


ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Willowmoor Ayrshires!
6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle.

BROWN SWISS

Walhalla Farms
Pure-Bred Brown Swiss Cattle
Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

RED POLLED

Our August and September RED POLLED OFFERING
40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.
JEAN DU LUTH FARM NO. 2, Nickerson, Minn.

JERSEYS

Jersey Bulls FOR SALE
A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

13,036 lbs. MILK—720 lbs. FAT
is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropp April 20, 1918.
His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and ric ness of his dam, 15,147 lbs. milk, 875 lbs. fat.
His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to da Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.
MOOSE HILL FARMS, Spencer, Massachusetts

GRANDDAUGHTER OF NOBLE OF OAKLANDS

Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

CEDAR SIDE JERSEY FARM
Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

Burn Brae Jerseys
Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

HILLCREST JERSEYS
Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

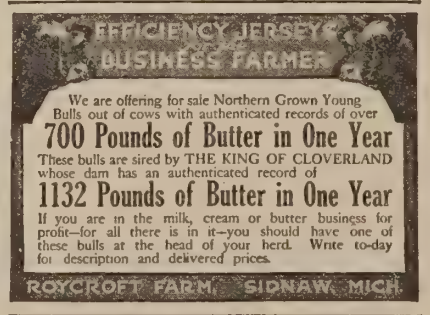
JERSEY BULL CALF
STRAIGHT ISLAND BREEDING. Dropped March 18, 1918, solid color. Sire—Imp. son of Noble of Oaklands. Dam—Granddaughter of Derry's Golden Jolly and St. Clairs Fox—in R. of M. class A. A. 642.92 lbs. butter.
Ceylon Court Farm, Lake Geneva, Wis., G. D. Gilbert, Supt.

JERSEY BULLS
Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD
At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys
We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

Lookout Farm Jerseys
Our Present Offering Affords an Unusual Opportunity to secure a Fine Foundation For a Productive Herd and comprises
A young bull, solid color, and ready for service. There is not a weak line in his pedigree. His sire carries 37½ per cent of the blood of Hood Farm Torono, the great sire of high producers; the sire's dam is an 11,000-lb cow; and on the bottom line of the bull's pedigree there is an unbroken line of Register of Merit cows for five generations. Five heifers dropped respectively Feb. 23, '17; Feb. 26th, '17; Apr. 5th, '17; Sept. 21st, '17; and Oct. 24th, 1917. All are sired by Lookout Prince, 115074, whose first daughters to freshen are now under test and are "making good". Three of the five are out of Register of Merit dams; and all five have R. of M. backing; are finely bred for production and are good individuals.
ADDRESS HENRY S. REDFIELD,
1925 Seventh Avenue, - New York City.



We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over
700 Pounds of Butter in One Year
These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of
1132 Pounds of Butter in One Year
If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.
ROYCROFT FARM, SIDNAW, MICH.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale
Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

Registered Jersey Calves
from large milking dams and of the most fashionable breeding, either sex. Prices $50 00, $75 and $100.00 each.
ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE

Golden Sunset JERSEYS
We have a few elegant young bulls near ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine Mo. (Just south of St. Louis.)

Wineland Farm Jerseys
Big Milkers—Prize Winners.
100 Head - - 100 Hea
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, N

Meadside Farm
Meadville, Pa.
Jerseys that produce. This is the fa where Jimp, test 31 lbs. 1¾ butter, 471 milk, 7 days, made record and spent her days, and her son was in service 11 years.
Where Eminent Jimp's Owl, owned Washington, was raised and bred, test 803 butter, 16,937 lbs. milk.
Where Eminent's Bell of T. was raised bred. Champion 4-year-old of Ohio.
Where Raleigh's Foxlett was raised bred; nearly 12,000 lbs. milk, 535 lbs. but at 1 year, 11 months old.
We have bull calves rich in this blood si by our high producing sons of Oxford Yo Do and Gamboga Knight with little H breeding. Prices $100 to $200. Write us.

Sophie's Tormento JERSEYS
"Production" our Watchwo
FOR SALE—BULL CALF No. 257, drop May 22, 1918; solid color, black tongue switch; an excellent individual.
SIRE: Lou's Torono 106614, whose first daughters on test averaged 602.71 lbs. bu 85% fat, from 9,450.9 lbs. milk, at 1 yr. mos. of age; all four finished in Class having carried calf an average of 183 days.
DAM: Varna 333660, in the R. O. M., C AA—546.29 lbs. 85% butter in 1 year f 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. daughter of the famous Hood Farm To 35th 99265. FAIRVIEW FARMS, I
R. L. Pike, Gen'l Manager, Geneva, O

We Offer An Exception BULL CALF
Dropped in December 19
Sired by Majesty Star out of a Regis of Merit Dam. For particulars, addr
FINCH FARM, - DAYTON, OH

POLLED JERSEY
Breeders' names and Spillman's "Inherita of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Sec'y, R 4, Box 5, Springfield, C

SWINE

Cedar Crest Farm Berkshir
Cholera Immune
The wonderful bargains we offered in Berksh were so quickly taken advantage of that we have n single boar of serviceable age for sale and only a brood sows, weighing 250 to 300 lbs. bred for their or second litter and a limited number of unbred gilts. Our stock is right and our price is right. W us today for complete information. Remember — come first served—the quicker your order is placed better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa

IROQUOIS FARM
AYRSHIRES
High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Big Type Poland China Boars
of noted breeding now ready to be shipped. All of March farrow. Cholera immune and guarant to please. I have culled them out very closely therefore have nothing but the best to offer. S by such noted boars as Big Ben H., Model Mastodon, Orphans Big Joe, Mow's Chief and others. from a herd that has built its reputation and where you take no chances either on cholera or get "stung" on a pig for I stand back of everything I say and sell. Write at once and mention paper.
F. A. MOREHOUSE, LANCASTER, WISCONS

ING SEGIS PATENT LOCK



r Tags.
ll Staff
d Rings.
cription
prices sent
application.
000 of these ear
s have been sold
hout adverse crit-
m.
500 of these
Staffs are used by
best breeders in the business. H. A. Meyer, Syracuse, N. Y

GUERNSEYS

A GUERNSEY BULL

is a sure way to increase your profits. Grade up your herd by using a pure bred Guernsey Bull and you will be surprised at Results.

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uernsey Cattle Club.
Box H, Peterboro, N.H.

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WARE, MASS.

ng bulls of May Rose breeding out of A. R. s and cows now on test. Herd tuberculin ed. Prices low.
GEORGE H. TIMMINS, Prop.

he Mixter Farm

325 GUERNSEYS 325

cellent bull calves for sale at exceptionally low s. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

ILLSWOLD FARM

Shrewsbury, Mass.

gistered Guernsey bull calves for sale. Dams in nced Registry and tuberculin tested. Prices right animals guaranteed to suit. W. A. Cloues, Mgr.

JPLAND FARMS

Ipswich, Mass.

ffers for sale a Bull Calf dropped ebruary 4, 1918.

ired by—*Langwater Cavalier* No. 1012. (A Double Grandson of np. King of the May 9001.)

am—Imp. Chywoone Eulalia No. 4538. Record of *10,686.8* lbs. Milk *558.62* lbs. fat in Class B.

rice and full particulars on re- uest. F. P. Frazier & Son, Props.
W. K. Hepburn, Supt.

AND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

4 completed records, all ages, average 516 09 lbs. fat.

7 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

0 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out cows of correct type and proven produc- n. Correspondence solicited. Inspection vited. Address

AND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

ERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.

cLERAN OF MINN. WRENSHALL"

OR GUERNSEY ALE

EMALES of All Ages
CHOICE BREEDING
. AUSTELL FARMS
R. D. 3 JACKSON, MICH.

ERAR GUERNSEYS

Production
Reproduction
Quality.....

ecial offer until November 1st. Bulls from veeks to one year for $75.00 to $400.00.
is McL. Merryman, Cockeysville, Md.

IOWANOLA GUERNSEYS

Imp. Kitchener's Express 43925 Jr. Herd Sire. Undefeated 2-yr.-old at 1918 Fairs.

His Sire:—Hayes Kitchener, a son of Imp. Rose de Houard's 50th. 685 lbs. fat (record made in England).

His Dam:—Haye's Express 9th—524 lbs. fat, record made while on show circuit a part of the time. A consistent winner at the shows as a 3-yr.-old.

This young bull is bred for both individuality and production. You must see him to appreciate him. We have some excellent young stock for sale.

Meet us at the Waterloo and Columbus shows.

Mountain Bros., R. 5, Des Moines, Iowa.

Rich Neck Farm

Bull Dropped July 29th, 1917

Dam 7112.5 lbs. milk, 398.23 lbs. B. F., Class G. His sire's first three daughters have the following records with 1st calf: 511.01 Fat, 521.54 Fat and 617.23 Fat. His Dam 631.24 Fat. Dam is Granddaughter of the wonderful cow Pandora's Valentine of Rich Neck A. R. 1742. Price $500.00.

C. A. Hofferberth, - Sterling, Virginia.

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

Registered Guernsey Bull For Sale

DROPPED JULY 21st, 1917.

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and price write Folly Farm, Libertyville, Ill.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. August Ziesing, Deerfield, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM **GUERNSEYS**

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.
Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

LONE TREE FARM

GREEN LAKE, WIS.

Has in its Herd 15 A. R. Guernseys and 11 R. of M. Jerseys
And Carries About 16 Cows on Test.

To inquiries for BULL CALVES we give full, honest particulars and stand behind every animal sold.
Jersey Sire—A Son of Pogis 99th. Guernsey Sire, Langwater Islander.

Harbor Hill Guernseys

We Bred and Developed
The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.
C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.
W. R. DUNLOP, Fayetteville, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.
L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. F. G. Benham & Son, Canandaigua, N. Y.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

Tratt Guernsey Herd

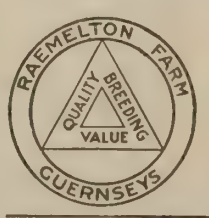
Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

GUERNSEYS A. R. RECORD COWS for SALE

Others of special breeding. Send for list of cows and heifers. ROY C. BUZZELL, Stanley, Wis.



Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. L. V. AXTELL,
Old Homestead Farm, Perry, Ohio.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.
W. G. Jamison & Sons, Appleton, Wis.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. Roy Burton, Eagle, Wis.

Young Guernsey Bulls

Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding.* Send for price list.
Helendale Farms, 702 Cedar St., Milwaukee, Wis.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. His Dam is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. The Bull himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.
W. A. LAWSON, Rosendale, Wisconsin

Dickerson 1879 Buyer Pleased or Money Back 1918 Guarantee

The Stock Owners Pocket Companion

A booklet of over one hundred tried and tested remedies (sold under our guarantee)—for horses, cattle, sheep, swine and poultry. Collected from and used by local veterinarians and farmers, PRICE 50c POSTPAID, (YOU MAY MAIL US TWO THRIFT STAMPS).
FREE OFFER. With every booklet we will mail free a separate pamphlet for the newest and most effective way of treating INFECTIOUS or CONTAGIOUS ABORTION. F. B. Dickerson Co., Detroit, Michigan.

ABORTION IN CATTLE
PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT, REGULAR BREEDERS BY
STERILOID



Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

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The farmer's old reliable treatment for Lump Jaw in cattle.



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A book of 197 pages and 67 illustrations. It is FREE.
FLEMING BROS., Chemists, 255 Union Stock Yards, Chicago

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Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.
Dr. George Hollabush, Fort Atkinson, Wis.

HOLSTEINS

PUBLIC SALE
MONDAY, OCT. 21
65—HEAD—65
REGISTERED
HOLSTEINS
Complete Dispersion of the Famous
BLACKBURN HERD

25 big, strong, fresh cows and nearby springers, 20 big 2-year-old heifers, bred to my 31-lb. herd sire and due to freshen this fall; 5 bulls (including my 2-year-old HERD SIRE) and several calves. Send for catalog.

Dr. A. D. Blackburn, Cuba, Ohio

Virginia Holstein-Friesian Club Will Hold It's
1st Consignment Sale
Orange, Va., Oct. 18th, 1918, 11:30 A. M.
69 Females and 6 Bulls

All animals over 6 months of age will be tuberculin tested by the U. S.-B. A. I. Virginia breeders are the first to hold a consignment sale under the Government test. All consignments have been selected by the Sale's Committee. They consist of splendidly bred young heifers, 2-year-old bred heifers, and young cows, many with splendid records. Three granddaughters of Tweede White Lady one of the coming foundation cows of the Holstein breed. A nice lot of granddaughters of King Lyons and Rag Apple Korndyke. A grandson of De Kol 2nd Butter Boy 3d and his dam one of the great yearly record cows; 20,784.3 lbs. milk and 1159.5 lbs. butter in 12 months. A son of King Korndyke Sadie Vale from an A. R. O. dam. A Jr. 4-yr.-old that stands 4th in Va. on 10-month milk record made as a 2-yr.-old. She is due to freshen date of sale. An Association prize winner this past year. A 5-year-old with a good yearly record, she milked over 80 lbs. milk on 7-day test as a 4-year-old. A 22-lb. 4-yr.-old now on yearly test. Two granddaughters of King Valdessa, whose two nearest dams averaged for 7 days 43 lbs. butter and 167 lbs. butter for 30 days. A great opportunity to get healthy well bred foundation stock.

Col. Geo. W. Baxter, Auct. Mr. S. T. Wood, Pedigrees.

Sale's Committee
R. V. Martindale, Sweet Briar, Va.
Frank S. Walker, Woodberry Forest, Va.
J. O. Sullivan, Brandy Station, Va.
Apply for catalogue
R. V. Martindale, †Box 115, Sweet Briar, Virginia.

Springdale Farms
Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality. Henry Stevens and Son, - Lacona, N. Y.

A Rare Chance

To secure a few choice
Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.
50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.
35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.
GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.
Sale Catalogs Printed — Live Stock Printing Co., La Grange, Illinois

Lake Mills Holstein Breeders'
Eighteenth Semi-Annual Sale
At Lake Mills, Wis.
OCTOBER 22nd and 23rd, 1918

First Class, Pure-bred Holsteins from the Best of Herds. Classy Show Cattle, and A. R. O. records not always found in Public Sales.

The Absolute Dispersion of the Norton Farm Herd, owned by F. Lee Norton, Racine, Wis., numbering nearly sixty, including 21 A. R. O. cows with records up to 30.36 lbs. This herd is exceptionally good, and is headed by a fine 2-yr.-old, King Alcartra Pontiac Snowball, a 33-lb. grandson of the $50,000 bull, King Segis Pontiac Alcartra. Two nearest dams ave. 34.89 lbs.

For Catalog Apply to F. H. EVERSON, Manager, Lake Mills, Wisconsin.
Auctioneers—Haeger, Kelley and Mack. S. T. Wood in the box.

Look For It—Wait For It

The Complete Dispersal Sale of
Brookdale Stock Farms
Entire Herd of Registered Holstein-Friesian Cattle

Owing to the fact that my five sons are in camp, or drafted and my wife very ill, in order to relieve myself of so much detail I am compelled to disperse my entire herd. We have no abortion, and have asked the State Veterinarian to be present in person when the cattle are tuberculin tested, and we give the privilege of a sixty-day retest, so sure are we the herd is clean. We have a son of King of the Pontiacs from a 30.13-lb. daughter Tidy Abbekerk Prince, one year old last January. He is a chip of the old block and worth crossing the U. S. to obtain. We have also a son of King Korndyke Sadie Vale whose two dams average 34.56 lbs. in 7 days, also a son of Rag Apple Korndyke 8th. Some 35 to 40 cows and heifers which will be fresh or springing by sale date. We have daughters of King of the Pontiacs, King Model and It. More than eighty head will be sold. The herd has been pronounced by other breeders as the best individuals ever offered by one man in a single day's sale. You may be assured that splendid individuals are the rule. We feel that cattle will be much higher in the very near future.

This your Golden Opportunity to get a selection at your price.

Sale October 29th, '18
I. J. CASE, ALTA, ILLINOIS.

HOLSTEIN SALE
At the Union Stock Yards Sale Pavilion, South Omaha, Neb.
TUESDAY, OCTOBER 15th, 1918
70 HEAD PURE-BRED HOLSTEINS will be sold, among them are:

10 daughters and granddaughters of KING SEGIS PONTIAC; a daughter of Johanna McKinley Segis, a 40-lb. bull; a daughter of Sir Ormsby Skylark, sire of Duchess Skylark Ormsby, the undefeated World's Champion Cow with a record of 1,506 lbs. butter in year. This is the first time this breeding has ever been offered in a sale ring in Nebraska.
6 daughters of Kalmuck Skylark Johanna, all sisters of NIVA KALMUCK, Nebraska's Champion Cow with a record of 45.18 lbs. butter in 7 days—the sixth largest record cow in the world.
2 daughters of Rag Apple Korndyke Boon, whose dam and sire's dam average 35.10 lbs butter in 7 days; a 2-year-old son of Rag Apple Korndyke Boon out of LOTTA CLYDE whose seven-day record is 709 lbs. milk and 31.33 lbs. butter.
These are QUALITY HOLSTEINS, the kind that will make you money in war times when feed is high, and the kind that will be sought for breeding purposes to replenish the world's supply when the war is over.
The consignors are: University of Nebraska; B. B. Davis, Omaha; S. H. Wilson Omaha; H. C. Langan, Omaha; Dwight Williams, Omaha; F. B. Aldous, Omaha; C. J. Furry, Franklin, Neb. For further particulars write

DWIGHT WILLIAMS, 4110 Davenport St., Omaha, Neb
J. E. Mack, Ft. Atkinson, Wis., A. W. Thompson, York, Nebr., Auctioneers.

Beaumont Farm, Mt. Savage, Maryla
Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagi finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build conformation he is the admiration of everyone who sees him.
We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 l granddaughter of King of the Pontiacs.
This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is te twelve months old.

Lakeside Herd
Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

Hazelhurst Stock Farms
Offer a Yearling Son of King Segis Pontiac Canary

who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.
H. H. Wickwire & Son, Hubbardsville, N. Y.

You Can Still Get O
But Act Quickly

Nearly all of our sons and grandsons of ertje Hengerveld Segis are sold. A few 11 months old from high record dams c bought yet. Pietertje is the only bull with 100 A. R. O. daughters and 55 sons is the best Segis sire living. Prices to suit
Susquehanna Farms, Hartwick Seminary.

4 FEMALES
We offer four cows due to freshen fall and early winter. Good individ well marked and well bred. One i to a 31-pound son of King of the tiacs. Herd free from tubercul These are priced to sell.
CEDARDALE STOCK FARMS, O. A. Thomas, RUTLA

The Second National

Dairymen's Sale

Columbus, Ohio

October 15th-16th, '18

the only Holstein Sale at Columbus during the National Dairy Show

Highly Bred Cows Giving Buckets of Nature's Choicest Food—Holstein Milk

Sons of the World's Greatest Sires and Cows With Records From 30 Pounds Butter and Up

CALVES **HERD SIRES** **HEIFERS**

SPECIAL—A 47-POUND HEIFER

A yearling daughter of Fairview Korndyke Mata (47.11 lbs. butter, 801.5 lbs. milk in seven days—185.37 lbs. butter, 3216.6 lbs. milk in 30 days—World's 30-day Champion). The heifer is practically all white and the picture of her dam in conformation.

No Other Animal From Such a High Record Dam Has Ever Been Offered at Public Sale.

A selection taken at random from the catalog:—

Three daughters of the 41-lb. cow, Sunrise Hengerveld Caroline.

Three daughters of Ormsby Jane King, the $20,000 son of the GREAT WHITE HEIFER, the only cow who two different years made over 44 lbs. butter in seven days, the world champion in her class for milk and butter.

A show bull, from a 32-lb. daughter of Colantha Johanna Lad, sired by a bull whose dam made 32 lbs. and sire's dam made 36 lbs.

SIX daughters of King Segis Pontiac, one from a 30-lb. cow, another from a 32-lb. four-year-old; all are from tested dams. They are bred to the sire of the WORLD CHAMPION, Duchess Skylark Ormsby, the only cow to produce **1506 lbs. butter in a year.**

Daughters of that mighty sire, RAG APPLE KORNDYKE 8TH, bred to RAG APPLE THE GREAT, the only son of the only cow that ever made 50 lbs. of butter in a week.

A daughter and a grandson of the wonderful 39-lb. cow, Northern Fobes Denver, who three different years produced over 34.9 lbs. butter in seven days.

A 24-lb. daughter of the 40-lb. sire, Johanna McKinley Segis, from a 24-lb. daughter of Paul Beets DeKol.

Two sons of Sir Ormsby Skylark, therefore brothers to DUCHESS SKYLARK ORMSBY, the only 1,500-lb. butter cow, WORLD CHAMPION OVER ALL AGES AND BREEDS FOR YEAR BUTTER PRODUCTION. The dams of each of these bulls have 30-lb. official seven-day butter records. Both are Dandies.

Daughters of King Segis Pontiac Konigen, the $35,000 bull whose dam is a 40-lb. daughter of a 37-lb. cow.

A son of RAG APPLE KORNDYKE 8TH, sire of the only 42-lb. three-year-old and the youngest 30-lb. cow. Dam is a 32-lb. daughter of a 39.4-lb. cow who is also dam of the world champion, SEGIS FAYNE JOHANNA, the only 50-lb. cow who is also dam of the second highest record cow the world has ever known.

The Pick of the Breed, from the greatest producing herds known. Selected for Individuality, Breeding and Production. Offerings from State and Federal Accredited Herds.

A heifer daughter of a 32.75-lb. four-year-old who was sired by a 40-lb. bull and was from a 31.46-lb. cow. This heifer is bred to RAG APPLE KORNDYKE 8TH.

A yearling bull whose dam made over and whose sire is full brother to a 37-lb. cow and is from a 32-lb. dam.

Twin daughters of a 30-lb. cow sired by a bull whose dam produced 35.42 lbs. butter in a week and averaged well over 100 lbs. milk per day.

A 27-lb. four-year-old daughter of Duchess Ormsby Piebe Burke who has a 41-lb. daughter.

Daughters of Colantha Johanna Champion whose daughters are making wonderful year records and whose dam held the world's record for year milk AND butter production.

Tuberculin Tested, With a 30-Day Retest Privilege.
Guaranteed Clean, or No Sale.

Plan to attend the National Dairy Show and take in this sale, which will be held in Mitchell's Riding Academy and Sale Stable, 304 Hankins Avenue, Columbus. Take car marked "Main Street" and go East as far as Champion Avenue, then one block North and one East.

Sale managed by and Catalog compiled by

E. M. HASTINGS COMPANY, LACONA, N. Y.

Write for catalog today, mentioning this paper.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owa'onna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — **HOLSTEINS** — **3 BULLS**

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

No. 1 born Feb. 17 almost white, his dam has A. R. O. rcd. of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Sir Lincoln Karen Ormsby

Born Jan. 1, 1918, he is an exceptional good individual and nicely marked; his sire Sir Pietertje Ormsby Mercedes 22nd has nine 30-lb. sisters, one over 40 lbs. butter in seven days, he is sired by the famous Sir Pietertje Ormsby Mercedes and from Minnesota's first 1000-lb. cow. The dam, Johnson Lincoln Karen 28 lbs. butter in 7 days and 110 lbs. in 30 days is the dam of Ruby Karen Mercedes, 20 lbs. butter, 416 lbs. milk at 2 yrs., 12 days and again at 2 yrs., 11 mos., 10 daysmade 29.68 lbs. of butter. The latter is a ¾ sister to Sir Lincoln Karen Ormsby. For information and price, write

O. J. GROVER, - - - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

Born November 1916 Black and white

Born February 1917 Black and White

Born May 1917 Black and White

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now on yearly semi-official test and will complete records this fall and winter. Nearly every cow has completed cow testing records for three years and has produced up to 600 pounds of butter. These cows are never pushed to the limit. The bulls offered are sired by bulls secured from the E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butter. Bulls are heavy bone, straight, well marked and large for their age. They will and must please. We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

From a Yearly Record Dam

A handsome son of King Korndyke Sadie Vale 24th, four-fifths white, born November, 1917. His dam has following records: Butter, 365 days at 2 yrs., 644 lbs.; milk, 13,860 lbs. (8th Ass'n prize in class). Butter, 7 days at 6 yrs., 26.12 lbs.; 30 days, 98.54 lbs. Dam's dam, a 22-lb. cow with 641 lbs. 365 days. He is bred right. Write for his photo and pedigree today.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related to King Segis Pontiac Count and Colantha Johanna Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

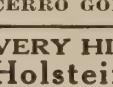
and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Bloomingdale Herd ...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

A. A. Courtelyou, Somerville, New Jersey

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont,** the **First Tuesday and Wednesday of every other month,** Feb.5-6; Apr.2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire; King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

Holsteins For Sale

Extra Fine Breeding

5 Granddaughters of King of the Pontiacs.

9 Granddaughters of Spring Farm King Pontiac 6th.

All above are from 7 to 14 months old.

The best 3-year son of King of the Pontiacs also for sale.

Geo. S. Bigelow, Breedsville, Michigan.

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.

Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Michigan.

The Traverse Herd

This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27 18 in 7 and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices, but *hurry* for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.

Traverse City State Hospital, Traverse City, Michigan.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

You Can't Afford to Overlook This Young Bull



Canary Ormsby Johanna De Kol 256894.

A SON OF THIS THREE-YEAR-OLD FOR SALE.

Canary Ormsby Johanna DeKol produced 28.18 lbs. butter, 503 lbs. milk in 7 days and 111.95 lbs. butter, 2,318.6 lbs. milk in 30 days at the age of 3 years, 1 month, 6 days. Her sire, Canary Fobes Bessie Homestead (20 A. R. O. daughters), is a 31-lb. grandson of Canary Paul and Homestead Jr. DeKol. Her dam is a 17-lb. 2-year-old daughter of Sir Ormsby Johanna DeKol (31 A. R. O. daughters, 2 above 30 lbs.). Every dam in her 4-generation pedigree has a good A. R. O. record.

The Sire of This Young Bull is Mutual Fobes Longfield DeKol 82959, a son of Mooie Mutual DeKol and from a daughter of Homestead Jr. DeKol that, as a Jr. 3-yr.-old, made 30.04 lbs. butter, 630.8 lbs. milk in 7 days and 124.42 lbs. butter, 2,651.6 lbs. milk in 30 days.

This youngster is well marked and as straight as they make them; so are his sire and dam. Moreover, he's a descendant of proven producers from one end of his pedigree to the other. His dam's record as a 3-yr.-old is bound to be increased. There's no question but that he'll prove to be a top notch herd sire. He was born April 10, '18. Write us about him today, for he won't be here long.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

Need a Herd Sire?



We Are Offering One of His Sons, a Real One, From a 27-lb. Dam.

His Sire is Iowana Sir Ollie, shown above, a son of Canary Paul Fobes Homestead, he a 34.96-lb. son of Canary Paul. Iowana Sir Ollie is from Ollie Watson Prima Donna, 3 times an Ass'n prize winner with 31.10 lbs. butter and 618.7 lbs. milk in 7 days to her credit. More than that he is a wonderful individual, a bull that would show to advantage in any ring today.

The Dam of this young bull is Groveland Korndyke Cornucopia, 27.71 lbs. butter and 624 lbs. milk in 7 days. She is a daughter of Cornucopia Pontiac Johanna Lad, one of the good sons of King of the Pontiacs, and from an A. R. O. granddaughter of Sir Korndyke Manor DeKol (45 A. R. O. daughters, 3 above 30 lbs.).

This Young bull was born April 8, '18. He's well marked, about half white, and a fine individual,—a bull that really will make you an excellent herd sire. Finally, he's priced to sell.

Remember we stand back of every animal we sell. Write today for picture, pedigree and price.

NATHAN DICKINSON & SON, Lake Geneva, Wis.

OLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall; ady for immediate shipment. Several bulls ready for service.

UERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

RCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

UROC JERSEYS Anything you want in Duroc Jersey Swine.

cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

DGEWATER STOCK FARM, Fort Atkinson, Wis.

. R. O. Holstein Cows and Heifers

order to make room in our barns we st sell a number of cows and heifers t are backed by large official milk l butter records. They are bred to SCONSIN STAR STOCK FARMS,

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to **ED. M. SCHULTZ, Hartford, Wis**

A Few Good Ones For Sale

am offering yearling and bred two-year old registered heifers for sale. Daughters of King is Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good ghters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac ngerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for rself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show —took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is ked by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been cing for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

YSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

King Pontiac Champion

Leads All A. R. O. Sires

King Pontiac Champion, (81 A. R. O.) has the best balanced A. R. O. record of any living bull of the breed.

He does not depend upon a few sensational daughters for his prestige but upon the high average production of his get. His daughters excel in both long and short tests as well as in milk and butter.

Last year King Pontiac Champion led the 589 sires represented in the prize list by being represented 34 times, and in respect to 30-lb. daughters, did not even have a rival. The showing of his semi-official yearly daughters in both milk and butter also far surpasses that of any other sire.

Think of the 125 daughters of King now on the Pabst Stock Farm, 81 of which have already been credited with A. R. O. records, and the fact that King Pontiac Champion is now in his prime.

Is not this the kind of a sire to line up with when selecting a herd sire? Look over our list of young bulls—prices reasonable.

PABST STOCK FARM,
Oconomowoc, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

JOHN HETTS, FORT ATKINSON, WIS.

CLEVELAND HERD

Offers Two Holstein Bull Calves

nine months old, good straight individuals, well grown. One is out of a 29.08-lb. 3-year-old, next dam a 26.10-lb. cow and the other out of a 20.33-lb. Jr. 2-year-old daughter of a 29-lb. cow. Both calves are sired by our K. V. P. Alcartra whose eight nearest dams average 30.52 lbs. butter from 611 lbs. milk. Also a few young A. R. O. cows bred to this bull and sired by King Segis Pontiac Veeman, one of the greatest sires of prize winning daughters in the world. If interested send for pedigrees, pictures and prices.

H. R. WEISKOPF, CLEVELAND, WIS.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.

JOHN MURPHY, R. 27, Eagle, Wisconsin

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

Pure-bred and High Grade Holsteins

CAN FURNISH CAR LOTS OR LESS.

I have a car of yearlings on hand at $50 each. Several bulls from 8 months to 14 months old from A. R. O. dams. Write me for price and photo. High grade Holstein heifer calves, four weeks old, $20 crated.

Yohn's Stock Farm, Watertown, Wisconsin.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. **His Dam:** Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4-year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.

HALSEY SEDGWICK, Limeridge, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

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110 HOLSTEINS

Oct 8th, 9 A. M.—Dispersion Sale

43 registered cows and heifers, 6 registered bulls, 60 high grade cows and heifers, 80% due to freshen fall and early winter. Tuberculin tested for last 5 years. Two yearly fat tests on mature females. 26 cows making over 400 pounds fat in year under ordinary farm conditions. Some direct descendants of King Pontiacs, King Segis, Johanna DeKol Van Beers, K. P. Pontiac Lass and Segis Fayne Johanna. Send for catalogue. Cattle sale starts in forenoon. **50 Registered Chester White Swine—The Right Kind.**

Also 14 horses and mules and every kind of farm machinery including Avery tractor and tractor machinery, and Sharples Milker.

Breeders for 32 years of Holsteins of vitality and yearly production. Mack and Elliason in the Box.

Gunderson Stock Farm, (Near City Limits,) Portage, Wis.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM,**
W. G. Marshall, Prop., Whitewater, Wis.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

Buffalo Creek Farm

OFFERS A SON OF

Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. **Albert R. T. Lillie, Supt.,**
Arlington Heights, Illinois.

MILLIONS

Of dairy cows have been slaughtered in the old world. When this war is over dairy cows and products will command unheard of prices. Now is the time to get in. Send for our free price list of 100 head of choice females or if interested in a bull ask for bull list.

WOODLAWN FARM, Sterling, Illinois.



Purebred HOLSTEINS

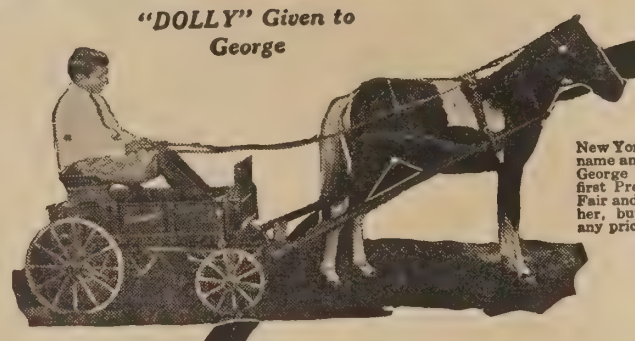
are the most profitable dairy breed. They are the direct result of a consistently scientific testing and breeding system that in a number of years has raised their 7-day butter-fat record from 21 lbs. to over 50 lbs. Their history should be an incentive to every dairyman to improve his own herd by testing his cows, discarding the poor ones and filling their places with pure-bred Holstein Cows. Investigate the large Black and Whites.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.



Who Wants a Pony?

"DOLLY" Given to George



This is George Edwin Adams of New York State. He sent me his name and I sent him "Dolly." George says "Dolly" took the first Premium at the County Fair and he was offered $150 for her, but he would not sell at any price.

"EARLY BIRD" Given to Edwin



Edwin Larson sent me his name and received "Early Bird." Edwin says "Early Bird" is a fine name for his pony because he and his friends go for early morning rides in the summer. Edwin lives in Worcester County, Massachusetts.

"HEINIE" Given to Clarence



Clarence Niemoeller, Bartholomew Co., Indiana, sent me his name and I sent him "Heinie." Clarence says, "I would not take $10,000 for "Heinie," for I've more pleasure out of my pony than I would out of the money."

Boys and Girls

Here is the chance you have been waiting for—to get a real live playful Shetland Pony without a cent of cost.

"TRUSTY" Given to Raymond



Raymond Krueger lives in Minnesota, where there is much snow. However, Raymond, doesn't worry since I sent him "Trusty." If Raymond had not sent me his name, he wouldn't have "Trusty" now.

I Have Given Away Over 500 Ponies

I am called the Pony King of America because I give away Ponies to Boys and Girls. I have already given away over 500 Ponies to over 500 Boys and Girls.

Now I am going to give away several more Ponies, and I want every family that reads this paper to have an equal chance. If you are a boy or girl send in your name, and if you are the father or mother of a boy or girl, be sure to send your child's name. Remember, no charges of any kind and nothing to buy. JUST SEND IN YOUR NAME.

Here you see Anna Ruth Miller of Logan County, Ohio, and her new friend "Kip." Anna Ruth says she is glad she sent me her name because "Kip" is the finest Pony in the whole state of Ohio.

Every Boy and Girl Has the Same Good Chance

No matter where you live, no matter how young, every child will stand the same good chance to get a Pony, with buggy, harness, saddle, bridle and blanket. Send in your name right now.

Children Don't put off this chance. Don't wait. Write your name and address in the corner below, cut it out and send it to me. I will then send you the **Free Pony Pictures** and you will have an equal chance to receive one of the Real Live Ponies that I am giving away soon. You stand just the same chance as any other child, and it doesn't cost you a cent. Get a pencil and write your name NOW.

Parents Please show this offer to your child and send in the coupon. You will be interested in the Free Pony Pictures I send and your child will enjoy it immensely and profit by it. Besides **your child may win** one of the Shetland Ponies I am **actually giving away** this season.

"PAT" Given to Flossie



Little Flossie Meredith looks as though she is training for a circus, but she is just having good times with "Pat," the pony I sent her. Flossie lives in Jasper Co., Iowa.

It looks as though Ruth and "Mac" were also training for the circus. Ruth says he sticks his nose into a bag of pop-corn whenever he sees a pop-corn stand. Ruth Mead lives in Saline Co., Missouri. She sent in her name and received "Mac."

"MAC" Given to Ruth



Pony Pictures Free

I want to send a Colored Pony Picture Circular Free to every Boy and Girl that sends in his or her name. It gives the names and shows the pictures of the Ponies I am giving away. It also tells how to win one. I will send it free to every child who sends in his or her name.



The Pony King

321 Webb Bldg., ST. PAUL, MINN.

Write Your Name Here

THE PONY KING, 321 Webb Bldg., St. Paul, Minn.

Please send me the **Free Pony Pictures** and enter my name in your Pony Club. I want to get one of the ponies you are giving away.

My Name is.....

P. O. ..... Age.....

State..... R. F. D.....



The pony on the right is "Dapple," a beautiful little Shetland that I sent to Ernest Heckert, York County, Pa. "Dapple" traveled over 1000 miles to his new home. The picture shows Ernest driving "Dapple" in a Memorial Day parade in the little buggy that I sent with "Dapple."

If you want a pony like "Dapple" you had better send me your name right away.

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Fort Atkinson, Wisconsin October 11, 1918 Vol. LV, No. 12

Why He Bought The Bond

I

I asked him why he bought the bond—this dairy friend of mine;
This homely, rugged son of soil, of cattle, and of 'shine.
Our weekly paper, for a month, had boosted up the loan,
And patriotic thrill ran high and pride in it had grown.
Perhaps 'twas duty calling him—and what the neighbors say—
Or plain, blunt urge of little groups that called on him each day.
He shook his head, and I could see my guesses all were wrong.
That bond was bought with soul and heart, keyed up to holy song.

II

Said he: "I came from overseas, a long, long while ago;
A lad, I was, with pack on back, dull-witted, poor, and slow.
And, as the big ship neared these shores, there—strong against the sky
A statue, fine and fair and proud, stood forth, as we passed by.
The sun was kissing it, I guess—the torch was burning bright;
They told me it was 'Liberty' that kindled it, that night.
The face of her—the face of her—that splendid, shining face!
I never quite forgot her form, her pose, and noble grace.

III

"I grew to manhood, in these hills and by these singing streams;
I tilled the soil and raised my herd and kept my first great dreams,
And in good time the land gave back the toil I proffered it;
The seed took root, the twigs grew trees, my fortunes smiled a bit.
I saw these acres bloom with life until, for miles around,
God sang in all the living things—the blue sky and the ground.
I've knelt at night and prayed to Him—and always saved a prayer
For this, my Mother-land, whose love had let me settle there.

IV

"You know the rest—the pretty wife,—the children at her knee—
The years of quiet, restful balm that somehow came to me.
A home, a brood, ambitions fired by what a nation gave—
The right to toil and love and grow, and spend a share—and save.
Nor have I ceased to thank His grace for all the gifts that be—
Our organ knows by heart the words, 'Dear Lord, Abide with Me.'
There seems too much! I scarce believe that this same peasant boy
Who came, with pack upon his back, inherited such joy!

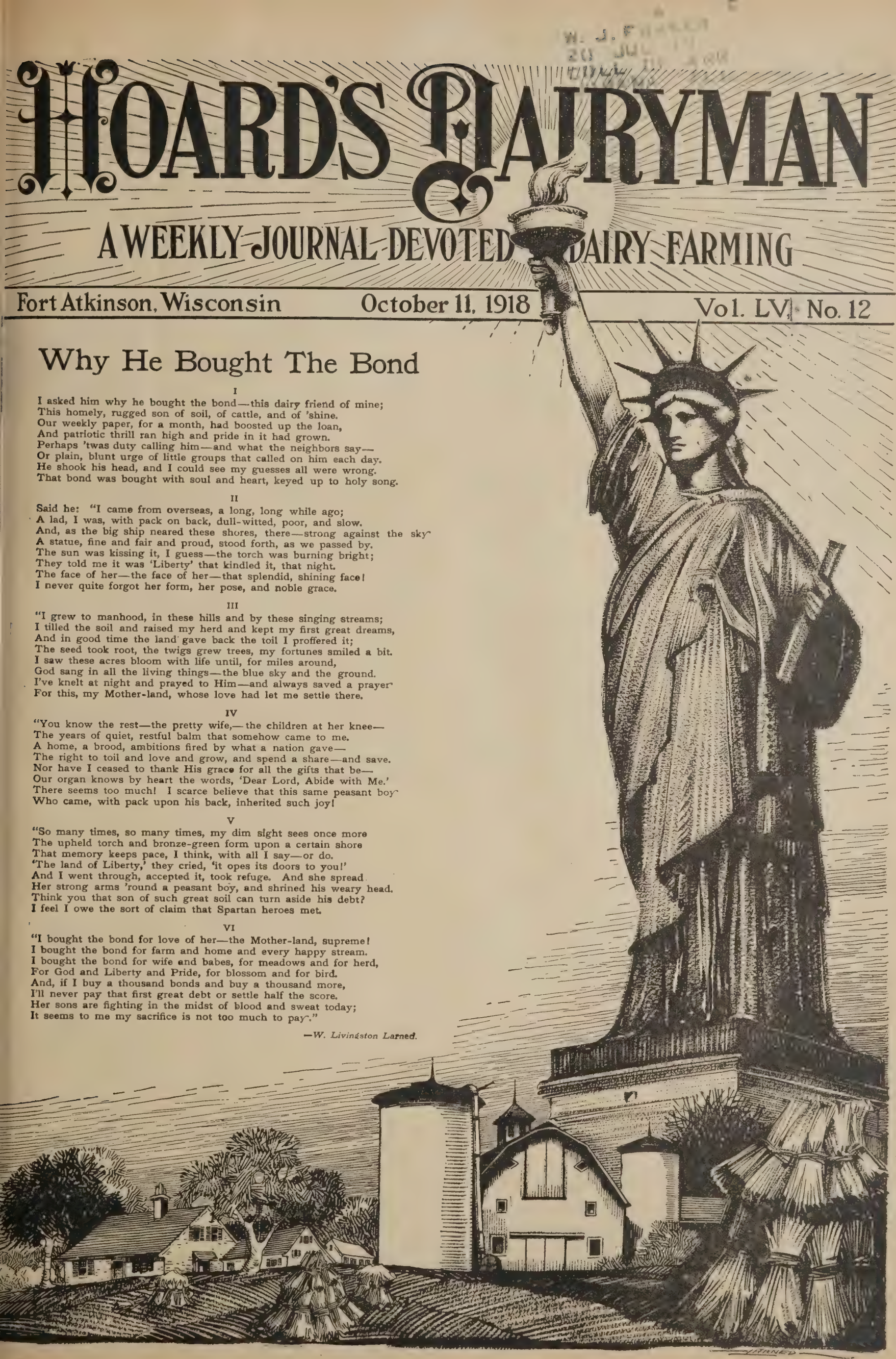
V

"So many times, so many times, my dim sight sees once more
The upheld torch and bronze-green form upon a certain shore
That memory keeps pace, I think, with all I say—or do.
'The land of Liberty,' they cried, 'it opes its doors to you!'
And I went through, accepted it, took refuge. And she spread
Her strong arms 'round a peasant boy, and shrined his weary head.
Think you that son of such great soil can turn aside his debt?
I feel I owe the sort of claim that Spartan heroes met.

VI

"I bought the bond for love of her—the Mother-land, supreme!
I bought the bond for farm and home and every happy stream.
I bought the bond for wife and babes, for meadows and for herd,
For God and Liberty and Pride, for blossom and for bird.
And, if I buy a thousand bonds and buy a thousand more,
I'll never pay that first great debt or settle half the score.
Her sons are fighting in the midst of blood and sweat today;
It seems to me my sacrifice is not too much to pay."

—*W. Livingston Larned.*



Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

To Holstein Owners in Iowa

Those who are contemplating making seven- or thirty-day tests during the coming winter months will greatly facilitate matters if they will write to the Dairy Department, Iowa State College, Ames, Iowa, at once stating the probable time when such testing will begin. It is going to be a difficult proposition to find testers to do this work. In spite of war conditions, the work should be encouraged and it is hoped that more testing than ever can be done. To accomplish this, however, those in charge of the work must know some time in advance when testers are wanted in order that the most efficient use may be made of them.

H. F. JUDKINS.
Iowa Dairy Department.

Minnesota Farmers Own Bulls Co-operaetivly

A breeders' association has been formed in Millelacs County, Minnesota, to encourage the breeding of high grade Guernsey and Holstein cattle. Five groups of farmers have been organized, each group having 50 to 75 cows. A co-operative plan is in operation by which but one bull is used in each group. He is kept on the farm most centrally located and the keeper receives $50 a year for caring for him. The cost of feed and the original purchase price are divided equally among the farmers in the group.

Reports indicate that this system of securing high class bull service at a low cost is working very satisfactorily. According to present plans the bulls owned by different blocks will be interchanged to prevent inbreeding and to increase the period of the bulls' usefulness.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The Buying of the Bonds

It's time to buy another bond, another proof of love,
The sort that thrills the heart of us, around that flag above.
It's time to lend a helping hand when lending means so much.
The mother-way of reaching out a mother's mood is such.
And all I have and all I own and all I hope to be
Will go to buy another bond for God and liberty.

It's time to buy another bond, a bond of noble right.
The dollars that were once in banks must help along th' fight.
Let's send away a regiment, our savings and our all,
It's not a day for selfishness when pride and duty call.
I've worked the tractor mighty hard, the crops have doubled, too,
Miss Liberty, I'll take a bond for very love of you!

It's time to buy another bond, a bond of Freeman's grit;
The dollar that's afraid to fight, has shamed you, son, and quit.
The farms were never half so fine. The soil is beckoning;
And treasures you have never known will blossom in th' spring.
Put all your own and all you are and all you hope to be
In bonds that bring the sort of peace that comes with victory.

"I've got an imported cow that just got over from the famous Island of Guernsey."

"What do you think of her?"

"Oh, she'll lead my herd once she gets over the affects of ridin' on the boat. She was sixteen days on the water and hasn't got over her sea legs yet.....the only time she's willing to be milked, is when my son stands at the barn door and makes a noise like a storm at sea."

"Fifty thousand tons of milk should be shipped abroad each fighting month of the year," remarked Hiram Weebly, of Clover Dairy, "and I know farm lads in uniform over there that won't be satisfied until they get moving pictures of the cows and phonograph record of a 'Moo' or two."

The Way It Works Out

Farmer Jones: "I hear all your summer boarders went back to the city last week."

Farmer Brown: "Yep. And if they'd stayed another month th' home folks would all have starved to death. It's been my observation that folks conserve food only when it's on their own table."

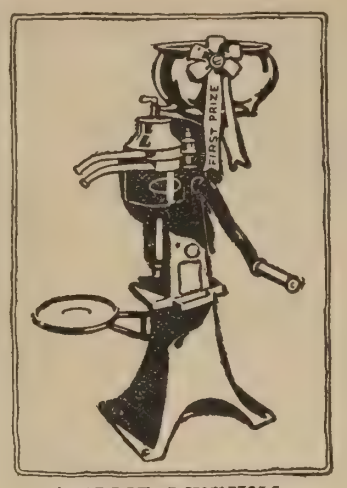
"This work or fight thing," remarked Uncle Ben Smudge of Hill Dale Dairy, "is interesting enough but there are so many hard jobs that th' young fellers would a heep sight ruther fight."

School Days

The boy must go away to school
And, say, I hate to see him go!
It's not until he is away,
That I begin to see th' way
He helps a feller so.
Those strong young arms are mighty fine,
To help get fence posts into line!

The boy has gone away to school
I miss him more than I can tell.
He's small—but there are many tasks
A farmer-father always asks
And that boys do so well.
His mother quietly allows
That he is great at milkin' cows!

The boy is working there at school,
And daddy misses 'Little Jim'.
His smiling face—his happy way;
The hopeful things he had to say;
The fine companionship of him.
His noon-time huggin'—and his kiss.



A PRIZE WINNING CREAM SEPARATOR

THE
DE LAVAL
CREAM
SEPARATOR
Is a Winner!

Why don't you let it win for you?

AT the great national and international expositions, the juries have invariably acknowledged the superiority of the De Laval. They awarded the Grand Prize, the highest possible award, to the De Laval at the Panama-Pacific Exposition at San Francisco in 1915, as also at Buffalo, Chicago, St. Louis, Paris, Brussels, and all the great world expositions for more than 35 years.

What the world's greatest dairy experts, the men who operate the creameries and the big milk plants and dairies, think of the De Laval is best evidenced by the fact that 98% of the cream separators in use in such plants the world over are of De Laval make.

De Laval Produced Cream Makes the Best Butter

Since 1892 the National Buttermakers' Association has held butter-scoring contests each year in connection with its Annual Convention, and at every such Convention butter made from cream separated by a De Laval Separator has scored highest. This is a 100% record for the De Laval. No room for chance there. Only unusual merit made such a record possible.

Proof of the superiority of De Laval Separators and of De Laval produced cream has been piled up and multiplied so many times that it is no longer questioned. It is an accepted fact.

If you are without a cream separator, or in need of a better one, let the De Laval start winning a bigger cream profit for you NOW.



A PRIZE WINNING PRODUCT

See your De Laval agent immediately, or if you don't know him, address the nearest De Laval main office as below for any desired particulars.

The De Laval Separator Company

165 Broadway, *New York*
29 E. Madison St., *Chicago*

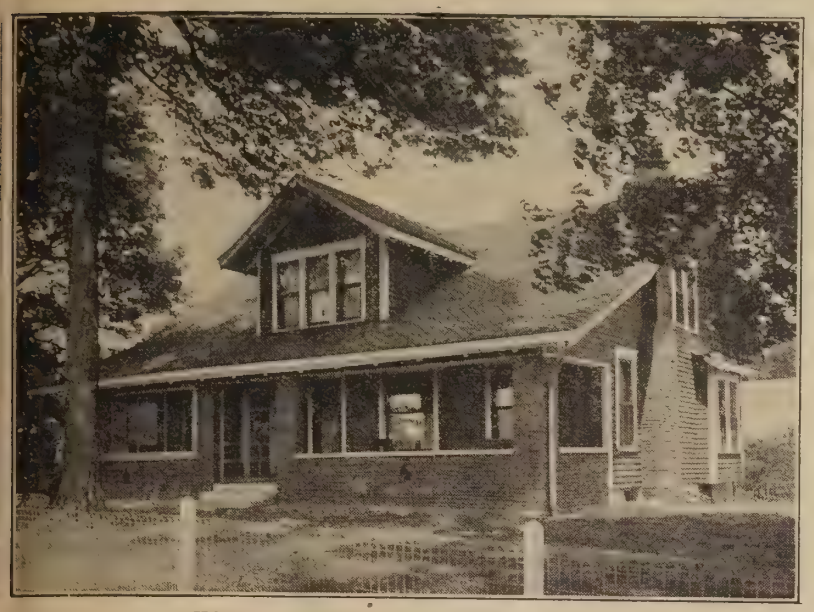
The National Dairy Show
Columbus, Ohio, Oct. 10th-19th

Is the biggest event of the year in the Dairy Industry.

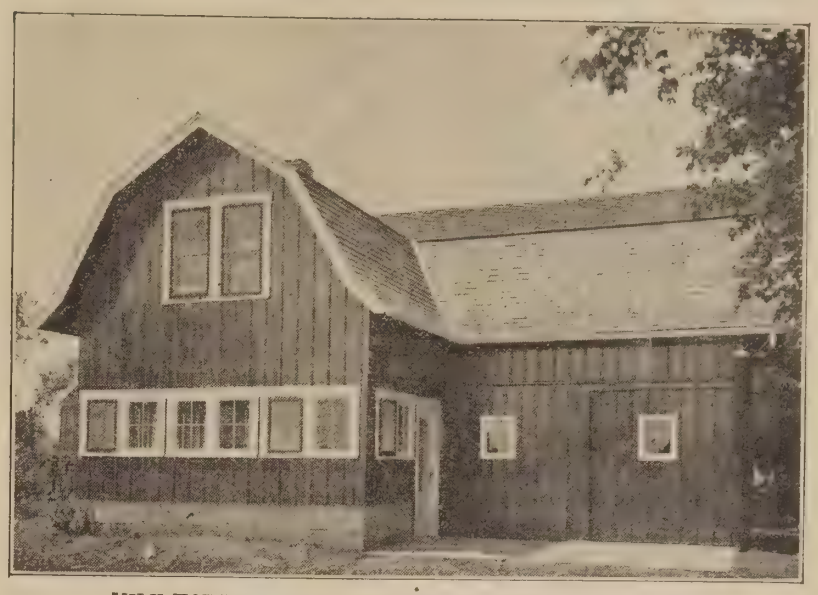
A full line of De Laval Separator, Milk Clarifiers, Whey Separators and Emulsors will be shown.

Come to Columbus
De Laval Bids You Welcome

Where Crane Bros., Indiana, Produce Market Milk



HOME OF THE CRANE BROS.' PARENTS



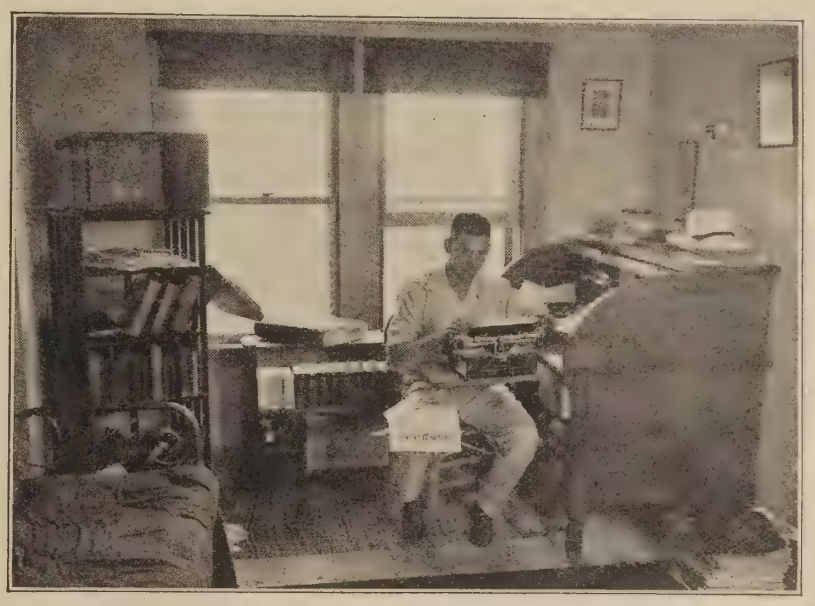
MILK HOUSE WHICH IS MODERN IN EVERY PARTICULAR

This building not only provides splendid facilities for bottling milk and cream and making cottage cheese, but also an office, bedroom, storehouse, a room for milk wagon, automobile, and a place for a dynamo which is used to light the farm buildings.

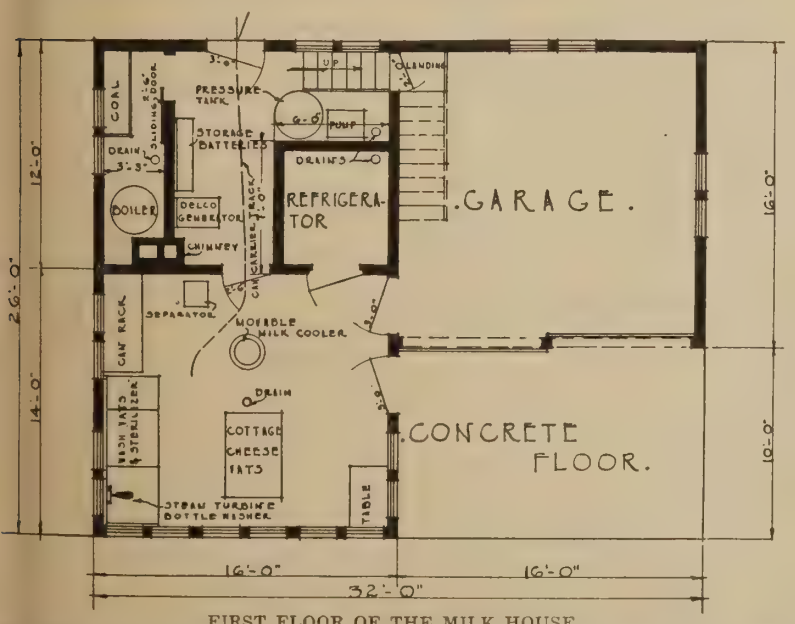


THE WORK ROOM OF THE MILK HOUSE

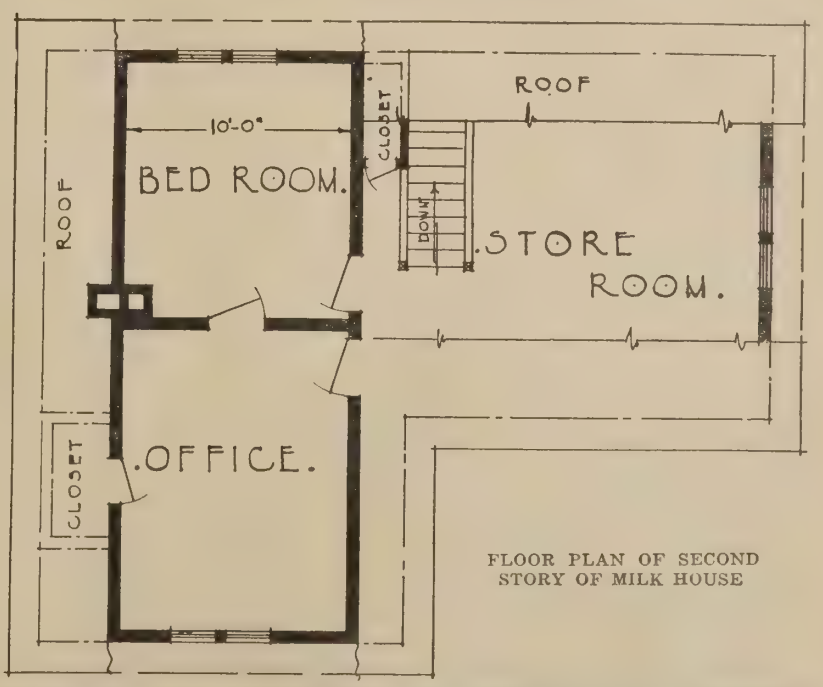
Milk is separated in this room; cream and milk bottled; cottage cheese made from the skimmilk; and milk bottles and dairy utensils washed.



THE OFFICE WHERE RECORDS OF THE HERD AND BUSINESS ARE KEPT AND LETTERS WRITTEN



FIRST FLOOR OF THE MILK HOUSE



FLOOR PLAN OF SECOND STORY OF MILK HOUSE

OME four years ago Crane Brothers formed a partnership for conducting a dairy farm on the old homestead in Indiana. They purchased foundation ck of pure-bred Guernseys of proven merit and insisted that they come from lthy herds. Although pure-bred stock was to be the major enterprise of farm, they early realized that they could build more profitable markets for ir milk and cream nearby than were then available. They sought the trade t buys more and pays more, and then catered to it. The new barns, comfort- y equipped, received first attention, but the growing demand for their milk l cream and cottage cheese finally brought forth the well equipped dairy nt illustrated above.

t is hard work to climb the ladder of dairy success when one must start m the bottom, and it has meant days of heavy physical labor and nights of nning for the Crane Brothers "to arrive". Without depreciating their own omplishment, these two men could scarcely have done what they have without the whole-hearted co-operation given by their wives. These splendid women have given of their time and ability to the upbuilding of the farm. They have swept and garnished the home. They have cooked and washed dishes for hungry men folks with open-air appetites. They have washed the babies and sang the lullabies as they dropped off from play time to sleepy land. Then, in addition to the manifold tasks of home making, they have helped out with the milking and have produced the cottage cheese that tastes so good that new customers clamor for more than the farm can produce.

Crane Farm is a happy family, an ideal and progressive dairy farm and home. The members of the family are young and full of the strength of youth and the camaraderie of good fellowship. It's the kind of farm one enjoys visiting for the lessons of farm management and good cattle, and when one leaves there are pleasant memories to dream about.

Reclaiming Farm Lands for Soldiers

ROBERT H. MOULTON, ILLINOIS

TO make part of the farm wealth of the nation an assured heritage of the men who fight the nation's war against Germany is the plan of Secretary Lane who urges a vast reclamation scheme to meet the requirements for returning soldiers after the war.

It is Secretary Lane's belief that the time has come when thought should be given to the preparation of plans for providing opportunity for these men. And because his department has handled similar problems in the past, he has made it his duty to bring the matter to the attention of the President and Congress. He points out that every country has found itself face to face with this problem at the close of a great war. From Rome under Caesar to France under Napoleon, down to even our own Civil War the problem arose as to what could be done with the soldiers mustered out of military service.

At the close of the Civil War America faced a somewhat similar situation. But fortunately at that time the public domain offered opportunity to the home returning soldiers. The great part the veterans of that war played in developing the West is one of our epics. The homestead law had been signed by President Lincoln in the second year of the war, so that out of our wealth in lands we had farms to offer the military veterans. It was also the era of transcontinental railway construction. It was likewise the period of rapid, yet broad and full, development of towns and communities and states.



CLEARING LAND FOR A DAIRY FARM IN OREGON. THERE ARE ALMOST COUNTLESS ACRES OF SIMILAR LAND IN THE UNITED STATES WHICH CAN BE TURNED INTO PAYING FARMS.



THIS WISCONSIN FARM WAS ONCE A SWAMP. RECLAMATION HAS MADE THE LAND VERY PRODUCTIVE AND VALUABLE. THERE ARE MANY THOUSANDS OF OTHER ACRES IN THE SAME AND OTHER STATES WHICH CAN BE RECLAIMED IN LIKE MANNER FOR SOLDIERS' FARMS.

From Soldier to Farmer

To the great number of returning soldiers in the present war land will undoubtedly offer the great and fundamental opportunity. The experience of war points out the lesson that our service men, because of army life, with its openness and activity, will largely seek out of door vocations and occupations.

This fact is accepted by the allied European nations. That is why their programs and policies of relocating and readjustment emphasize the opportunities on the land for the returning soldier. The question then is, "What land can be made available for farm homes for our soldiers?"

We have not the bountiful public domains of the '60s and '70s. In a literal sense, for the use of it on a generous scale for soldier farm homes as in the '60s, the public domain is gone. The official figures at the end of the fiscal year June 30, 1917, show that we have unappropriated land in the continental United States to the amount of 230,657,755 acres. It is safe to say that not one-half of this land will ever prove to be cultivatable in any sense. So we have no land in any way comparable to that in the public domain when Appomatox came and men turned westward with army rifle and roll blanket to begin life anew.

"No Man's Land" in America

While we do not have that matchless public domain of '65, we do have millions of acres of undeveloped lands in the northwest, lake states, and south, and also swamp lands in the middle west and south, which can be made available through their proper development. Much of this land can be made suitable for farm homes if properly handled.

But it will require that each type of land be dealt with in its own particular fashion. The arid land will require water, the cut-over land will require clearing, and the swamp land must be drained. Without any of these aids they remain largely "No Man's Land". The solution of these problems is no new thing. In the admirable achievement of the reclamation service in reclamation and drainage we have abundant proof of what can be done.

Looking toward the construction of additional projects, Secretary Lane announces that plans and investigations have been under way for some time. A survey and study has been in the course of consummation by the reclamation service on the great Colorado basin. That project, undoubtedly, will appeal to the new spirit of America. It would mean the conquest of an empire in the southwest. It is believed that more than 3,000,000 acres of arid land could be reclaimed by the completion of the upper and lower Colorado basin projects.

It has been officially estimated that more than 15,000,000 acres of irrigable land now remain in the government's hands. This is the great remaining storehouse of government land for reclamation. Under what policy and program millions of these acres could be reclaimed for future farms and homes remains for legislation to determine.



PERHAPS THE RETURNING SOLDIER EXPERIENCED A SHORTAGE OF SUGAR WHILE "OVER THERE". ON RECLAIMED LAND IN IDAHO HE CAN RAISE SUGAR BEETS LIKE THESE AND CATER TO HIS POCKETBOOK AND SWEET TOOTH AT THE SAME TIME.

Available Swamp Lands

The amount of swamp and cut-over lands in the United States availabl for farming is extensive. Just ho much there is has never been d termined with any degree of accurac Practically all of it ha passed into privat ownership. For tha reason, in considerin its use, it would b necessary to work ou a policy between th private owners and th government unless th land was purchase It has been estimate that the total area swamp and overflowe lands in the Unite States is between 70 000,000 and 80,000,0 acres. Of this amou about 60,000,000 acr can be reclaimed an made profitable for a riculture.

The undeveloped swamp lands lie chie ly in Florida, in th states along the Atla tic and gulf coasts, the Mississippi delt and in Missouri, Ind ana, Michigan, Minn sota, Wisconsin, a California.

What amount of la in its natural state unfit for far homes can be made suitable for cult vation by drainage only thorou surveys and studies can develop. is known, however, that authentic fi ures show more than 15,000,000 acr have been reclaimed for profitab farming, most of which lies in t Mississippi river valley.

Millions of Acres of Cut-over Lan

The amount of cut-over lands in t United States, of course, it is impo sible even in approximation to es mate. These lands, however, largely in the South Atlantic and gu states, the lake states, and the nort western states. A rough estimate their number is about 200,000,0 acres—that is, of land suitable f agricultural development. Substa tially all of this cut-over or logged- land is in private ownership. T failure of this land to be develop is largely due to inadequate meth of approach. Unless a new policy development is worked out in co-ope ation between the federal governme the states, and the individual owne a greater part of it will remain u settled and uncultivated.

The undeveloped cut-over lands chiefly in the Pacific northwest (p ticularly in Washington and Oregon in the lake states (Minnesota, Mic igan, and Wisconsin), and in the Sou Atlantic and gulf coastal states (V ginia, North and South Carolin Georgia, Florida, Alabama, Miss sippi, Louisiana, and Texas).

A New Policy Demanded

Any plan for the development land for the returning soldier w

(Continued on page 364)

Care of the Milking Machine

C. LARSEN, South Dakota College of Agriculture

THE milking machine like any other piece of machinery must be kept in good condition to do its best work. Just recently I talked with a man who was milking about 40 cows by machine. He said: "The first month I had the machine it worked fine, but it kept milking slower and slower, so I increased the speed and it seemed to help for a few days. Then it got to milking slow again. Now I have the speed of it twice as great as is recommended in the directions, and I milk them out in a hurry." This is a big strong man who believes in doing everything by might. No one can milk a cow by machine by determination and strength. I did not have an opportunity to find out what the trouble in this instance was, but I believe I could come near telling what might be the trouble.

Vacuum Should Be Steady

This particular machine was not of the pipe-line type. The vacuum or suction was created in a small pump located on the stanchion frame in front of the cows. Probably the ring on the end of the plunger had become dry, stiff, and even worn. In some climates, dry and high altitudes, leather and rubber will dry out much quicker than in lower and more moist climate. In this condition it was not able to produce the sufficient and proper amount of suction.

Maybe the machine milked the easy cows too fast at first, and the excess of milk went up into the pumps. This would happen only with the easy milkers. The effect of it, however, would be equally bad if it happened every milking time with one or two cows in the herd. The leather or rubber rings on the plunger would become very soft, greasy, and loose of form. This would also cause a lack of vacuum.

Maybe he forgot to shut the pit cock in the end of the pump. This would release considerable of the vacuum. In fact, this draincock is there for drainage, and to be closed when hard milking cows are being milked, and to be opened when easy milking cows are to be milked. This latter prevents the milk from running over into the pump.

Leaky Teat Cups and Rubber Tubes

After the vacuum is generated and produced in exact amount, it must be made to apply on the cows in that force. If it has been determined from numerous experiments that 16 inches is the proper amount of vacuum for milking, then 16 inches should be made effective. To generate 16 inches and closely watch that the indicator stays on that mark during the milking time, and then allow 3 or 4 inches of this suction to get away through leaks, will necessarily make any machine do slow milking or improper milking.

Most of the machines have special rubber rings at the top of the teat cups. These in time will get out of shape and become ineffective. These rings are inexpensive and should be replaced when there is need for it.

Some of the teat cups have an inner sleeve or a complete rubber wall separating the inner part of the teat cup into two complete compartments. At times these rubbers spring a leak. At times these leaks are very small. When the rubber is not stretched, these leaks can scarcely be noticed. They are similar to a puncture in an automobile tubing, difficult to find.

Such leaks may interfere with rapidity of milking and with some machines they may interfere with the proper balance between the two sides of the rubber wall.

The rubber tubing leading from the vacuum pipes to the milking pail or machine may also leak. Likewise, the rubber tubes leading from the pail to the cow may become leaky. These latter tubes are more likely to be at fault than is the one leading from the vacuum pipe to the pail. The tubes leading from the pail to the cow are not so heavy. They are taken apart from the rest of the machine each day. They are heated and washed twice every day. This, in time, will cause any rubber to weaken. The tube running from the vacuum pipe to the pail is made of heavier material. It does not come in contact with the milk except when the pail is milked too full. It is not subjected to so severe cleaning methods, as are the rubber tubes coming in direct contact with the milk.

The Pulsator Should be Watched

It is not an uncommon thing to have a pulsator stop or work with irregularity. The most common cause of this is thick lubricating oil. In the winter and in a cold barn even thin oil will stiffen enough to interfere with the proper working of the pulsator.

After a time the pulsator will "gum up". It should then be taken apart and the hard, accumulated grease should be scraped off and all parts cleaned with kerosene.

The pulsator has minute port holes. These are very small and may easily clog. These, together with all the parts of the pulsator, should be kept clean and in good working condition.

The pulsator is one of the vital operative parts of the machine. It is finely adjusted, and it should be treated accordingly.



MILKING BY HAND INTO A PARTIALLY COVERED PAIL. THE AIM IS TO MILK ONE-HALF THE HERD BY HAND AND THE OTHER HALF BY MACHINE

Sanitation Important in Machine Milking

When the question of keeping milking machines in good sanitary condition comes up, then some prospective users think that this is the worst part in connection with mechanical milking. The worry, however, subsides when the customer is told that some certain disinfectant is used, and that by keeping the different parts of the milking machine in this disinfectant solution between milkings no difficulties are encountered. That suggestion is quieting. It is like pouring oil on the troubled water. However, the cleaning of milking machines should not be faced in that light. The cleaning of milking machines is no different from the cleaning of any other dairy utensil.



A VIEW OF THE FIRST MILKING MACHINE OPERATED IN THE SOUTH DAKOTA STATE COLLEGE DAIRY BARN

One day a prospective farmer came to the college dairy barns. He looked at the various pipes used for conducting the vacuum. He said: "Do all of these pipes belong to the milking machine?" He was informed they did. "I should think it would be an awful job to keep all of those pipes clean. I should think they would get to stinking in this hot weather." He is not the only prospective user of milking machines who magnifies the task of keeping a milking machine in a sanitary condition.

Not Many Parts to Clean

A milking machine can not be kept sanitary alone by soaking the parts in a disinfectant, or is there any need of making a mountain of difficulties over the cleaning of a milking machine.

Any person owning enough cows to purchase a milking machine should be reasonably well prepared with cleaning facilities, such as hot water, a good washing compound, and a small container or vat for this purpose. The washing room should also be provided with a vacuum pipe and proper shut-off and attachment.

There are only a few parts to be kept clean and these parts are not difficult to get at.

Steps in Washing

When the milking is completed, the different machines or pails are taken to the wash room. This wash room is equipped with a small five horse power, upright, submerged flue boiler. When purchased it cost $100, and I believe that every dairyman who makes dairying a business at all should have similar facilities for plenty of steam and hot water. In addition it furnishes a place for drying things, it keeps water and pipes from freezing, and it also furnishes a comfortable place for the help to do the cleaning of the separator, pails, etc.

This wash room also has in it a small vat having two compartments, one for hot, clean water to be used for rinsing, and the other for warm water containing the washing powder. A water supply pipe and a steam pipe lead up to the center of the vat on the wall side.

(Continued on page 368)





EXTERIOR AND INTERIOR VIEWS OF THE SOUTH DAKOTA STATE COLLEGE DAIRY BARN

The main part faces south. It is 140x40 ft. It is used for box stalls, feed rooms, and calf pens. The part containing the cows runs north and south. It is 112x40 ft. The other portion contains running shed, judging room, and experimental barn. There are four silos on the north. Cows have no pasture, but are fed on silage and alfalfa hay.

Southwestern Jersey Cattle Show

H. E. COLBY, MISSOURI

THE Jersey is the most popular and favorite dairy breed of the Southwest. This territory covers the larger part of Missouri and sections of the surrounding states that are devoted to the dairy industry. This qualification of the above statement is well taken, for the beef breeds have reigned supreme since the Southwest became prominent agriculturally. The mere fact that the dairy cow is supplanting other forms of farming promises much for the future of this part of the country for it is a recognized fact that dairying always brings prosperity to those who follow it systematically.

A very prominent reason for the Jersey's popularity here is found in the class of men who are pioneers in the adoption of the breed, and at the head of this list are three leaders of national reputation, J. E. Jones, the Longview Farm, and F. J. Bannister, all of Missouri. These men made possible and stood sponsor for the only exclusive Jersey show of national significance that has been held in this country. The three herds owned by these gentlemen are recognized as premiers in the breed all through this section west of the Mississippi.

The Southwestern Jersey Show was put on at Kansas City September 17 to 21. The reason for its inauguration this year is found in the necessity of fostering and encouraging dairy breed sentiment. The season was by no means propitious for such a venture, but from the standpoint of the breeder the show was a remarkable success for it assembled some of the choicest herds in the land.

The week opened with a banquet given by the Southwest Jersey Breeders' Association. The two features of the occasion were an address by M. D. Munn, who was a guest of the association, and the display of the moving picture reel known as "Hearts and Jerseys" in which May Irwin and her herd of registered Jersey cattle were the characters.

Mr. Munn spoke with his usual eloquence and enthusiasm in behalf of the dairy industry. He emphasized, particularly, the supreme necessity of encouraging dairying, not alone from the standpoint of agricultural economy, but more especially from that of the conservation of humanity. He pointed out the fact that the human race on both sides of the ocean must have more dairy products if healthy, strong, vigorous people are to be raised up to take the place of the flower of manhood that is being sacrificed in the cause of human liberty. Unless something is done to guard against it, there is a danger that future generations will be weaklings because those of most perfect and robust health are giving up their lives in this great world war. This in itself is an important reason for the most careful and judicial nourishment of the children of today, and that nourishment demands dairy products. Thus it is a patriotic duty for the farmers of America to provide this sort of food.

The social feature of the show was provided by the horse shows which were given in the evenings. These were put on by the Loula Long Stables which are internationally famous. The arena is splendidly adapted to a show of this kind, and every class was superlatively excellent.

The premium list for the Jersey show was liberal, and the herds competing for prize money and popularity came from the Falfurrias Jersey Farm of Texas, the White City Jersey Farm of Oklahoma, and the Belleview and Longview Farms, both of Missouri. There were also entries by Frank Knopf of Kansas and a single entry by Dr. J. C. Klumph of Missouri.

Mr. Knopf is entitled to a word of congratulation for his is a small herd and he did not have the opportunity to make the selection that he would like in picking his show herd. He is starting in the business of breeding Jerseys, and at the present time has only thirteen registered animals. From these he selected a few individuals that were good enough to win some of the prizes in competition with the prominent herds exhibited. In the class of bulls, one year old and under two, he took fifth prize with Countess Lad's Majesty, a son of Financial Countess Lad, and his bull calf under six months of age won third prize in a full class.

In the class of bulls four years old or over, Viola's Majesty's White Sox, shown by Longview, won the first place in his usual form. He has been a regular winner in the shows this year, as in the past, but he met one defeat when Poet's Whiteheart, the bull under three years from the same herd, was made senior and grand champion.

Among the bulls under two years Tulsa Chief, shown by the White City Jersey Farm, was winner of the blue ribbon, as he has been in all of the fairs where he has appeared this season. However, when it came to the junior championship honors, Noma's Perfect Raleigh, from the Longview herd, was the winner.

In the cow groups Willow's Brightness, from the Falfurrias herd, was the winner of first prize in the class five years or over. She was also champion and grand champion of the show. She showed in beautiful form and she truly approaches perfection of Jersey type.

The Belleview Farm did not have many entries, but the demand for these cattle in the sale which closed the show was unmistakable tribute to Mr. Jones' skill as a breeder.

W. S. Dixon, now of Connecticut but well known as a Wisconsin breeder and show man, made the awards. He was fearless and conscientious in his decisions and his experience as a competitor in the ring qualified him thoroughly for his task which was by no means an easy one. This was especially noticeable in the younger classes for the highest degree of quality and finish was seen there. This very fact speaks well for the future of Jersey interests all through the Southwest for it shows that the men who are breeding are constantly improving their herds in type and individuality, and the Register of Merit work that is being done here is eloquent commendation of the increase in productiveness of these herds.

The following are the awards in detail:

Bull 4 years or over—1, Longview Farm o

(Continued on page 384)



WILLOW'S BRIGHTNESS, SENIOR AND GRAND CHAMPION COW AT THE SOUTHWESTERN JERSEY CATTLE SHOW
OWNED BY FALFURRIAS JERSEY FARM, TEXAS



POET'S WHITEHEART, SENIOR AND GRAND CHAMPION JERSEY BULL AT THE SOUTHWESTERN JERSEY CATTLE SHOW
OWNED BY LONGVIEW FARM, MISSOURI



NOMA'S PERFECT RALEIGH, JUNIOR CHAMPION BULL AT THE SOUTHWESTERN JERSEY CATTLE SHOW
OWNED BY LONGVIEW FARM, MISSOURI



RALEIGH'S OXTIVITY, JUNIOR CHAMPION FEMALE AT THE SOUTHWESTERN JERSEY CATTLE SHOW
OWNED BY LONGVIEW FARM, MISSOURI

Feed Markets are Strong

SANDERS SOSLAND, MISSOURI

AFTER studying and watching feed markets for months, dairy interests still find a plenty to absorb their attention, and, incidentally, to dig deep into their bank accounts. Feed markets, as indicated long ago, now are at record levels and, even at the current heights, there is a very strong undertone.

Keen disappointment is manifest among both individual and community buyers in the bran and shorts situation. With the second largest wheat crop in history, which normally would provide a remarkably great amount of feed for dairymen, the trade is witnessing probably the most acute scarcity of mill offals in history. The eastern dairy districts, being farthest away from the larger milling sections of the country, feel greatest the shortage of bran and shorts. But even in the heart of Kansas, the leading flour milling state, complaints are numerous over the scarcity of mill offals.

What can be done to remedy the bran situation? Many measures might be taken by food officials at Washington but, no matter how numerous these measures may be, a return to normal conditions is impossible. Official Washington cannot remedy a situation brought about to a large degree by nature. It is well, however, again to emphasize that the United States Food Administration can aid the bran and shorts market, thereby assisting dairymen who are supplying a most essential food to both civilian and army demand. To accept more flour for export to Europe would be a beneficial forward step. Today, mills are not operating at more than 50 to 60 per cent normal capacity, due to the dull demand for flour. The opening of the export channels to flour millers would make possible enlarged milling activities, which, of course, would put a greater quantity of mill feeds on the market. It is unfortunate that action has not yet been taken in this direction.

Bran sells at a maximum price of $27.50 per ton at the mill door, sacked, basis Kansas City, while some mills having purchased their sacks at the reduced range, quote bran as low as $27.02 per ton. Shorts are selling in Kansas City at a range of $29.02 to $29.50; mixed feed, $28.33 to $28.75. The price at Minneapolis is $28.25 to $28.85 per ton; mixed feed, $29.50 to $30.25; and shorts or middlings, $30.50 to $31.

A yield of 2,672,000,000 bushels is the September forecast on the corn crop by the United States Department of Agriculture. This compares with a crop of 3,159,494,000 bushels in the preceding year, 2,566,927,000 bushels in 1916, and 2,994,793,000 bushels in 1915. It is probable that more corn of the 1918 crop will be in merchantable shape than a year ago, when frost caused heavy damage. The coarse grain already has passed the frost stage in practically all producing sections.

Of interest in the corn market was the recent announcement by the Food Administration modifying the amount of substitutes required in baking bread from a "50-50" basis for housewives and "75-25" for bakers to an "80-20" basis for both. While this means that less corn will be used for human consumption, the amount will be large enough to influence prices. Feeding demand for corn is heavy, particularly in Kansas, Missouri, Nebraska, Oklahoma, and other southwestern states where the crop is less than half of a year ago. Live stock production is increasing—and demand for corn, the principal fattening commodity, will be the greatest on record. Prices range from $1.50 to $1.90 per bushel in Kansas City and $1.33 to $1.85 in Chicago at this writing.

Oats will play a more important part in feed markets than has been the case in the last few years. Owing to the high level of corn, many feeders are substituting oats, which is selling at a range of 71 to 75 cents a bushel in Chicago and 70 to 80 cents in Kansas City. Demand for oats to feed the thousands of war animals is huge. The September report of the Department of Agriculture indicated an oats crop of 1,477,000,000 bushels, compared with a final yield in 1917 of 1,587,286,000 bushels, 1,251,837,000 bushels in 1916, and 1,549,037,000 bushels in 1915.

Sharp advances have occurred the past month in prices for alfalfa and other varieties of hay. In Kansas City, the greatest alfalfa market in the world, $33 per ton is being paid for choice alfalfa hay, only $2 under the record height scored last winter. Talk of $40 for alfalfa is common among close students of hay trade conditions. Only a few cars are selling under $29 per ton.

Arrivals of alfalfa hay from producing sections are moderate, though less than a year ago. In the face of drouth in the Southwest, feeders and breeders of live stock require large quantities of alfalfa hay. The shortage of bran and shorts also has augmented the domestic demand for alfalfa. This abnormal buying, together with army demands and the fact that yields of the legume were not more than 50 per cent of normal in the important producing districts of the Southwest and West, has naturally tended to boost prices. The East and Southeast are taking large quantities of hay from Kansas City's territory.

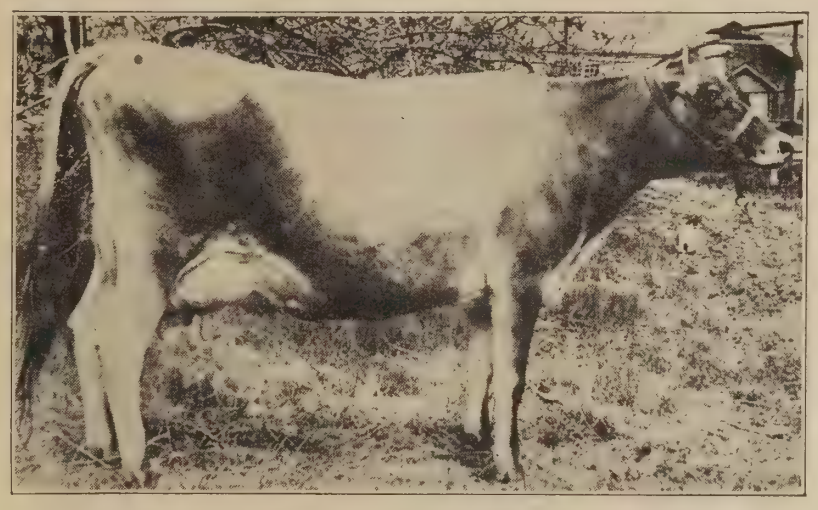
Alfalfa meal, the hay in pulverized form, continues to advance in importance. Dairymen in the East who are unable to obtain bran are substituting alfalfa meal and report success with the product. In Kansas City, which also has attained leadership in distribution of meal, prices range from $34 to $42 per ton. These prices are really relatively lower than the hay, and many consumers are taking advantage of the situation by making large purchases. A good demand prevails from the East and Southeast, as well as from the Southwest and South. Little alfalfa meal will be milled in Oklahoma this season, owing to short yields in the state. Kansas City's supply will be derived principally from Kansas and Colorado, but even these states will grind far less meal than a year ago.

A moderate to good demand prevails for alfalfa molasses and alfalfa grain molasses feed. Prices on the straight molasses mixture range from $39 to $45 per ton, basis Kansas City, and $49 to $58 per ton on the grain mixture. The fact that the alfalfa mixed feeds are selling at a comparatively lower level than straight grain feeds and cottonseed meal, has helped the trade.

Uncertainty describes the situation in cottonseed feeds. Prices at which mills may sell new crop cottonseed meal and cake have been fixed by the United States Food Administration at a range of $50 to $57 at Oklahoma and Texas points, and $53 to $60 per ton in Arkansas and points eastward. These prices, of course, are basis mill door. However, crushers are generally dissatisfied with the government price, declaring they would be forced to operate at a loss of $2 per ton at the present level for seed. Only a very small amount of cottonseed cake and meal may be obtained, that which is available coming almost exclusively from South Texas mills. The large crushers and many of the smaller ones are refusing to make offers on the present government basis, and are seeking an advance in the price. It is unlikely that an advance will be granted by food officials. An enormous demand prevails for cottonseed meal. The yield of cotton in the United States is now estimated by federal authorities at 11,100,000 bales, compared with 11,300,000 bales in 1917 and 13,000,000 is the five-year-average during the 1912-16 period. The first government estimate on the 1918 cotton crop indicated a yield of more than 16,000,000 bales, but drouth reduced this figure, and the expected feed yield. Because of the short yield, seed is scarce throughout the South, and with an acute shortage of labor, mills are handicapped.

The outlook for supplies of linseed meal is not as bright as for cottonseed feeds. The estimated flax production in America is 15,900,000 bushels, against 11,000,000 bushels in 1917 and a five-year average of 17,600,000 bushels. However, flax imports are still restricted by the War Trade Board, so the amount of seed available for crushers is light. Oil meal is selling at practically $60 a ton, basis Minneapolis. Mills are sold up for September and are making few new offers.

Because of recent advances in prices, there may be a tendency among dairymen to delay purchases until a price reaction occurs. This was the case a year ago. In the waiting—voluntary until the winter months, but forced after low temperatures set in—consumers witnessed advances to more dizzy heights, the hoped for reaction failing to develop until pastures became available the next spring. The feedstuff trade was not in as bullish a condition a year ago as today, owing to heavy crop losses and increased feeding of live stock. Is this, then, a time for waiting?



"HOPE YOU'LL DO"—PAIL FILLER AND RIBBON WINNER

Hugh Bonnell of Ohio has a Jersey cow that has made three consecutive yearly records aggregating over 1,515 pounds of fat, which gives her a good start for a trial at the "long distance" record. She is already the best cow in Ohio at this game, age considered. Her three official Register of Merit records are as follows:

	Milk Lbs.	Fat Lbs.
At 2 yrs. 3 mos.	7,250.4	347.45
At 3 yrs. 6 mos.	12,445.9	597.27
At 2 yrs. 3 mos.	7,250.4	347.35
	31,872.3	1,515.45

Hope You'll Do took the red ribbon at the 1917 National Dairy Show for Register of Merit cow shown with two of her progeny. She is a well bred cow, being a daughter of Oxford You'll Do, a bull with forty-two tested daughters, and a granddaughter of Gamboge's Knight, a R. of M. bull having fifty-six tested daughters and twelve proven sons.—A. L. TICHANE, New York City.

Hardy Alfalfa in Canada

HOARD'S DAIRYMAN:—In a recent issue of Hoard's Dairyman, Mr. Jas. Lacey of Wisconsin asks, "Will alfalfa winter-kill?" and then adds some suggestions on ensuring the life of the stand. We have been asking ourselves the same question here in Canada for a long time. Our winters are unusually severe. When alfalfa was first introduced as a farm crop, failures were more frequent than successes and thousands who gave the crop a trial decided that one failure was enough. Others kept on and now we can find, even in the most unfavorable of our provinces, a few men who are making a success of alfalfa. In other sections alfalfa is now one of our standard crops. Last winter was the most severe that we have ever known and consequently there was never a better time than now to investigate the hardiness of alfalfa and to inquire into the factors which ensure it against winter-killing. Perhaps the results at some of our experimental stations may be of interest to readers of Hoard's Dairyman who have had trouble with winter-killing.

Climatic conditions in the Maritime provinces of Canada are certainly not favorable to alfalfa. The winters are open and alternate thawing and freezing of the soil is the rule. For many years, it was taken for granted that alfalfa could not possibly succeed. In recent years, however, many varieties of alfalfa have been tested and J. A. Clark, superintendent of the Experimental Station at Charlottetown on Prince Edward Island, reports that Grimm, Baltic, and Ontario Variegated have proved to be equally hardy and quite superior to common alfalfa. "Our experience with alfalfa for some nine seasons," writes Mr. Clark, "has led us to think that the crop is about as sure as red clover in this province."

Across the straits in Nova Scotia, Prof. J. M. Trueman, who first popularized O. P. V. ensilage, writes

of his experience with alfalfa as follows: "We have used two varieties of alfalfa in our field plots at the Nova Scotia Agricultural College, Grimm and Ontario Variegated. Both varieties came through the severe weather of last winter in good condition, while common red clover in adjoining plots was killed out completely."

The climate in the province of Quebec is much more severe than in the province of Ontario and certainly more severe than in the climate of Wisconsin. In Quebec, several hundred farmers who are members of the Agricultural Experiment Union, have tested various varieties of alfalfa and M. Leguori, secretary of the Union, reports that "we are glad of this opportunity to state again that alfalfa thrives well in all parts of the province and under all climates; under the climate of Montreal as well as under that of Abitibi and of Lake St. John district in the extreme north; in the eastern townships as well as on the Gaspe coast; but the ordinary conditions of success must not be neglected—deep soil, well tilled, well drained by natural or artificial means, free from acidity and free from weeds, especially couch grass."

Brother Leguori lays special emphasis on the selection of variety. The Grimm is his favorite. With this variety, under good conditions, practically no failures have been recorded during the last four years. Both Grimm and Ontario Variegated came through the severe weather of last winter without damage and if the weather keeps on being favorable, four crops are anticipated this year instead of the usual three.

At Macdonald College, Ste. Anne de Bellevue, Que., alfalfa has been probably more extensively experimented with than at any other institution in Canada. The past winter bore with unusual severity on alfalfa, grasses, and clovers. Most of the plots of red clover were killed, while a number of blocks of alfalfa sown broadcast and in rows, that have survived all winters since they were seeded in 1912 and 1913, have been from 75 to 90 per cent winter-killed. There were some plots, however, that came through with little damage and it was noticeable that those which had a good covering when winter set in, survived out of all proportion to the protection afforded. This is in line with Mr. Lacey's conclusions. Reviewing the results at Macdonald, Mr. Summerby of the Field Husbandry Department writes:

"The results of the tests this year under these severe conditions again strongly emphasize the importance of leaving a good growth to freeze down to hold the snow and protect the plants. In previous work with this crop a number of varieties, including the Grimm, showed themselves to be particularly hardy. This variety has again shown hardiness, but has been more severely winter-killed than ever before. A number of new and improved strains that are in the row tests, seem to be completely resistant to conditions as they existed this year, for, although on heavy soil with little aftermath and where ordinary alfalfa had frozen out almost every year, these new strains had not been winter-killed at all. Hardy varieties given good condition for wintering by making provision for after growth and drainage, seem to be the most important factors in preventing winter-killing."

A few years ago the writer visited this college and out of 100 rows of alfalfa that had survived several winters was asked to select the best. Some rows had been killed out completely, others had only a scattering of plants left. The 12 best rows had a perfect stand and after the selection was made, I was told that they were all Grimm.

In the province of Ontario where the most of the alfalfa in Canada is grown, stands were severely thinned this past winter. Practically all fields that were seeded with common alfalfa were almost completely winter-killed. Many fields of Ontario Variegated were badly thinned, but so far as we have been able to ascertain, alfalfa of the Grimm variety has shown wonderful hardiness. In fact, where the third crop was left to hold the snow and fall pasturing was not practiced, we have yet to hear of a single failure with Grimm alfalfa.

Reports from Western Canada emphasize the absolute necessity of hardy strains. Mr. W. Southworth of the Manitoba Agricultural College reports that out of about 40 different commercial strains from various sources, the only one which showed any real capacity to resist winter-killing was one from a Grimm strain and even in this strain a considerable percentage of plants were destroyed or considerably weakened. At this station, too, new varieties are being developed which show more resistance to winter-killing than any of the varieties that are now obtainable in commercial quantities.

In Saskatchewan, last winter was most trying and L. E. Kirk, in charge of forage crop work, reports successive winter-killing of the hardiest commercial varieties including much of the Grimm. The greatest injury, however, was sustained by the older plants, the seedings of 1917 suffering but little. Here, too, a good crop growth in the fall prevented much winter-killing. Mr. Kirk concludes his observations as follows: "Altogether our results serve to further emphasize the need of hardier strains of alfalfa and also to justify the use of Grimm as our hardier stock. Some sort of protection appears at present to be the best way to insure against winter-killing."

Reports from Alberta indicate the superiority of the Grimm and Baltic strains. In this province alfalfa has been grown successfully as far north as Fort Vermillion in the Peace River district, which is on the Arctic slope of the continent.

Summing up our experiences with alfalfa here in Canada, we are inclined to put variety first in ensuring against winter-killing and, so far, our hardiest variety has been the Grimm with Ontario Variegated a close second. Next in importance is the matter of winter protection. In some parts of Canada three crops of alfalfa are cut regularly, but in most districts it is safer to cut two crops and leave the third crop for winter protection. Our best growers are so strong in their belief as to the necessity of a good fall growth that they will not even pasture the third crop moderately and in this they are playing safe. The other factors of course must not be neglected, a non-acid soil, good drainage, inoculation, a well prepared seed bed, and light nurse crop. When all of these factors are given the consideration they deserve, alfalfa is an approved success in the major portion of our Canadian provinces and when it can be grown at all, in the Lake St. John's district of Quebec, or the Peace River district of Alberta, it should succeed admirably in any part of the northern states.

Ontario. F. E. ELLIS.

Holstein Organization in Stearns County, Minnesota

HOARD'S DAIRYMAN: — Stearns County, Minnesota, is developing a very strong and active Holstein Breeders' Association and gives evidence of being a very strong, popular Holstein center. The Holstein cattle have been carefully bred for many years in the county, but never before has so much interest been displayed as was in evidence during the recent county fair, when over 90 Holsteins were exhibited.

On the second day a sale was staged which proved very successful. Twenty-nine Holsteins were sold, nothing, including calves, selling for less than $100. Miss Kate Korndyke DeKol 217257, owned by Henry Borgman, brought the highest price at the sale, $435. Thomas Zaczkowski bought her.

Some very fine individuals were entered at the fair. Professor A. J. McGuire of the Agricultural College did the judging. The bull awarded the sweepstakes is a yearling bull of exceptional type for his age, owned by Henry Borgman. The bull is King Ollie Homestead 201617 and is a full brother to the grand champion Holstein bull at the 1918 Minnesota State Fair.

The cow winning the sweepstakes prize is Norma Pietertje Bell, owned by Joseph Luetmer. She has a record of 18 lbs. fat in 7 days, and has made over 10,000 lbs. of milk in 5 months.

Great enthusiasm for Holstein cattle was shown not only at the fair grounds, but also at a banquet for the Holstein Association. About fifty present and prospective Holstein breeders were at the banquet. Professor A. J. McGuire gave a very interesting talk, pointing out the qualities a good Holstein breeder should have, presenting them in the form of



KING OLLIE HOMESTEAD, GRAND CHAMPION HOLSTEIN BULL AT THE STEARNS COUNTY FAIR
OWNED BY HENRY BORGMAN, MINNESOTA



NORMA PIETERTJE BELLE, GRAND CHAMPION HOLSTEIN COW AT THE STEARNS COUNTY FAIR
OWNED BY JOSEPH LUETMER, MINNESOTA

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NOW You Can Get ALL the Butter-Fat Profits from Your Herd

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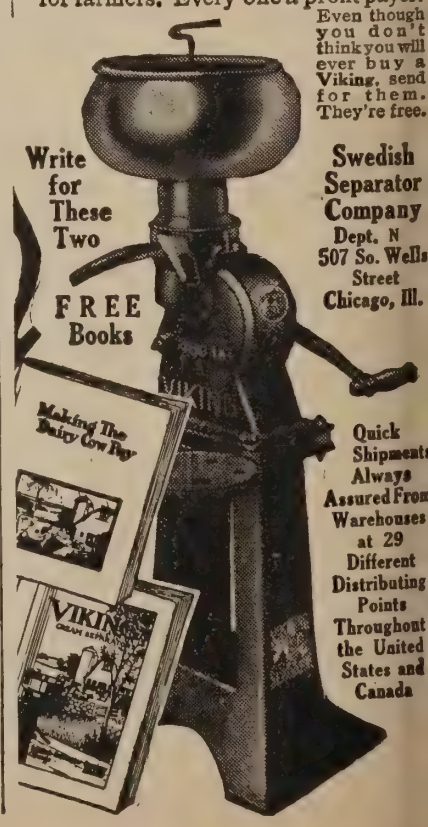
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score card. To the head of the reeder he attached a high value in he management, feeding, and breed-ng of a good herd. The heart also vas given a high rating. The suc-essful breeder must have his whole eart in his work. The mouth, a irge one, to laud and advertise the alue and merits of his herd and the reed, is essential. Then also the nose; good nose should be had by every airy farmer, a very sensitive one, o the odors, etc., in the barn.

The county agent and several thers also spoke. The association is lanning on a spring show of Hol-tein cattle. Enthusiastic breeders re at the head of it. Mr. Thomas aczkowski is president and Mr. E. B. Ieller is the secretary.

Minnesota. E. M. GILLIG.

Farm Water Supply and Drainage

"There seem to be as many calls or information about farm house wa-er systems as for any other farm im-rovement," says Chas. G. McLain, ngineer of the Pennsylvania Depart-ient of Agriculture. "This shows an wakening of the farmer to improve-ients to help the housewife as well s to lighten her burdens. There is othing quite so hard as having to ravel anywhere from two to ten rods rom the house for water and then to arry the full pails back. The worst f it is that most springs are below he house and this water must be arried up the hill to the house.

"It is not very expensive to put in very good system and the pleasure s pay enough not considering the sav-ng of energy. If the women would efuse to carry the water, making the ien do it, I believe they would ac-omplish a lot towards getting some ind of a system.

"On the majority of farms there re springs at an elevation sufficient o get a good gravity system which is he best as the care after installation s practically nothing. But there are ther systems that are practical and reat labor savers.

"I have just been on a visit to a arm in Bradford County on which onsiderable underdraining has been lone under the direction of the de-artment of agriculture and I find he results are up to expectation.

"This field is in corn this year with a small area of oats and some spring wheat. The corn is as good as any in he neighborhood and better than the majority. Under the old condition nothing could have been raised on his piece, as it is a black ash swamp ying very level and very wet.

"The owner says that he can get on to it to cultivate now the next day after a heavy rain, while before draining it would be a bog for a week. There are fifty acres of this swamp to drain yet and about twenty-five of it will be put in this fall. The old run that wound through this land has been deepened and straightened which has been of great benefit. The owner is so well pleased that he is going to continue until the entire swamp is drained, there being close to one hundred acres all told."

The Canebrake Cow Testing Association

HOARD'S DAIRYMAN:—There are comparatively few cow test associations in the Southeast, but it is doubtful if there is a more wide awake and hustling association in the country than that known as the Canebrake Cow Testing Association at Demopolis, Alabama. Recently the first annual picnic and meeting of this association was held on the magnificent and beautiful farm of Dr. S. E. Sparling, who is president of the association and a leader in his community. There are something like 3,000 cows being milked in the vicinity of Demopolis, and 600 of these are being tested through this association.

The crowd gathered about 10:30 A. M. and spent the first hour and a half in general conversation. At noon, an excellent picnic dinner was served on the lawn surrounding the home of Dr. Sparling. When this was finished the formal part of the program began. Mr. J. P. Quinerly of the Alabama Extension Service, Mr. W. H. McClain of the U. S. Department of Agriculture, Mr. J. M. Burgess, Director of the Canebrake Experiment Station, and others made talks along the line of the value of the cow test association in making the dairy business more profitable.

Several members of the association made informal talks telling just what the testing work had meant to them. One of the members brought out the point that testing had shown him that he was feeding, during the summer time, about two to four times as much cottonseed meal as was necessary. With excellent pasture and an abundance of alfalfa hay, this man stated that his cows gave just as much milk when they were fed 1 pound of cottonseed meal as they did when fed 5 pounds. Had it not been for the cow test association he said he would probably still be feeding the 5 pounds of meal per day per cow during the summer when pasture and alfalfa were abundant. This was but one of the many points brought out by the members of the association to show in a concrete and definite way just what the association has meant to them.

The work of the association has been so valuable to the members that another association is being planned and will, in all probability, be ready for work by January 1.

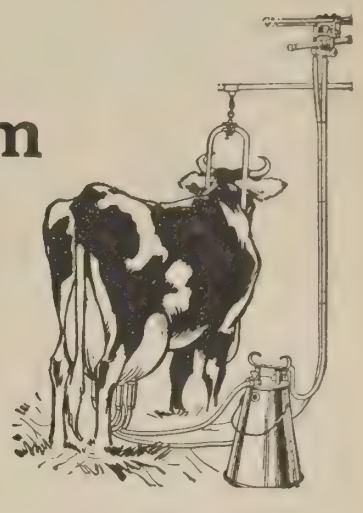
This limestone section in the vicinity of Demopolis is one of the best grass and dairying sections in the whole country. It does not look like the cotton belt, and one going through it might very well imagine himself in Ohio or some other grass and live stock section; and really this



RHODE ISLAND HOLSTEIN CALVES OWNED BY D. S. VAUGHN

The bull in the foreground was dropped April 15 and has been ed a maximum of 10 quarts of milk per day and a quart of alf meal. Since the first of August, the milk has been cut own to 5 quarts per day and all the corn fodder is given that ill be eaten. He had made so satisfactory a growth that neigh-ors pronounce him the largest calf of his age which they have ver seen.

Solve Your Milking Problem



—And Save Hundreds of Dollars

The answer is: Install a Sharples Milker. It takes the place of a hired man in a 20 to 25 cow dairy for at least six months of the year. So much for the labor end.

As to the saving: At the lowest, your hired man would cost $50 a month, including board. In six months with a Sharples Milker your saving would be $300. It doesn't take long to pay for a Sharples Milker—many dairymen do it in four to six months.

SHARPLES MILKER

THE ONLY MILKER WITH POSITIVE SQUEEZE

Another reason for Sharples superiority over hand milking and other milking machines is the positive *upward squeeze* of the Sharples teat cup—an exclusive Sharples feature which carefully massages the teats after each suck and keeps them in a perfectly healthy condition.

No other milker can or does squeeze or massage the cow's teats. Any pressure test proves this. This squeeze or massage makes Sharples the world's fastest milker, and increases the milk flow,—fast milking always does. Even a 12-year-old boy can operate a Sharples Milker successfully. Write today to nearest office for catalog, addressing Dept. 10.

The Sharples Separator Co., West Chester, Pa.

Sharples Suction-feed Separators—Skim Clean at any Speed

Branches: Chicago San Francisco Toronto

COOL IT QUICK

With a C-P Dairy Conical Cooler



As soon as it comes from the cow or the separator is the time to cool your milk. Immediate cooling makes the milk stay sweet longer.

You can do this without extra trouble by using the

Dairy Conical Cooler

This rapid cooler reduces the temperature of the milk in ONE MINUTE to nearly the temperature of the cooling medium. Not only cools the milk but completely aerates it, removing all feed and stable odors.

THIS IS HOW IT WORKS: The C-P Conical Cooler is made of tin or copper in the shape illustrated above. The inside of the drum is filled with ice water or cold running water (a hose can be attached). The milk to be cooled is poured in the bowl and trickles slowly from this over the sides of the drum in a thin sheet. The thin sheet of milk flowing over the cold drum surface is cooled very quickly. The top is removable so that ice may be put directly into the cooling drum.

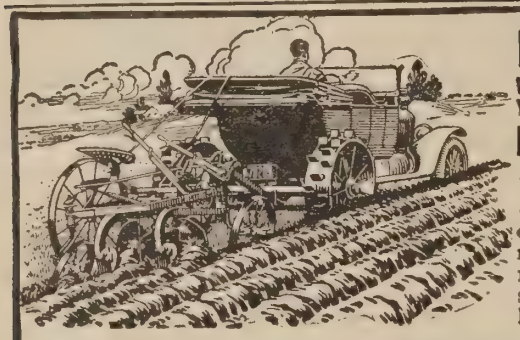
The Dairy Conical Cooler is automatic in the way it works; is simple in construction and can be as easily cleaned as a common milk pail. Costs so little and works so well that you cannot afford to be without it.

Tin coolers made of the best quality tin with galvanized bottom. Copper coolers are made entirely of copper.

Made in three sizes—the smallest size with a capacity to handle the milk from ten to twenty-five cows—and the work of three milkmen COST ONLY $7.00 in tin. Shipping weight 25 lbs. Prices of copper cooler and larger sizes on application.

Get your order in before we have to advance these prices. Our Dairyman's Catalog on request.

THE CREAMERY PACKAGE MFG. COMPANY,
68 W. Kinzie Street, Chicago, Ill.

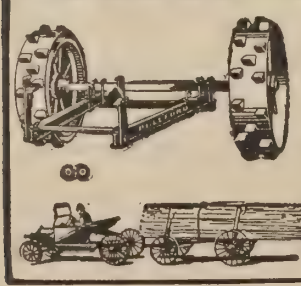


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Pullford $155 F. O. B. Quincy, Ill.

MAKES a practical tractor out of a Ford or most any other car. Easily attached to or removed from the car in thirty minutes. No holes to drill, no springs to remove. **Practical, Durable, Reliable.**

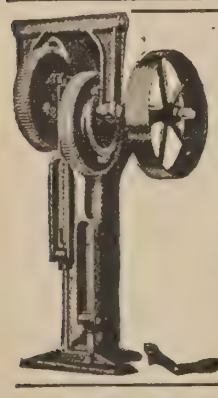


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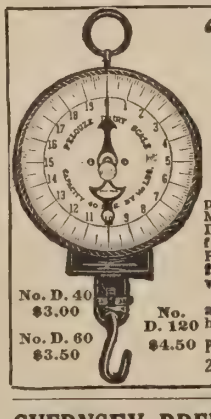
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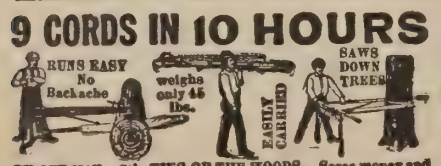
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GUERNSEY BREEDER'S JOURNAL
Peterboro, New Hampshire.

section has many advantages over the North and East on account of its mild and short winters. There are very few days during the winter when a fairly good amount of grazing cannot be had on the pastures. The whole section grows large quantities of alfalfa and Johnson grass hay. It would be hard to find a more prosperous and happy people than these who belong to the Canebrake Cow Test Association, and they are not only making a good living but making money.

It is the plan of the members of this association to make this picnic and meeting an annual affair, and it is expected that before many years have passed the attendance will be 500 to 1,000 instead of 50.

Alabama. L. A. NIVEN.

Special Need of Liberal Feeding

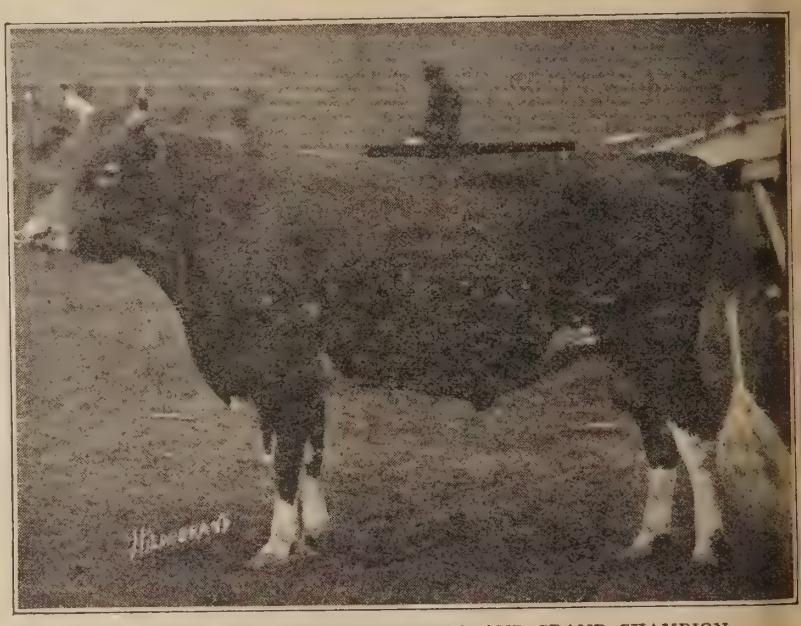
HOARD'S DAIRYMAN:—On trips through dairy regions, it is noticeable that many of the herds of dairy cows are especially thin for this time of year. This undoubtedly is a consequence of a drought during the latter part of the summer which caused brown and bare pastures. If cows go into the winter in this thin condition, they are apt to remain so, for it is difficult to put the good milkers in flesh again, and there will be a consequent reduction in the milk flow which causes a decided loss. Where cows weighing 1,000 lbs. produce an average of 18 lbs. milk per day, or 5,600 lbs. per year—above the average for cows in Illinois—three-fifths of the feed consumed must be utilized simply to maintain the body, and only two-fifths remain for milk production after the body is maintained. Since a cow must first utilize a maintenance ration, a reduction in the feed must, in the end, come from that which goes to produce milk. This shows that if cows are to be kept at a profit they must be fed a liberal ration, and emphasizes the fact that this is the time above all others to discard the unprofitable cows, especially in herds that are underfed. Then the maintenance ration of these unprofitable cows will be released for the profitable producers, which will allow them to be fed a more liberal ration and by so doing still further increase their economical production.

Where cows are thin in flesh, begin feeding a liberal amount of silage and legume hay at once, because this extra feed will not only bring good immediate returns, but increase the flow of milk throughout the late fall, winter, and spring. If cows go into the winter in good condition, they will make much more economical use o the high-priced feeds they consume.

This liberal feeding does not mea that cows must be fed heavily on cos ly grains. On the contrary, this is ex actly what this article is attemptin to guard against. Corn silage and l gume hay are much cheaper tha grains for the food value containe but as a cow cannot consume suffi cient silage and hay to more tha maintain her body and produce 2 lbs. of milk per day, it is of great im portance that she be fed to the lim of her capacity on these feeds befo winter sets in if she is in thin cond tion.

Because feed and dairy produc are so high, it is necessary to get th largest returns possible in order make dairy farming pay. It is, there fore, important that cows be both f and housed well, to keep their pr duction at a maximum. Any negle in feed or care will reduce the mi flow and this reduces the profit to much greater extent than the shrin age in the milk flow. Under avera farm conditions, a cow must produ about 4,000 lbs. of 4 per cent milk simply pay expenses, leaving nothi for profit. For this reason, if a c of 6,000 lbs. production is allowed shrink to 5,000 lbs., the production reduced only one-sixth, while t profit is reduced one-half. This r the average dairyman many ti fails to see. Don't let slip what pr might be yours.

WILBER J. FRASE
Illinois College of Agriculture.



IMP. KITCHENER'S EXPRESS, SENIOR AND GRAND CHAMPION GUERNSEY BULL AT THE WISCONSIN STATE FAIR
OWNED BY MOUNTAIN BROS., IOWA

Manitoba Butter Productio

HOARD'S DAIRYMAN:—That M toba farmers are producing incr ing quantities of butter in spite the big inducements of high pr and an exceptional season for wh growing, is attested by the fact t up to date, the province has expo one hundred carloads in additio supplying the home market. In 1 not only was there no butter expo but fifty-five carloads were being ported from Ontario for home sumption. Similarly, new import is attaching to the industry in katchewan, where shipment was m last week of two carloads of bu for the Siberian expeditionary fo Each car contained over six t sand pounds of butter and the constituted the first shipment Canadian butter to Siberia.

Illinois. G. LEININGE

Not all dogs, but the owner worthless dogs which make sh raising an uncertain venture, are enemies of the sheep man.

Dairy Farm Inspection

HOARD'S DAIRYMAN:—There seems to be a much better system of inspection from New York City, and other cities also, in relation to the production of milk than used to be in evidence. Not but that there are cases of foolishness now where some rule is unnecessary or is unwisely enforced or where some inspector becomes over-officious. The better system and method of enforcement seems to be due largely to two lines of influence. One is the better organization of dairymen whereby they have been able to make themselves heard and show what is needed to produce good milk. The next is that the experiment stations and colleges of agriculture have shown that most of the old rules were simply difficulties thrown in the way and of no real importance in producing good milk. The principle now involved is quick cooling and clean utensils, together with sound cattle and pains taken with the work of the dairyman.

In my own locality there has been for some time no inspection of any importance. Just recently we have come under the city rules to a greater extent, but have heard little about inspection yet. The veterinarian of the concern handling the milk has been here and has made his report. There has been very little criticism of the cows, and in most cases none at all. This inspection costs twenty cents a year for each cow, and if intelligently done is a benefit to the dairyman. It is a satisfaction to have what we believe to be an expert veterinarian look over the herd closely, listen to the breathing and circulation of each cow, using proper instruments for the purpose, and go away with no criticism to make on any animal. It encourages one that the stock is free from disease and is doing well. If a man has twenty cows the veterinarian's fees come to four dollars a year. The inspection is made twice a year and is at the demand of the health department of the city.

The city health board now requires the dealers to do some things that were omitted earlier. Take, for example, the receiving of milk under sixty degrees. In certain cases they require this of the dealer and if he takes milk that is above that temperature he takes risks. I was told a little time ago of two creameries that had been refused the privilege of shipping milk to New York because they accepted milk from three dairies above the specified temperature. The dealer explained the circumstances as one where the farmer did not succeed in getting sufficient ice to properly cool the milk and when it came in sound and sweet they accepted it rather than place these men at too great an inconvenience. They had been warned, it is true, but they took the chance and had the plant embargoed for thirty days in consequence. The inspector might have told a different story, but I believe that this is substantially true.

Bacterial counts are taken of dealers' milk in the city, and sometimes of the farmer's milk when delivered at the plant. It is on this count that the inspector decides frequently if the milk may be accepted. So far as I am informed there is no difference made respecting the kinds of bacteria present. High counts are supposed to mean large numbers of acid formers, and these must mean that the milk is practically free from danger except that it sours quickly. It would seem that here is a place where improvement might be made.

Another item that is worth while is the fact that where milk is pasteurized at the country plant, less attention is given to the temperature than in cases where it is sent to the city and then pasteurized. I know of cases where milk goes all right at a somewhat higher temperature than sixty but it is pasteurized almost as soon as received. I do not know why this is not all right, and I know of no reason why it may not as well be pasteurized in the country as the city.

New York. H. H. LYON.

An abundant harvest—a thankful heart—and safe reserves.



KULSHAN HAYES MAY ROSE, OWNED BY H. W. BATEMAN, WASHINGTON

THE two-year-old Guernsey heifer, Kulshan Hayes May Rose 73318, owned by H. W. Bateman, Washington, has recently completed an Advanced Register record of 8,244.7 lbs. milk and 499.47 lbs. butterfat, the average test being 6.06% fat. This heifer carried a calf 265 days while making the record, thereby qualifying for the Roll of Honor, and now takes fourth place among the leaders in Class GG, the junior two-year-old class.

Kulshan Hayes May Rose freshened eight days before reaching the age of two years, and her Advanced Register test began on her second birthday, May 10, 1917. During the year while on this test, and while carrying her calf 203 days the official figures were 543.13 lbs. butterfat, and 9,319.1 lbs. milk, but this record was sacrificed to qualify in the Roll of Honor requiring a cow to be in calf 265 days.

This heifer was bred by Fruit Bros., Wisconsin, and is a line bred "May Rose", being a daughter of Langwater Hayes Rosie's King of the May 16723, thus a paternal granddaughter of Imp. King of the May 9001. Her maternal grandsire is May King's Vrangue of Ingleside 15430, a grandson of Imp. King of the May 9001. This gives her four crosses to May Rose 2nd R. G. A. S. 3251 P. S.

Delightful

to the eye and taste, is butter colored with Dandelion Brand Butter Color. It sells readily, for women want it. Insist on

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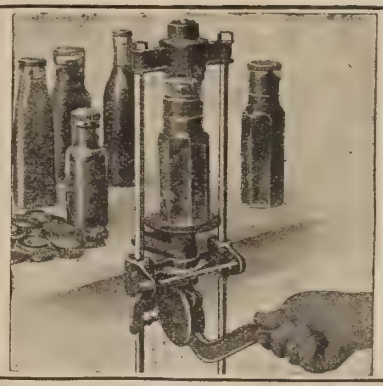




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Manufacturers of Dandelion Brand Butter Color

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The color with the Golden shade



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In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

The better and easier way is to use a MIDGET CROWNER and seal your bottles (up to 14 ins. in height and 4 ins. in diameter) with air tight Crowns (3 sizes).

In storing condiments of all kinds for future use you will find this the safest method of sealing.

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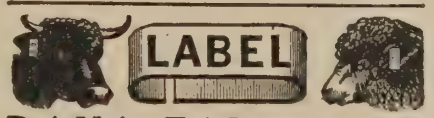
Water in the Stable a Neeessity



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The Letz is famous for fine grinding and capacity. Grinds corn, rye, oats, barley and all kinds of grains; grinds them with clover, alfalfa and other roughage and concentrates into fine, wholesome meal. Handles everything wet or dry—cannot clog—is durable—is most economical to operate—means 20% cut on feed bills! Powder-like form of Letz-ground meal makes it preferable to all others—is more nourishing—better liked by animals.

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848 Keen Cutting Edges

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Letz patented grinding plates lead the world in light running, durability, fine-cutting and capacity—grind anything that needs grinding!

848 keen cutting edges pulverize grain to powder. Plates self-sharpening. Can be run together for hours—empty—without injury; will ***average*** 2,000 bushels of moderately ground feed per set.

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Langlade (Wis.) Free Fair

Langlade County's (Wis.) third free fair held in September was a decided success. Ideal weather conditions prevailing throughout the week assured a big attendance. Exhibits in all departments were numerous and of good quality with competition for prizes keen.

Pure-bred live stock exhibitors with stock to offer made a number of sales, always an encouragement to the man who goes to the trouble to fit his stock for the fair. The numerous contests which have come to be looked upon as a feature of the fair drew out a goodly number of competitors. These included a boys' stock judging contest with fourteen boys competing, a boys' calf raising contest with twelve exhibitors, a milk and butterfat production contest with twelve entries, also boys' and girls' potato, tomato, and pedigree pea growing contests with better than two hundred boys and girls enrolled.

The Grange booths proved one of the big hits of the fair. All told six granges had exhibits. Not only were they very complete as to number of exhibits, but taste shown in fixing up the booths was worthy special commendation. Langlade County boasts twelve active granges. Most of them have halls of their own and are an important factor in the social life of the respective communities.

The display of butter, cheese, and other dairy products was good. By far the largest part of summer's milk production is made into cheese, the county boasting twenty-one thriving cheese factories, the majority of them built within the past five years. Six creameries handle the bulk of the cream. Practically every farmer in the county owns a separator, used when milk is not delivered to the cheese factory.

In the past the machinery exhibit at Langlade County Fairs has been conspicuous by its absence, but not so this year. Dealers and manufacturers were out in numbers and always had an interested crowd about their exhibits. The tractor men, the gas engine men, and the dealers in potato machines were especially popular. The tractor men gave plowing and other demonstrations, apparently making a hit, as a number of sales were reported. "I never got really enthusiastic over a tractor till today," declared one of the county's most substantial farmers at the fair. Potato digging machinery was never in such demand as this year. One dealer reported the sale of fifty machines at and just preceding the fair.

Langlade County's progress in better live stock is distinctly reflected in its fair exhibits. Though this year's exhibit was way below what it would have been but for rush of work and scarcity of help on the farms, it was far superior in quality to the exhibits of a few years ago. Within the past five years the number of pure-bred sires in Langlade County has more than doubled. A number of farmers have also made a start at pure-bred herds during the same period. What is more they have been buying better quality stock. At the present time there are one hundred sixty-five pure-bred sires and better than that number of pure-bred females owned in the county.

Wisconsin. F. G. SWOBODA.



CALF CLUB EXHIBIT AT THE LANGLADE COUNTY FREE FAIR

Reclaiming Farm Lands for Soldiers

(Continued from page 356)

come face to face with the fact that a new policy will have to meet the new conditions. The era of free or cheap land in the United States has passed. We must meet the new conditions of developing lands in advance—security must, to a degree, displace speculation.

There are certain tendencies which must be faced frankly in our consideration of a policy for land to the home-coming soldier. First, the drift to farm tenancy. The experience of the world shows without question that the happiest people, the best farms, and the soundest political conditions are found where the farmer owns the home and the farm lands. The growth of tenancy in America shows an increase of 32 per cent for the twenty years between 1890 and 1910.

Second, the drift to urban life. In 1880, of the total population of the United States, 29.5 per cent of our people resided in cities and 70.5 per cent in the country. At the census of 1910, 46.3 per cent resided in cities and 53.7 per cent remained in the country.

It is evident that since the war in Europe there has been a decided increase in the trend toward the city because of industrial conditions. The adoption by the United States of new policies in its land development plans for returning veterans will also contribute to the amelioration of these two dangers of American life.

The Practical Solution

A plan of land development whereby land is developed in large areas, sub-

divided into individual farms, then sold to actual bona fide farmers on a long time payment basis, has been in force not only in the United States under the reclamation act but also in many other countries for several years. It has proved a complete success. In Denmark, Ireland, New Zealand, and the Australian commonwealth it has completely changed the land situation. One of the features of this plan is that holders are aided in improving and cultivating the farm. In a word, there is organized community development.

Its beneficial results have been well described by the Canadian Commission which was appointed to investigate its results in New Zealand. There, the commission reported, the farmers had built better houses or remodeled their old ones, brought a large acreage of land under cultivation that would otherwise have remained lying idle; had bought and urged more labor saving machinery on the farmers and in the houses. They kept more sheep and pigs and had so largely increased the revenue from their farms that they were able to meet the payments on the mortgages and to adopt a higher standard of living and a better one. Throughout the country a higher and better civilization was being evolved; the young men and women who were growing up were happy and contented to remain at home on the farm and found ample time and opportunity for recreation and entertainment of a kind more wholesome and elevating than can be obtained in the cities.

Development, Not Charity

It may be said that this country, outside of Alaska, has no frontier today. Of course, Alaska will still offer opportunity for pioneer life. And, of course, Alaska likewise has yet unknown remarkable agricultural possibilities, but unless we make possible the development of this land by the men who desire a life in that field, we will lose a great national opportunity. Furthermore, this is an immediate duty. It will be too late for these things when the war is over, and the work of definite planning should be done now.

The plan outlined by Secretary Lane does not contemplate anything like charity to the soldier. He is not to be given a bounty. He is not to be made to feel that he is a dependent. On the contrary, he is to continue, in a sense, in the service of the government. Instead of destroying our enemies he is to develop our resources.

The work that is to be done, other than the planning, should be done by the soldier himself. The dam or irrigation project should be built by him; the canals, ditches, the breaking of the land, and the building of the houses should, under proper direction, be his occupation. He should be allowed to make his own home, cared for while he is doing it, and given an interest in the land, for which he can pay through a long period of years, perhaps thirty or forty years.

The farms should not be turned over as the prairies were—unbroken, unfenced, without accommodations for men or animals. There should be prepared homes, all of which can be constructed by the men themselves and paid for by them under a system of simple devising by which modern methods of finance will be applied to their needs.

Federal Accredited Herds

Every dairy herd in the United States that on July 1 had been officially accredited as free from tuberculosis, or that had passed successfully one test with a view to certification, is listed in a publication just issued by the Bureau of Animal Industry, United States Department of Agriculture, Washington, D. C. Copies of the list are available for the use of state and municipal officials and private persons.

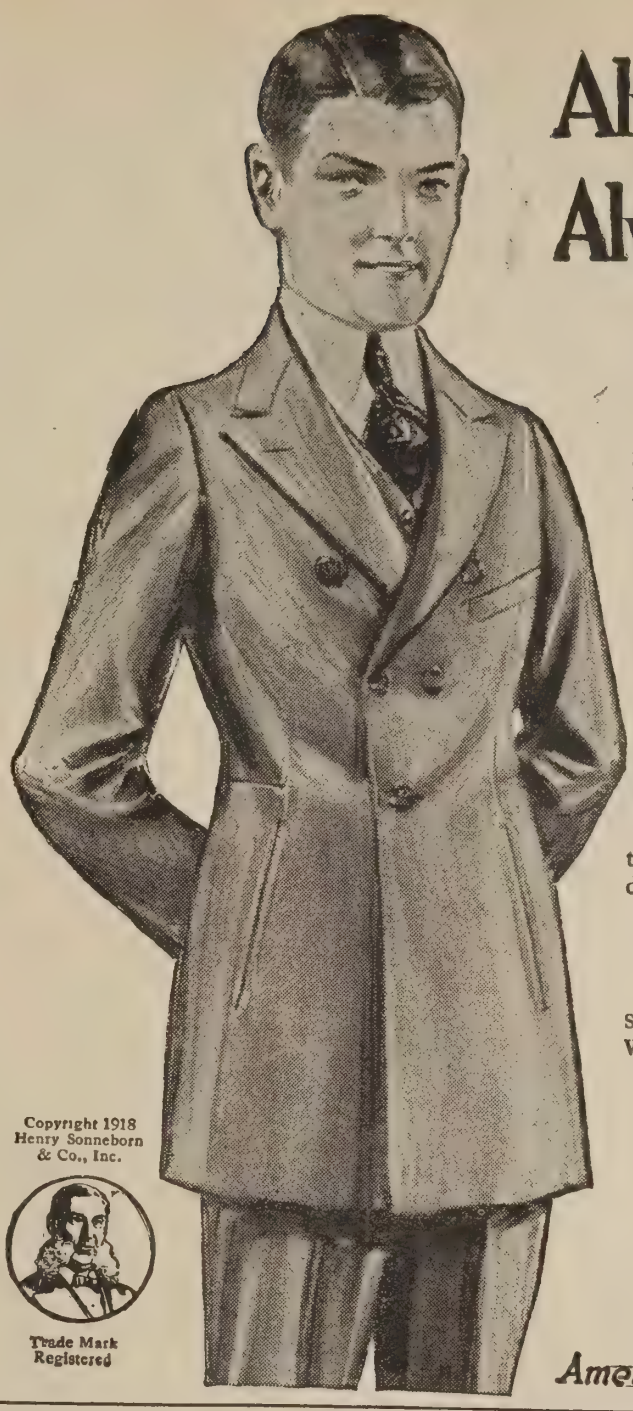
Certificates of freedom from tuberculosis are soon to be issued by the Bureau of Animal Industry to all the owners of the accredited herds. Certificate No. 1 is to go to the United States Soldiers' Home in the District of Columbia. The Holstein-Friesian dairy herd at this institution includes 134 registered pure-bred cows and is one of the oldest accredited herds in the United States.

Control with a view to the eventual eradication of tuberculosis in cattle is being accomplished by systematic efforts of federal and state authorities in co-operation with cattle breeders' associations and herd owners.

A definite plan was adopted in 1917 whereby herds of cattle passing the prescribed number of official tuberculin tests should be certified or accredited as free from tuberculosis.

An accredited herd is one that has successfully passed two annual or three semi-annual tuberculin tests applied by regularly employed veterinary inspectors of the Bureau of Animal Industry or of the state where cooperative work is conducted, and has otherwise complied with the regulations governing the work.

The work is thought to have been in progress long enough to justify publication of the results. If the status of any of the accredited herds should be changed, prompt notice is to be given to the officials of the various states. Additional lists are to be published from time to time.—U. S. Dept. of Agriculture.



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Always good clothes Always moderate price

Styleplus are made on a plan that insures good quality at a moderate price.

By making a few standard grades and making a big volume in each grade we cut manufacturing costs and produce exceptional style and exceptional quality at the price.

Back up Uncle Sam with your dollars as well as your patriotism. Spend wisely. Buy only the clothes you need and be sure that you are getting good honest value at a fair price.

Styleplus Clothes are moderately priced, carefully made of good materials, stylish in appearance and built to give you faithful wear.

The best way to buy clothes is to go to a store, where you can see them and try them on. Then you know the clothes will fit you and please you when they are delivered.

Visit the Styleplus Store today!

Two grades in Styleplus suits: $25 and $30.

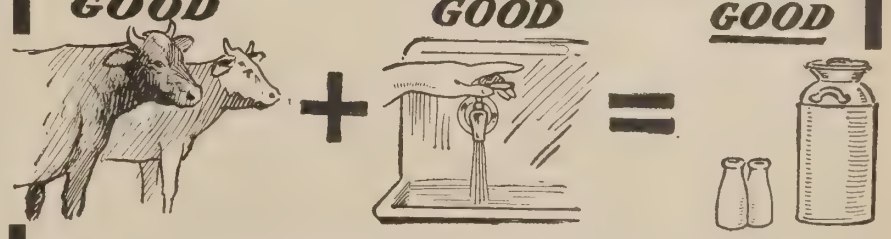
Three grades in Styleplus overcoats: $25, $30 and $35.

Sold by one leading clothing merchant in most cities and towns. Write us (Dept. AG) for Styleplus booklet and name of local dealer.

HENRY SONNEBORN & CO., INC.
Founded 1849 Baltimore, Md.

Styleplus Clothes
$25-$30-$35
(TRADE MARK REGISTERED)
Each grade one price the nation over

America's only known-priced clothes



and good milk means good Profits—for YOU! You have the good Cows. We can supply you with the

BETHALTO Water System

which will furnish abundant pure water, on tap, in your Dairy, Bathroom, Kitchen, Stables, Barnyard, Pastures, Garden — anywhere you want it—any time you want it—fresh from the very bottom of your Well or Cistern. Positively eliminates freezing troubles. Extremely simple, and stays in order. No trouble at all to install. You can install it, or we will.

Write to our Department H for free booklet.

SOUTHERN AUTO & MACHINERY CO., 116 Robert Avenue, St. Louis, Mo.

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Clean and Clear as Water



Awarded Gold Medal Pan.-Pac. Expo.

For Milking Machines

B-K keeps rubber tubes and teat cups sweet and clean. It penetrates milk solids and makes milker parts easier to clean—kills the bacteria that spoil the milk. B-K leaves no taint or taste of itself—makes rubber parts last longer—does not injure metal—is the cheapest in actual use. Sold under absolute guarantee.

Recommended by all Milking Machine Manufacturers

B-K has been used by thousands of milking machine owners including certified milk producers with complete satisfaction for over six years. It is the original purifier.

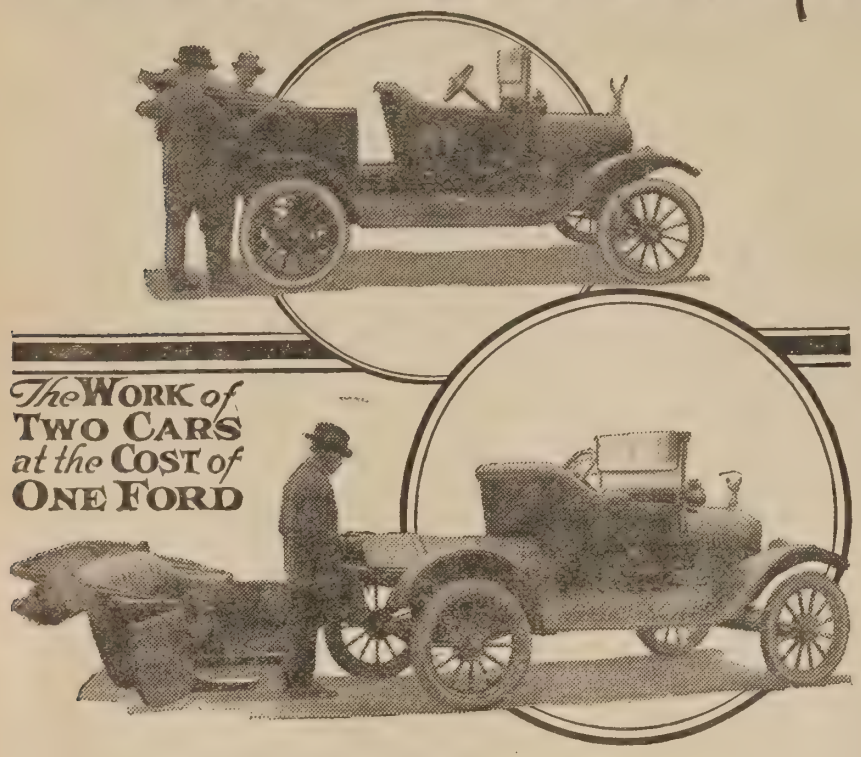
Get B-K today—end cleaning troubles and sour milk losses. If your dealer does not have B-K send us his name with your order. We have a dealer near you.

Send for information—"trial offer"—and dairy farm bulletins.

General Laboratories
285 So. Dickinson St., Madison, Wis.

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IMPORTANT to FORD OWNERS



The Ford Motor Company will make no more passenger cars during the war.

Your patriotic duty to get more use out of your Ford is, therefore, more emphatic than ever.

The Heath DUPLEX Folding Delivery Body makes the Ford do the work of both passenger car and truck. It changes the Ford from one to the other in 60 seconds.

The Heath DUPLEX attaches permanently to your old or new Ford touring car.

Once installed, it changes the Ford, without tools, in 60 seconds, into a strong and serviceable delivery car.

Another 60 seconds changes the Ford back into a passenger car.

Every farmer who can make a "two-in-one" use of his Ford—who now uses it for carrying goods as well as passengers, should see how the Heath DUPLEX does the work of two cars at the cost of one Ford.

The Ford dealer or some other dealer in your nearest town will show you how the Heath DUPLEX adds hundreds of pounds of capacity to your Ford at small expense.

He will show you how it does away with carrying goods in your Ford tonneau.

He will show you how, with the Heath DUPLEX, you no longer need a separate car for trucking.

He will show you how you can easily make a Heath DUPLEX pay for itself in a month's time.

One demonstration will convince you that you cannot afford to go another day without a Heath DUPLEX Folding Delivery Body.

Write for further information and nearest place where you can get a demonstration

McCORD MANUFACTURING COMPANY
Incorporated
Dept. 4. Detroit, Michigan

Heath Duplex $57.50 F. O. B. Detroit
Makes a Ford a Truck or Passenger Car in 60 Seconds
Patented May 12th, 1908, December 19th, 1916. Reissued August 6th, 1918

ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT, REGULAR BREEDERS BY
STERILOID

STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for **FREE BOOK.** It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY, Dept. A, 398-408 Columbus Ave., New York City. Reference—Colonial Bank.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. HOARD'S DAIRYMAN, Ft. Atkinson, Wis.

Raising Fall Pigs

HOARD'S DAIRYMAN:—As I have raised fall pigs for a number of years with very satisfactory results, my experience may be of interest to other readers of Hoard's Dairyman. The youngsters arrive about the middle of September and I let them run with their mother for about eight weeks, then they are weaned. At farrowing time I give the sow a bran mash with a little middlings as the first feed, being careful not to give too much. The feed is increased gradually until the sow is on full feed, which is about two weeks from the time she farrows. In case a sow becomes feverish soon after farrowing it may cause what is known as "white scours" in her pigs. This condition may be remedied by giving the sow a little air slacked lime in swill for two or three days.

The main ration of the brood sow ought to be such as will produce a good flow of milk but care must be taken not to get her "stuck" on her feed. My sows are given bran, middlings, ground oats, some corn, and the run of a woodlot and bluegrass pasture. I keep close watch of the pigs and if they become constipated I give the sow about a teacupful of oil meal in swill twice a day until the trouble is removed.

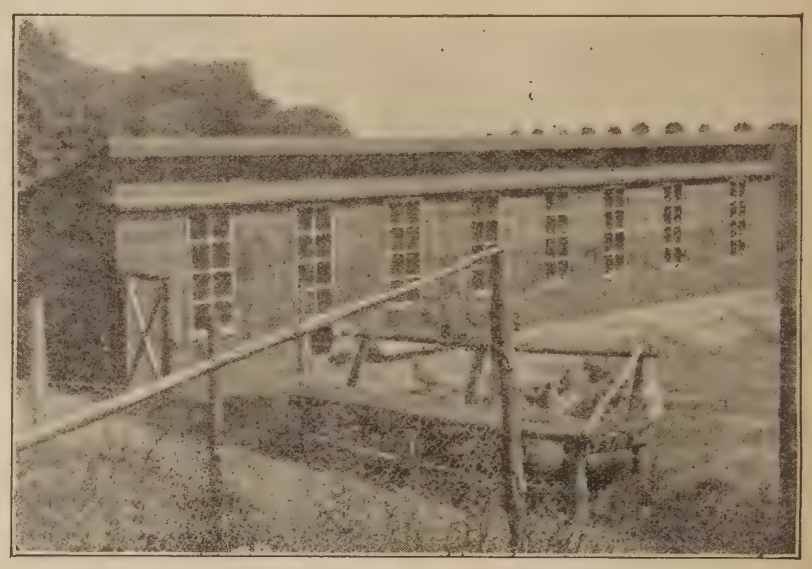
As soon as the pigs begin to crack corn I provide a creep for them in a place where they seem to spend the most time. Low flat troughs are placed in the creeps and shelled corn is put in them and also some scattered around them. I do not feed the pigs swill until they eat corn well. A sow ought to produce enough milk for them up to that time provided she is in good condition when she farrows and is well fed. I always have my sows somewhat fleshy at farrowing time.

I am in no hurry to give pigs liquid food. Too much drink and not enough solid food is not good for young pigs. When the youngsters are about eight weeks old I feed them all they want of a medium thick slop made of skimmilk and finely ground oats. This is poured in the trough and shelled corn put on top. The pigs eat the slop with a relish and are not troubled with scours as pigs may be when they are fed skimmilk or sour milk earlier in life. When feeding slop I place the troughs in the sunlight as it is a great disinfectant. The sunshine also keeps the troughs dry and sweet. The slop is mixed as it is fed and the corn fed dry. The older the pigs the more I feed the sows while nursing them. I feed but twice a day as more than that is a loss of time and feed. I once tried giving three feeds a day for a year and found myself the loser, but the loss was a lesson and so I charged it up to experience. I never feed any more than the pigs will eat up clean nor do I let them go away with a half fill as that is poor economy.

I never make a radical increase in the feed but let it be gradual just as the pig increases in size and capacity. I do not let the pigs stop thriving, for the sooner those to be slaughtered are brought to the weight desired the greater the profit. The pigs having the run of a good woodlot and blue grass pasture are able to get all the roots and herbs that they may care for, which help to maintain them in a good, healthy condition. A plentiful supply of good water is within their reach at all times, the water being afforded by a big spring. Keeping the pigs and older hogs free from lice and vermin and their skin and hair in a healthy condition is an important feature. The best thing I have ever used for this purpose is common lubricating oil, the kind that is used in oiling machinery. The oil is applied by means of a hog oiler which is so constructed that the pigs as well as the older hogs can use it successfully by simply rubbing against it. Only a small quantity of oil is required to oil a number of pigs or old hogs in this way and the results are very satisfactory. Crude oil is cheaper than lubricating oil, but the latter is safe to use while the former is not. Experience has proved to me that crude oil cracks and burns the skin in warm weather and makes the hog sick in cold weather, sometimes causing death. It is said this is due to the gasoline the crude oil contains.

I have good, comfortable houses for my pigs and their mothers in which they go when the weather is too severe for them to be out. A plentiful supply of good bedding is provided and is not allowed to become damp. Fall born pigs that have to sleep in damp beds contract colds and coughs. This will stunt them and it will require many days of careful attention to get them back in condition.

Illinois. A. O. CHOATE.



A DANISH POULTRY HOUSE WHICH FACES THE SOUTH, IS WELL LIGHTED, AND SHELTERED BY A GROVE ON THE NORTH SIDE

National Dairy Union Finances

Balance on hand Aug. 1, 1918	$4,659.07
Total receipts	19.73
	$4,678.80
Total Disbursements	354.63
Balance on hand Sept. 1, 1918	$4,324.17

This is to certify, I have today audited the books for S. B. Shilling, Treasurer of the National Dairy Union, and find the receipts from August 1, 1918, to August 31, 1918, to be $19.73, and the amount paid out for which he holds vouchers, the sum of $354.63, leaving a balance on hand Sept. 1, 1918, of $4,324.17.

F. P. COLLYER, Auditor.

Canadian Milk Situation

HOARD'S DAIRYMAN:—The situation in Eastern Canada in regard to city milk prices begins to look interesting. At their annual meeting held early in September, the Toronto Milk and Cream Producers' Association, one of the most powerful organizations of its kind in Canada, decided that the winter price would have to be considerably in advance of the price paid during the summer months. Accordingly a resolution was approved advancing the price from $2.50 per eight-gallon can (Imperial measure) to $2.80, or the equivalent of $3.12½ a cwt. delivered at the dairies. The price of sweet cream was raised from 66 cents per pound butterfat to 75 cents, the dealer to supply cans and brackets and pay the express.

This recommendation as to price was not passed unanimously. Some of those present were of the opinion that the price set was too low and that $3 per can would be low enough considering the high cost of feed, which it was stated was four dollars per ton more than it was six months ago. Another member pointed out that there was a danger in fixing the price for six months ahead, which is the usual custom, as no one could foresee what the price of feed would be two months hence. The meeting saw the wisdom of this suggestion and decided to recommend the price of $2.80 per can for only three months and to hold another meeting on January 1, should future conditions make it necessary. In setting the higher price, which will mean an advance of one cent per quart to the consumer, the producers were well aware that there might be a popular outcry and they expressed not only a willingness, but a desire to have the Food Board or the government conduct a thorough investigation into the cost of production.

The action of the Producers' Association had hardly been announced before the Toronto Milk Dealers' Association issued a declaration that they would not pay the prices fixed and maintained that they were able to get all the milk they required through the winter months at the summer price of $2.50 per eight-gallon can delivered at the dairy. It would seem that the dealers have a strong case. One of the largest dairy companies in Canada, the Canadian Milk Products Limited, paid in September $2.26 per 100 lbs. for 3.5 milk, with an advance or deduction of three cents for each one-tenth of one per cent increase or decrease in the test. The Borden condenseries are paying $2.30 for 3.5 milk, with the same increases and deductions. The Carnation Milk Company are paying $2.27½ for 3.5 milk, with increases and decreases of 6½ cents for each point of change in the test. The Peterboro Milk Products Limited is paying $2.10 per hundred pounds, without fat requirements. All of these companies have condenseries or milk receiving stations within milk shipping distance of Toronto. Considering the prices paid by condensing and milk powder companies, the dealers immediately began to canvass these outside districts and they must have met with some success as the Toronto Milk Producers' executive now announces a change of policy.

At a meeting held just a few days ago the executives of the Milk Producers' Association decided to continue the summer price of $2.50 per eight-gallon can until December 1, on account of the more favorable condition of pasturage and the abundance of milk at the present time". They further announced that their association has no intention of increasing the price of milk unless conditions fully warrant it and even then the advanced rate will not go into effect until there has been a thorough investigation into the cost of production. This decision was arrived at after they, too, had made a thorough canvass of all the dairy fields within reach of Toronto. Just what action will be possible on December 1, or what policy may be followed between now and then, is a question on which we are still in the dark.

In the meantime the Montreal Milk Producers' Association had held their fall meeting and had decided to recommend to producers that for the months of October, November, and December, the price of milk be 35 cents per gallon, or $3.50 per hundred pounds, delivered to the distributors and that the price of cream be seven cents per point butterfat. It was the unanimous opinion that the condition of the feed and labor market was such that the prices of the above articles of food should be fixed only until January 1. In the Montreal district this constitutes an advance of 40 cents per eight-gallon can over the price recommended by the association one year ago. Whether the dealers will pay this price or not, they have not as yet announced.

Ontario, Canada. F. E. ELLIS.

Cow Thirst—
Stealthy Thief of Your Dairy Profits

A JAMES Drinking Cup in place on the stall—the first and only removable gravity cup on the market



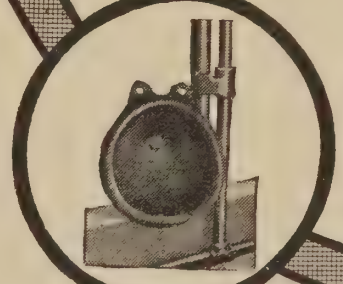
Ready to take cup from stall post for cleaning

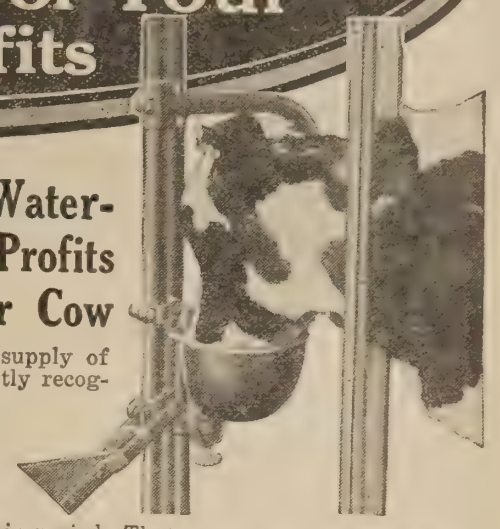


Lifting the cup from stall post before pouring out stale water for cleaning



Smooth, Easy to Clean





The Trough Method of Watering is Robbing You of Profits of $4.00 to $8.00 Per Cow

The milk-making *value* of a *constant* supply of fresh water to the cows is not sufficiently recognized.

No cow will drink as much as she needs from an icy trough—and what she does drink is too cold. All your cows are *handicapped by thirst* during most of the day and night—if you depend on trough watering during housed-in-period. That means that they are robbed of the water they *must* have to digest their food—to make milk. Too little water means too little milk. Water must be where the cow can get it—every hour of the 24. Otherwise, a part of the milk-making power of her food is wasted. That waste spells a distinct *loss* of one to two pounds of milk per cow per day.

Rich Milk is 87% water. Just plain water is the cheapest dairy ration—*and one of the most important.* You will *gain* from one to two pounds of milk per cow per day—a total gain of from 200 to 400 pounds of milk *more* per cow during the barn-feeding months, by installing James Drinking Cups in your dairy barn.

JAMES Drinking Cups

Either Gravity or Pressure System

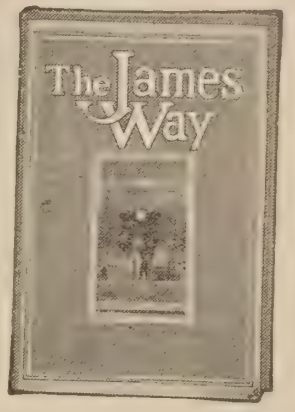
MAKE MONEY OUT OF WATER

This gain in yield spells a *sure* profit of from $4.00 to $8.00 per cow. It means that the James Drinking Cups will *more than pay for themselves the first season.*

In fact, John Hetts, one of Wisconsin's best known breeders, declares:—"With one cow of my herd, the James Drinking Cup paid for itself *inside of 10 days in increase of milk yield.*"

The James Drinking Cup installation is built on the gravity system. Also if desired equipped for pressure system. Note the photos to left and see how easy these cups are lifted from their positions, for thorough cleansing. The cups are located between the stanchion and stall post—see cut at top—the handiest place for the cow. This makes it harder for her to toss feed into the cup—water is kept clean longer. The water flow is regulated by special extra-sensitive valve designed by us. Works perfectly *no matter what the water pressure is.* Prevents water passing from one cup to another—prevents any overflow and flooding of barn. Operates absolutely automatically.

The ingenious James Regulating Tank keeps the water *constantly* at the right level in drinking cups. Marvelously sensitive to slightest out-flow of water—quick as a flash in shutting off or feeding in water as needed.



SEND FOR A FREE COPY OF THE "JAMESWAY"

At least, investigate this way to *"Make Money Out of Water"*. Do so today. Send for booklet. Get a copy of that famous book, *"The Jamesway"*, the authoritative book on barn building and equipment. Even though you are not thinking of building or remodeling now get it anyway. Send the coupon today.

See James Drinking Cups at our exhibit. National Dairy Show, Columbus.

James Manufacturing Company
E. N. 23 Cane Street
Fort Atkinson, Wis., or Elmira, N. Y.

Wright-Ziegler Company, Boston, Mass.
DeLaval Dairy Supply Company, Drumm and Sacramento Streets, San Francisco, Calif.; 1016 Western Ave., Seattle, Washington.

James Mfg. Co., E. N. 23 Cane St., Fort Atkinson, Wis., or Elmira, New York.
Please send me your free booklet on James Drinking Cups—and also your book, "The Jamesway", showing how to build and equip a dairy barn. I hope to build ..... or remodel ..... cows. I have ..... about ..... Am interested in Stalls, Stanchions, Pens, etc. [ ] Carriers [ ], Ventilators [ ].
Name.....
Post Office.....
R. F. D.....
State.....

A Texas County Dairy Association

HOARD'S DAIRYMAN:—The dairymen of Tarrant County, Texas, in which Fort Worth is situated, have organized the Tarrant County Dairymen's Association. The organization is to be known as the Tarrant County Dairymen's Association. W. V. McClure was elected president and Walter Brazelton, secretary. The association will co-operate with the Tarrant County Cow Testing Association in its work.

John W. Wray was instructed by the newly organized dairymen to contract for the organization for 500 tons of cottonseed meal, 500 tons of hulls, 100 tons of wheat bran, and other feeds.

Texas. W. D. HORNADAY.

Jersey Cattle Notes

For week ending Sept. 27, 1918:

Number of animals registered: Bulls, 180; cows, 464; total, 644. Number of transfers recorded: Bulls, 178; cows, 531; total, 709.



Unarmed Arms of the Service

Men from the battle front who have been holding the line for months and years complain of the monotony of war. The soldier's life in the trenches soon ceases to be a novelty and becomes a tedious routine.

The morale of the army is of supreme importance and the greatest military authorities of the world are enthusiastic in their praise of the organizations which make it their business to keep the soldier in good spirits.

This work, like that of the Signal Corps, has been more highly developed in this war than ever before. Huts for amusement, comfort and recuperation of the fighting men are in the trenches as well as behind the lines. The unarmed workers go about their duties under shell fire as coolly and as self-forgetfully as the telephone men of the Signal Corps who are frequently their neighbors, and who keep intact, often under a hail of bullets, the indispensable lines of communication.

It is for us who remain at home to support these unarmed heroes to the utmost, with our gifts, our labor, and our unbreakable morale.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

Care of the Milking Machine.

(Continued from page 357)

The machine is first connected up with the vacuum pipe by means of a short pipe of rubber tubing, and the vacuum is turned on. The teat cups are inserted in a pail full of lukewarm water. The tubes are lifted up and down. This together with the vacuum rinses the teat cups and rubber tubing. If this is done at once after milking before the milk has a chance to dry on, then there will be very little milk to wash off by hand and brush. The gulching of the water thus brought about is quite effective.

However, this alone is not enough to keep the milking machine in good sanitary condition. The water in the double vat is then made ready. One compartment is filled with a clean, hot water, and the other compartment is filled with warm water containing some washing powder. The former is used for rinsing and the latter for washing. The temperature of the rinse water should be about 125°F., and that of the wash water about 100°F.

When the rinsing by vacuum is completed the machine is taken apart and put into the prepared wash water. With the brushes specially provided, the different parts are cleaned, and one by one they are dropped into the other compartment containing the rinse water.

Keep in Disinfectant

From there the parts are put into the disinfectant solution. There is a great deal of difference of opinion as to what kind of a disinfectant to use. At this experiment station practically all of the common ones have been used and they have been tried at the same time comparatively, and bacterial analysis and observations made.

None have been found better than ordinary hydrated lime solution. The lime may be purchased anywhere. It may be had in a convenient package. It costs very little. It is not a poison such as are some of the other common disinfectants. Lime may be kept in a dairy with perfect propriety and safety. Lime does not cause odors in the milk room, or in the barn that will endanger the flavor of the milk. Lime is an effective germ destroyer if used properly. Lime solution does not affect the rubber and metal parts of the machines. Lime has a cleansing effect that can not be had from some of the other substances. It is a deoderizer, as well as a germ destroyer.

The solution is made up to about two per cent strength. About two pounds of hydrated lime are used for each one hundred pounds of water and stirred.

The cleaned milking machine parts, teat cups, and rubber tubing are kept in this lime solution between usages. The pails are cleaned and handled exactly as are any of the other milk pails and cans.

The above method and disinfectant are not the only ways in which the machines can be kept in a good sanitary condition, but it is a good way. Anyone who already is using some other disinfectant and who is already having a handy and successful way of keeping the machine sanitary had probably better not change.

Undoubtedly some will say this is a lot of work to go through with twice a day, but if prepared for it the task is easy. It can be quickly done.

For the production of certified milk it is necessary to thus take the machine apart and clean thoroughly after each milking.

In order to keep the bacterial count down below 10,000 per c. c. it is also necessary to steam or scald the pails just previous to milking. Otherwise the bacterial count from the milk of the first few cows milked will r high.

For producing good commerci milk the cleaning in two sets of wa water with brushes is necessary on each morning, and not twice each d as described above for the producti of certified milk. I have found th in the evening the men are natura in a hurry. They want to finish t chores as soon as possible. On th account each morning is select rather than evening.

When this method of cleaning practiced it is doubly important th the milking machine be well rins each evening immediately after mi ing and before any of the milk ha chance to dry on. Two sets of ri water should be used. One to remo the excess of milk and then one p of clean water for final rinsing. refer now to the rinsing by attachi the machine to the vacuum pipe.

Keep Vacuum Pipes Sanitary

One would naturally think that pipes containing the vacuum wo not need any attention. But they When the machines were first stalled in the college dairy barn, t point was overlooked and the qua of milk became bad. The trouble finally located in the vacuum pipes

The frequency with which vacuum pipes need cleaning will pend on whether milk gets into system or not. If the pails are mil too full, then milk will be drawn o into the vacuum pipes. If this h pens every day the pipes should cleaned every day. They should cleaned as often as this mistake h pens.

Even though no milk is drawn i the vacuum pipes, they will bec unsanitary. Vapor or moisture drawn from the milk pail into vacuum system. The cold pipes condense the vapor.

Before starting the milking chine all pipes should be opened drained, so that none of this densed water with impurities d into the rubber tubing and even the pail. This is important.

It is also impossible to prevent from getting into the vacuum pi This together with the moisture rish raw material for foulness.

Method of Cleaning Vacuum P

Before the small steam boiler installed in a room adjacent to dairy barn, we cleaned the pipes pumping two sets of wash w through them. Some water warmed, and a little washing pow added and stirred until well dissol

The vacuum pump was then st ed, and the prepared warm wash ter was pumped through from the treme end of the vacuum pipe. water with any dust in the sys was drawn into the vacuum sto tank located in the power room. the bottom of the vacuum tank t is a drain where all of it was dra away.

When this set of wash water done its work well, then we pun through a pailful of boiling hot ter, and drained away from vacuum storage tank as before. power is shut off and all drain c opened. This leaves the vacuum tem clean.

The heat in the pipes absorbed the hot water will dry the whole side and leave it in a clean, dry dition.

Since the installation of the s steam boiler, steam alone has used. All drain cocks and place attachments are opened. A small connects the vacuum pipe and boiler. The steam is gradually tu on. At first the cold pipes cond the steam. When little more stea turned on, the water rinses ou dirt particles.

The steaming thoroughly dest

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l living organism. It also heats the pes so they dry well after cleaning. his method of cleaning takes very ttle time. It is effective and does harm.

If any milk had been accidentally awn into the vacuum pipes, then ey should be rinsed out with kewarm water before the steam is rned in.

This cleaning we do regularly once ch two weeks whether there is a ed for it or not. It takes but a short ne, and it is better to do it once too ten than it is to run the danger of ving the milk infested with abnor-al and undesirable germs.

Queen Esther Fox

HOARD'S DAIRYMAN:—It was the io state championship record made Fox's Queen of Minerva in Octo-r, 1916, that made me go hunting r her family. The first move was to d her dam. Not knowing where e was or whether dead or alive, it as necessary to consult the Ameri-n Jersey Cattle Club office and then find her after the address of her ner was obtained. It was near inerva, Ohio, that she was found, ve and hearty at the age of thirteen d one-half years. It was midwin-r before I had finally bought and oved Queen Esther Fox to my farm. All the early summer of 1917 she



JERSEY COW, QUEEN ESTHER FOX
At 14 years of age she has a year's record of 10,371.2 lbs. milk containing 596.85 lbs. fat.
OWNED BY HUGH W. BONNELL, OHIO

nt to pasture, thus maintaining by ercise and feeding her remarkably oust health. She calved August 30, 17, with no trouble, giving us a fine ifer calf and started in to work e a seven-year-old. Her test began the age of 14 years, 25 days, on ptember 6, 1917, and when her year s over she had to her credit 10,371.2 . milk and 596.85 lbs. fat which ves her the world's championship a cow beginning test at 14 years over. The record we had to sur-ss was that of Pogis Irene 2nd, n of the former world's champion, coba Irene. The record of Pogis ne 2nd was made at seventeen ars and so is more remarkable than s but, nevertheless, we were de-hted to have our fourteen-year-old ish with 6 lbs. fat better than Pogis ne 2nd's record.

This performance gives my state mpion cow a world's record dam. ave three Register of Merit grand-ughters of Queen Esther Fox and ee Register of Merit great grand-ughters, and a fourth great grand-ughter, and two great great grand-ughters not yet in milk, besides a arling daughter. This gives me ven females from the old cow down, ided into five generations and kes us feel that there is no doubt out the production and reproduc-n of our family.

Queen Esther Fox is again safe in calf and will qualify for Class AA, having only 20 days from the finishing of her test to calving time.

Ohio. HUGH W. BONNELL.

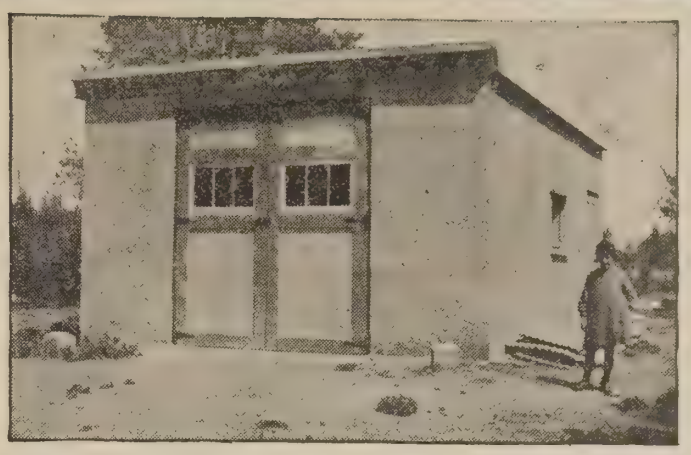
Factors in Profitable Production of Sanitary Milk

Kentucky Bulletin 206 by W. D. Nicholls describes experiments carried on with a view to determining the number of bacteria to which milk is subjected during the various daily operations in the dairy barn and milk room and to determine the best means of preventing bacterial contamination. The results were obtained by exposing glass petri dishes containing a sterile nutriment medium in the dairy barn of the station and the adjoining milk room.

The results indicate that in a well-cleaned dairy barn very few bacteria are present in the air, but when dust is present the number is very large. "When the cows are in the barn the number of bacteria in the air is materially increased. The presence of bedding in the stable greatly increases the bacteria of the stable air. Dusty mill feeds and hay are fruitful sources of bacterial contamination. The act of brushing the cows adds myriads of bacteria to the surrounding atmosphere. Washing the cows' udders, even when apparently clean, greatly reduces the number of bacteria falling from the udder. Infection from washed udders is less than one-seventh of that from unwashed udders. The air in a pasture upon which is growing a heavy sod of grass is nearly sterile. In a dairy room having smooth walls and a concrete floor which are regularly and carefully washed the air should be practically free from bacteria."

It is suggested that "to keep down the bacterial contamination of the air in the stable where the cows are milked the room must be kept well cleaned and every effort must be made to keep down all the dust. Dusty bedding must be avoided, and if bedding is used dust should be laid by sprinkling. Since cow hairs are laden with bacteria, all loose hairs should be removed from the cows by currying, in order to prevent them from falling into the milk. However, sufficient time should elapse after currying to permit the dust and bacteria to settle to the floor before milking begins. The cows' udders should be carefully washed with tepid water and a clean cloth before milking begins. Wiping the udder with a clean, damp cloth greatly reduces bacterial contamination of the milk. In feeding mill feeds and hay care should be taken to raise as little dust as possible."

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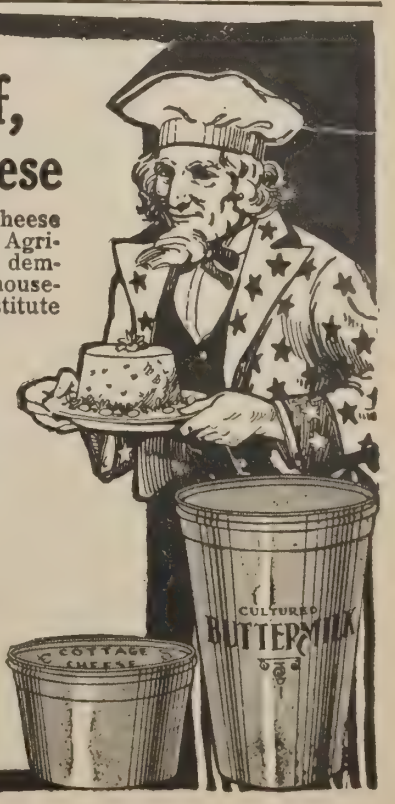
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Dairymen Meet With Hoover

The rapid advance in the price of butter caused Mr. Herbert Hoover to call to Washington, on October 2d, a few representative dairymen from several states where dairying is an important industry. The purpose of this conference was to consider the feasibility of stabilizing the price of butter. The consuming public came to Mr. Hoover protesting against the high price of butter and this led him to consider seriously what might be done to regulate the price of butter.

In his remarks before the conference he in substance said: "It is my purpose to be just with both producer and consumer. Creamery butter is now from 25 to 50% higher than it was last year at this time and there is bound to be a collapse, sooner or later, in the butter market. Butter is a highly essential food, but many consumers will buy oleomargarine if butter prices go too high. I realize that the producer must have cost of production plus a profit if he is to continue in business, but it seems to me the prices of butter for 1917 must have been sufficient to yield the producer a profit, for our herds of dairy cows have increased. I have no power to fix the prices of butter, but a combined buyer can stabilize the market. Oleomargarine prices have been agreed to. Nut margarines will retail at 32 cents a pound and those made from animal fats at 35 cents. If the price of butter goes too high it will lead people to eat oleomargarine."

Mr. Hoover held that the prices of feeds were cheaper this year than last, but the dairymen did not agree with him. Some feeds are cheaper, but on the whole feed prices are higher. Further, the prices of butter last year were not in keeping with the prices of other farm products. According to Dean Russell, who has been serving in the Food Administration, "the price of staple products today shows dairy products to be relatively lower than in most other cases. The price of flour this summer is over 100 per cent more than before the war. Sugar has increased 53%; beef, 52%; pork, 99%; lard 167%; while butter has only increased 43% and cheese the same". This statement was made by Dean Russell on August 7th. Butter has increased in price about 33 per cent since August. In terms of purchasing power of staple articles the price of butter is none too high. In other words, the price of butter is about right when compared to the advance of prices of other staples. The producer of butter may reasonably expect his products to advance in price in the same proportion to other products.

It was considered feasible by Mr. Hoover and approved by those present that it is desirable to stabilize the price of butter; or, in other words, set a minimum price which the government will try to sustain.

A committee consisting of Professor Clyde L. King, Pennsylvania; Charles Brand, Ohio; I. Ingersoll, Ohio; Ex-Governor Warner of Michigan; G. R. Rice, Wisconsin; Frank Kingsley, Iowa; W. F. Schilling of Minnesota; and Robert Scoville, Connecticut, was appointed by the meeting and approved by Mr. Hoover to co-operate with the other advisory committees of the Administration and to further consider the situation and to advise with the Food Administration as to what action should be taken to stabilize the situation. The new committee adjourned to meet again at a later date, in the meantime to investigate and consider the many factors involved.

Sale Announcements

Oct. 12—Jerseys. Texas Jersey Cattle Club Sale at Cleburne, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 15—Holsteins. Nebraska Holstein Breeders' Sale. Union Stock Yards Sale Pavilion, So. Omaha. Dwight Williams, Bee Bldg., Omaha, Neb.
Oct. 15-16—Holsteins. National Dairymen's Sale at Columbus, Ohio. E. M. Hastings Co., Sale Mgrs., Lacona, N. Y.
Oct. 16—Jerseys. Texas Jersey Cattle Club Consignment Sale at Sherman, Texas.—Mrs. J. Riley Green, Wolfe City, Sale Mgr.
Oct. 16—Holsteins. T. R. Maurer & Co., Emporia, Kansas.
Oct. 17—Holsteins and Guernseys. Eighth Semi-annual Central Wisconsin Breeders' Ass'n Sale at Marshfield, Wis. W. W. Clark, Grand Rapids, Wis., Mgr.
Oct. 17—Holsteins at Marshfield, Wis. W. W. Clark, Sales Mgr., Grand Rapids, Wis.
Oct. 18—Holsteins. Calumet Co. Holstein Breeders' Consignment Sale, Chilton, Wis. Royal Klofanda.
Oct. 18—Pure-bred Holsteins at Chilton, Wis. F. H. Everson, Mgr.
Oct. 18—Holsteins. Virginia H.-F. Club at Orange, Virginia.
Oct. 18—Holsteins. The Calumet County Holstein Breeders' Ass'n., Chilton, Wis. Royal Klofanda, Sec'y., Chilton, Wis.
Oct. 21—Jerseys. Robert I. Young, R. F. D. 5, St. Joseph, Mo.
Oct. 21—Holstein Dispersion. Dr. A. D. Blackburn, Cuba, Ohio.
Oct. 22—Holsteins. H. L. Persing, Clyde, Ohio.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 24—Guernseys. First Annual Consignment Sale of the Massachusetts Guernsey Breeders' Association at New England Fair Grounds, Worcester, Mass. Leander F. Herrick, Sale Manager.
Oct. 24—Holsteins. Howell Sales Co., Howell, Mich. Jas. B. Tooley, Sec'y.
Oct. 24—Guernseys. Massachusetts Guernsey Breeders' Ass'n. Worcester, Mass. L. F. Herrick, Auctioneer.
Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 29—Holsteins and Poland China hogs. Pleasant Valley Stock Farm, Thos. Maher, Brookings, S. D.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 29—Holsteins. Chas. Rupp's Dispersion Sale at Indianapolis, Ind. F. G. Johnston, Sale Mgr., 37 West Lane Ave., Columbus, Ohio.
Oct. 30—Holsteins. Michigan Breeders' Consignment Sale Co., at Howell, Mich., H. W. Norton, Jr., Mgr. East Lansing, Mich.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Oct. 31—Guernseys. A. C. Ramseyer, Mara Alva Farm, Smithville, Ohio. H. C. McCamon, Sales Mgr., Lisbon, Ohio.
Oct. 31—Holsteins. Western Dairy & Ice Cream Co., St. Joseph, Mo.
Nov. 6-7—Guernseys. Waukesha County Guernsey Breeders' Association Semi-annual Sale at Waukesha, Wis. F. E. Fox, Sec.
Nov. 7—Holsteins. The Walworth County Holstein Breeders' Sale at Elkhorn, Wis. J. G. Voss, Manager.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Rawl Appointed Assistant Chief

The Secretary of Agriculture announced today the appointment of Mr. B. H. Rawl as Assistant Chief of the Bureau of Animal Industry. The



B. H. RAWL

appointment became effective on October 1. Mr. Rawl has been Chief of the Dairy Division of the Bureau of Animal Industry since 1909, and, in addition to his new duties, he will continue to supervise the work of that division, the scope of which during the past nine years has increased six-fold and now reaches two-thirds of the states.

Mr. Rawl was graduated from the Clemson Agricultural College, South Carolina, in 1900. He later took a special course in dairy husbandry at the Pennsylvania State College and the University of Wisconsin, and served as assistant professor of animal husbandry and dairying at Clemson College from 1902 to 1905. He entered the service of the Bureau of Animal Industry as dairy husbandman in 1905 and, as indicated, was made chief of the division in 1909. He is a trustee of the Clemson Agricultural College and a member of the American Association for the Advancement of Science, of the South Carolina Agricultural Society, and of the South Carolina Live Stock Association.

Pledge of Honor for Mill Feeds

To distribute wheat mill feeds more uniformly and to check their lavish use in areas surrounding mills where this feedingstuff is very cheap, the Food Administration announces a pledge card system of control effective October 1, 1918. The plan finally chosen from among those considered gives American farmers a direct opportunity to co-operate in securing results which have an important bearing on our own agriculture and on the world food situation. The following explanation of the plan is addressed to farmers of the United States by Herbert Hoover, U. S. Food Administrator:

"Owing to the extension of the drought area, the shortening of the corn crop, the larger population in the country, and the allied demands upon us for feedingstuffs for their own animals because of their own shortage in produce of feed grain, it is necessary that we should exert every effort in the proper conservation of feedingstuffs during the next twelve months. It is necessary that we should ship a larger proportion of wheat as compared with flour during the next twelve months than during the last twelve months to the allied countries, because their own shortage of feedingstuffs is such that if they are to keep alive their dairy herds they must have a larger supply of wheat milled.

"Already, the milk supply in the allied countries has been limited practically to the supply of children and other vitally necessary national uses and any failure on our part to supply them with necessary feedstuffs for their dairy herds means that we shall cut into the actual safety of the children amongst the allies. On the other hand, both our own population and the allies are dependent upon our production of animal products and we do not in any way wish to stifle this production. What we must secure is the utmost conservation in feed, and the total elimination of waste by the careful feeding of animals and the use of all the roughage available.

"One of the difficult problems is the distribution of wheat mill feeds, and this is made more difficult by the fact that the Food Administration, in an endeavor to protect the farmer, is maintaining an artificially low price on these feeds. One consequence is that a great deal of mill feeds are now going unnecessarily into work animals or beef production. Every farmer will recognize that the wheat mill feeds are vitally necessary for the dairy cattle, to some extent for the poultry, and for young pigs. Owing to the absorption of mill feeds at local points near the mill, considerable sections of the dairy industry are practically without mill feeds and our dairy production is thereby in danger.

"With view to correcting this, as far as possible, the Food Administration desires to appeal for the assistance of the farmers of the country in the use and distribution of wheat mill feeds, in addition to general conservation of feedingstuffs. In this view we are asking every buyer of wheat mill feeds, outside of the acute drought area, to sign a pledge of honor or not to use the wheat mill feeds for any purpose except the essential use in dairy, young pig, and poultry production, and not to purchase or hold at any one time more than 60 days supply. Unless we can assure the careful and specialized use of mill feeds, our dairy production in the congested eastern areas of the United States is bound to fall and to jeopardize the food supply of our people in that section. Otherwise it will be necessary to release the price restrictions on mill feeds and allow them to take their natural course.

"With a view to securing this co-operation from the farmers all over the country in the interests of the industry as a whole, we are instructing the mills and all dealers in feed to secure from the buyer of wheat mill feeds the following pledge:

"In order to assist the Food Administration in the distribution of wheat mill feeds, I hereby undertake on honor not to use wheat mill feeds for any other purpose than the feed

ing of dairy cattle, poultry, young pigs, or young calves, or the preparation of a weekly bran mash for work animals.

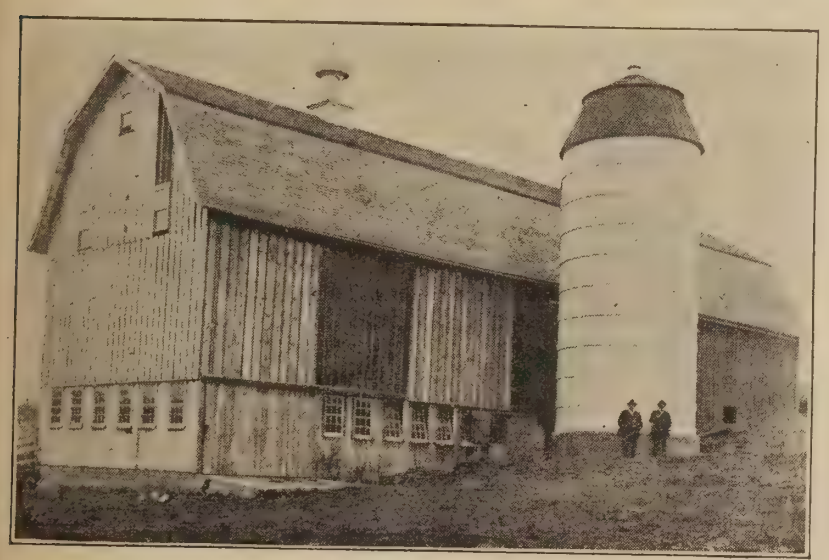
"I will not feed any more wheat mill feeds than is customarily fed to such animals, and I further agree not to have at any one time more than a 60-day supply of wheat feeds on hand."

The Distribution Ruling

As an additional means of control the Food Administration has issued a regulation directing distribution by states so that the former normal movement of wheat mill feeds may be maintained as nearly as possible. This ruling is national in its scope but with exceptions for certain states where drought has been acute. The text of the ruling follows:

RULE M. S. 32. (effective October 1, 1918) MILL FEED TO BE DISTRIBUTED AS IN 1917. The wheat miller shall distribute all mill feed manufactured by him equitably between the different states of the United States, in such manner that during each calendar quarter on and after October 1, 1918, the amount of wheat mill feed shipped into any state shall not be a less percentage of his total shipments of mill feeds during such quarters than was shipped into such state in the corresponding quarter of the year 1917. Where shipments made in 1917 were subsequently reconsigned to other points, the ultimate point of consignment shall be taken as the basis for the foregoing calculation, so far as the miller, from his records or best judgment, can judge as to the ultimate point of consignment. This rule shall not apply to mills located in the drought areas of Montana, Colorado, New Mexico, Nebraska, Kansas, Oklahoma, and Texas.

A similar rule has been issued applying to feed dealers. Farmers should realize that the price of wheat mill feeds is artificially low and the supply is insufficient to give everyone the quantity desired. Under the system of distribution outlined, however, the benefits of low-priced mill feeds will be shared by a greater number of farmers than heretofore and the feed will be used in a manner to strengthen America's position in the international food program.—U. S. FOOD ADMINISTRATION.



BARN AND SILO ON FARM OF ED. MEACHAM, WISCONSIN

New York Butter Market

New York City, October 1—The market seems to be at a sort of standstill at the present time. Indications are that with the increase in the wholesale price of butter the consumer has lessened his demand for it. While the market is as yet fairly strong it is not excited as it has been for the past few weeks. Some anticipate that within a short time prices will gradually retreat but not to any marked extent. There is a point above which the consumer, regardless of how prosperous he may be, will not go in buying butter. When the retail prices go to 65, 68, and 70c per pound, he hesitates before putting down the best part of a dollar for a single pound of butter. There are few of us who will criticize him for turning to cheaper substitutes when prices get almost prohibitive.

One week ago today extras (92 score) were quoted at 61c. Today the quotation is 62c. The advance was made on Monday of last week when the quotation 61½@62c was established. On Saturday the market showed additional strength and the inside quotation was eliminated. Since then the market has developed no additional strength. Additional quotations at the close today were as follows: Higher scoring than extras (93 score or above), 62¾@63c; firsts (88 to 91 score), 59@61½c; and seconds (83 to 87 score), 55@58½c. Unsalted butter is in good demand with quotations about one and a half cents above those for corresponding grades of salted butter.

Receipts of butter have been light all the week. The last two days have shown some slight indications of increased shipments. Storage stocks have been turned loose to some extent which has made the available supply of butter somewhat greater than for the past two or three weeks. Storage stocks, of course, are limited because of the commandeering of the greater part of it by the government and will have no permanent influence on the market although their influence may be felt temporarily at times. As a whole, the market bids fair to remain active but it seems that the upper level of prices has been reached. W. B. LIVERANCE.

Development in Foreign Agriculture

A recent Italian decree directs that sugar beets must be used only for sugar production and not for any other industrial purposes or for distillation. Italy is using every possible means to maintain her present sugar ration of 1 pound per person per month, which is only half the monthly allowance in the United States.

Brazil Creates Food Administration

To restrict the exportation of its food products and to control prices and distribution, the Brazilian government has authorized the creation of a food administration.

No Man's Land Soon to Grow Crops

The French government has already made arrangements for bringing back into cultivation the desolated and war-torn areas from which the enemy has been driven. The dense population of France makes prompt agricultural restoration necessary to relieve the food situation. Preference will be given to farmers who originally lived in the invaded regions.

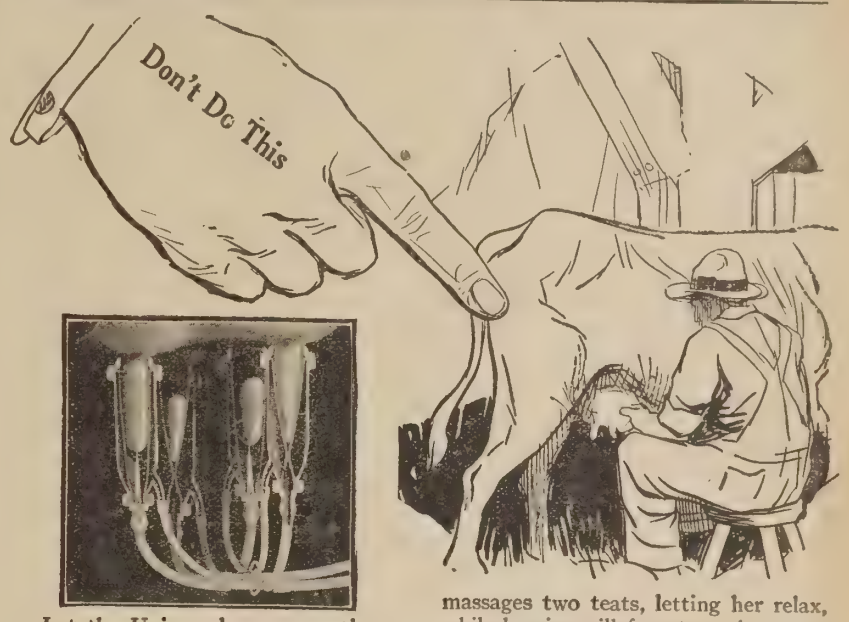
French Hay and Straw Prices

Shortage of animal feeds in France, though frequently announced in the foreign crop reports, is perhaps most clearly reflected by the prices prevailing in the forage markets. There are three qualities of fodder. The prices quoted prevailed in midsummer and are for the second or medium quality. First quality fodder averages from $2 to $3 more per ton and third quality the same amount less: Wheat straw, $78.00 per ton; hay, $84.00; lucerene (alfalfa) $88.00. Shortages of transport make deliveries of all feeds uncertain and in some markets there is practically no business.

Norway Rations Skimmilk

A decline in production of milk and dairy products in Norway has resulted in rationing skimmilk since June 17. Children under five years old may have an amount equivalent in United States measure to about one and one-fifth pints. Persons over 15 years are limited to slightly more than one-third pint daily.—U. S. FOOD ADMINISTRATION.

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EDITORIAL COMMENT

GRINDING FEED

The dairy cow is a hard working animal and it pays to prepare her ration well if she is to do her best work. The feeding of whole grain is uneconomical; not only does it waste a large amount of it but the cow will not produce milk to her full capacity.

The Michigan Experiment Station found that when cows were fed whole corn, about 23 per cent of the kernels passed through whole and undigested, indicating that this much of the feed had been entirely wasted. When cows were fed whole oats over 12 per cent of them passed through undigested and when fed corn and whole oats, over 26 per cent of these feeds were not masticated. It is plain that the feeding of whole grain means a heavy loss.

It may be added that grinding feed for horses, especially those having impaired teeth which comes with advanced years, is profitable. The Illinois Experiment Station holds that ground grain is slightly more digestible than whole grain and it is usually considered by the best authorities that a 10 per cent saving in grain can be effected by grinding.

WISCONSIN AGAIN A SPRING WHEAT STATE

It is now about forty years since Wisconsin farmers ceased growing spring wheat. At one time it was the principal cash crop of the farm, but repeated cropping soon exhausted the elements necessary to the wheat plant and the yield sank down to less than ten bushels per acre. At that time our farmers were very poor managers of their soil. There was but a small amount of live stock kept and but little intelligent rotation of crops. Then the dairy agitation began and has been kept up until this state today has a cow population, together with its young stock, not exceeded by any state in the Union.

This condition exists, it should be remembered, with only about half of the area of the state under cultivation. The live stock factor forced all our farmers into a better system of rotation with clover and alfalfa which, with the great addition of barnyard manure, has brought about a great change in our soil. It is now noticed that wherever spring wheat is sown on these old lands it returns a satisfactory yield. As high as fifty bushels per acre has been reported in many sections.

Last spring saw a few acres sown on a large proportion of our old farms. Another year the area devoted to spring wheat will be largely increased. The same is true of all the middle western states, and the result will prove a great addition to the nation's supply of wheat. The lesson to be learned from this is that if we would keep up our farms in their productive energy we must make live stock a leading factor in all of our farming operations.

BARLEY AND OATS FOR COWS

In many sections of our country splendid crops of oats and barley were grown this season. Barley is cheap in price compared with other grains. It is worth about $1 per bushel or $40 per ton. Oats are selling for 65c per bushel or a little more than $40 per ton. It is our opinion that ground barley and oats should be fed at these prices to dairy cows.

In Denmark, a mixture of barley and oats is considered an excellent feed for dairy cows. Barley has nearly the same feeding value as corn and good oats are superior to bran as a feed. Corn selling at $65 a ton and bran from $32 to $45, and only limited quantities obtainable, make it wholly feasible to consider barley and oats as a cow feed.

Without clover or alfalfa hay, or some other hay rich in protein, it will require some feed very rich in protein in order to supply the proper amount of protein to carbohydrates in a ration. If a dairyman has silage, timothy hay, barley, and oats, then some such feed as cottonseed meal, oil meal, distillers grains, gluten feed, or velvet bean meal should be purchased. A mixture consisting of 300 pounds ground barley, 300 pounds ground oats, and 100 pounds cottonseed meal or oil meal would make a very good mixture to supplement the timothy hay and silage. It would require about one pound of the mixture to produce 3½ pounds to 4 pounds of milk testing 3.5 per cent. If gluten feed, velvet bean meal, or distillers grains are used, it would be well to mix 125 to 150 pounds with the amount of barley and oats suggested. If there is a small amount of either alfalfa or clover hay, then we would suggest that feeding about 5 pounds to each animal daily, supplementing it with timothy, would be sufficient.

The ration containing a little clover or alfalfa would provide a little more protein which would not be out of place. Timothy hay is low in protein and when it furnishes the only dry roughage with the grains we have suggested, the protein content of the ration is scant rather than liberal in supply. It should be borne in mind that an inadequate supply of protein tends to reduce the milk flow. It is very often the limiting factor in production.

EDUCATE THE CONSUMER

It is our deep conviction that in order to secure fair prices for dairy products a greater demand must be created for them. To create this demand, the consumer must be educated regarding their importance and food value. Over five years ago we started to set forth the results of Dr. McCollum's experiments and, from that time to this, have published articles from his pen and editorials concerning what his investigations have shown regarding the necessity of milk. We have not been content to simply give the scientific side of this question but we have secured articles from various sources setting forth ways and means, as well as the feasibility, of educating people concerning the food value of milk and its products.

One of our subscribers, Dr. I. W. Houston of Michigan, comments as follows upon a recent communication:

"It has just been my pleasure to read 'When Aladdin Rubs His Lamp' in your current issue. You paid a high price for that article if it were in proportion to its worth. It 'hits the bull's eye' in every sentence. Big advertising is the only thing that will set the people right on the milk question. Put Helen Willcox at the head of a national organization and it is sure to win."

We sincerely believe a systematic educational campaign should be conducted to educate people not only as to the food value of whole milk but skimmilk as well. Few people realize the splendid food value of skimmilk. Our government informs us that 100 lbs. of skimmilk will make about 16 lbs. of cottage cheese and a pound of cottage cheese is equal to a pound of beef in food value. We have millions of pounds of skimmilk which could be diverted from the feeding of live stock to the feeding of human beings. What a tremendous source of food supply skimmilk offers!

It would be appropriate to teach people the relative food value of cheese and meat and also the importance of butter. At the present time there is a tremendous demand for both butter and cheese and it is somewhat doubtful whether an advertising campaign, as advocated by some, should be inaugurated now. But we are sure, however, that the matter of educating our people regarding the necessity of milk and skimmilk should be carried on at this time.

MORE FARMS TO FEED THE NATION

The day of a free and fertile public domain, "with a farm for every man", has passed and the discussion by Mr. Moulton in this issue of the reclamation of waste lands is opportune as to time and occasion. It is no new question, but now when the world is crying for food and the hearts of the American people are in a state of exaltation, its force may be driven home to the consciousness and approval of the public mind. It looks forward to the future, and gives the further opportunity of emphasizing the fundamental importance of agriculture.

Each state and each community has its particular reclamation opportunity. There is irrigation for the desert, drainage for the swamp, and clearing for the cut-over lands. Irrigation projects appeal to the imagination. They are large and important, but let us not forget those things nearer home—opportunities that may be homely and commonplace, yet offer fully as great opportunities.

We recall that last year there was presented to the legislature of Wisconsin a plan whereby thousands of acres of the cut-over lands of that state would have been made more quickly ready for the plow and which would have made the farming of these lands more attractive. It took on the guise of state aid, yet it was not a charity or a gift. The state was merely to lend its credit to the home builder that he might clear a sufficient portion of his farm to make him self-supporting. Possibly the proposed act needed improvement, and perhaps the time was not ripe, at least the legislature did not pass the measure. Be that as it may, Wisconsin, and other states as well, should give heed to this question and not delay until too late.

It is a long, hard, bitter struggle for the pioneers of the twentieth century to build their homes amid the wilderness of stumps. Most of them come with little more than their two hands to wrest from the soil a living and a life. They have been attracted by the cheap lands and may have had sufficient capital to pay the purchase price, but development of these lands has been slow and the first few years sees only small clearing accomplished at the expenditure of much time and untold sacrifices. Men have done it, more of them than seems possible. They are to be honored, but it has meant a relatively slow development. How much more attractive it would be, how much better for the individual and the state, if these men could be given aid in making their clearings and so begin almost at once to produce agricultural products in profitable quantities instead of spending the first few gruelling years in getting the land ready to produce.

As we understand it, the practical working out of the plan would be for the state to arrange and pay for the clearing of a certain portion of each new farm, the farmer to contract to repay this cost in certain reasonable and adequate installments. The work would be done on a large scale and done more economically. The cost of clearing would at once add to the intrinsic value of the land, but more important than all else it would provide the state itself with an immediate larger production of food crops and bring her a citizenry of more independent farmers. As the number of profit-making farmers of the state increases, so would all business within the state profit. It would not be a charity that destroys character and industry, but a well balanced industrial and financial operation that would redound to the benefit of the individual farmer, to the benefit of the consumer, and in general to advantage of all citizens and so promote general prosperity.

Thoughtful consideration is essential, but forceful action must accompany it. We are not yet in position to point out just the minute method of procedure. Doubtless mistakes will be made, but those whose perceptions have been quickened by the driving force of the world need realize that a beginning must be made. Time and experience will demonstrate the best methods, but fundamentally the proposition is grounded on good business principles and in sound public policy.

CO-OPERATIVE SELLING

Laying plans for the effective prosecution of the war is leading farm organizations to consider co-operative effort more seriously than at any previous time in our history. Hoard's Dairyman, since its inception, has urged farmers to organize co-operative enterprises in order that they may work together effectively, for we know through such efforts, intelligently directed, a larger development and greater profits will come to the farmers. Mr. John D. Miller, at the meeting of farm organizations recently held in Washington, discussed national co-operative legislation. We quote as follows from his address:

"Farmers are not permitted to do collectively that what they have the undoubted right to do singly. * * * * The time has come when the united farmers of America should ask, as they have a right to ask, that the situation be clarified. If making collective sales of their farm products by the farmers is detrimental to public welfare, or against public policy, then such organizations should be clearly outlawed. If, however, such collective sales will give the farmer his fair share of wealth which he creates and will stimulate production, thus insuring an adequate supply of food, then such organizations should be clearly legalized. The present uncertainty has become intolerable."

The legislature of New York, last winter, passed a law whereby co-operative enterprises might sell their products collectively and not lay themselves liable to prosecution under the anti-trust laws of the state. The milk producers' associations have found it a violation of the anti-trust laws for their representatives to discuss milk prices with the milk distributors, or in other ways to seek to fix collectively the prices at which their product shall be sold. In some instances, action has been brought against these representatives. We consider it highly desirable that every state have a law which will permit co-operative organizations to sell their products collectively.

As Mr. Miller continues, "there is no danger

of monopoly. By restricting the income of such organizations to costs, no funds can be accumulated with which to corner markets or control supplies, nor will these organizations interfere with the law of supply and demand. They will prevent such interference."

Last winter Hoard's Dairyman published an article by Hon. Walter Drew, then Assistant Attorney General of Wisconsin, in which he discussed the feasibility and urged the passage of a law permitting under certain restrictions, co-operative and other organizations to sell the products of their members without violating the laws of the state. It is our opinion that the state legislatures this winter should give serious attention to, and place upon the statute books of the several states, laws similar to that passed by the New York State Legislature.

It is ridiculous for the federal and state governments to urge farmers to co-operate in preparing their products for market and then make it illegal for them to discuss prices with those who desire to purchase the products. It is impossible for the farmers to so organize as to form a monopoly. Their interests are too varied and too scattered. There is opportunity for them to co-operate in the many communities in preparing their products for market and in selling them. This opportunity should be extended to them in every state, as has been done in New York State.

Comparing Corn Fodder and Alfalfa Hay

I desire to buy a small field of corn for ensilage the corn averaging 3½ to 4 feet high and that will have to be cut before the ears are fully formed. The owner needs the fodder for cow feed but may let me have the corn in exchange for alfalfa hay of equal value to the corn as fodder, we to determine the amount of fodder it would have made from the amount of silage it makes. With alfalfa hay $25 a ton, what is the value per ton as cow feed of fodder such as the above corn would make? What is the proportionate weight of the fodder cured for feed, to the same ensiled as soon as cut?

Elgin, Ore. H. A. G.

As the one supplements the other, alfalfa hay and corn fodder are not directly comparable in feeding value and they are not properly interchangeable. Alfalfa is largely used because of its protein content and the corn fodder for its carbohydrate content. The following table gives the number of pounds dry matter and digestible nutrients in 100 pounds of each of these two feeds:

	Dry matter in 100 Lbs.	Protein Lbs.	Carbohydrates Lbs.	Fat Lbs.	Total nutrients Lbs.
Corn fodder—medium in water	82	3.0	47.3	1.5	53.7
Corn fodder—high in water	61	2.2	35.5	1.0	39.9
Alfalfa hay	92	10.6	39.0	.9	51.6
Corn silage—well matured	26	1.1	15.0	.7	17.7
Corn silage—immature	21	1.0	11.4	.4	13.3

From the description given it would be reasonable to expect that the corn fodder (the stalk and ears) would approximate the analysis given for that medium in water. Assuming this to be the fact, then the protein feed in alfalfa is three and one-half times as valuable as that in the corn fodder and the total digestible nutrients are approximately the same. Although we hold that a comparison of these two feeds is illogical, yet if it be insisted upon we would estimate that where farmers are exchanging these two in order to better fit their rations to their herds, then one ton of alfalfa hay might be given for a ton and a half to two tons of medium grade corn fodder.

It will also be noted from the table that silage made from immature corn contains about one-fourth as much dry matter as corn fodder that is medium in water. It will also be noted that in digestible nutrients the same ratio holds true. Therefore, without giving due regard to the increased value of the succulence in the silage, it should take approximately four tons of corn silage to equal one ton of corn fodder.

Perhaps a somewhat easier comparison would be to pay for the corn fodder on the basis of its value as silage and compared with alfalfa hay. This comparison is also objectionable for the same reasons as above stated, yet on the basis of total digestible nutrients one ton of alfalfa hay is worth from 3½ to 4 tons of silage made from immature corn, while in protein content it would take 10 tons of silage to equal 1 ton of good alfalfa hay. Roughly speaking, an exchange might be made of 1 ton of alfalfa hay for 6 to 8 tons of immature corn silage. Computing on this basis would eliminate a part of the speculative comparison and the exchange could be more easily made on the basis of the estimated contents of the silo.

Oat Straw and Corn Stover

Studying your answer to an inquiry appearing in the Dairyman recently concerning the value of oat straw and corn stover for dairy cattle, I somewhat came to the conclusion that it would hardly pay to harvest the corn fodder. I would like to know your opinion more definitely concerning the corn fodder. It is customary here to cut it off by hand, which costs about $3 an acre for medium corn. After it is husked and in the barn we cut it to stover, put it in the ration as the cows will take it. I have silage and if the stover is given first (once a day) a certain portion is eaten readily and the balance usually goes with the silage. I have more horses over the winter than I need and with the use of corn stover I think I can keep the feed bill down a whole lot and yet do justice to idle horses.

Gratz, Pa. J. M. B.

When given their proper place in a dairy ration, oat straw and corn stover may have considerable value. However, because of their low nutrient content they cannot be expected to take a large place in the ration. We have found them valuable in adding variety to the roughage of a ration, but with heavy producing animals do not believe that it is economical to force them to digest these coarse, low-valued feeds in an effort to secure any considerable amount of nutrients.

We believe the best practice on general dairy farms is to supply as much of a legume hay as the cows will consume, basing the ration rather upon this feed than upon supplying high priced concentrates in excessive quantities. The best supplementary succulent roughage which we know is silage, and when this is fed in addition to the legume a most satisfactory basis for a dairy ration is had.

We do not know of a better practice with the fodder which is not cut for the silo than to shred it into a dry place and feed it during the middle of the day in as large quantities as the cows will pick over. Late in the afternoon just before the night's feeding the refuse may be swept back under the cows and makes as good a bedding as we know. Used in this way we believe corn stover may have a very fair dairy value.

Straw and corn stover may be fed to horses if they are given about the same place in the ration as that recommended with cows. However, it must be remembered that idle horses require very much less feed than a cow which is working her body in the production of milk. With the grain, which will likely be fed to the horses, it is entirely possible that oat straw or corn stover will make a very satisfactory combination.

At the present prices of feeds we would by no means sacrifice either one of these roughages but would use them in the ration as supplementary feeds. With the cows, however, we would not attempt to displace high nutrient roughages with them.

Under usual conditions more fertility is returned to the soil through hauling manure from the stables, where stover is fed, to the field rather than leaving the stalks to weather over winter in the field.

Home-grown Feeds—Ration for Heifers

Will you kindly advise me as to which is the most profitable to feed, a mixture of corn, oats, bran, and oil meal, or a prepared commercial feed which can be bought in carload lots in the neighborhood of $60 here? If I mix the above feed I shall have to buy some oats and corn besides all of the other two constituents. I am fixed to grind and mix all my own feeds and in my estimation it is safer to know exactly what is in your feed if it is anything like as profitable. I have good alfalfa and corn silage. Corn can be bought now for $1.60 per bushel; oats, $60; bran, at about $40 a ton; and oil meal, at $70. Corn, however, ought to be cheaper when the new crop comes in. We shall use about 50 tons of grain.

Also, how would you vary this grain ration for growing heifers from 9 months to 2 years old?

Xenia, Ohio. F. T. F.

For many years Hoard's Dairyman has advised that so far as is possible the dairy ration should be made up of feeds grown on the farm. We have maintained that under most conditions a herd returns the greatest profits when home-grown roughages are fed with home-grown grains, supplemented only with such purchased concentrates as are necessary to give proper balance to the ration.

The most economical basis for a dairy ration is a liberal supply of a farm-grown legume hay, such as clover or alfalfa, and a supply of corn silage. We know a number of farmers who are making a very satisfactory production by feeding only these two roughages. All that the cows will consume is supplied. We believe that heavy producing animals would do considerably better if, in addition to such roughages, a concentrate mixture is supplied. The feeds listed are admirably suited to this purpose. We believe, however, that cottonseed meal may well be substituted for oil meal, when the latter is priced at $70 per ton, as it should be purchased at a price considerably below this. We suggest a grain mixture of 300 lbs. corn and cob meal, 200 lbs. of ground oats, and 100 lbs. cottonseed meal. This should be supplied to heavy milking cows at the rate of one pound for every 3½ to 4 pounds of milk produced.

At the prices quoted, oats is somewhat more economical than bran. If bran can be placed in the barn at approximately an equal cost to that of ground oats, it may be used to replace part or all of the oats in the mixture, although there is very little advantage in this.

We do not have quotations for this station on the commercial feeds, but do not believe they will be found more economical than the grain mixture suggested. Many of them are very good cow feeds and serve an admirable purpose where such feeds as corn and oats can not be secured at reasonable prices. Under the conditions mentioned, particularly when the farm is fitted for grinding grain, we believe the suggested mixture will be found more economical than feeding commercial feed mixtures.

Vigorous, growthy heifers from nine months to two years of age require very little grain if they can receive all of the alfalfa and silage which they will consume. In case some of the heifers do not grow as rapidly as is desirable, it will be wise to supply grain in addition to the roughage.

Driven Wells

On my farm we have to depend on the catchment of rain water for our stock and when we are short of rain, experience great difficulty. I have decided to erect a well on the premises and I am advised by several engineers that I am sure to strike water. I was informed by a friend some time ago that a driven well is the easiest and cheapest proposition and I would like you to advise me on the subject.

Kingston, Jamaica. G. N. P.

A driven well is constructed by attaching a sharp point on the end of a pipe and driving the pipe into the ground until water is reached. Additional lengths are added to the pipe as required. The point consists of a short length of pipe with perforations which allow the water to enter the pipe and keep out sand.

Driven wells are suited only to special conditions. A driven well is shallow, usually about 25 feet deep, seldom more than 50 feet. This would require that good water be obtained at this depth. Driven wells can be used to the best advantage in sandy soil. Where boulders may be encountered or where there is doubt of reaching a water bearing sand strata, a driven well should not be attempted. The character of the underlying strata in a locality and the depth at which good water is obtained can usually be ascertained by consulting a local well drawer. Geological reports on a locality may also contain this information.

L. M. SCHINDLER.
Wisconsin College of Agriculture.

Chopped vs. Ground Alfalfa

The following is published in reply to an inquiry concerning the relative merits of chopping and grinding alfalfa:

So far as we have been able to discover there are no practical differences in the feeding value of these two forms of alfalfa. Bulletin 164 of the Nebraska Experiment Station, lately published, records results from feeding chopped alfalfa which are as favorable as could possibly be expected. The data indicates that chopped alfalfa had a somewhat higher feeding value pound for pound than wheat bran. Other experimental evidence has pointed out the high nutritive value of chopped alfalfa and has seemed to give ground alfalfa no preference over it.

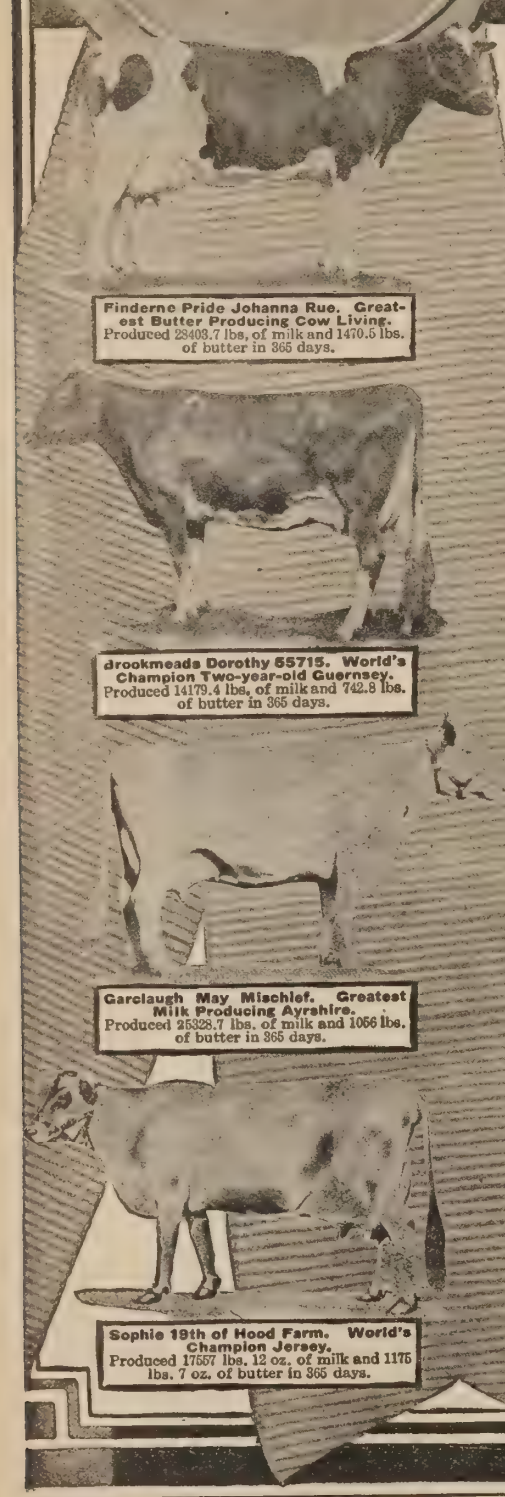
It must be remembered that alfalfa is a roughage and that grinding it ever so fine will not make a concentrate out of it. With animals which have so poor teeth that they can not thoroughly masticate their feed, there is undoubtedly some advantage in grinding the feed fine. This, of course, would apply to alfalfa. With animals which have good teeth and sufficient time to masticate their feed, however, we believe that animals secure fully as much nutrition from chopped alfalfa as from finely ground and that fine grinding will in no degree increase the digestibility.

Henry and Morrison make this statement on this point: "In case he (the stockman) desires to mix hay with heavy concentrates the material may readily be cut sufficiently fine in a silage cutter."

28 World's Champions

HOW THEY WERE FED

When They Made Their World's Records



YOU may not expect to make any world's records with your cows, but you do want to get the greatest yields from your cows—the bigger the yields the bigger your profits. The same feeding plan that the owners of 28 World's Champions have found to be the best, will be the best plan for you to follow.

Bernhard Meyer of Finderne Stock Farms, Finderne, N. J., owner of FINDERNE PRIDE JOHANNA RUE, the greatest living butter producing cow in the world, tells how he fed her when she made her world's record of 28403.7 lbs. of milk and 1470.5 lbs. of butter in 365 days. He writes:

"We have made another World's Record with our Holstein cow FINDERNE PRIDE JOHANNA RUE. I am glad to say that during her test she was fed mostly on your SCHUMACHER FEED which in my estimation is a very valuable feed for dairy cows."

When SOPHIE 19TH OF HOOD FARM made the record of 17557 lbs. 12 oz. of milk and 1175 lbs. 7 oz. of butter in 365 days, the record that made her the World's Greatest Jersey Cow, this is how she was fed:

"We have been feeding SCHUMACHER FEED to SOPHIE 19TH OF HOOD FARM. She finished her record last January 20, 1914, which makes her the Champion Jersey Cow of the world, and stamps her the greatest dairy cow living or dead. We consider SCHUMACHER FEED a splendid feed for dairy cows and a strong factor in increasing milk and butter production." HOOD FARMS, per J. E. Dodge, Mgr.

Dr. E. S. Duebler, Supt. of Penshurst Farms, Narberth, Pa., wrote us as follows after their great Ayrshire Cow GARCLAUGH MAY MISCHIEF made her world's record:

"GARCLAUGH MAY MISCHIEF who completed her year's test Dec. 26, 1915, with a record of 25328.7 lbs. of milk and 1056 lbs. of butter, was like our former champion AUCHENBRAIN BROWN KATE 4TH, fed your SCHUMACHER FEED as a large part of her ration. We now feed SCHUMACHER FEED not only to our test cows, but to all of our young stock with satisfactory results."

Again, when BROOKMEAD'S DOROTHY 55715 made the record that established her as the World's Champion 2-year-old Guernsey, SCHUMACHER FEED was a part of her ration. Her owner, Frank Graham Thompson, wrote us as follows:

"During her test she was fed a ration which was made up largely of SCHUMACHER and Buckeye Feeds and her completed figures and those of our other cows on A. R. test are sufficient evidence of the results accomplished with this feed."

24 other World's Champion Dairy Cows made their World's Records with SCHUMACHER FEED as the carbohydrate part of their ration. Let the experience of these owners of World's Champions, as well as thousands of other successful dairymen, be your guide in selecting your dairy feed. Feed SCHUMACHER FEED as the carbohydrate part of your ration and let BIG "Q" DAIRY RATION supply the protein content and you will get maximum results over long milking periods at the lowest cost.

Watch for our next advertisement, announcing two more World's Champion Cows, fed on SCHUMACHER, whose records are nearing completion.

The Quaker Oats Co. Address CHICAGO U. S. A. (106)

The Heart of the Dairy Farm Folks

HOARD'S DAIRYMAN:—The dairy farm folks of our neighborhood came to silo filling this year just about as the "line storm" was due. There had been a hard frost along the valley, cutting corn badly and compelling us to put our ensilage in a little earlier than we had been in the habit of doing. As often happens, we would all have been glad if the work could have been done at about the same time. This was impossible, however, for our part of the country as yet has only one rig to do such work. By uniting their forces, a couple of our young farmers have bought an engine and cutter, which will, by working from place to place, fill all our silos in a few days. The plan calls for the exercise of some patience, and when the weather is "catching," as has been the case this year, some of us have to wait for some time.

Then, too, we have all been hampered by the lack of hired men. Many of the boys are away in the army; some big factories a few miles away have added to the difficulty by attracting boys and girls away from the farm by paying higher wages than the farm folks are able to do. Some old men are left yet and the middle aged men who own farms hire them wherever they can, willing if need be to work a little harder themselves and get along with the hands of slackening pace, if by so doing they can help along about winning the war. After our help were all on the ground the other day, my son looked the little company over and said, "Everyone of those men except two are registered for the next call." After that has still further depleted our ranks, then what?

But the heart of the farmer folks beats wonderfully true. The world war seems to have drawn them closer together, and they come to the help of each other in times of stress like silo-filling in a fine way. We had plenty of help and the unpleasant conditions did not prevent them from staying right on the job from farm to farm till all our silos were filled. By changing work and by picking up here and there an extra man, we got along first rate.

It was a big job for them all, the weather being so bad. The corn had been cut a little before the arrival of the machine, of course, so that it might be ready to draw at once. Lying there, it got soaking wet in the storms which came one after the other for the space of a week or more. At some places the men worked right out in the rain, and that, too, without complaining, until they were wet through from head to foot. When it did not rain, the bundles of corn were dripping wet. The men were soaked through all over their breasts and the fore part of their bodies; but they laughed about it and had a good time together. Talk about heroes! The dairy farm folks are doing themselves proud in these days of tug and tussle. They work and save and strain every nerve to subscribe for the liberty loans as they come along; they send their boys; they do without things they actually need on the farm and in the house; they work early and late and put the last ounce of energy into all they do so that the country may win the war. The glory of their sacrifice will never be found in any history—they do not care for that, but they are just as worthy of credit as the men of the armies across the seas.

Nor is it the men folks alone who are doing their best these days. The women are a match for their husbands at every point. Even on the farm there are drawbacks about getting the food necessary to care for a little army of silo fillers. Help in the house is scarce as well as out of doors. But here, too, the women come to the rescue of each other. They help each other in peeling potatoes, baking, getting the table ready, taking up the food and serving it at mealtime, as well as washing the great piles of dishes that must be made clean before the next meal comes. The dairy farmer's wife is no less a hero than is her husband.

New York. E. L. VINCENT.

Wisconsin Live Stock Meeting

A meeting of Wisconsin live stockmen and dairymen will be held at Green Bay on Saturday afternoon and evening of October 19th. The following splendid program has been prepared:

Afternoon

1:30 Patriotic singing
1:45 Why Dairying Must Be Maintained
2:05 Discussion A. J. Glover, President Wisconsin Dairy Council
2:15 The Nation's Call for Improved Live Stock
2:45 Discussion B. H. Rawl, Chief, Dairy Division U. S. Bureau of Animal Industry
2:55 Getting the Right Sire
3:15 Discussion D. S. Bullock, Field Representative, Wisconsin Live Stock Breeders' Association
3:25 Making Cow Testing a Big Factor in Live Stock Improvement
3:45 Discussion F. G. Swoboda, District Supervisor, Wisconsin County Agents
3:55 Helping to Finance Live Stock Enterprises
4:10 Discussion W. L. Wagner, Citizens' National Bank, Green Bay

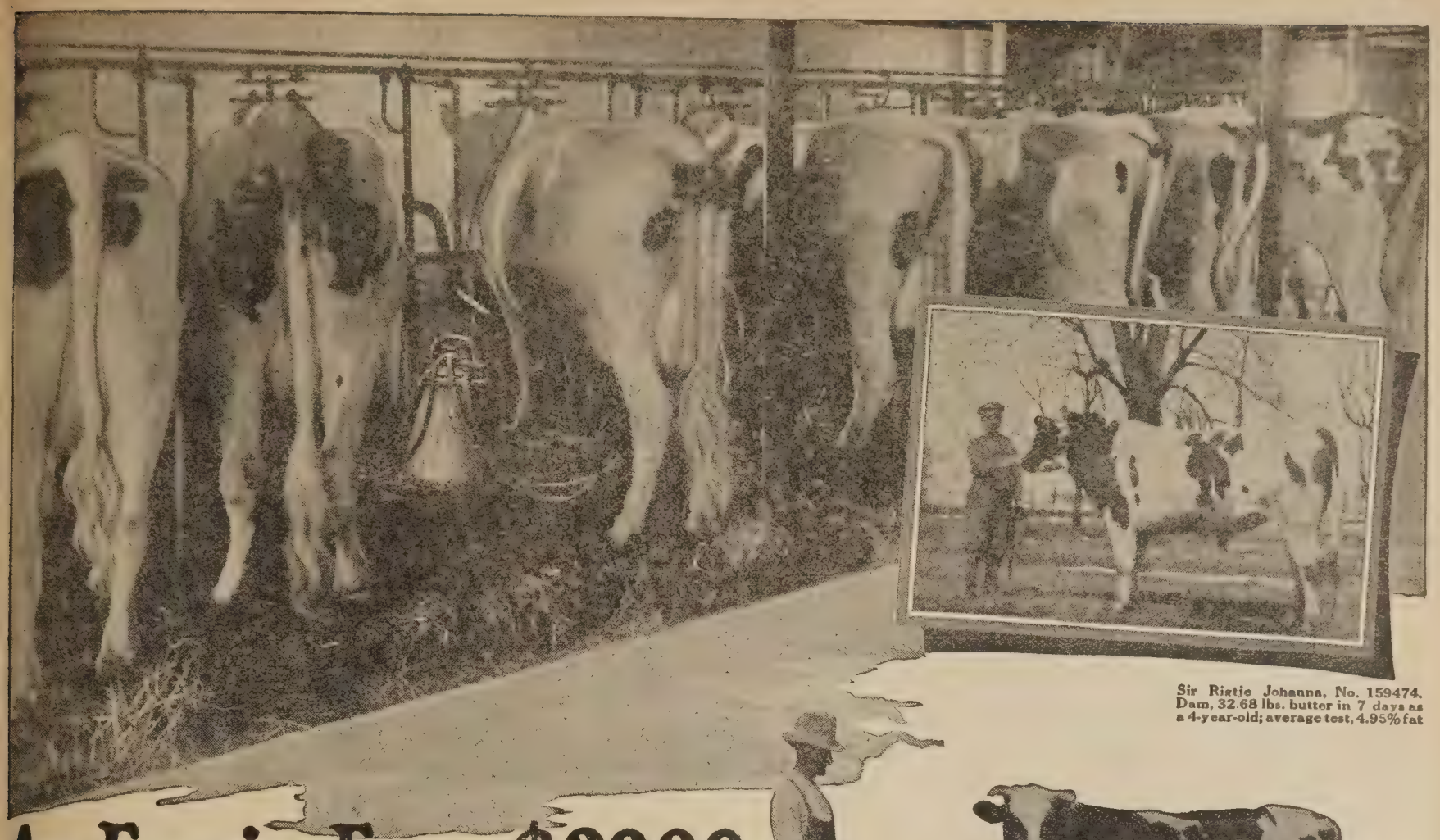
Evening

7:30 Special Musical Program
7:45 Interesting the Boys and Girls in Live Stock Improvement W. L. Houser, President Wisconsin Live Stock Breeders' Association
8:30 What the War Means to the Stockman, Mr. B. H. Rawl

Butter Profits Must Not Rise With Market

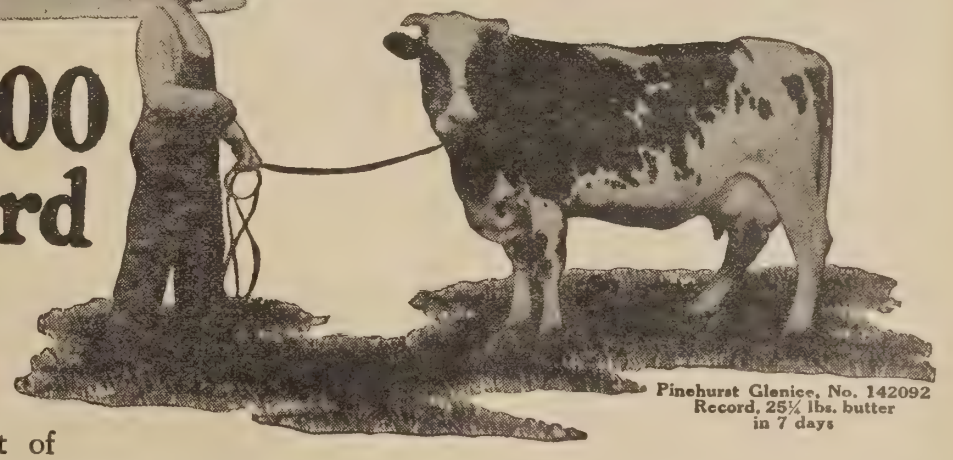
The Food Administration is turning the full power of its enforcement machinery against dealers who are attempting to reap large profits from the rising butter market. Under Food Administration rulings, butter, both storage and fresh, must be sold at prices not to exceed a stipulated margin over cost. Dealers are not allowed to profit by abnormal advances in market quotations.

Your grocer is pledged to full cooperation in the Food Administration program. Are you helping him to keep that pledge?



Sir Rigtje Johanna, No. 159474. Dam, 32.68 lbs. butter in 7 days as a 4-year-old; average test, 4.95% fat

An Empire Earns $2000 Per Year On This Herd



Pinehurst Glenice, No. 142092 Record, 25¼ lbs. butter in 7 days

ARE you still milking your cows by hand? Are you and your help spending valuable time on milk stools when your efforts are sadly needed in the fields? Are you considering cutting down your Dairy Herd because of the impossibility of getting good men or on account of increased feed costs?

Don't do it! Read this letter from Mr. E. C. Peebles of Fond du Lac, Wisconsin. Despite labor difficulties and increased costs Mr. Peebles has found the way to increase his milk production and double his profits.

He was the first successful milking machine user in his neighborhood. During last year his *EMPIRE* Milking Machine enabled him to double his income. During the last four years it has paid for itself a great many times over. Can you imagine any form of investment that will produce greater returns than this?

An *EMPIRE* Milking Machine will do for you just what it has done for Mr. Peebles and thousands of other successful dairymen. It will increase your profits, reduce milking costs, benefit your cows, produce much cleaner milk and enable a boy or girl to do the work of three or four hand milkers. It will solve your labor problems, increase milk flow and lengthen periods of lactation. Its action is uniform and gentle—the same at every milking.

Investigate its value to YOU. Write for catalog 31 and the name of the EMPIRE dealer in your neighborhood.

Empire Cream Separator Company, Bloomfield, N.J.
Chicago, Ill., Denver, Colo., Montreal, and Toronto, Canada
Also manufacturers of Empire Cream Separators, Gasoline Engines and Farm Electric Plants

Fond du Lac, Wis.,
May 25, 1918.

EMPIRE CREAM SEPARATOR CO.,
Bloomfield, N. J.

Gentlemen:

In regard to your milking machine, I can't say too much for it. This is my fourth year using the Empire Milker, and we didn't miss a milking for the first three years, milking about 30 cows year around. If I were to try to improve the working parts of this machine I wouldn't know where to start.

Last year our milk brought us over $4000.00, which is about twice the amount it would have been if we didn't have the milker. I was the first one in this neighborhood to get a machine that would work satisfactorily. Now we have about 50 Empire Milkers in a radius of 15 miles of Fond du Lac. Our cows are all Registered Holsteins and heavy producers. Our average test for winter at the creamery was 3.66, which goes to show that the milker doesn't interfere with the test if properly handled. Our herd is headed by Sir Rigtje Johanna, whose dam has a record of 32.68 lbs. butter, with an average of 4.95 per cent fat.

The heaviest producing cows of this herd are milked three times a day from November to May, when the noon milking was discontinued on account of other farm work. If a farmer only stops to think that a milking machine is used twice a day 365 days in a year it is the cheapest machine on the farm.

If more farmers would install milkers and put in the time they are sitting under the cows on their land it would be a great advantage to them and their country, besides making the work more easy.

Yours truly,

E. C. PEEBLES

EMPIRE MILKING MACHINES



LADY OAK BESSIE HOMESTEAD, A 34-LB. DAUGHTER OF CANARY FOBES BESSIE HOMESTEAD
CONSIGNED BY BENJ. F. BERG, LAKE MILLS, WIS.



TWIN HEIFERS.—30.16-LB. GRANDDAUGHTERS OF KING SEGIS PONTIAC ALCARTRA, THE $50,000 BULL
CONSIGNED BY J. P. TORREY, KENOSHA, WIS.

Lake Mills H
Eighteenth S
At Lake
October 22nd

A two-day sale of remarkable cattle, equally a from 10 different states attended and bought

The men consigning these cattle are breeders, absolutely re every way, and the cattle are well bred and healthy, free from tub and abortion. Included are many cows with good records, and first-class bulls, such as King Segis Pontiac Polkadot, King Longfie tiac De Kol, Mooie Johanna Creamelle, Mutual Fobes Longfield Juliana King Repeater, Johanna Clothilde Champion, Rag Apple S Boon, and others equally as good.

Some well bred show cattle of both sexes, prize winners at t this fall at Wisconsin, Dane County, Watertown and Janesville.

Some exceedingly well bred bulls, among them ***Pabst Ko Arnold,*** a promising youngster, a grandson of Johanna McKinl and from a 31.54-lb. daughter of King Pontiac Champion.

The Complete Dispersa
OWNED BY F. LEE NO



MUTUAL FOBES LONGFIELD DEKOL 82959
OWNED BY EMMONS BLAINE, LAKE MILLS, WIS.

Owing to the fact that the Farm Manager, Mr. D. M. Walker, "enters the service", Mr. Norton is compelled to sell this fine herd of

60 Head of Pure-bred Holsteins

This herd is composed of well bred cattle, has had fine care, and is free from disease. The herd is headed by a fine two-year-old sire, King Alcartra Pontiac Snowball a 33-lb. grandson of the $50,000 bull, King Segis Pontiac Alcartra. His two nearest dams average 34.89 lbs. His dam that made 33.19 lbs. butter in 7 days, 136.05 lbs. in 30 days, is a daughter of Johanna Rue Sarcastic Lad and from an A. R. O. daughter of Pearl of the Dairy's Joe De Kol. Not many men of this state or any other have bulls of better breeding. He is capable of being at the head of a wonderful herd. Most of the cows in the Norton herd are in calf to this bull, and in addition 12 of his young daughters are to be sold.

There are ***21 A. R. O. cows*** in the herd with nice records made under ordinary circumstances. Some fine two-year and three-year-old records, some of which are surely 30-lb. prospects.



KING ALCARTRA P
His sire is a 36.59-lb. son Snowball Pink, made 33.19
OWN

Write us today for your Catalog. F. H

Haeger, Mack, Kelley,

tein Breeders' -Annual Sale

Wisconsin

ıd 23rd, 1918

ɐn better than were offered last spring, when men uals to add to the quality and value of their herds.

There are Sons of King Segis Pontiac, one being from a 27-lb. r-old, and Sons of Sir Korndyke Bess Pietertje, one from a 28-lb. 5-yr.- Some wonderful heifers, the best ever offered in the Lake Mills Sale.

Twin Yearlings, perfect individually, granddaughters of King Pontiac Alcartra and from a 30.16-lb. dam.

A 34-lb. Show Heifer, whose dam will surely have another 30-lb. d by Christmas and maybe more. This heifer has more 30-lb. back- ıd more solid worth than is ordinarily found.

A 33.69-lb. Yearling Son of a 34.59 son of Sir Pietertje Ormsby edes will be sold. The dam of this young bull is one of the best pro- g granddaughters of King Segis. This youngster is fit to head any herd.



PABST KORNDYKE ARNOLD, GRANDSON OF JOHANNA MCKINLEY SEGIS AND FROM A 31.05-LB. DAUGHTER OF KING PONTIAC CHAMPION

CONSIGNED BY PABST STOCK FARM, FRED PABST, PROP., OCONOMOWOC, WIS.



YEARLING HEIFERS BRED TO THE 32-LB. BULL, RAG APPLE SARCASTIC BOON

CONSIGNED BY J. P. TORREY, KENOSHA, WIS.

the Norton Farm Herd

N, RACINE, WISCONSIN



188622, OUR PRESENT
O
ra, the $50,000 bull. His dam,
bs. in 30 days.
E, WIS.

A ***30.36-lb. cow*** and her two daughters.

A great granddaughter of Colantha Johanna Lad with a 27.66-lb. record made at five years. Regarded as a great prospect for a large record, and in calf to "The King". Would you like her calf?

A wonderful 2-year-old daughter of King Segis Champion will be included. King Segis Champion is a 36.35-lb. grandson of King Segis and already has 15 A. R. O. daughters one of them with a record of 37.15 lbs. as a 4-year-old. The dam of this heifer is Fleet Artis Korndyke a daughter of Pontiac Korndyke with 31.03 lbs. butter 547.6 lbs. milk to her credit as a 5-year-old.

Moreover the heifer is due to freshen in November. She is bred to King Valdessa Pontiac the 40.32-lb. son of King Valdessa and Mable Segis Korndyke. This is a wonderful opportunity to buy the best breeding the country affords. For further information concerning this herd study your catalogs or write NORTON FARMS, FRANKSVILLE, WIS.



KORNDYKE HENGERVELD PIEBE 3RD, AN A. R. O. DAUGHTER OF SIR PONTIAC CHIEF, HE A 35.43-LB. GRANDSON OF SIR KORNDYKE MANOR DEKOL

This is one of the best cows in our herd. Give her a chance and she will unquestionably make very good for you.

OWNED BY F. LEE NORTON, RACINE, WIS.

ERSON, Sale Manager, Lake Mills, Wis.

S. T. Wood, in the box.

COMPLETE

Dispersal Sale

Absolutely Nothing Reserved

We have 40 cows and heifers, heavy springers or will be fresh at sale time. THESE ARE REAL PRODUCERS, THE NICE, straight individual kind. 18 daughters are from very choice dams and the 38-lb. sire which we formerly owned. There are ten A. R. O. cows from 24-lb. two-year-olds up to 28.17-lb. cows. Eight choice heifers from A. R. O. dams. Daughters of King Model, King of the Pontiacs, and It. A son of King of the Pontiacs from 30.16-lb. daughter of Tidy Abbekerk Prince, who has 84 A. R. O. daughters. King Pontiac Bettina No. 204947 is as nice an individual as you often see.

A son of King Korndyke Sadie Vale whose two dams average 34.56 lbs. in seven days and whose five dams in direct pedigree average 33.514 lbs. These bulls are under two years of age and ready for heavy service and very desirable. One son of Rag Apple Korndyke 8th, from an especially fine dam.

Remember he is a half brother to the $53,200 bull. A bunch of young heifers and some good young bulls. In all about 85 head. Tuberculin tested by state authorized Veterinarian, with a 60-day retest privilege given.

If we can't please you we don't want your money. We want our cattle to be as valuable to you as your money is agreeable to us. Only one old cow, 26 lbs., which has 30, 27, and 24-lb. two-year-old daughters and two proven sons, the two-year-old yearling, and weanling will be in this sale.

Remember the day and date—

Tuesday, October 29th, '18

and govern yourself accordingly. Sale will be positive. Brookdale Stock Farm consisting of 200 acres well equipped and one of the best in Central Illinois, is for sale.

Also one set of Holstein Friesian Herd books complete with the exception of Vol. 7. There are 48 volumes and eight blue books.

WE ARE GOING OUT OF BUSINESS FOR EVER.

FOR CATALOG ADDRESS

I. J. CASE, ALTA, ILLINOIS.

DISPERSAL SALE

of entire herd of

64 Registered Holsteins 64

. . . and . . .

30 - Grade Holsteins - 30

Thursday, Oct. 31st, 1918

St. Joseph, Missouri.

Sales grounds at Lake Contrary take Union Line car going south. Sale starts promptly at 10:00 A. M. Write for catalog.

Western Dairy & Ice Cream Co.,

J. R. Fenner. **218 So. 5th St., St. Joseph, Missouri.**

DISPERSION SALE

of the Entire Kiefer Herd

40 Head Splendidly Bred Registered Holstein Cows and Heifers.

SATURDAY, OCTOBER 12th, 1918.

Daughters and granddaughters of such noted sires as Belle Korndyke Beryl Wayne, 48 A. R. O. daughters; Sir Ormsby Hengerveld DeKol, 69 A. R. O. daughters; Sir Korndyke Pontiac Artis, 56 A. R. O. daughters; Paul Beets Walker, 44 A. R. O. daughters; Colantha Johanna Lad, 111 A. R. O. daughters.

19 milk cows; 9 yearling heifers, all bred; 1 yearling bull, serviceable; 6 heifer calves; 6 bull calves. Every animal guaranteed to be just as represented. Sale will be held at the farm. Located just outside the south city limits of the city of Greenwood, Clark Co., Wisconsin. Sale rain or shine.

Carl Olson, Auctioneer.
Arthur Imig, Sales Manager.

ALPHEUS C. KIEFER, Owner.

WATCH NEXT WEEK'S ISSUE

For a description of the

Milford Meadows Stock Farm's Consignment to the Lake Mills Holstein Sale.

There will be a 31-lb. bull whose brother sold for $1,000 at the last National Sale and six cows and heifers due to freshen about sale time included in the consignment.

MILFORD MEADOWS STOCK FARM, - - LAKE MILLS, WISCONSIN.

Federal Crop Figures

In 1917 the total of crop acres in the United States, according to the Bureau of Crop Estimates, was 359,625,000 acres, an increase of 16 per cent over the area in crops in 1909. An estimate by the same bureau places the number of hogs in the country July 1, 1918, 3.3 per cent greater than on July 1, 1917; the number of cattle, 3.8 per cent greater; and the number of sheep, 15 per cent greater.

As compared with the supply July 1 last year there was, July 1, 1918, 102.7 per cent of butter, 100.3 per cent of cheese, 178.7 per cent dried milk, 178.5 per cent condensed milk, and 156.4 per cent evaporated milk.

The Two-year-old A. R. Record

A good many Guernsey people entertain the idea that if a heifer in her first milking period in Class G does not exceed 400 lbs. butterfat she is an inferior animal. That this is an erroneous estimate is shown by the after record of a good many cows. We note, for example, that the cow, Masher's Golden of Richwood 3234, made an A. R. record in her first period of 7,075.9 lbs. of milk containing 306 lbs. butterfat. This cow has just qualified in Class AA with a record of 1,530 lbs. milk containing 649 lbs. butterfat. So we see that it will not do to set down a heifer in the 300-lb. class as a slacker.

DAIRY MARKETS

CHICAGO, Oct. 3—Butter—Creamery, extras, 57½c; standards, 57@57¼c; dairy, firsts, 53½@56½c; seconds, 50@52½c.

Eggs—Ordinary, 45@46½c; firsts, 47½@48c.

Cheese—Twins, 33@33½c; Young Americas, 34½@34¾c.

MILWAUKEE, Oct. 3—Butter—Creamery, tubs, 59c; prints, 60@61c; extra firsts, 56@58c; firsts, 53@55c; dairy, fancy, 48@50c.

Cheese—Twins, 32½@33c; Daisies, 33@33½c; Brick, 34½@35c; Limburger, new, 1 lb., 29c; 2 lbs., 28c; Swiss, loaf, 45@47c; block, 34@36c; Longhorns, 34@34½c; Young Americas, 33½@34c.

APPLETON, Wis., Oct. 1—Four factories offered 148 boxes of cheese here. Sales were 120 boxes Twins at 33c; 28 boxes Double Daisies at 33¾c.

HIGHLAND, Wis., Oct. 1—Sales on the Highland dairy board on Tuesday were 320 boxes Twins at 33c.

NEW YORK, Oct. 3—Cheese—Very firm; common to specials, 26@32c; skims, common to specials, 8@25c.

Butter—Weaker; receipts, 6,583 tubs; creamery, extras, 61c; state dairy, tubs, 46@60½c; imitation creamery, firsts, 45½@46c.

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

40 HEAD 40

of Registered and Grade Holsteins

all ages, males and females to be sold at the Fair at Laurel, Mississippi, beginning Oct. 15th.

H. H. Wickwire, - Hubbardsville, N. Y.

Two Ormsby Bulls

No. 1. Born Jan. 1, 1918. Sired by a 29-lb. grandson of Sir Ormsby Hengerveld De Kol. Dam, is a 21.07-lb. daughter of Sir Ormsby Hengerveld De Kol. The bull is a grand individual and mostly white. Price $200. Delivered your station. No. 2. Born Feb. 15th, 1918. Same sire as No. 1. Dam has a record of 19.74 lbs. butter as a heifer. Bull is a good individual and mostly white. Price $150 delivered. For further particulars and pedigree address

A. M. ANDERSON, - Whitewater, Wisconsin.

Walcowis Ollie Hartog 240660

Sire—Iowana Sir Ollie who is sire of Walcowis Ollie Mooie, state record junior two-year-old for seven and thirty days. He is a son of the famous 31-pound cow, Ollie Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—27 pounds from 624 pounds milk in seven days. Best day's milk, 101.5 pounds. A granddaughter of King of the Pontiacs and first prize winner as a three-year-old at the 1913 National Dairy Show.

Calf is well grown, a very good individual and reasonably priced. Have other younger bulls for sale. Write or come and see us.

Walcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

OCT. 24, 1918

At Howells' Sales Pavilion

5th ANNUAL SALE

90 HEAD OF 90 Registered Holsteins

Mostly Milch Cows with good records consigned by 16 Livingston County breeders.

HOWELL SALES CO.
OF LIVINGSTON COUNTY

Catalogs Oct. 5th. Jay B. Tooley, Secy.

HOWELL, MICHIGAN

Holstein Bull At Bargain

Born May, 1918, more white than black, good lines, a fine individual. Sire, Count Piebe 152293, who has 34.43-lb. dam. Dam a heifer which we will test this winter. Her sire, Pabst Canary Pontiac Champion, he by King Pontiac Champion, the great Pabst bull. A half brother to this calf sold at National at Milwaukee for $1,200. Three half sisters averaged more than $600 each. Price $150 if sold within thirty days.

Pettis County Holstein-Friesian Co.
C. M. Long, Secretary, Sedalia, Missouri.

H. L. PERSING'S

HOLSTEIN SALE

OCTOBER 22, 1918

Clyde, Ohio, (one mile from town)

20 HEAD OF HOLSTEINS

15 Registered Cows and Heifers.
5 High Grades.

Here is an opportunity to buy Holsteins from a good working herd. Cow testing association records show most of the cows produce over 10,000 lbs. milk in a year. The herd has also been tuberculin tested and found clean. Write H. L. Persing for circular of this herd.

H. L. PERSING, - CLYDE, OHIO.

Plan to Attend Maurer's Big

Holstein Dispersal Sale

Emporia, Kansas, Wednesday, Oct. 16th

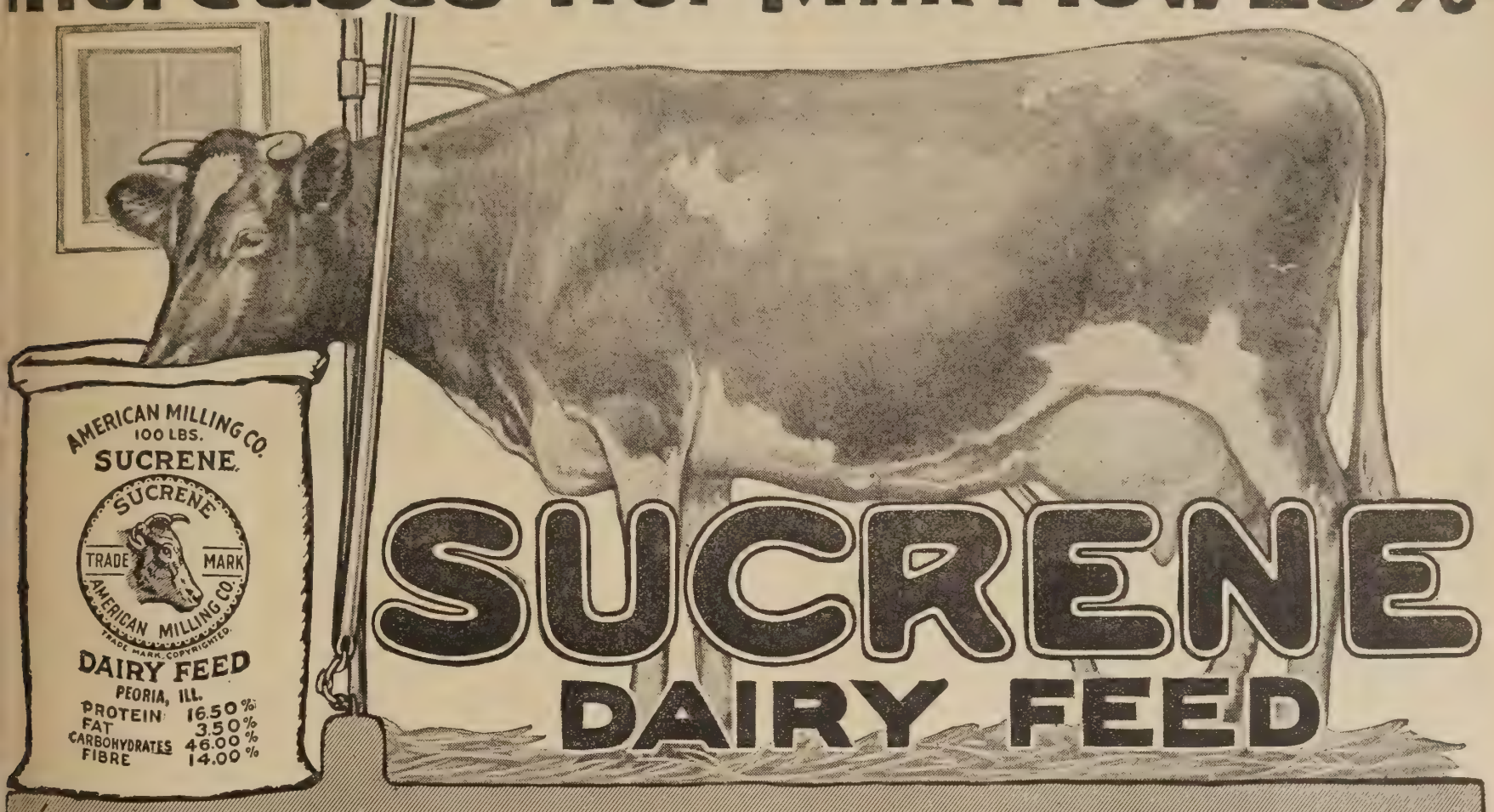
75 REGISTERED FEMALES 75

from calves to matured cows, all with good A. R. O. backing; and a number of young bulls. Also a select lot of high grade cows and heifers. This is the choicest bred lot of Holsteins ever offered at public auction in this section of the state. Write for catalogue.

Col. D. L. Perry, Columbus, Ohio, Auctioneer.

T. R. MAURER & CO., Owners.

The Poorest Milker You Own Increases Her Milk Flow 25%



Save Grain For Bread

Prof. Pearson, **University of Illinois, before Chicago Milk Commission:**

"We can no longer afford to feed our high-priced grains to dairy cows. We must feed them the by-products. It is not right to feed grains which are good human food to animals that can do just as well on feed not fit for human consumption."

IT PAYS TO FEED YOUR COWS

A Complete, Correctly Balanced, Quality Guaranteed Ration

"With the high prices now ruling for feed and labor, on many farms—even where good dairy cows are kept—milk is being produced at little or no profit to the owner. Yet, by a wise selection of feeds other dairymen secure a good profit from cows no better."

—Profs. Henry and Morrison in "Feeds and Feeding."

A herd of "20 scrub cows" below the average yield of cows in the state, when taken to Kansas Experiment Station, increased their milk and butter yield to double that of the average in the state, through better care and proper feeding.

A like result, obtained with "scrub cows" in Minnesota Experiment Station, is attributed to three causes: Feeding a balanced ration strong in protein, kind treatment, extra feed in summer, to carry the cows through the drought with a full milk flow.

Geo. A. Pool, Ashton, Md., writes: "We have found Sucrene Dairy Feed decidedly the best of the dairy feeds, always being of a uniform grade and in good condition for feeding. Have never found a sample that did not grade better than the guaranteed analysis."

Harry Brown, Carlisle, Pa.: "Once when I was unable to get to town after a fresh supply of Sucrene Dairy Feed I fed a substitute which had been highly recommended. But it took only two days for my wife to ask why our cows were falling off in milk. Just as soon as I started feeding Sucrene again my cows began to give more milk."

J. S. Leed, Lancaster, Pa.: "In a 15-day feeding test my herd produced 903 gallons more milk at $6.26 less feed cost when fed on Sucrene Dairy Feed than when fed on a carefully mixed home ration. This has fully convinced me that Sucrene Dairy Feed is by far the best milk producer that can be purchased."

Sucrene Fed Cows Always Give More Milk Because They Are Properly Nourished

Sucrene Dairy Feed is a scientifically correct body maintaining and milk making ration. Its 16½% protein, 49½% fat and carbohydrates, and necessary ash and mineral matter, meet all the needs of the cow, every day, when fed only with the usual roughage. Composed of cottonseed meal, germ oil meal, corn distillers' dried grains and solubles, cocoanut meal, finely ground and bolted grain screenings, clipped oat by-product, cane molasses, calcium carbonate ½ per cent, salt ½ per cent.

Your cows will prefer Sucrene to any other feed because it is sweet smelling, appetizing, easily digestible, and because of its great variety of high grade feeding materials. Sucrene Feed is a complete ration as you buy it. You have no mixing to do—we have done that for you in the most perfect manner possible—merely vary the quantity in accordance with the cow's weight and her milk-producing capacity. Every sack guaranteed uniform high quality.

Sucrene Dairy Feed has a guaranteed analysis of 16½% Protein, 3½% Fat, 46% Carbohydrates, 14% Fibre. Every sack supplies cows with the nutrients contained in 550 pounds or 68½ gallons of milk.

Reduce Your Cost of Milk Production

Sucrene Dairy Feed brings you more milk per dollar of feed money than any ordinary ration. It leaves your high priced grain to bring you a quick, direct profit in the market. It is an all year profit maker, keeps your cows in better producing condition summer and winter.

Better lay in your winter feed supply now to avoid transportation delays. Order a ton from your dealer. If he can not supply you at once, write us and we will see that you are supplied. The coupon or a post card brings you free Illustrated Literature on care and feeding of farm animals. Write for it.

Please send me illustrated literature on feeds checked below: (4)

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- [ ] Sucrene Calf Meal
- [ ] Sucrene Hog Meal
- [ ] Sucrene Poultry Mash with Buttermilk
- [ ] Amco Fat Maker (for steers)
- [ ] Amco Dairy Feed (25% Protein)

My Dealer's Name.....

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P.O..... State.....

American Milling Company

Dept. 4 *(Sucrene Feeds for All Live Stock and Poultry—18 Years the Standard)* **Peoria, Ill.**

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Boys' and Girls' Live Stock at the Wisconsin State Fair.

D. S. BULLOCK, Wisconsin.

ONE of the very pleasing features of the live stock exhibits at Milwaukee was the showing made by the boys and girls from different parts of the state. For nearly a year, in some instances, these youthful stockmen had been feeding and caring for their stock and during state fair week they came together from their various localities to show the results of their efforts. Forty-seven boys and girls exhibited dairy calves, beef calves, sheep, and swine. They brought in all nearly a hundred head of live stock to the fair.



FIRST PRIZE JUNIOR AND GRAND CHAMPION DAIRY BULL SHOWN IN BOYS' AND GIRLS' CLASSES BY KARL KLOEHN AT WISCONSIN STATE FAIR

It was indeed an inspiration to see these future showmen carefully looking after their stock. The manner in which the animals were presented in the show ring showed the results of careful work on the part of club leaders throughout the state. They were not all amateurs, however, and they had certainly kept their eyes open. It was a common sight in the cattle barn to see the older showmen preparing their animals for the ring and three or four boys or girls watching them. These boys and girls were usually those who had calves to show.

Eight different live stock clubs from six counties showed as clubs besides numerous individual entries from other sections of the state. Portage, Buffalo, La Crosse, Calumet, Waukesha, and Dane Counties were represented by live stock clubs. In the calf club competition Portage and Buffalo Counties were close competitors for first honors. Buffalo county showed both dairy and beef calves and had more animals than Portage County. The Portage County calves showed slightly better quality on the whole and, when the final score was determined, were the winners of first prize as a club. Buffalo County took second with Calumet County third, La Crosse fourth, and Waukesha fifth.

Buffalo County showed more sheep than any other and besides having the best individual sheep also won the club prize.

La Crosse County was particularly strong in the swine exhibits. Their members won most of the first prizes. Ruth McDonald of West Salem had the grand champion boar, a Poland-China. Walter F. Renk of Sun Prairie, Dane County, won first and grand champion on a Duroc-Jersey.

The first prize Guernsey heifer belonged to Ray Halverson of Russell, Portage County. The first prize Holstein was also from Portage County belonging to Esther Newby of Stevens Point. The Jersey heifer placed first came from Buffalo County and belonged to Jennie Houser of Mondovi. This Jersey heifer was grand champion dairy heifer calf of the show.

The first prize dairy bull calf was a Holstein and belonged to Karl Kloehn of Forest Junction, Calumet County.

In looking over the list of prize winners it is interesting to note how many of the first and second prizes were won by girls. The girls seem to be able to do just as well as the boys in caring for young stock.

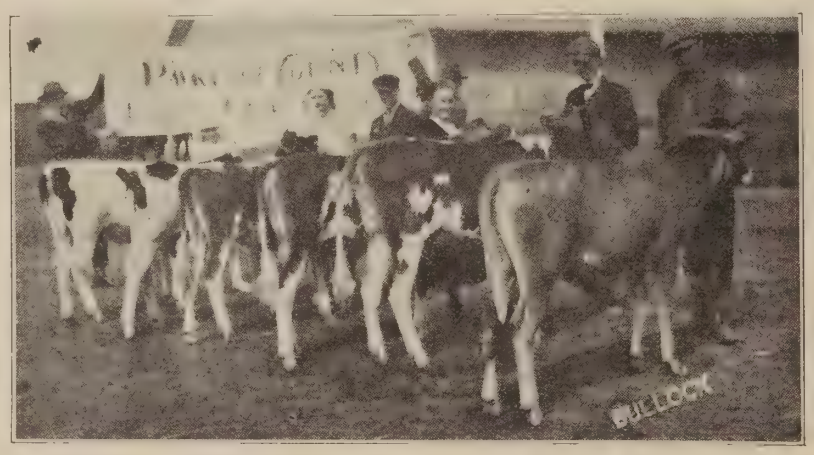
Much of the stock shown by the boys and girls was exhibited in the open classes and carried off not a few ribbons. This shows the high class of the stock they showed. The boys' and girls' live stock exhibits at the state fair is one of the features that should receive far more local support than it now does. The educational value to the boys and girls of showing the results of their own efforts at a great state fair cannot be calculated in dollars and cents. It is building for the future. Fathers and mothers can well afford to encourage their children in this great work and next year there should be more Hoard's Dairyman Juniors among these junior showmen.



CHAMPION JERSEY AND GRAND CHAMPION DAIRY HEIFER, IN BOYS' AND GIRLS' CLASSES, SHOWN BY JENNIE HOUSER AT WISCONSIN STATE FAIR

The following were the winners in the different classes of live stock in the boys' and girls' classes:

Holstein Heifer (grade or pure-bred) Jr. Class	Prize
1st. Esther Newby, Portage Co.	$10.00
2nd. Elmer Kloehn, Calumet Co.	8.00
3rd. Stewart Howell, Waukesha Co.	6.00
4th. Marian Cate, Portage Co.	4.00
5th. Donald Giese, Buffalo Co.	2.00
6th. John R. Jacobs, Waukesha Co.	1.00
Guernsey Heifer (grade or pure-bred) Jr. Class	
1st. Ray Halverson, Portage Co.	$10.00
2nd. Clarence Gordon, Portage Co.	8.00
3rd. Elsie Sandman, LaCrosse Co.	6.00
4th. Alton Funk, Buffalo Co.	4.00
5th. Will McGrath, Calumet Co.	2.00
6th. Victor Wolfe, LaCrosse Co.	1.00
Guernsey Heifer (grade or pure-bred) Sr. Class	
1st. Elsie Sandman, LaCrosse Co.	$10.00
Jersey Heifer (grade or pure-bred) Jr. Class	
1st. Jennie Houser, Buffalo Co.	$10.00
2nd. Leonard O'Keefe, Portage Co.	8.00
3rd. Lloyd Smith, Buffalo Co.	6.00
4th. Beryl Luetcher, Buffalo Co.	4.00
5th. Emily Flieshauer, Buffalo Co.	2.00
6th. Ralph Seyforth, Buffalo Co.	1.00



PORTAGE COUNTY JUNIOR CALF CLUB AT WISCONSIN STATE FAIR

The group contains the first prize Junior Holstein and Junior Guernsey heifers and second prize Junior Jersey heifer in boys' and girls' classes.

Pure-bred Dairy Bull Calf (Any Breed) Jr. Class	
1st. Karl Kloehn, Calumet Co.	$10.00
2nd. Elsie Sandman, LaCrosse Co.	8.00
3rd. Ervin Nuttleman, LaCrosse Co.	6.00
4th. Erwin Gaubatz, Calumet Co.	4.00
5th. Lloyd McDonald, LaCrosse Co.	2.00
6th. Lloyd McDonald, LaCrosse Co.	1.00
Pure-bred Dairy Bull Calf (Any Breed) Sr. Class	
1st. Elsie Sandman, LaCrosse Co.	$10.00
Poland-China Boar	
1st. Lloyd McDonald, LaCrosse Co.	$5.00
2nd. Lloyd McDonald, LaCrosse Co.	4.00
3rd. Donald Pease, Waukesha Co.	3.00
4th. Donald Pease, Waukesha Co.	2.00
Poland-China Sow	
1st. Lloyd McDonald, LaCrosse Co.	$5.00
2nd. Lloyd McDonald, LaCrosse Co.	4.00
3rd. Donald Pease, Waukesha Co.	3.00



FIRST PRIZE POLAND-CHINA BOAR, ALSO GRAND CHAMPION LARD TYPE BOAR SHOWN IN BOYS' AND GIRLS' CLASSES BY LLOYD MCDONALD AT WISCONSIN STATE FAIR.

Duroc-Jersey Boar	
1st. Edward Bell, LaCrosse Co.	5.00
2nd. Helen Henke, Rock Co.	4.00
3rd. Jas. R. Arnold, Rock Co.	3.00
4th. Edward Bell, LaCrosse Co.	2.00
5th. Harry McCann, Rock Co.	1.00
6th Walter F. Renk, Dane Co.	.50
Duroc-Jersey Sow	
1st. Walter F. Renk, Dane Co.	5.00
2nd. Jas. R. Arnold, Rock Co.	4.00
3rd. Walter F. Renk, Dane Co.	3.00
4th. Helen Henke, Rock Co.	2.00
5th. Edward Bell, LaCrosse Co.	1.00
6th. Edward Bell, LaCrosse Co.	.50
Chester White Boar	
1st. Ervin Nuttleman, LaCrosse Co.	5.00
2nd. Ervin Nuttleman, LaCrosse Co.	4.00
3rd. Frank Wilmarth, Dane Co.	3.00

(Continued on next page).



FIRST PRIZE DUROC-JERSEY SOW AND GRAND CHAMPION LARD TYPE SOW, SHOWN AT WISCONSIN STATE FAIR BY WALTER F. RENK, IN BOYS' AND GIRLS' CLASSES.



CLASS OF INDIVIDUAL FAT LAMBS SHOWN IN BOYS' AND GIRLS' CLASSES AT WISCONSIN STATE FAIR. THE FIRST PRIZE LAMB, IN THE EXTREME LEFT, BELONGS TO JENNIE HOUSER



How Fresh Water-on-Tap Saves Labor

INSTEAD of pumping to water the stock, just turn a faucet and get a steady flow of *fresh* water—not storage water.

Instead of pumping and carrying water to the barn on cold days, have *fresh* water on tap—always at the same even well temperature.

For spraying and for all household uses, there are a hundred ways in which you *save labor* when you have a

NATIONAL
Fresh Water System

Water comes *straight from the well*—not from a storage tank. Delivered in a steady flow by compressed air, safest of all power, operating powerful air-driven pump in well itself. Absolutely dependable.
Write for full information—today.

Watch It Work at the Fair

National Fresh Water Systems in operation will be shown at the Wisconsin, Minnesota, Iowa and Nebraska State Fairs. Be sure to come to our booth and *see for yourself.*

UNITED PUMP & POWER CO.
784 Larkin St., Milwaukee, Wis.
FOUNDED 1907

NATIONAL Fresh Water System

More Light Than 20 Oil Lamps

AT LAST—the light of lights—A beautiful lamp that lights with common matches just like oil lamp, but makes and burns its own gas from common gasoline, giving a brilliant, steady, restful, white light of 300 candle power.

Most Brilliant Light Made

Brighter than the brightest electricity. More light than 20 oil lamps. Cheapest and best light made. Costs less than one-third of a cent per hour. Safer than the safest oil lamp. The



Coleman Quick-Lite

No wicks to trim—no globes to wash. No dirt, no grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger even if tipped over. **Guaranteed 5 years**—will last a lifetime.

If your dealer can't supply, address nearest office for Catalog No. 9

The Coleman Lamp Co.
Wichita, Dallas, St. Paul, Chicago, Toledo.

TRAPPERS·AND BUYERS·WRITE FUNSTEN FOR FREE

Market Reports, Supply Catalog, Game Laws, Trappers Guide & Shipping Tags

This is going to be one of the biggest years for trappers and fur shippers ever known. More furs needed—fewer men to trap. Get ready early for big money.

Look over your traps and supplies now. Get our FREE BOOK—Supply Catalog, Game Laws and Trapping Secrets—all three in one book. Shows furs in natural colors. Factory prices on traps, smokers, etc. Write today—*sure!*

FUNSTEN BROS. & CO.
of the International Fur Exchange
805 Funsten Bldg. **St. Louis, Mo.**

TRAPPERS GUIDE FREE

Chester White Sow

1st.	Ruben Bonsack, LaCrosse Co.	$5.00
2nd.	Ervin Nuttleman, LaCrosse Co.	4.00
3rd.	Ervin Nuttleman, LaCrosse Co.	3.00
4th.	Frank Wilmarth, LaCrosse Co.	2.00
5th.	Stanley Betts, Jefferson Co.	1.00

Pure-bred Barrow or Grade or Cross Bred Barrow or Sow—Lard Type

1st.	Leonard O'Keefe, Portage Co.	$10.00
2nd.	Frank Wilmarth, LaCrosse Co.	8.00
3rd.	Grace Gilbertson, LaCrosse Co.	6.00
4th.	Leonard O'Keefe, Portage Co.	5.00
5th.	Chas. Clemens, Winnebago Co.	4.00

In addition to the above prizes the American Poland-China Record Association, the National Duroc-Jersey Record Association, the American Duroc-Jersey Swine Breeders' Association, the Chester White Swine Record Association, the Wisconsin Chester White Breeders' Association, the American Berkshire Record Association, and the Wisconsin Berkshire Breeders' Association offered special prizes for animals of their respective breeds.

Besides these live stock exhibits there was an excellent showing of poultry, corn, small grains and vegetables, and of course there were exhibits from sewing, canning, and baking clubs. In fact, there was a chance for every farm boy and girl, no matter what he or she might be interested in.

Junior Letters

Hoard's Dairyman Juniors:—This is my third letter to the juniors. My first letter I guess found the wastepaper basket. I am twelve years old and will be in the eighth grade at school this year. I live on a farm of seventy-six acres. We have eleven head of cattle and three horses. I feed the chickens every morning and night. I milk three cows every night. I have a brother and sister who are going to high school this year. I have joined the potato club contest and my potatoes are fine. My letter is getting long so I will close wishing some of the junior boys and girls would write to me. My address is Brookfield, Wis. Ellis Bolter.

Hoard's Dairyman Juniors:—I have not written for a long time. I have been so very busy. Our alfalfa is growing fine. We cut it in about three weeks. I expect to buy a pig next fall. I believe there are a good many juniors that own pigs. I have caught twenty-four fish this year. There is a mill race about five hundred feet above our house. I catch all my fish there. About a month ago my brother, Jacob, and I each set two hens. I got 17 peeps and he got 7. He gave me his and I have nineteen left which are growing fine. My father has a very sore arm which is threatened with blood poison. I will close wishing the juniors good luck.
Pennsylvania. Wilbur Getz.

Hoard's Dairyman Juniors:—I have three fine pigs from that sow I told you about in my other letter. My calf is doing fine also. My little Bantam hen has six little Bantams. That makes nine in all. Things down here in Tennessee are not doing very much. A dry spell came and baked them. It hit them just as they begun to form nicely.

I am going to school. We have a fine teacher. She will make you stand around. I love to read the juniors' page. We have only eight cows now and five calves, counting mine. Papa has a silo filler. He is going to fill silos this year.
Tennessee. Hazel Trent.

Hoard's Dairyman Juniors:—I will write a letter to let you know I have not forgotten I was a junior. My pigs are doing fine. I only have 7. I sold 4 to a neighbor at 16c per pound. I made $168.10 from them. All the money I get I buy war saving stamps with. I have $150 worth now and will buy more. We have 2 colts. They are about a year old now. Their names are Betty and Bird. I like Bird best.

I live on a 90-acre farm 2½ miles from Gravelford. I have been milking two cows lately. Everything is dry here. Our school will start Sept. 2nd. The teacher's name is Miss Hedwig Harnish. Good-bye and good luck to the juniors.
Oregon. Marion Clayton.

Hoard's Dairyman Juniors:—It has been a long time since I wrote to you. We four brothers have eleven ducks. We will sell them about Christmas time. We have five horses. We have sixteen milk cows; seven of them are pure-breds. I gather eggs and keep the wood-box full for mamma. I feed the calves three times a day for papa. I go swimming every night when it is warm. The water is three to four feet deep. I enjoy it very much. We will thresh next week. My youngest brother and I will carry water for the men. I am eight years old and am in the third grade at school. My address is R. F. D. 2, Box 78. Monroe, Wisconsin. Marvin P. Heitz.



Meet Mrs. Munson—who has two in the Army—and two selling W. S. S.

"MRS. ALGER tells me I look ten years younger since we got our Colt Lighting and Cooking Plant, and I believe her. I know I feel lots younger. It gives me more time to myself than I've ever had before. I visit friends now as I haven't done since I was married.

"Now that we have a Colt Light the Red Cross workers come to our house in the evenings to sew. They say it is a good deal easier to work by this soft, strong, white light, and they certainly do more work than they used to.

"I can't help smiling when I see the way boys have taken to calling on my two girls of an evening, to sing and dance or play games. The whole atmosphere of the place seems more alive, more wide-awake. The lights seem actually life-giving, as plants grow in the sun.

"Out in the barns the Colt Light is a perfect Godsend when the days begin to shorten. James has said to me dozens of times: 'Mother, since we got the Colt Plant this place runs like an automobile engine—easier and smoother at night than it does in the daytime.'

"All our old fear of the barns catching fire from matches or lamps has gone. We pull a tiny switch and the barn is flooded with light. We shut off the switch and out she goes. No matches or fuss with lanterns.

"Nothing would ever persuade me to go back to the old days, cooking with coal or wood or kerosene. Our Colt gas cooking range has forever banished those dreary hours over a hot fire! I shudder when I think of them. In the bottom of my heart I pity the poor women who are still chained down to such a tiresome, listless life. Cooking is a real pleasure with a Colt Cooking and Lighting Plant.

"And the Colt is so wonderfully simple! We've had it over a year and never know it is in the house. Not a sound. No chugging engines. Nothing to get out of order. The Algers have had their Colt Plant seven years and have not spent a penny for repairs."

(Business of making more flapjacks)

Carbide Lighting COLT and Cooking Plant
TRADE MARK

The Colt system costs less than any other. It is so small it can stand in a corner of the cellar or outbuilding. The operation of plain water on crushed stone (carbide) produces the gas. These are added once a month. It is so safe that 700,000 miners use it for miners' lamps. *Write us today for the names and addresses of enthusiastic neighbors, who can tell you all about it.*

J. B. COLT CO., 42nd Street Building, New York

900

Milk Your Kicking Cow Without Spilling the Milk or Losing Your Temper



You don't need to sell the good cow with the bad habit. Correct the habit. Cure her of kicking while being milked and save yourself gallons of milk, bruises and possibly broken bones.

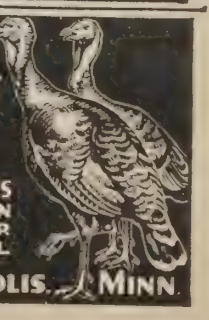
Kickless ELMCO Cow Clamp



Quickly applied.. Easily adjustable to cow of any size. Absolutely discourages any second attempt to kick while milking. Device also prevents cow from swishing tail while being milked. Saves time, temper and loss of milk. Completely removes danger of injury. Sells for but $3.75. Send us your order today or write for particulars.

E. F. Elmberg Co., 40 Main and Depot Sts. **Parkersburg, Iowa**
A representative wanted in your locality.

SHIP US LIVE POULTRY DRESSED POULTRY AND CREAM



LARGEST CASH BUYERS IN THE TWIN CITIES
PAY HIGHEST MARKET PRICE. NO COMMISSION CHARGED. PROMPT RETURNS. WRITE US FOR SHIPPING TAGS AND GIVE US A TRIAL

OUR MOTTO A SQUARE DEAL

DE SOTO CREAMERY & PRODUCE CO, MINNEAPOLIS, MINN.



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Holstein Springers—36 registered springers the "size and quality" kind. Also 30 choice high grade fall cows. F. B. GREEN & SON, Evansville, Wis. 5-8

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—Registered Holstein-Friesians, young heifers, $75. Young bulls, $50. PAUL McNISH, Burton, Ohio. 8-5

Registered Holstein bulls—Rich in the blood of King Segis and King of the Pontiacs. A few good females. JOHNSTONE & BALLANTYNE, Bassett, Iowa. 9-4

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 24-tf

Holstein Bull—Ready for service; fine individual; practically white; splendidly bred; twenty-four-pound dam. $150. A. M. R. CROOKS, Gunnison, Colo. 11-2

Ten to fifteen head of registered Holstein cows and heifers. Well grown and good individuals at $150 and upwards. Prefer to sell in a bunch. Must reduce herd. J. M. WAGNER, Union Center, Wis. 11-3

60 pure-bred Holsteins sold at the eighth semi-annual sale, Marshfield, Wisconsin. October 17, 1918. For catalog write W. W. CLARK, Grand Rapids, Wisconsin. 11-2

Waukesha County Holstein-Friesian Cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct from the breeder and know what you are getting. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 11-4

For Sale—An entire herd of grade Holsteins of my own breeding. Cows giving up to 15,000 lbs. of milk yearly and everything bred to 30-lb. bull. From 1 to 7 years old. About 45 head, including two good registered bulls. A good working herd sold for no fault. R. F. JOHNSON, Assumption, Ill. 12-3

One of the best bred herds of Holsteins in West. Twenty-five females. Herd sire son of greatest bull in world. A. M. R. CROOKS, Gunnison, Colo. 12-2

33 Registered Holsteins—Females, 14 are cows, $4,000. FRED BLANCHARD, Ascutneyville, Vt.

For Sale—Carload, two and three-year-old Holstein heifers, good ones, to freshen this fall and winter, $75 per head. Carload of yearlings at $47.50. WILL H. GIBSON, Albany, Wis.

For Sale—High grade Holstein cows and heifers in car lots. DODGE COUNTY HOLSTEIN BREEDERS' ASSOCIATION, W. P. Mann, Sec., Dodge Center, Minn. 12-2

Fairview Farm offers three choice Holstein-Friesian heifers and a bull for foundation stock at a bargain price. Also other females with A. R. O. records and backing. W. A. TAYLOR, Roberts, Wis. 12-tf

Six high grade young Holstein cows all with calves by side. WALTER MOSS, Monroe City, Missouri.

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

Public Sale—50 head high grade Guernseys and Holsteins will be held at SOUTHEDGE DAIRY, Brighton, Iowa, October 12th.

STOCK FOR SALE

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

For Sale—Guernsey bull calves sired by May Rose bull from a dam with 871 lbs. fat official record. Dams, granddaughters of Glenwood Boy of Haddon. F. W. KIMBALL, Waltham, Minn. 9-4

Guernsey heifers, three granddaughters of Ne Plus Ultra, $300 and $350 each. Bulls same breeding, $200. A. R. dams. TABER & MIGNIN, Castile, N. Y. 9-4

Guernsey calves of excellent May Rose breeding. Low prices if taken soon. F. T. DUNLOP, West Grove, Pa. 11-4

For Sale—Registered Guernsey bull calf. Carries May Rose and Governor of the Chene blood. WALTER VAUGHN, Marion, Iowa. 11-3

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

The head of my registered Guernseys for three years, Major Rilma 18791, 7 years old, nephew May Rilma. What have you for bull in exchange, one year or better? C. E. TOBEY, Sparta, Wis.

For Sale—Imp. Guernsey cow 5 years old, fresh; also 12 head high grade Guernsey heifers, 9 yearlings, 3 two-year-olds. F. S. KNAPP, Platteville, Wis.

Nine choice grade Guernseys, good producers, beautifully marked, tuberculin tested. Also twelve 15-16 pure-bred heifers about to freshen. C. R. GILMAN, R. 8, Waukesha, Wis.

For Sale—Guernsey bulls from record producing dams. Prices reasonable. H. C. ADAMS, Algona, Iowa. 12-tf

For Sale—Two fine registered Guernsey bulls, nine and seven months old. Priced to sell. GEBHARDT BROS., Palmyra, Mo. 12-2

Registered Guernsey heifer calf, daughter of "Allenwood Prince," grand champion Denver National. CLINTON GRISWOLD, West Salem, Wis. 12-2

Five Guernsey females: 3 cows, 2 bred heifers. Will sell very cheap. Test guaranteed. J. F. MYERS, Massillon, Ohio.

For Sale—40 head high-grade Jersey heifers. Will be fresh December and November. HARRY COVINGTON, Trenton, Ky. 11-3

For Sale—Fresh registered Jersey cows and heifers. Also bulls sired by a grandson of Oxford You'll Do. W. O. DOUGLAS, Janesville, Wis. 12-3

For Sale—1 carload young registered Ayrshire cows and heifers, butter strain; reasonable prices. F. D. STOWELL, Black Creek, Allegany Co., New York. 12-2

Brown Swiss bull calves and yearling bull from registry of production stock, prize winners at Connecticut fair at Hartford. GEORGE W. HARRIS & SONS, Wethersfield, Conn. 12-2

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

AUCTIONEER

Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

STOCK WANTED

Wanted—Several good, young, registered, cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 11-6

SWINE

Duroc Jersey bred sows; boars, and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

Grandly bred Berkshires for sale. Young ones of both sexes. From twenty dollars up. A. M. R. CROOKS, Gunnison, Colo. 11-2

Berkshire boars and gilts. March farrow. Good ones. $40 to $50. W. C. McMASTERS, Sparta, Ill. 12-2

Hampshire boars. Good individuals from February litters. EDGAR G. BUZZELL, Delavan, Wis. 11-2

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 11-tf

For Sale—Big type Poland China boars. V. E. HOLMES, West Liberty, Ia. 12-4

CREAMERIES

For Sale—On easy terms, or will exchange for a small improved farm a good creamery and flour mill combined. Plenty of business to keep going all the time. Poor health reason for wanting to dispose of it. Will stand close inspection. G. B. TOLMAN, Port Byron, Illinois.

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Wisconsin grown winter sand vetch and pedigree rye properly mixed for seeding. VAN LOON, LaCrosse, Wis. 10-tf

FOR RENT

For Rent on Shares—Modern dairy farm (100 acres) 1½ miles from this town, 25 miles from Chicago, good hard road; ¼ mile from school. 80 acres plowed; all new modern buildings, silos, etc. I will furnish cows (24) tenant, horses, machinery and tools. Possession March 1st. GEO. S. WALKER, Lemont, Ill. 10-tf

For Rent—Dairy farm one mile from Beloit, Wisconsin. Excellent soil, good buildings. 425 acres. 200 acres in pasture. DON VAN WART, Agent, Parker Block, Beloit, Wis. 11-4

For Rent—Finely equipped farm; cows, horses, and machinery; about 120 acres under cultivation. Will give right man exceptional deal. No young children. Apply 314 CAPITAL BANK BLDG., St. Paul, Minn. 11-2

SHEEP

For Sale—Sheep, recorded Shropshire ewes, young. $50. Rams, all ages. CHAS. BROWN, Maineville, Ohio.

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

DAIRIES

For Sale—Exclusive and well established dairy in town of 1,600. 19 head registered and high grade Holsteins, including herd bull and some young stuff. Barns and silo just outside corporation. Price $2,000, including horse, dairy wagon, bottles, etc. D. A. YOUNG, Chrisman, Ill. 11-2

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

STANCHIONS

The U. S. Agricultural Stations proved that cows give 10 to 20 per cent more milk when free from fretting and worry. Crumb's Stanchions make cows comfortable and keep them clean. They are shipped subject to trial. They are right and will please you. Send for booklet. WALLACE B. CRUMB, Box H, Forestville, Conn. 3-10

MACHINERY

Ensilage Cutter—No. 24 "Hocking Valley" with 15-inch throat. Extra set cutter knives and shredders besides pipe and distributor pipe. Used one season only—in 1917. CARLETON L. HALLOCK, Clayton, N. J. 10-4

For Sale—Two-unit Hinman Milking Machine, used two years, good condition, a bargain. FRED H. FOX, R. 5, Ashland, Ohio.

For Sale—2-unit Calf-Way Milking Machine. New; used as demonstrator only. Any reasonable offer accepted. Address P. O. BOX 617, Marengo, Ill. 11-3

Wanted—Babcock test outfit. EMMER GREEN, Highland, Ohio.

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr., H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf

FARMS FOR RENT

Another Snap—Gently rolling 120 acres; 20 cleared; 60 good timber; clay loam soil; frame house; new barn 30x60; stock, machinery and crops included; $5,500.00 We have good cut-over land cheap. THE E. L. C. CO., 276-M, Dept. 31, Merrill, Wis. 10-tf

It's the Owner and You—Nobody else comes in when you buy Aitkin county land of our company. We, the owners, deed it directly to you, and the price is so low and the terms of payment so easy that you won't feel it, buying a good, big stock or dairy farm of us. Hundreds are doing it, why not you? Better look into this. May I send you some literature? Write today. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

FARMS FOR SALE

Hardwood cutover land, silt loam, clay s soil. Neither sandy nor gravelly. Close town. Good roads. Good schools. In heart of the dairy country. You deal di with the owners. No agents and no comm sions. Easy terms. Write for map and bo let 4. NORTH WESTERN LUMBER C Land Dept., Stanley, Wis. 1-t

Booklet on request presenting facts by St Commissioner of Agriculture describing Mazarn Valley in the Ozarks, ideal for da ing and stock farming. Address MAZA VALLEY LAND COMPANY, 847 Cent Ave., Hot Springs, Arkansas. 1-t

For Sale—60,000 acres cutover land in no ern Wisconsin. $20 up per acre, $10 down forty and $10 per month or balance payme extended, provided you do required amount work. We have a few eighties with buildi ready for use. To purchasers of these we rent teams and tools on community basis advance money for cow, pig and chick when you can supply feed; also grubstake during farming season providing you put tire time to developing your farm. TO HAWK LAND CO., Box L, Tomahawk, 7-

If you wish a farm in the best grass sec of the south where alfalfa and all the clov including Red White, Alsike, Sweet, B Crimson and Japan grow to perfection, soy beans, cowpeas, peanuts, velvet be corn, oats, wheat, rye, and barley where have a creamery making fine butter and ing Elgin for butterfat, and where there is bovine tuberculosis nor cattle ticks; in a c munity of northern farmers, write to H. GURLER, Macon, Miss. 25-

For Sale—Equipped dairy farm of 350 ac 100 cows, heifers, team, and impleme E. CHRISTIAN, Owner, R. F. D. 1, Richm Va. 10-

Farms in the Mississippi Prairie Belt, alf and clovers. Corn, hay and live stock pr sition. Ideal climate, good neighbors, sch churches, good roads. Main line of railr Close to large markets. Write now. H. HANSEN, Macon, Miss. 11-

132-acre farm with fine modern buildi complete; bath, hot water, furnace, etc. Le sandy loam soil. Street car and R. R. sta adjoining. Improved road to Lincoln H way. One of the best farms in Ohio. W $200, will sell for $150 per acre, easy te Address, OWNER, No. 208 City National Ba Canton, Ohio. 11

To Home Seekers—The Black Belt of A bama is the garden of the south for s breeding and dairying. Have a list of des ble farms, well located, for sale at $40, $50, $60. Land equal in quality to Illinois fa selling at $200 and $250 per acre. Some s ples: 3 of high class land, lying toget 192, 200 and 350 acres at $50. One well proved 900 acres. Railway station on the fa 19 ms. from a modern creamery, at $45. divide and make 3 fine dairy farms. Write for particulars of others. GEO E. BRO Uniontown, Ala. 12-

For Sale—Ideal country home—Gladn fruit and stock farm, home of the late J Baer. Excellent location, fertile soil, mo buildings, macadamized road, 2 miles so west of Baraboo, Wis. For information dress C. J. BAER, R. D. 4, Baraboo, 12

Owner of 300-acre farm, New York S Ample modern buildings. Small herd r tered Holsteins. Wants practical farmer some cows and farm equipment to work i equal shares. Good opportunities for a man. Address BOX 257, care Hoard's Da man, Fort Atkinson, Wisconsin. 12

Owner will sell one of the best fruit grain farms in central New York. 100 a all in rotation except small maple grove 10 acres commercial orchard. Large build in A-1 condition. Beautiful modern h overlooking Cayuga Lake, one mile from gressive village, with railroad, high school churches. 18 miles to Cornell University. agents. Write for details. E. R. EASTM Freeport, N. Y.

Splendid 120 with modern stucco bung to include crop, stock and all personal pr ty. Big barn and good outbuildings, fines clay loam soil with maple timber, mostly l 45 acres field, 25 cleared, near school on miles Milltown or Luck, Polk County, Frents on lake. Snap price. Get full ticulars from BAKER LA-76, St. Croix F Wis.

$4,000 down secures 40 cows, 403-acre and pair valuable horses, cows heavy produ milking machine, dairy utensils, binder, mo horse rake, tedder, sulky and walking p harrows, wagons, long list tools, crops, etc. acres big yielding loam tillage, clay sub meadows cutting 100 tons hay, spring-wat pasture for 100 head, 50 acres wood, appl chard, other fruit. Modern 12-room hous story 10-foot barn, 60-cow stables, drin basins, etc. Near all advantages, only 4 to enterprising county seat, $9,800, only $ down, gets this fully equipped, highly impr farm-king bargain. Details page 29 Str New Fall Farm Catalogue of this and money-makers, many with stock, tools, for winter comfort; your copy free. E STROUT FARM AGENCY, Dept. 3001, Marquette Bldg., Chicago, Ill.



Advertising in this department is 5c per wo Remit in advance.

HELP WANTED

Wanted—Boy or young man to help in d Good home and fair wages. H. C. HURL Rockville, Md. 1

Wanted—By October 15 or sooner: Man 45, with one or two assistants for milkin large dairy; wife or daughters if good mil Sanitary dairy, good surroundings; lady quired to take charge of milk house and milk; man to help in feeding, cleaning, State wages required and references. R JOHNSON, Assumption, Ill. 1

HELP WANTED

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Good, dry hand milkers, married or single, permanent position with good wages for right men. Address S. W. DORLING, Supt., Moose Hill Farms, Spencer, Mass. 10-4

Wanted—Young, experienced farm hand, not in draft, to work on large Guernsey dairy farm. Start at once. Good habits. $50.00 per month and board. HOMER F. RUNDELL, Livingston, Wis. 10-5

Man to care for herd of registered Jerseys. Must be expert milker, fond of Jerseys and his work absolutely clean, over draft age and have good references. Could use married man without children if wife willing to work in farm house. Permanent position and good wages. RIVERVIEW FARM, 1997 Montreal Ave., St. Paul, Minn. 10-tf

Herdsman, temperate, reliable, who understands feeding and proper care of cattle to take charge of 20 cows, young stock and calves. Universal Milker. Individual feed and production records of all cows. Location eastern Ohio. House, garden and milk provided. State qualifications and salary expected. B. F. YOST, Clarington, Ohio. 11-3

Experienced dairyman, single or married, for general dairy work and to assist herdsman with A. R. O. work in Holstein herd. Can use woman or boy as helper. Modern equipment. Give experience, reference and wages expected in application. STEVENS STOCK FARM, Sycamore, Ill. 11-3

Wanted—Single herdsman for small herd of registered Jerseys, $65 and found; farm hands $55; also young woman to work in dairy and milk five cows. M. C. GRINDLE, Sherborn, Mass. 11-2

Will give $1,000 per year, board and room, for man and wife without children, on grain and dairy farm; woman in house and man good dry hand milker. CHAS. M. FARGO, Doland, So. Dakota. 11-2

Herdsman wanted at once for a pure-bred Guernsey herd. Must be clean, reliable, and efficient. No cigarettes or booze. $75 per month and more with proven ability. Give references. MOUNTAIN BROS., R. R. 5, Des Moines, Ia. 11-2

Wanted—All round single man, farm and dairy work. Empire Milker used. State wages and experience. Steady job for right man. FRANK BLASER, Oakdale, Wis. 11-2

Milkers and dairy barn men wanted in large Holstein herd in southeastern states. Apply at once Address BOX 261, care Hoard's Dairyman. 12-2

Herdsman wanted for Holstein herd on eastern shore of Maryland. If married, family must be small. State full particulars in first letter. Address BOX 258, care Hoard's Dairyman. 12-2

Wanted at Once—Single man to help milk and assist with retail milk plant, work on farm. Answer stating when could come, etc. Address BOX 259, care Hoard's Dairyman. 12-2

Man and wife wanted on large dairy farm in state of Maryland, man in dairy barn or milk plant. wife to run boarding house. Desire someone with experience. Address BOX 260, care Hoard's Dairyman. 12-2

Boy 16 years or over on small dairy farm. Milking machine used. Experience not necessary. Good home. Ten miles from Washington, D. C. On interurban. BRUNO H. WITTIG, McLean, Va.

Wanted—Experienced milker (married or single) for pure-bred Holstein herd doing A. R. O. work. WILL ROBERTS, Red Cloud, Nebr.

Wanted—Married couple to work on farm. Separate house, and all buildings electric lighted. Must be interested in dairy cattle and hogs. FRANK E. JOHNSON, Hetland, South Dakota.

Wanted—A competent, reliable, married man. Must thoroughly understand feeding and care of cattle and farming in every branch. House, garden, wood, and milk. State wages per month, age, references and how many in family. Address S. P. BRADLEY, BRADLEY & METCALF CO., Milwaukee, Wis. 12-3

Wanted—Competent, reliable, married man to care for pure-bred Jersey herd. Only capable, experienced herdsman with best references need apply. Modern dairy, 140-acre farm. Fine climate, water, lights, near city. State in first letter past experience, age and wages expected. PURITAN DAIRY FARMS, Savannah, Georgia.

HELP WANTED

Wanted—Milker on dairy where machines are used. $70 per month and board for winter. RICHLANDS STOCK FARM, Corvallis, Mont.

Wanted—Experienced dairyman; practical farmer and a good all round workman on farm. References required. State size of family, nationality and wages wanted. C. A. CARLISLE, 407 Citizens National Bank Bldg., South Bend, Ind.

Wanted Immediately—One experienced can washer, one general condensery helper. Salary $90 per month each. Apply MOREY CONDENSERY, North Prairie, Wis. 12-2

Married man—In Massachusetts, no children; school age. Care barn, young stock in winter and farm work. $60 per month, rent, free garden. State age, experience. Year round. BOX 266, care Hoard's Dairyman.

Dairyman—Single, draft exempt, dairy room work, no bottling or milking, power separator, boiler, etc. Wages $60, board, etc. State age, experience. Farm in Massachusetts. BOX 265, care Hoard's Dairyman.

POSITIONS WANTED

Farm Manager experienced in all branches of modern methods farming and stock raising. Have made some enviable records with Holsteins. Experienced in milk and creamery business on big scale. Age 35, married, no children, have been rejected for military service. Will not consider anything that does not offer quick advancement and substantial salary. My present salary is $3,000 yearly. Prefer place in western state. BOX 246, care Hoard's Dairyman. 11-2

Position wanted by manager, college graduate, married, thoroughly experienced in every branch of grain and stock raising. A. R. O. work. Address BOX 255, care Hoard's Dairyman. 11-3

Absolutely reliable herdsman, 33 years old, not subject to draft, capable of handling 50 milk cows with milking machine wants position November 1st. Best references. B. RICHTER, 124 Second Street, Milwaukee, Wis.

Having sold my 240-acre farm because unable to get help, would like to get a job on a big dairy farm or any other kind for a good man. I am married. My wife and I always milked 30 cows by hand for myself. I want a good steady job. $100 a month. LOCK BOX 263, Camp Douglas, Wisconsin.

Young married Dane, exempted from draft, wants to take care of gentleman's farm or other first class farm this winter. Fully experienced. H. B., care Danish Consulate, Chicago, Ill.

Position as superintendent or manager large stock or grain farm. Had years' practical experience in all branches farming, care of stock, handling help. Married, no small children, best references, can bring some help if necessary. F. W. LEWIS, Supt., Milfer Farm, Unadilla, New York.

As manager on modern farm by man experienced in dairying and general farming. Must have separate house. Wife willing to board help. FRANK WOOD, Bryant, Ark. 12-2

Have you a position for a married man, 31 years of age, draft exempted, honest, reliable, and practical, good references? State salary, etc. Address BOX 256, care Hoard's Dairyman.

If you are looking for a thoroughly efficient dairy farm manager or superintendent with executive ability, a four-year college graduate with a lifelong, practical experience as a dairy and general farmer, capable of giving the employer, the hired man, cows, soil and crops a square deal, one who is proficient in drainage, reclamation of soils, erection of outbuildings, equipments, in the use of machinery, engines, and tractors, a married man, 40 years old, sound, who seeks a man's job not merely to hold it down, with the best of references, kindly communicate with LUDWIG HAUSMAN, Wimmers, Lackawanna Co., Pa.

Wanted—Position as cow tester. Four years' experience. Address TESTER, 427 West Cedar Street, Kalamazoo, Mich. 12-2

Farm superintendent thoroughly understands modern farming, dairying, etc. Wide awake hustling man with constructive mind and executive ability to handle a proposition of any size. Married, age 46. References. BOX 264, care Hoard's Dairyman.

Wanted—Position as manager of Holstein or Guernsey farm. Thoroughly versed contagious abortion, selected milk, testing for records, showing; single, exempted; salary $125 per month. References. BOX 263, care Hoard's Dairyman.

Position wanted as manager or herdsman on up-to-date farm by young man, single, exempt from draft. Experience in A. R. O. work, best of references. Address BOX 262, care Hoard's Dairyman. 12-3

Must Teach Consumer the Food Value of Milk

The following is an extract of an address delivered by Mr. D. D. Aitken, president of the Holstein-Friesian Association of America, before a meeting of representative dairymen held in Milwaukee for the purpose of organizing the Wisconsin Dairy Council:

"I was invited to come here today and meet with you gentlemen who are interested in organizing an association for the purpose of educating the consumer to the great food value of dairy products. The committee that was appointed at the meeting held at Chicago where we had practically the same problems to cope with—was appointed with the one idea of disseminating information to teach the people of the merits of the products of the dairy cow. Strange as it may seem, there are only a few people even on the farms who know anything about the value of their own products. For years the National Holstein-Friesian Association has taken the position that it was up to the dairymen themselves to win for the cow the position she deserves, and for those who distribute the product of the cow to demonstrate the merits of their business. I feel we spend too much time in attempting to demonstrate that we are doing business at a loss. I feel that the effort we make in that direction is practically lost.

"There was every reason why at the outset of the war we should show the public generally, and particularly those in authority, what the actual cost was of producing the dairy products in order that the government and the public might know that we were not profiteers, and that we were entitled to an increase in the price of our products, on the theory of cost alone. I believe when we have demonstrated that, and it has been demonstrated beyond all peradventure, we should interest ourselves in a better way to extend our business and develop the industry.

"It seems so strange to me that a commodity absolutely necessary to life, looked upon with favor by every person, should be so difficult to bring before the public, and still so few know anything about the real value of the dairy products.

"The committee appointed for the national organization to work with the state, and through the state to bring about a better understanding of our industry, to educate the people to a more extended use of our products, has a great problem confronting them, and they will require the united assistance of all the different state, district, and county organizations to help them make a success of it.

"There seems to be something peculiar and strange connected with the sale of whole milk. I have never been able to understand it and I do not believe anyone else has. The average mother, if she is going to economize, commences by reducing the milk that is given to the children, the one of all things absolutely necessary to their vitality, their strength, and their growth. Did she know of its necessity she would not for the world forego its use, she would do away with something else and it will be up to this national organization to bring this information to the mothers of children. Increasing the cost of milk one cent per quart in large cities has been known to reduce its consumption twenty per cent, while doubling the cost of hundreds of non-essentials has not made any practical decrease in their use. The mystery must be explained, there must be some reason why the dairy products are not more appreciated.

"In the appointment of a committee I have appointed the best known men representing the different interests——the producers, the distributors, the buttermakers, the cheesemakers, the condensers, with an idea that they would all work together and try and solve the problem. I am satisfied if they will teach every mother of children the necessity and value of milk for her children, they could not supply half the demand. I am satisfied if the cheesemakers, buttermakers, and condensers can satisfy the public of the value of their production, that they will not be able to satisfy half of the demand. If I am right and this committee can organize the country and make the necessary arrangements to educate, to instill into the minds of the people the truth, then there is indeed a great future for the dairy industry. If our product has the merit we believe it has, we cannot fail and there is no risk in making the attempt. I have no fear of not being able to supply all government demands for export, for the reason that we could increase the production twenty per cent within thirty days any time if it were necessary, and if it was necessary there is no reason why a price should not be paid for this most valuable of all feeds that would make it profitable to turn into it the roughage, coarse food, and waste that now cannot be utilized for human food. I believe we should say to the government, 'whenever it is necessary to meet any demand you may have, call upon us and we will produce the results you desire', for certainly the government is lending us every possible effort, and has done more for the dairy industry in the last four or five months than we have been able to do in as many years. I expect the government to continue its work because those in authority are commencing to realize what our industry means to civilization, humanity, and to life, and are commencing for the first time to realize the necessity and are with us to the uttermost."

Hemp in Wisconsin

In the past few years the acreage of hemp in Wisconsin has materially increased. Professor R. A. Moore of the Wisconsin College of Agriculture has been giving special attention to the development of this crop, as there are large areas in Wisconsin admirably suited to hemp culture. There has been a marked improvement in the machinery to handle the crop and until recently it was largely taken care of by hand labor. In a recent bulletin published by the Wisconsin Experiment Station and prepared by Professor A. H. Wright, we take the following statements:

"Hemp has been demonstrated to be the best smother crop for assisting in the eradication of quack grass and Canada thistles.

"Hemp has been grown in Wisconsin for ten years. It has been found that hemp can be grown very successfully in the state, that the climate and certain soils of Wisconsin are particularly suited to the crop, and that the development of labor saving machinery has made the hemp industry one of far reaching importance.

"Several hundred acres must be grown in a vicinity to make hemp production profitable. Co-operative growing is necessary. The state hemp association is stabilizing the industry in the state.

"Wisconsin is the second largest hemp producing state in the Union. The principal centers of production are Fond du Lac, Green Lake, Dodge, and Racine Counties.

"Hemp fiber is a national necessity. In addition to its important use for wrapping cords of all kinds, it is now being used for such vital purposes as thread for sewing army shoes and harness, as caulking in battle ships, and for binder twine.

"Hemp should be grown on fertile soil. Poor soils are not suitable. Hemp is not hard on land, for it removes less plant food than many other farm crops. It improves the physical condition of the soil and is a successful crop for smothering quack grass and Canada thistles.

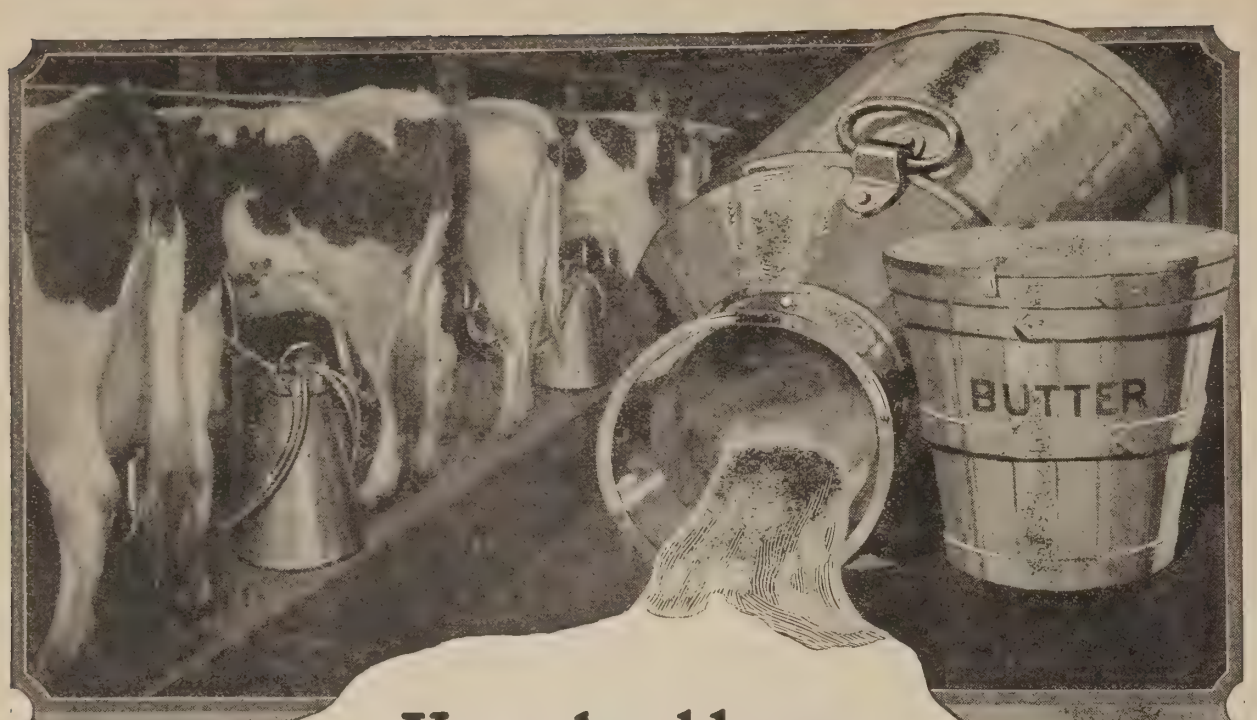
"Fiber hemp does not mature seed in Wisconsin; consequently, seed for planting is principally obtained from Kentucky. The seed weighs 44 pounds to the bushel and 40 pounds are required to plant an acre.

"Hemp is drilled in a well-prepared seed bed, in the spring, and requires no further attention until it is ready to harvest in September.

"Hemp is harvested with a special harvesting machine which spreads the stalks in a thin window. After remaining in the windrow several weeks, the stalks are tied into bundles, shocked, and stacked.

"The dry, cured hemp stalks are hauled to a breaking mill. Here the fiber is removed from the woody portion of the stalks. To perform this separation of the fiber, especially constructed and equipped hemp mills are necessary. Wisconsin now has nine of these mills.

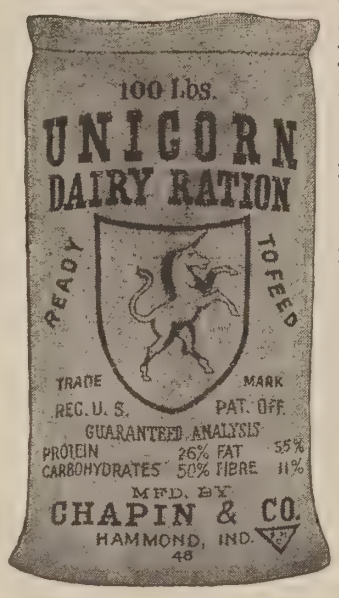
"Large yields of hemp fiber are obtained in Wisconsin, averaging 1,200 lbs. an acre. The cost of producing the crop is from $8 to $11 more an acre than for small grain crops. The gross returns average $75 an acre. With the advent of modern machinery hemp can be produced just as easily as corn. Hand labor is no longer necessary and, as a result, the hemp industry in Wisconsin is firmly established."



You should use

UNICORN DAIRY RATION

Because—it will make more milk and cut down you milk costs.



Because—you can save from 10 to 20% of your feed costs through the use of fewer pounds of grain per cow and the increase in milk or fat per cow.

Because—there is 10% more available food material in Unicorn than in any ration on the market.

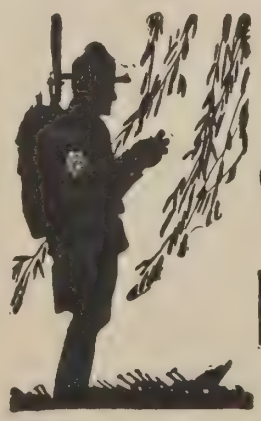
Because—it saves labor and the mistakes of mixing and feeding. It is always uniform and reliable.

Because—Unicorn Dairy Ration is suitable for feeding alone, or can be fed with home-grown corn, oats or barley. Unicorn contains ample protein and may therefore be used either as a protein feed or as a complete ration.

Ask your dealer or write

CHAPIN & CO.,
Dept. Z, Chicago

Real Gravely Chewing Plug gives the pure taste of rich leaf, sweetened just enough. A condensed, satisfying chew—and it lasts.



Peyton Brand

Real Gravely Chewing Plug

10c a pouch—*and worth it*

Gravely lasts so much longer it costs no more to chew than ordinary plug

P. B. Gravely Tobacco Company
Danville, Virginia



IN the Delta lands of Louisiana and Mississippi, in the Everglades of Florida and in the muck lands of the Central and Eastern states—

BULLOCK CREEPING-GRIP TRACTOR

Protected by U. S. Patents

is now reclaiming thousands of acres. This sturdy ally of the farmer recognizes no obstacles in the form of unfavourable soil conditions. Like its offspring, the British Battle Tank, it will travel anywhere with a sureness and resoluteness that makes its owner confident of an early crop and an abundant yield. Let us tell you how this tractor will meet your labor problem and increase your profit.

A three or four bottom tractor, depending on soil conditions. Write for catalog TODAY.

BULLOCK TRACTOR COMPANY
1809 Diversey Parkway, Chicago
U. S. A.

CHICKENS SICK? Roup, Colds, Canker, Bowel Complaint, Limberneck, Sorehead, etc., the best remedy is always GERMOZONE. At most dealers or 75c postpaid with 5-book poultry library free.
GEO. H. LEE CO., Dept. 425, Omaha, Neb

Southwestern Jersey Cattle Show

(Continued from page 358)

Viola's Majesty's White Sox; 2, White City Jersey Farm on Noble's Handsome Prince; 3, Jones on Financial Countess Lad; 4, Lasater on Raleigh's Oxford Prince. Bull 3 years or over—1, Longview on Warder's Chieftain; 2, Klumph on Countess Lad's Ruler. Bull 2 years and under 3—1, Longview Farm on Poet's Whiteheart; 2, Jones on Financial Interest Lad; 3, Lasater on Esther's Eminent Noble. Bull 1 year and under 2—1, White City Jersey Farm on Tulso Chief; 2 and 4, Longview Farm on Dahlia's Noble Fern and Chief Raleigh; 3, Lasater on Olive's Calla Aldan; 5, Knopf on Countess Lad's Majesty. Bull calf 6 months and under 12—1 and 3, Lasater on Falfurrias Royal Majesty and Esther's Falfurrias Oxford; 2 and 5, Longview Farm on Raleigh's Bright Prince and Warder's Oxford Chieftain; 4, White City Jersey Farm on Guenon's Handsome Prince. Bull calf under 6 months—1 and 2, Longview Farm on Noma's Perfect Raleigh and Jolly Oxford Majesty; 3, Knopf on Finance Interest Paul; 4, White City Jersey Farm on Eventide's Bell Boy; 5, Lasater on Raleigh's Primrose Majesty.

Cow 5 years or over—1 and 4, Lasater on Willow's Brightness and Stockwell's Noble Wonder; 2, 3, and 5, Longview Farm on Oxford Majesty's Crocus, Fairy Glen's Flora and Fox's Mirianis Leda. Cow 4 years and under 5—1, Lasater on Constance of Falfurrias; 2, Longview Farm on Undulata Nena. Cow 3 years and under 4—1 and 2, Longview Farm on Fontaine's Pretty Maiden and Rower's Benedictine Glory; 3 and 4, Lasater on Aldan's May Lass of F. and Eminent's Lad's Island Star; 5, Jones on Countess Lad Jolly Girl. Heifer 2 years and under 3—1 and 2, Longview Farm on Fontaine's Nena and Raleigh's Star of Peace; 3 and 5, White City Jersey Farm on You'll Do Champion's Queen and Distinction's Princess; 4, Aldan's Combination Letty. Heifer 18 months and under 2 years—1, White City Jersey Farm on Egyptian's Fairy; 2 and 5, Lasater on Aldan's Oxford Fontaine and Aldan's Noble Letty; 3 and 4, Longview Farm on My Rosary and Fairy Feather. Heifer 12 months and under 18 months—1, 2, and 4, Longview Farm on Raleigh's Oxtivity, Chieftain's Flora, and Raleigh's Velvet; 3, White City Jersey Farm on You'll Do Silverine Rose; 5, Lasater on Majesty's Mona of Falfurrias. Heifer 6 months and under 12—1 and 4, Longview Farm on Majesty's Golden Plymouth and Raleigh's Evening Star; 2, 3, and 5, White City Jersey Farm on Catherine's Jewel, My Oxford Lily, and Distinction's Emelina. Heifer under 6 months—1, Longview Farm on Raleigh's Fairy Finance; 2, 3, and 4, Lasater on Raleigh's May Princess, Knight's Oxford Tulip, and Majesty's Windsor Princess; 5, White City Jersey Farm on Rosebud's Isis.

Exhibitor's Herd—1 and 2, Longview Farm; 3, Lasater. Breeder's Young Herd—1 and 4, Longview Farm; 2, White City Jersey Farm; 3, Lasater. Calf Herd—1 Longview Farm; 2, White City Jersey Farm; 3, Lasater. Get of Sire—1, 2 and 4, Longview; 3, White City Jersey Farm. Produce of Cow—1, 2, and 4, Longview Farm; 3, Lasater; 5, Jones. Dairy Herd—1, Lasater; 2, Longview Farm.

Senior and Grand Champion Bull—Poet's Whiteheart. Junior Champion Bull—Noma's Perfect Raleigh.

Senior and Grand Champion Cow—Willow's Brightness. Junior Champion Cow—Raleigh's Oxtivity.

The Man Who Delivers the Goods

There's a man in the world who is never turned down,
Wherever he chances to stray;
He gets the glad hand in the populous town,
Or out where the farmers make hay;
He's greeted with pleasure in deserts of sand,
And deep in the aisles of the woods;
Wherever he goes there's the welcoming hand,
He's the man who delivers the goods.

The failures of life sit around and complain;
The gods haven't treated them white;
They've lost their umbrellas whenever there's rain;
And they haven't their lanterns at night;
Men tire of the failures who fill with their sighs
The air of their own neighborhoods;
There's the man who is greeted with love-lighted eyes,
He's the man who delivers the goods.

One fellow is lazy and watches the clock,
And waits for the whistle to blow;
One has a hammer, with which he will knock,
And tells the story of woe;
And one, if requested to travel a mile,
Will measure the perches and rods;
But one does his stunt with a whistle or smile,
He's the man who delivers the goods.

One man is afraid he'll labor too hard,
The world isn't yearning for such;
And one man is ever alert, on his guard,
Lest he put in a minute too much;
And one has a grouch or a temper that's bad,
And one is a creature of moods;
So its hey for the joyous and rollicking lad,
For the one who delivers the goods.

—Walt Mason.

Who Owns the Automobiles?

A group of six rural counties in Wisconsin shows one automobile for every eight persons, while the average for the state is one automobile to thirteen persons, and the average of five counties with large city population shows only one automobile to nineteen persons.

Up to September 1st the Secretary of State for Wisconsin had issued over 200,000 licenses for motor vehicles, 187,000 of which were passenger automobiles. Estimating the population of the state at 2,500,000, it means one automobile for every 13 persons. It also means three motor vehicles for every mile of the 77,000 miles of public highways in the state.

In discussing these statistics, the Wisconsin Good Roads Association says in its recent publication:

Which do you prefer, to be a "1 to 684 shot" in Germany, or, a "1 to 13 shot" in Wisconsin?

This is a query which is raised by a comparative analysis of the automobile ownership, relative to population, in Germany and Wisconsin. We express it in "race track" language, which is pretty trenchant to the average man.

Back of the query and the comparison lies the fact that the automobile ownership, especially in rural districts, is a pretty accurate gauge of the relative prosperity of the average man. The normal rule is that the man who owns an automobile can afford to own it and to afford to own it he is in pretty fair circumstances. And beyond and above that the automobile connotes not only pocket prosperity, but is a social and recreational factor.

In the state of Wisconsin, with a population of 2,500,000 people, there are somewhat over 200,000 automobiles, including a relative ownership to population of 1 in 13.

In Germany, according to the latest available reports, 1914 (the automobiles today are all in war service), there was 1 car to every 684 people.

In Austria Hungary, 1 to 2,071; Switzerland, 1 to 611; Norway, 1 to 730; Italy, 1 to 1,002; France, 1 to 204; Great Britain, 1 to 268.

Let us go on with the analysis and interrogatory.

We will first take a group of counties with a heavy population of German extraction—Calumet, Dodge, Jefferson, Manitowoc, Ozaukee, Sheboygan, and Washington, and we find 1 car to every 9 people.

Then we say to you, Gottlieb Schwartz, which do you prefer, to be a "1 to 684" shot in Germany, or a "1 to 9" shot in your home county in Wisconsin?

And we take a county like Green and we say to you, William Tell, which do you prefer, to be a "1 to 7 shot" in Green County, Wisconsin, or a "1 to 611 shot" in Switzerland?

And we take a county like Trempealeau, with a heavy population of Norwegian extraction, and we say to you, Ole Olson, which do you prefer, to be a "1 to 9 shot" in Trempealeau County, Wisconsin, or a "1 to 730 shot" in Norway?

And we go to Milwaukee and we take our Hungarian friend, Carl Jonas, once a subject of the Austro-Hungarian empire, and we ask him, which do your prefer, to be a "1 to 19 shot" in Milwaukee or take the chance of being a "1 to 2,071 shot" in the empire of Carl of Austria?

And then we could take the Frenchman, the Englishman, the Irishman, the Pole, the Italian, and address him the same query.

Does any one doubt the answer? Not after reading how Wisconsin—the men sprung of German, Norwegian, Polish, Swiss, and all racial stocks have gone over the top—gone over the top literally in France, gone over the top at home in Liberty Bond, Red Cross, and other campaigns. The figures, however, "point a moral and adorn a tale".

The road to Berlin begins in America.

Rushing the Grain to Hungry Millions



These pictures will illustrate the widespread application of Federals to grain haulage; upper view, in the wheatfields of Southern Michigan; oval, in the Southwestern rice fields; lower, hauling Milo Maize on the good roads of California.

Federal Motor Truck Co.
Detroit, Michigan

THE greatest grain crop in the history of the nation—the greatest army to be fed in the history of the nation—war-stricken peoples of allied nations depending on America for bread—

Here surely is a real opportunity for motor trucks to prove their superiority over old methods of moving the grain crop.

And Federals are meeting it—just as they are meeting every other haulage problem.

In many instances they carry the grain from field to granary and thence on to the elevators at the great mills of the northwest, in this way avoiding the former need for storage of grain at small wayside elevators.

Motor truck haulage, as this application of Federal illustrates, has arrived most opportunely to aid in solving haulage problems of vital importance to our country.

FEDERAL

Gas Masks—You Can Help

Every American has the chance for direct war service that will save the lives of soldiers. Carbon is needed to make millions of gas masks for the American army. Cocoanuts have furnished much of this material, but cocoanuts mean ships, and during the present shortage, material for carbon must be found nearer home. The pits of apricots, peaches, prunes, olives, dates, cherries, and plums, and the shells of Brazil nuts, hickory nuts, walnuts, and butternuts make carbon for masks that will outlast the most diabolical of the German gases.

Here is work for all, every home, church, and school. Urge the boys and girls to scour the woods for nuts and incite your patriotic organizations to rivalry in making collections. See that the work is started in your neighborhood. Place collection boxes in schools, churches, banks, and stores, and above all in your own home so your boys and girls can see the pile grow. It takes two hundred peach stones or seven pounds of nut shells to furnish carbon for a gas mask and save the life of an American soldier. How many masks can your neighborhood furnish?

Dry the pits and shells before returning them to the nearest Red Cross chapter. This organization is in charge of collecting all material.—U. S. FOOD ADMINISTRATION.

THE FIRST

ANNUAL SALE

Of Mara Alva Guernseys

will occur on

Thursday, Oct. 31, '18

(Date Changed from Previous Announcement)

AT MARA ALVA FARM (Beginning at 12 o'clock)

SMITHVILLE, OHIO

5 Miles West of Orrville

Smithville has Pennsylvania R. R. and W. & L. E. R. R. service, and Cleveland & Southwestern Railway to Madisonburg sub-station.

To make room for another importation, we have selected from our herd of 175 head

75 Head for This Sale

Consisting of a few very fine show Bulls; about 60% Imported Heifers, bred and open, 40% American bred; a few fresh Cows and heavy springers; Heifers bred and open. Every animal especially selected.

We have sold privately in the last five years, 2,000 head of Registered Guernseys. This sale is held to try out the Public Sale plan, as Public Sales are becoming more popular. We consider this an opportune time to buy seed for the "After the War" demands.

The blood lines are of the most fashionable—Island and American.

Cattle have been tuberculin tested by U. S. Department of Agriculture B. A. I.

For Catalogs and further information address

H. C. McCamon, Sales Manager, Lisbon, Ohio.

A. C. Ramseyer, Owner, Smithville, Ohio.

F. W. ANDREWS & SON, Auctioneers, New Philadelphia, Ohio.

THIRTEENTH AND

Semi-Annual Sale

of Waukesha County

GUERNSEYS

November 6th-7th, '18

Waukesha, Wis.

November 6th SIXTY-FIVE PURE-BRED FEMALES AND MALES to be offered. This is the best selection ever placed in the sale ring by the WAUKESHA COUNTY GUERNSEY BREEDERS' ASSOCIATION. ADVANCED REGISTRY COWS such as: Esther of Maple Hill A. R. 523.3 lbs. at 3 yrs.; Miss Harvest A. R. 456.08 lbs. at 4 yrs.; Wern's Ora A. R. 396 lbs. at 2 yrs.; Lilly May Rose 2nd A. R. 502.28 lbs. Class A, and others.
Daughters out of A. R. cows with records of 572.52 lbs., 498.1 lbs., 502 lbs., 539.02 lbs., 444.29 lbs., 549.05 lbs., 407.07 lbs., 649 lbs., 468 lbs., and many others equally as good, all sired by bulls of popular breeding.
Three daughters of May King's Vrangue of Ingleside No. 15430.
Two daughters of Governor of Myrtle Place 2nd No. 40985.
TEN pure-bred bulls will be offered, that have the very best blood lines, tracing to the popular MAY ROSE breeding, including the following, and others as well bred:
1 son of Imp. Itchen May King 25174, and out of Donnington Goldie V, A. R. 796.52 lbs. at 3 yrs.
Langwater El Dorado No. 39136, grandams have records of 607.74 lbs. fat and 1003.17 lbs. fat.
2 sons of Langwater El Dorado No. 39136, and out of dams on official test.
1 son of Lady Lishman A. R. 698.84 lbs. fat.
A feature of the sale November 6th, will be the complete dispersal of the herd of Bailey Falls Farm, located at Genesee Depot, Wisconsin. The herd consists of females of May Rose breeding, many with A. R. records such as 477 lbs. fat at 3 yrs.; 551 lbs. fat at 5 yrs.

November 7th SIXTY GRADE COWS AND HEIFERS. Only very high class animals offered. Very best individuals. Practically all are fresh, or due to freshen soon.

November 7th THIRTY PURE-BRED GUERNSEY MALES will be offered. Everyone is a good individual, and of breeding that will increase the value of any herd.

Auctioneers: Love, Bailey, Benjamin. Write for an illustrated catalog.

Waukesha County Guernsey Breeders' Ass'n.

F. E. Fox, Secretary, Waukesha, Wis.

Abortion

Please tell me how to rid my herd of contagious abortion.

Bushville, Ill. G. H. M.

There is no specific remedy for contagious abortion disease, but it may disappear in time if you have each affected cow properly disinfected by a competent veterinarian and then disinfect the vagina of each cow and heifer every other day for two or three weeks before breeding. Also have the stable cleansed, disinfected, and whitewashed under supervision of the veterinarian who also should supervise the disinfection of the cows and the bull. He no doubt has a favorite disinfecting solution, but it may be suggested that normal salt solution or a similar solution of hypochlorite of soda is useful for vaginal and uterine cleansing and a solution of permanganate of potash or Lobell's solution of iodine.

Secretary of Agriculture Houston says: "Farmers are not spectacular performers. They do not furnish sensations and headlines. They work in season and out of season, from early dawn until dusk, but they do not work in the limelight."

Don't confuse lending with giving. Buying liberty bonds is putting money in the safest bank in the world at good interest.

Retained Afterbirth

When the membranes remain in the uterus of a cow and decompose, inflammation of the lining of the womb may be caused, and this, with the absorption into the blood of the products of putrefaction, leads to ill-health, emaciation, diminished milk supply failure to breed, and often blood poisoning and death.

Hood Farm Breeding Powder

causes the afterbirth to come away naturally in a few days, and thoroughly cleanses and disinfects the parts, leaving the cow in normal condition for breeding.

"After four years of experience I find Hood Farm Breeding Powder very necessary, for keeping my herd from aborting. It cleans the cows out quickly and clean, they breed early and are sure to stand."

Stuart Bird, Cropper, Ky.

Try Hood Farm Breeding Powder once and you will never again forcibly remove the afterbirth.

Prices prepaid $1.15, $2.75 and $5.00. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75. Mention this paper.

C. I. HOOD CO., Lowell, Mass.

This Beats Dehorning

Fleming's Chemical Hornstop, used on very young calves, prevents growth of horns.

A 50 Cent Tube for 25 Calves

Horns never grow if Hornstop is used early enough. Money back if not satisfactory. Our "Veterinary Adviser" Free if asked for.

FLEMING BROS., Chemists
255 Union Stock Yards Chicago, Ill.

Don't Wear a Truss



MR. C. E. BROOKS

Brooks' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads.

Brooks' Rupture Appliance

Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.

Brooks Appliance Co., 467 State St., Marshall, Mich.

GUERNSEYS

Rich Neck Farm

Bull Dropped July 29th, 1917

Dam 7112.5 lbs. milk, 398.23 lbs. B. F., Class G. His sire's first three daughters have the following records with 1st calf: 511.01 Fat, 521.54 Fat and 617.23 Fat. His Dam 631.24 Fat. Dam is Granddaughter of the wonderful cow Pandora's Valentine of Rich Neck A. R. 1742. Price $500.00.

C. A. Hofferberth, - Sterling, Virginia.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

GERAR GUERNSEYS

Production Reproduction Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.

Louis McL. Merryman, Cockeysville, Md.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where 26 *of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey



AUCTIONEER

For pure-bred livestock and general farm sales. Write me before deciding on an auctioneer for your sale.

Square dealing and satisfaction assured. References, State Bank of Honey Creek. Seven high grade 2-year-old Holstein heifers for sale—bred to freshen this fall—$100 each. Frank Drummond, Honey Creek, Wis.

SWINE

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.

CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

Real Herd Boar For Sale

Have decided to sell my great herd boar, BIG BEN H, and will price him right. Also, some good heavy bone, big type Poland China spring boars to offer. All immune. Write at once. F. A. MOREHOUSE Lancaster, Wisconsin

THE BADGER LINE of FARM FEEDS



THE FEEDS WITH A HOMINY FEED BASE

IVE famous adger Feeds, ch made from proved formus, the result of ears of careful feedg tests by practical eders.

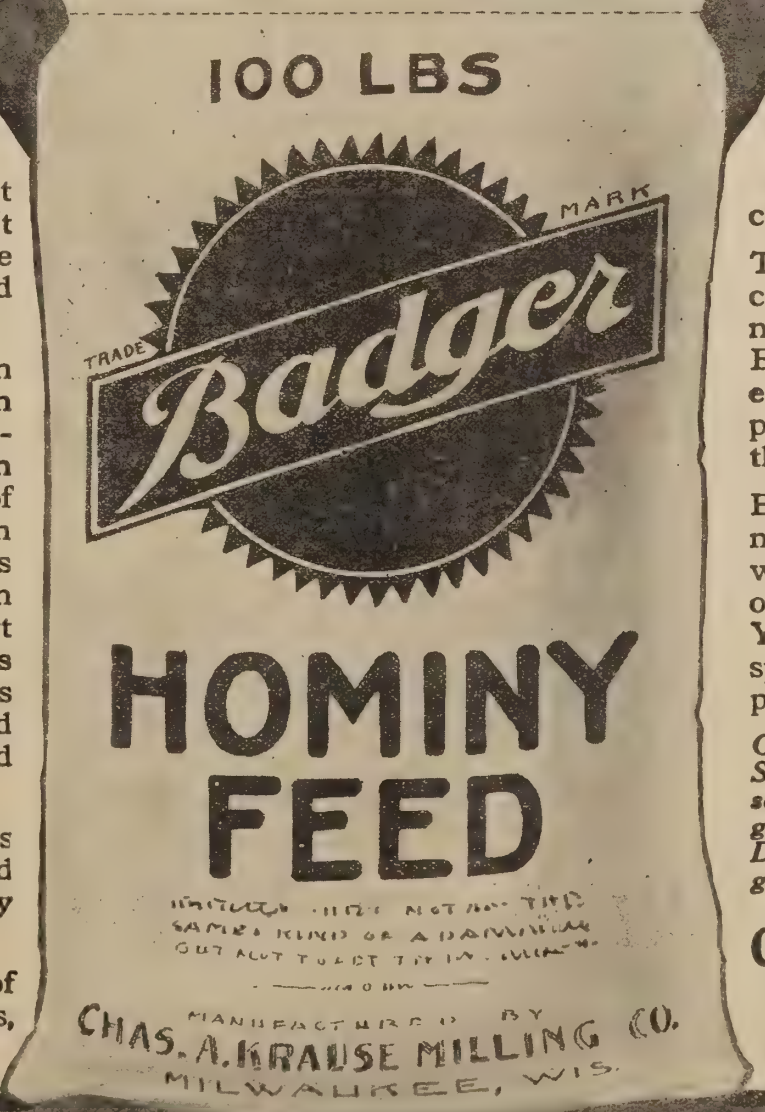
nd the base of each Badr Feed is ***Badger Hominy eed, the most nutritious sine feed stuff known.***

adger Hominy Feed needs no inoduction. It has been known and sed for many years by the most ccessful feeders in the country. It a carbohydrate feed that can be sed for all live stock—no other feed uff will take its place.

adger Hominy Feed is superior in eding value to the natural grain ecause it contains a larger percentge of tissue building material than ie whole corn and in the process of illing is partially cooked which akes it more digestible. In it is so included the mill run of Corn erm Meal—the germ or fatty part the corn from which the oil has een partially extracted. This makes adger a far more valuable feed an any other ordinary hominy feed n the market.

aluable as Badger Hominy Feed is a base, it is too rich to be used conomically alone except in a very w cases.

o secure the correct proportions of roteins, fats and carbohydrates,



Badger Hominy Feed should be combined with various other feed stuffs.

But in these times of extreme labor shortage, successful feeders cannot take the time to mix their own feed. They know also that the feeds they mix themselves cannot be as scientifically accurate and dependable as feeds that are prepared under tested and approved formulas and are chemically correct.

The proteins, fats and carbohydrates contained in different feedstuffs differ not only in quantity but in quality. Each Badger Feed contains a different combination of ingredients so proportioned as to make it exactly the right feed for its special purpose.

Badger Feeds are proved money makers, to which thousands of feeders will testify. They will cover the needs of every class of stock on your farm. You will find them absolutely reliable, splendidly adapted to their specific purposes and unvarying in quality.

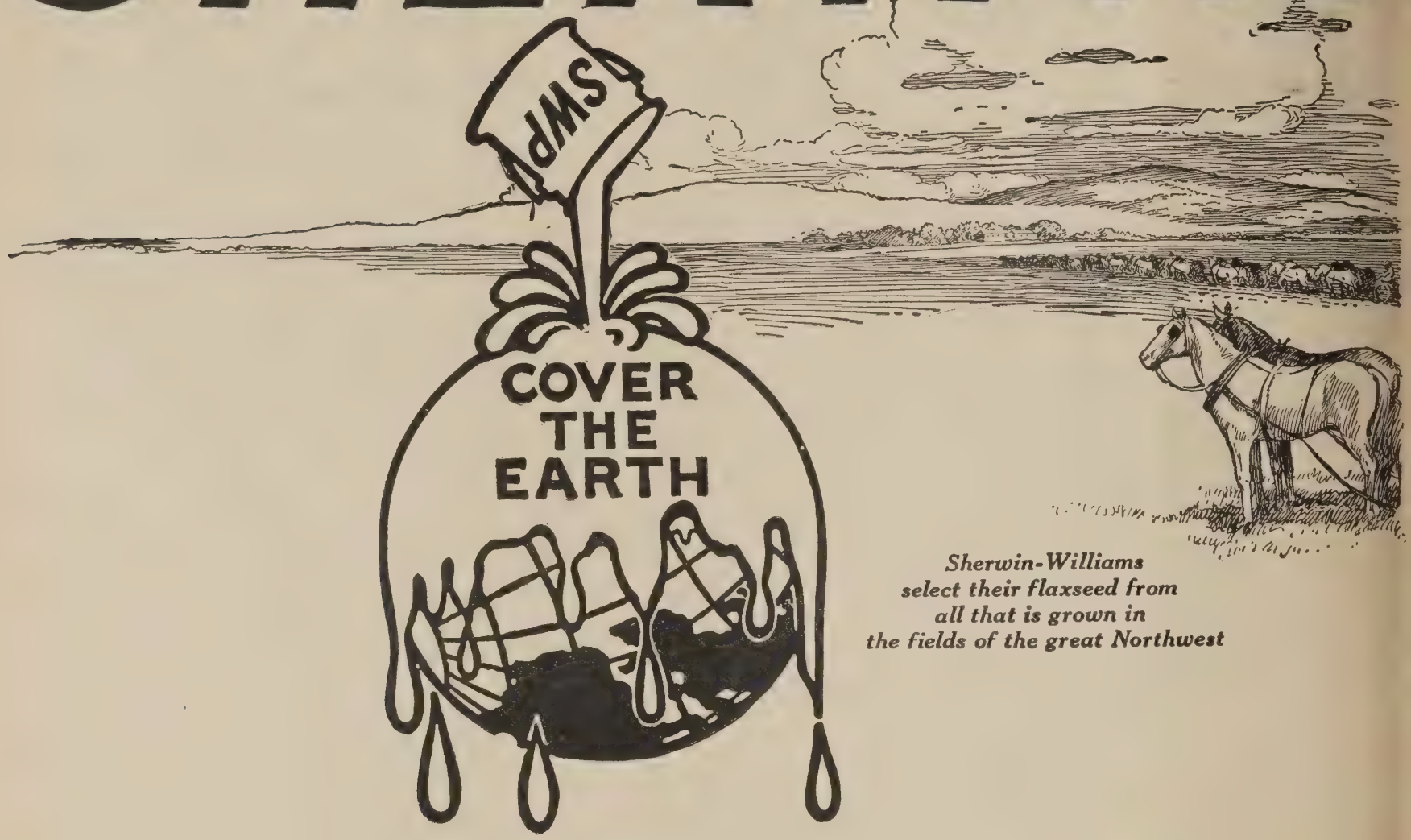
Get your supply of Badger Feeds now. See your dealer at once. Send for free samples and literature covering Badger Cream City Dairy Feed, Krause Dairy Feed, Badger Calf Meal, Badger Hog Feed and Badger Stock Feed.

Chas. A. Krause Milling Co.

Manufacturers of the Badger Line of Farm Feeds

Milwaukee, Wisconsin

SHERWIN



Sherwin-Williams select their flaxseed from all that is grown in the fields of the great Northwest

WE put this trade-mark on everything we make. It is a mark of confidence—your confidence in us and in our products. It indicates many things and one of the things it means is this: In all the materials we use, as in all the methods we employ, no pains are spared in making the product you buy dependable.

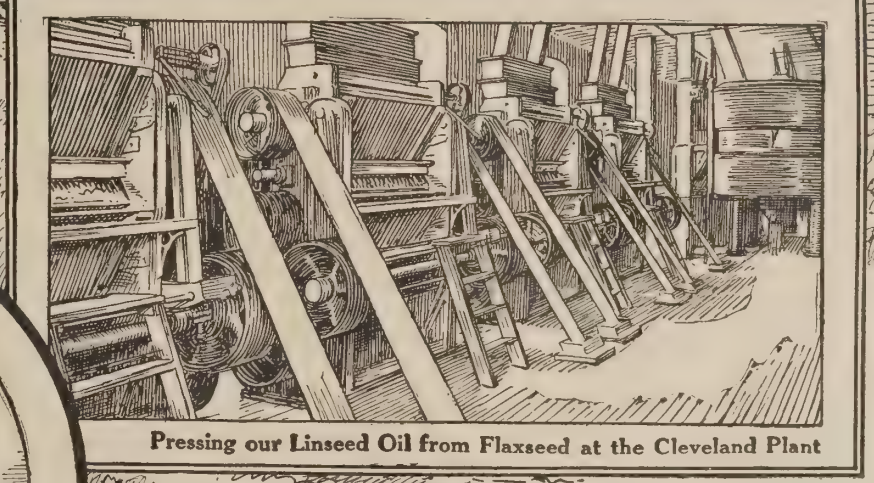
We could not make a dependable product from materials of doubtful worth. That is why we go to the source and produce those materials upon which quality depends. This trade-mark, therefore, goes back beyond the product itself; it means that the essential materials from which it is made are also

SHERWIN-WILLIAMS PRODUCTS

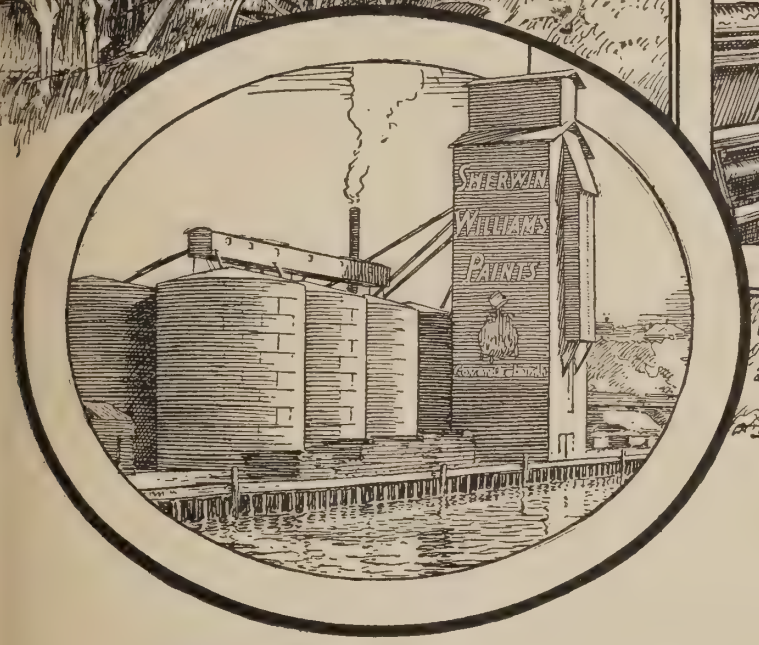
PAINTS AND VARNISHES

DYESTUFFS, COLORS, PIGMENTS, CHEMICALS, INSECTICIDES, DISINFECTANTS, WOOD PRESERVATIVES

WILLIAMS PRODUCTS



Pressing our Linseed Oil from Flaxseed at the Cleveland Plant



A few of the many tanks in which we store our Flaxseed

We control our sources of supply

ONE of the factors that has helped make The Sherwin-Williams Company the dominating dustry in its field is the steps it takes to quality. Manufacturers depending upon outside sources r raw materials are handicapped by shortages, rying quality and price fluctuations. We control our sources of supply. We produce our essential raw materials. One of these is linseed oil. We contract for the growing flaxseed, supervise its cultivation, ship it to our storage elevators, press the seed and refine the oil in our own plants.

Whatever the conditions, we are sure of our supply—always of the Sherwin-Williams standard—and you are assured of highest quality in the paint, varnish or other finishes that require linseed oil.

Linseed oil is but an instance, just as our chemical plants, our zinc and lead mines and our color works are instances of the extent to which we go in making each Sherwin-Williams product the best for your purpose.

THE SHERWIN-WILLIAMS CO.

Main correspondence office, Cleveland, Ohio

Plants, Warehouses and Sales Offices all over the world

Sherwin-Williams Products for the Farm

How to use them yourself to get perfect results is told in free book "The ABC of Home Painting"

use Paint
eosote Paint (for Barn, Roof, Etc.)
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S-W Enamels
Screen Enamel
Mar-Not Varnish for Floors
Scar-Not Varnish for Interiors
Rexpar Varnish for Exteriors
Auto Top Dressing
Enamel Leather Dressing
Sheep Marking Liquid
Buggy and Auto Paint
Wagon and Implement Paint
Barn Paints
Auto Enamel
Pure Linseed Oil
Concrete Finish (for Floors and Walls)
Pruning Compound
Floor-Lac (Stain and Varnish Combined)
Polish-Oil (Cleaner and Polish)
Floor Wax
Deco-Tint Wall Finish
Flat-Tone Wall Paint
Aluminum and Gold Paints
Dry Lime-Sulfur
Arsenate of Lead
Lime-Sulfur Dip
Cattle Dip
Paris Green
Tuber Tonic
No-Fly
Disinfectants

Twenty-Six Million Cattle

needed to replace those of Europe at the close of war —and it will not be long

Be prepared to supply this demand with

PUREBRED

Holstein-Friesians

Begin now to build up your herds. Be prepared to take care of European wants for breeding stock which will require yearlings, two-year-olds, and young cows of good type and breeding to supply their greatly depleted herds.

The tremendous demand for Holsteins now existing in this country when augmented by that of Europe will create a demand far in excess of the supply.

Have something ready to sell.

The Holstein-Friesian Ass'n of America

F. L. HOUGHTON, Secretary
BRATTLEBORO, VERMONT

THE GUERNSEY

stands for Economical production. More profit from every pound of feed. Do you want cows that will improve your Dairy? Write for free literature.

Guernsey Cattle Club,
Box H. Peterboro, N.H.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. W. A. Cloues, Mgr.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. F. P. Frazier & Son, Props.
W. K. Hepburn, Supt.

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

FOR SALE

Young Guernsey Bulls by May King of Columbia an inbred May Rose. Descriptive sale list tells of persistent production and breeding and attractive prices. Tuberculin tested herd, free from disease.

L. W. Sheldon, Mgr., Kathergay Farms, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. F. G. Benham & Son, Canandaigua, N. Y.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm,
Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see.

L. V. AXTELL,
Old Homestead Farm, Perry, Ohio.

Registered Guernsey Bull For Sale

DROPPED JULY 21st, 1917.

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Imp. Camilla of Sarnia 52773 A. R. At 2 years made 8,015.86 lbs. milk, 363.65 lbs. fat, will be retested as aged cow. She descends from Masher's Sequel with 81 A. R. daughters and 18 A. R. sons. For pedigree and price write Folly Farm, Libertyville, Ill.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. August Ziesing, Deerfield, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

IOWANOLA GUERNSEYS

Imp. Kitchener's Express 43925 Jr. Herd Sire. Undefeated 2-yr.-old at 1918 Fairs.

His Sire:—Hayes Kitchener, a son of Imp. Rose de Houard's 50th. 685 lbs. fat (record made in England).

His Dam:—Haye's Express 9th—524 lbs. fat, record made while on show circuit a part of the time. A consistent winner at the shows as a 3-yr.-old.

This young bull is bred for both individuality and production. You must see him to appreciate him. We have some excellent young stock for sale.

Meet us at the Waterloo and Columbus shows.

Mountain Bros., R. 5, Des Moines, Iowa.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

GUERNSEYS A. R. RECORD COWS for SALE

Others of special breeding. Send for list of cows and heifers. ROY C. BUZZELL, Stanley, Wis.

The Massachusetts Guernsey Breeders' Association

will hold a sale of selected

GUERNSEYS

At New England Fair Grounds, Worcester, Mass., on

Thursday, Oct. 24, '18

Choice Consignments of Animals of the Best Blood Lines, from

W. M. HURLEY, Willow Brook Farm, North Pembroke, Mass.
HILLSWOLD FARM, Shrewsbury, Mass.
J. C. HAARTZ, Albamont, Campton, N. H.
CHAS. H. JONES, Fillmore Farm, Wellesley Farms, Mass.
FORGES FARM, Plymouth, Mass.
F. LOTHROP AMES, Langwater Farm, North Easton, Mass.
JOHN S. AMES, North Easton, Mass.
ALFRED L. LINCOLN, Rocky Reach Farm, Norwell, Mass.
GEORGE A. CLUETT, Green Meadow Farm, Williamstown, Mass.
ARTHUR W. WELLINGTON, Gateways Farm, Wayland, Mass.
HENRY C. EVERETT, Bayside Farm, Barnstable, Mass.

Prize Winners, A. R. Sires, A. R. Cows, Sons and Daughters of A. R. Sires and Dams.

For Catalogue Address

LEANDER F. HERRICK, Auct.

405 Main Street, Worcester, Mass.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.

W. G. Jamison & Sons, Appleton, Wis.

SARNIA

Imported and Home Bred Guernseys. 300 Head Imported

in 1917 are all sold. Several good cows for sale. Also young bulls from high class A. R. cows. Place your order early for bred heifers from 1918 importations. Send for sale lists.

Charles L. Hill & Son, Rosendale, Wis.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. Roy Burton, Eagle, Wis.

Young Guernsey Bulls Of Good Producing Ancestry

with advance registry records. Good, strong individuals of the celebrated *Yeksa Breeding*. Send for price list.

Helendale Farms, 702 Cedar St., Milwaukee, Wis.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. His Dam is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. The Bull himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

The question of the hour

How Much are a Cows Teats Worth



Ohio Test—1917

131 Jerseys, 157 cows of competing breed, tested for one year by Ohio University—RESULT: "Jerseys consumed 18.2 more nutrients and produced 1.2 per cent more milk, 25 per cent more solids and *59 per cent more fat.*"

Official figures in Ohio University Bulletin.

St. Louis Test—1904

Pounds of feed required to produce a pound of butterfat:

First, JERSEYS, 12 lbs. Third breed . . 15.52 lbs.
Second breed . . . 14.83 lbs. Fourth breed . 16.91 lbs.

Figures taken from Official Report.

Chicago Test—1893

"Jerseys demonstrated ability to return a greater *net* profit than any other breed."

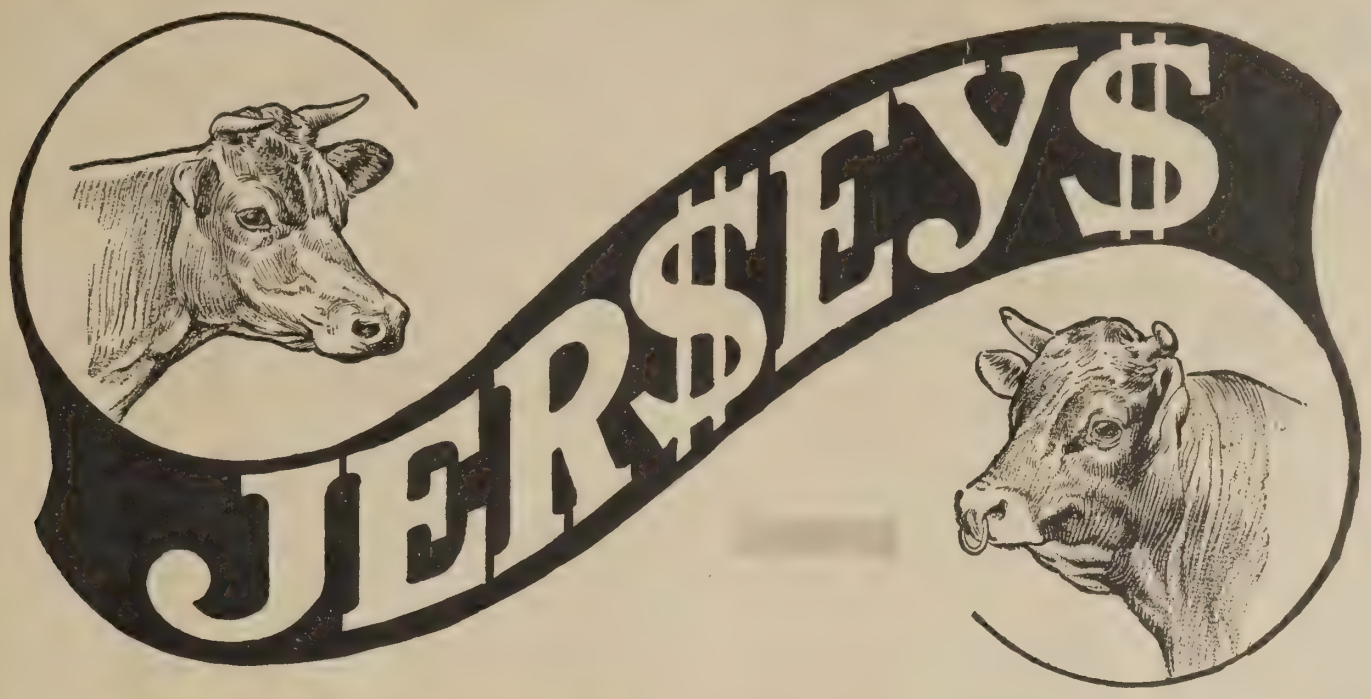
Statement in Official Bulletin.

Here is Your Answer!

JEREY

Lead the World in Butterfat

AMERICAN JERSEY CATTLE CLUB, 351 W. 23rd St., New York City



Hiresdale Jersey Herd

Majestys



Crocus' Jolly Majesty.

Our herd bull is a son of Sultana's Golden Jolly, the Grand Champion at the National Dairy Show in 1911, out of Majesty's Brown Crocus, third highest testing daughter of Imp. Oxford Majesty. R. of M. record 743 lbs. 85 per cent butter at 4 years of age. A combination of show ring type and production backed by careful breeding operations all through.

We are offering a few bulls and a limited number of heifers out of this wonderful line of breeding. This is your opportunity to get the blood of Oxford Majesty, Gamboge Knight, Oxford Lad and many other leaders into your herd. Write at once for pedigrees and prices.

CHARLES R. HIRES

R. R. No. 2, **Salem, New Jersey.**

Hiresdale Herd is New Jersey's leading butterfat herd. Led Salem County Cow Testing Association for 1917. Twenty-four cows now on Register of Merit test.

OK JERSEYS



JERSEYS are the "O.K." breed for the working farmer. They are bred to make money for the owners. Feed in the manger is gold in the milk pail if it goes through a Jersey. There is no other breed that produces so much for so little as the Jersey. Beautiful as a picture, hardy in all climates a genuine satisfaction and continuous source of income. Ask Breeders for pedigrees and prices and let us send you some revelation facts about the money making Jersey.

The American Jersey Cattle Club, 351 West 23rd Street, New York City

Moreton Fields Farm

Crystal Bay, Minn.

We have a small herd of fifteen to twenty cows, mostly island breeding, and they are all in the Register of Merit with very creditable records, or are now on official test.

We have a few young bulls for sale out of cows with very good register of Merit Records, and sired by Oxford Gipsy's Lad, a son of Oxford Majesty's Gipsy, Grand Champion Cow at the National Dairy Show, 1917.

INQUIRIES SOLICITED.

C. C. WEBBER, Owner. **R. H. VAN SLAMBROUCK,** Superintendent.

Public Sale

I will sell at Public Auction, at my Farm,

4 Miles South of St. Joseph, Mo.,

Monday, Oct. 21, 1918

40 Jersey Cows and Heifers

25 of these cows are guaranteed to qualify for the Register of Merit or your money back. These cows are all bred to Gamboge's Western King, whose dam will surely qualify in the 1,000-lb. class this year. Send for catalog.

ROBERT I. YOUNG
R. F. D. 5, St. Joseph, Mo.

MERIDALE JERSEYS

Several foundation herds of particular merit are available from the Meridale Herd this summer. They are fully described in a small leaflet, mailed on request.

AYER & McKINNEY
300 Chestnut Street, Philadelphia, Pa.

IF YOU WANT TO

Increase Production

Improve Type, Size, Constitution and Prepotency.

COME TO THE NATIONAL DAIRY SHOW

Columbus, Ohio, Oct. 10th to 19th, 1918

We will have on exhibition Twenty Jersey Bulls and Bull Calves (all for sale) Rich in the Blood of the World's Champion Sires and World's Champion Cows.

Pogis 99th of Hood Farm
At 8 years of age sire of 54, and two producing sons; five daughters average 14,344 lbs. milk, 828.09 lbs. fat, 1,035.1 lbs. butter at age of four years two months. Sire of the world's Jersey champion junior 4-year-old, Sophie's Adora, 15,852 lbs. milk, 1,110 lbs. butter. He is the greatest living sire. Son of the world's champion, Sophie 19th of Hood Farm, seven years' tests 91,869 lbs. milk, 6,600.8 lbs. butter.

Hood Farm Torono
Sire of 72, and 21 producing sons; five daughters average 16,095 lbs. milk, 868.7 lbs. fat, 1,085.9 lbs. butter, at age of 5 yrs. 3 mos. Sire of more gold medal winners for production than any bull of the breed. Sire of the world's champion senior 3-year-old, Lass 66th of Hood Farm, 17,793.7 lbs. milk, 1,138.7 lbs. butter.

Lass 66th of Hood Farm
World's champion senior 3-year-old, 17,793.7 lbs. milk, 1,138.7 lbs. butter.

Hood Farm Pogis 9th
The champion sire. Sire of more R. of M. daughters than any bull of the breed. Sire of 79, and 25 producing sons; five daughters average 13,769.8 lbs. milk, 719 lbs. fat, 898.76 lbs. butter. Double grandsire of Sophie's Agnes sold at auction for $10,099, the world's record for a Jersey cow. Son of Figgis, grand champion World's fair at St. Louis, test 19 lbs. ½ oz. butter, 7 mos. 7 days after calving.

Sophie's Adora
World's Jersey champion junior 4-year-old, 15,852 lbs. milk, 1,110 lbs. butter.

Sophia 19th of Hood Farm
World's champion Jersey cow, 17,557 lbs. 12 oz. milk, 1,248 lbs. butter. World's champion long-distance cow, 91,869 lbs. milk, 6,600.8 lbs. butter in seven years.

Lass 64th of Hood Farm, ex-champion yearling, 9,329 lbs. milk, 766.2 lbs. butter; ex-champion junior 4-year-old, 13,344.6 lbs. milk, 1,022.1 lbs. butter. Lass 74th of Hood Farm, ex-champion junior 3-year-old, 13,713 lbs. milk, 973.9 lbs. butter; Lass 73d of Hood Farm, ex-champion senior 2-year-old, 10,953 lbs. milk, 931.4 lbs. butter; Successful Queen, ex-champion junior 4-year-old, 16,389.3 lbs. milk, 1,066 lbs. butter; Sophie's Bertha, ex-champion junior 3-year-old, 14,954.2 lbs. milk, 1,036.9 lbs. butter; 3 years' tests as a 2, 3 and 4-year-old, 44,299.1 lbs. milk, 3,096.1 lbs. butter—a record unequalled.

This is an opportunity every man in need of a sire should take, see the great show and secure a high class sire on the one trip. Prices to suit the Dairyman and Breeder. Ask at our Exhibit for

J. E. Dodge, Mgr., Hood Farm, Lowell, Mass.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

GRANDDAUGHTER OF NOBLE OF OAKLANDS



Sire: Trial's Noble of Oaklands whose dam made 563 lbs. fat in one year. Dam: May of Oak Grove that has a R. M. record of 334.41 lbs. fat as a 2-year-old—ave. test 6.2%. Born April 1917. Bred to an R. M. son of Eagle's Chief. Also a bull calf by the same sire from a heifer that made 594.625 lbs. fat as a jr. 2-year-old and won first at Wis. State Fair 1915. Dropped Jan. 16, '18. Guaranteed straight and right.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write **Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.**

JERSEY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write, **G. D. GILBERT, Lake Geneva, Wisconsin.**

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

13,036 lbs. MILK—720 lbs. FA

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, drop April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and ness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to d Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. **E. G. Roberts, Proprietor.**
Roberts Poultry Farm, Ft. Atkinson, Wis.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. ***Dam:—Oxford's Majesty's Chance 357046.*** Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

"Over the Top

you will surely go if you "head your herd with a MAJESTY".

A grandson of Royal Majesty, My I Eminent, Noble of Oaklands and Stockw Gold Lady is sire of bull we offer, born 15th last. Dam is our great Merry Mou 2d who made 577 lbs. as a two-year-old. Dam made 734 lbs. from 12,000 lbs. milk, 71 lbs. in 7 years. This is a beautiful calf, of dairy productive inheritance. Solid c and straight as a string. Absolutely free f disease. An old customer has just been and selected 3 older ones. Better wire for fellow. **C. I. Hunt & Son, R. F. D. 10, Hunt, New**

Lookout Farm Jerse

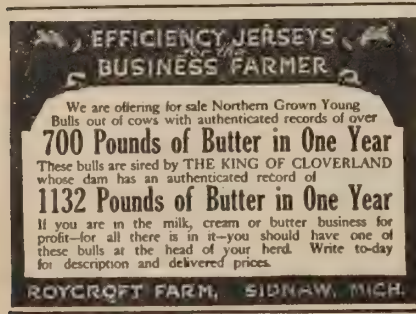
An Attractive Trio

Three heifers dropped respectively on Nov. 1917; Nov. 18th, 1917; and Jan. 16th, All three are daughters of *Raleigh's Loo Torono 136362*, who has 37½ per cent of blood of the great bull, *Hood Farm Tor* and whose dam, grandam and great gran are all in the Register of Merit, and eac them has given over 10,000 lbs. of milk year.

The dam of one of the heifers has been tered in the Register of Merit and the d of the other two are now under test. Addr
Henry S. Redfield, 1925 Seventh Ave., New York

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our won prizes in the Wisconsin Dairy Cow Competition. Our are well known. We have the best of breeding. Our herd for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton,



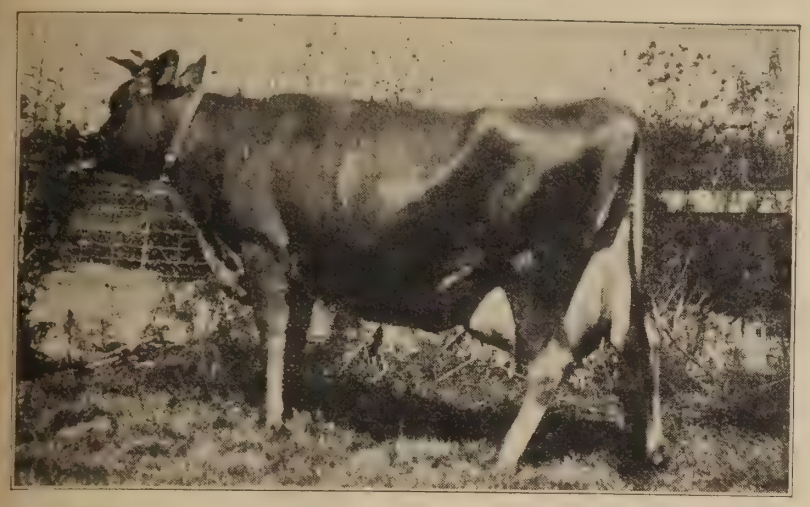
Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

MESCALERO JERSEYS



ROCHETTE'S PRINCESS 253833. NOW ON TEST—IN SIX MONTHS HAS MADE 10,554 LBS. MILK, 518 LBS. FAT

In all the history of this country there has never been such a time as now to buy breeding stock.

All Federal and State authorities tell of the present shortage and the great demand soon to come with the victorious peace which shall end the great war.

Now is the time to buy—but never before has it been of such importance to make careful selection.

You *Must Have* great production, but you also want economical production. You want size, constitution and capacity—health and vigor.

You also want correct type and true Jersey refinement and beauty.

Then why not buy from a herd where you can combine *all* these good points—and where the prices are within the reach of all.

Even now we seldom keep our bull calves any length of time and we confidently believe that within a very short time every calf will be engaged in advance.

We have today just 24 cows of milking age. Nine have already completed Register of Merit records with the splendid average of 10,733 lbs. milk and 560.3 lbs. fat.

On test now we have among others—

	Milk	Fat
Rochette's Princess—in just six months	10,554.0	518.01
Rochette's Golden Princess, 9 mos. 2 days	12,505.7	614.5
Lady Rosette of H. S. F., 8 mos. 18 days	12,941.7	614.8
Rowers June Lady, 4 mos. 15 days	5,298.9	235.5
Eminent's Handsome Fern, 3 mos. 25 days	3,219.3	197.4

Every cow in this herd will be put on test within the next year. This should prove conclusively our claim of production.

As to correct type, conformation and beauty. We have only shown twice—both times at the New Mexico State Fair, where we were first in every class entered, and, in competition with Holsteins and Guernseys as well, won every grand championship.

The majority of our cows were imported from the Island of Jersey by W. R. Spann, and we gladly refer to him as to their quality.

OUR HERD BULLS—One a son of Gamboge's Knight, out of a Register of Merit Flying Fox cow. His first daughter tested has just completed a year's Register of Merit work, and although less than two years old at start, has made the following record: Milk, 8,397.4 lbs.; Fat, 491.2 lbs.

The younger bull is a son of *Sybil's Gamboge*, dam a Register of Merit daughter of Oxford Majesty. This bull imported by Edmond Butler. You know what he thinks of Sybil's Gamboge blood and you know how they sold last spring.

Our test cows are handled in a perfectly normal manner. They are milked and fed three times a day—other than this they have no special care, and run in open lots with the other cows, both summer and winter.

Health, Constitution and Vigor

Our cows and calves are out of doors just 365 days in each year. Dry air and cool nights in summer, bright sunny days and cold nights in winter; pea green alfalfa with oats and corn insure health, size and great capacity.

If you want pretty little playthings, don't come to this herd, but if your aim is large, economical production, with health and beauty added, and want it at worth the money prices, it will pay you to write us.

Meldrum Gray, Roswell, New Mexico.

1st. Win the War—

and make the world safe for Democracy.

2nd. Breed Jersey Cattle and make the farm safe for Posterity.

I still have some classy heifer calves and a few bulls at moderate prices. Could furnish a carload of excellent milk cows. All stock registered. D. V. VANDIVER, COLUMBIA, MO.

"The Hermitage" near Centreville, Maryland

'ure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden ads, Flying Fox, Mohican and Noble Oaklands.

uan Williams, Owner. Edw. A. Nelker, Herdsman.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD Sec'y, R 4, Box 5, Springfield, Ohio.

Roycroft Northern Grown EFFICIENCY JERSEYS

The following description of THE KING OF CLOVERLAND and OGIMA OF CLOVERLAND, the two Herd Bulls in use on Roycroft Farm, is for reference only. The list of young bulls following the herd bulls are descriptions of the ones we offer for sale and the prices named are for the animals registered, transferred, crated and shipping charges prepaid to the purchaser's nearest express station.

THE KING OF CLOVERLAND 115137 is out of Eminent's Bess and sired by Jacoba's Emanon. Eminent's Bess is entered in the Register of Merit with 18,782 lbs. 15 oz. of milk equal to 1,132 lbs. 12 oz. of 85% butter. Jacoba's Emanon is a bred-and-tested for production bull whose first ten daughters to complete a year's work qualified for the Register of Merit at an average age of 2 years 4 months at beginning of test and produced a total of 63,527 lbs. of milk testing 6.43% in fat—an average of 480 lbs. of 85% butter per cow with first calf. Jacoba's Emanon is a grandson of Jacoba Irene who is entered in the Register of Merit with 17,253 lbs. 4 oz. of milk testing 1,122 lbs. 2 oz. of 85% butter in one year. To put it more concisely 62½% of the blood of the King of Cloverland comes from two cows with authenticated records of 36,035 lbs. of milk testing 2,253 lbs. of 85% butter in one year. **The King of Cloverland is the only Jersey bull in the world whose close up ancestry shows two cows with authenticated records of over 1100 lbs. of 85 per cent butter in one year, and Eminent's Bess is the only Jersey cow in the world that has an authenticated record of having produced an average of 51 lbs. 7 oz. of milk testing over 5 per cent in butterfat every day for three hundred and sixty-five consecutive days—a persistency of milk production that is a most desirable characteristic in the dam of a herd bull.**

OGIMA OF CLOVERLAND 153900 is out of My Rosebud's Pride and sired by the King of Cloverland. My Rosebud's Pride is entered in the Register of Merit with 15,414 lbs. 3 oz. of milk equal to 971 lbs. 10 oz. of 85% butter. Soon after completing this record she was well started on a year's work that gave every promise of smashing all records for the Jersey breed when an accident to her udder put her out of commission. The sire of My Rosebud's Pride is Rosebud's Fern Lad who has seven daughters entered in the Register of Merit at an average age of 4 years 8 months at beginning of test and with an average production of 11,427 lbs. of milk and 716 lbs. of 85% butter in one year. Ogima's pedigree shows that 81¼% of his blood comes from three cows entered in the Register of Merit with 51,450 lbs. of milk equal to 3,226 lbs. of 85% butter. **Ogima is the only Jersey bull in the world whose close up ancestry shows three cows with authenticated records averaging 17,150 lbs. of milk and 1075 lbs. of 85 per cent butter in one year.**

BULLS FOR SALE

Bull No. 156 (Tattoo No. 23.) Price $600

Born May 3, 1918. Light tongue and switch. Broken color with some white. Out of Edith Marigold and by OGIMA OF CLOVERLAND. Edith Marigold is a gold medal cow entered in the Register of Merit with 11,842 lbs. of milk testing 819 lbs. 6 oz. of 85% butter, the test beginning when she was 4 years 6 months of age. Her sire has six daughters entered in the Register of Merit with an average of 526 lbs. of 85% butter in one year with first calves. The broken color of this youngster out of Edith Marigold indicates that he throws back to his sire's dam, My Rosebud's Pride, who is a cow with some white and it ought to be good reasoning to say if he inherits color from his grandmother that it is equally likely he inherits the ability to transmit her milk producing qualities. With three near up ancestors whose authenticated year records aggregate 46,038 lbs. of milk testing 2,922 lbs. of butter, this young bull has every license to be a sire of high producing cows. He also has an aristocratic carriage quite in keeping with his wonderful milk producing ancestry and he has all the points that go to make a show ring winner.

Bull No. 158 (Tattoo No. 25.) Price $450

Born July 21, 1918. Solid color, black tongue and switch. Out of Marion's Pride and by THE KING OF CLOVERLAND. Marion's Pride is entered in the Register of Merit with 10,080 lbs. 11 oz. milk testing 684 lbs. of 85% butter, the test beginning when she was 9 years 2 months of age. She is now over 15 years of age and is milking from thirty-eight to thirty-nine pounds per day on grass. She is as young at fifteen as most cows are at nine or ten and the fact that she is a regular breeder at her age speaks much for the longevity of her progeny.

Bull No. 162 (Tattoo No. 28.) Price $500

Born August 28, 1918. Solid color, black tongue and switch. Out of Salome of Roycroft and by THE KING OF CLOVERLAND. Salome is entered in the Register of Merit with 12,525 lbs. of milk testing 728 lbs. 12 oz. butter and was 4 years 9 months of age at beginning of test. She could easily go over the eight hundred pound mark on present lactation if good feed stuffs and good milkers were available. Salome is by same sire as Edith Marigold.

Bull No. 163 (Tattoo No. 29.) Price $400

Born August 29, 1918. Broken color, light tongue and switch. Out of Cyrene of Roycroft and by OGIMA OF CLOVERLAND. Cyrene is entered in the Register of Merit with 9,314 lbs. 9 oz. milk testing 611 lbs. 7 oz. butter and she was 3 years 2 months of age at beginning of test. Cyrene is a large cow weighing over 1,200 lbs. and could easily qualify for the eight hundred pound class on this lactation period if conditions were normal and good feed stuffs and milkers available. The same argument applies regarding the broken color of this young bull as applies to bull No. 156.

Roycroft Farm is 1,300 feet above the sea level and in latitude 46 degrees north just midway between the Equator and North Pole. We believe that our hardy Northern Grown Jerseys will do the business farmers and breeders of more Southern latitudes much good. Bear in mind that a bull is known by the owner he keeps.

ROYCROFT FARM

Breeder of Efficiency Jerseys, Sidnaw, Michigan.

PUBLIC SALE

80 Jersey Cattle 80

At Belmont Stock Farm, Tacoma, Ohio

Saturday, Oct. 26

Many Register of Merit Cows and Their Offspring

This Breeding and Dairy Farm, founded 1878, has done more to develop and encourage Dairy Farming than any other farm in America.

A. J. Glover, Editor Hoard's Dairyman, said he knew of nothing so reliably indicating the capacity of dairy cows as the Cow-Test Association Records.

Four consecutive years Winona Association held the highest average record of any Association in the World.

1896 L. P. Bailey and Sons sold Winona folks 42 registered and about as many grade Jerseys—the foundation of the great Dairy Interest in Columbiana County, Ohio.

1917-18 Barnesville Association shows an average of 369.25 lbs. 85 per cent butter, passing Winona and all others—a word to the wise.

This is a consignment of our average stock and will prove as good as that we have been selling for forty years.

Our present leading herds' bulls are: Fanny's Oxford Majesty 91781 Imp. in dam, Bess' Oxford Owl 105830, Imp. Glory's Noble 90655, Oxford Direct 125979, and Oxford Fontaine Lad 102683. Note the prominence of the Oxford Lad, different strains. Send for catalog.

Address L. P. Bailey and Sons,

Tacoma, Belmont Co., Ohio

Col. Perry, Auctioneer.

Sophie's Tormentor JERSEYS

"Production" our Watchword.

FOR SALE—BULL CALF No. 257, dropped May 22, 1918; solid color, black tongue and switch; an excellent individual.
SIRE: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM: Varna 333660, in the R. O. M., Class AA—546.29 lbs. 85% butter in 1 year from 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. A daughter of the famous Hood Farm Torono 35th 99265. **FAIRVIEW FARMS, Inc.**
R. L. Pike, Gen'l Manager, Geneva, Ohio.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

TWO REGISTERED JERSEY BULLS

No. 1—Very large, intensely butter bred polled calf, dropped June 7, 1918. Dam on Register of Merit test and beating present Illinois Champion, same age, which we also own. Several World's Champion milkers in the pedigree. Great calf. No. 2—Yearling, by grandson of Noble of Oaklands out of R. of M. cow. Both fine individuals. Choice, $125. Send for pedigrees, pictures, etc. **Dr. H. J. Reynolds, 25 E. Jackson Blvd., Chicago.**

Jersey Bulls

FOR SALE

A son of Golden Maids Viscount, No. 113344, dropped May 10, 1917, now ready for service, 2 bull calves about three months old, and 1 one month old, all from register of merit cows.
FRANK P. CURRAN, - TAYLOR, WIS.

Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.
ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE.

RED POLLED

Our August and September RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.
JEAN DU LUTH FARM NO. 2, Nickerson, Minn.

AYRSHIRES

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicoln.
A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

CRESTMONT FARM AYRSHIRES

Are offered in several choice bull calves. Handsomely marked, nearly all white, from tested cows in Advanced Registry. "Finlayston" and "Baron's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. **W. H. Druckemiller, Sunbury, Pa.**



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls
F. R. McCONNELL, - Wellington, Ohio

Willowmoor Ayrshires

6 World's records. 300 head. Write for circular
J. W. CLISE, Redmond, Wash. (Near Seattle

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from clean and healthy herd offered for sale. Mo than 100 head to choose from and our 20 year experience is back of every one. Write us no
F. FREEMYER, WALHALLA FARMS, Middleburgh, N.

Pleasant View Herd

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, we grown, good individual. *By sire* out of an R. dam with 16,500 lbs. milk, 650 lbs. fa *Out of* a dam weighing 1,600 lbs., which h milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK, WI

Get Cash

For Your Empty Bags

Don't throw away a single bag—they're worth money to you. Prices are 'way up now. Cash in on all you have. But be sure you get our prices before you sell a single one. We guarantee most liberal grading. Over 20 years in business is your assurance of a square deal every time. We buy any quantity.
Freight paid on all shipments to Werthan. Find out what real satisfaction is. Write, stating what you have.
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WERTHAN PAYS HIGHEST PRICES FOR EMPTY BAGS

IROQUOIS FARM

AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Wisconsin Ayrshire Breeders' Association

Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.
Jas. Van Etta, Lima Center, Wis. Adam Seitz, Waukesha, Wis
Fred Tschudy & Sons, Monroe, Wis. Stephen Bull, Racine, Wis.
Bollig Bros., Black Earth, Wis. John DeMaster, Cedar Grove, Wis
A. J. McNab, Secretary, Black River Falls, Wis.

Minnesota Dairy Short Courses

The Minnesota College of Agriculture announces the following special short courses in dairying to be given during the coming winter season:

Creamery buttermakers, December 2—14; cheesemakers, December 2—21; ice cream makers, December 16—21; dairy course, January 6—March 1; and creamery managers' conference, January 2—3.

The 1918 food reserve is the only safe insurance for 1919 food supplies.

HOLSTEINS

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

Walcowis Farms

OFFER SON OF

IOWANA SIR OLLIE

Sire of state record jr. 2-yr.-old. Dam, a granddaughter of King of the Pontiacs and first prize winner at National Dairy Show, made 27.70 lbs. butter from 624 lbs. milk in 7 days. Best day's milk, 101.5 lbs. Calf was born April 8, 1918, is evenly marked and a splendid individual. Write now for price, pedigree and photo.

N. DICKINSON & SON,
Lake Geneva, - - Wisconsin.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. **His Dam:** Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4-year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.

HALSEY SEDGWICK, Limeridge, Wis.

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

PUBLIC SALE
MONDAY, OCT. 21
65—HEAD—65
REGISTERED
HOLSTEINS

Complete Dispersion of the Famous
BLACKBURN HERD

25 big, strong, fresh cows and nearby springers, 20 big 2-year-old heifers, bred to my 31-lb. herd sire and due to freshen this fall; 5 bulls (including my 2-year-old HERD SIRE) and several calves. Send for catalog.

Dr. A. D. Blackburn, Cuba, Ohio

Buffalo Creek Farm

OFFERS A SON OF

Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. Albert R. T. Lillie, Supt., Arlington Heights, Illinois.

PREPARE

For the greatest demand, highest prices the world has ever known for dairy cattle.

Send for our free price list of 100 choice females, also bull list on request.

WOODLAWN FARM, Sterling, Illinois.

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

"The October Quality Sale"

100 Registered HOLSTEIN-FRIESIAN Cattle 100

SALES PAVILION
HOWELL, MICHIGAN, OCTOBER 30th

This is our Thirteenth Public Sale and we have made a special effort to select cattle of high quality. Each consignment has been inspected and only good animals, free from blemishes, have been accepted. No old worn-out cows and no cows with damaged udders will be sold.

The sale includes—

55 good young cows, fresh or due soon after the sale.
40 two-year-olds and yearlings, the majority being bred to freshen soon.
2 heifer calves.
3 young bulls, with 25-31 pound dams.

TUBERCULIN-TESTED BY FEDERAL AUTHORITY AND SOLD SUBJECT TO SIXTY-DAY RETEST.

A rare opportunity to select healthy animals for foundation purposes.

Michigan Breeders' Consignment Sale Co.,
H. W. NORTON, Jr., Mgr.,
Send for catalog. East Lansing, Mich.

MAPLE LAWN DAIRY FARM
50 PURE-BRED HOLSTEINS 50

QUACKENBUSH for QUALITY HOLSTEINS

My Herd Sire, RAG APPLE PONTIAC is a bull of high class breeding. He is half brother to the famous $25,000 sire, *Rag Apple Korndyke 8th,* the sire of the $53,200 bull calf, the World's Champion 42-lb. 3½-year-old and the youngest 30-lb. heifer. He derives 43¾% of his blood from the noted Century sire, *Pontiac Korndyke,* the sire of the World's Champion 30-day butter producer and who has more 30, 36, and 40-lb. daughters and 1,000-lb. year-record granddaughters than any other bull. He is a grandson of the only double century sire, *King of the Pontiacs,* who has more 40, 30, and 20-lb. daughters than any other bull. He won first prize at the La Crosse, Wis., Fair this year and a daughter of his won first at the Wisconsin State Fair.

BOTH MALES AND FEMALES FOR SALE

Females of all ages. Some are springers and some are bred to the above sire. Some of the cows have A. R. O. records up to 27 lbs. in 7 days.

This stock is of the most popular breeding, such as Korndyke, Pontiac, Hengerveld DeKol, King Segis, Polkadot.

Bull Calves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeKol 3rd,* a grandson of *Sarcastic Lad,* the sire that won Championship at the World's Fair—and by *King Segis Pontiac Polkadot 8th,* a grandson of *King Segis Pontiac* and *Johanna McKinley Segis.*

Write at once or come and see me. W. W. QUACKENBUSH, West Salem, Wisconsin.

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyke 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.

We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.

This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

Registered Holstein Sale

OCTOBER 18th
at CHILTON, WISCONSIN

The Calumet County Holstein Breeders' Association will hold this Sale in connection with the Young People's Fair.

50 Head of Good Holsteins 50

Selected from reliable herds and straight and right in every way

SALE WILL BE HELD AT COUNTY FAIR PARK, CHILTON, WIS., AT 1 P. M. SHARP

Auctioneers—Eells & Krause. Sale Manager—F. H. Everson
Write for catalog to Royal Klofanda, Secy., Chilton, Wis

THE PLACE TO BUY HOLSTEINS—Chas. L. Rupp's Dispersion Sale
INDIANAPOLIS, INDIANA, October 31, 1918
50 Registered Holstein-Friesians 50

Catalogs ready October 15th, and mailed only on application to

F. G. Johnston, Sale Mgr., 37 West Lane Ave., Columbus, Ohio

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Springdale Farms
Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

When writing advertisers please mention Hoard's Dairyman.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — **HOLSTEINS** — **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A. R. O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

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HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

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Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now on yearly semi-official test and will complete records this fall and winter. Nearly every cow has completed cow testing records for three years and has produced up to 600 pounds of butter. These cows are never pushed to the limit. The bulls offered are sired by bulls secured from the E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butter. Bulls are heavy bone, straight, well marked and large for their age. They will and must please. We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn

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SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-old junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

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His Six Nearest Dams Average 29.31 Lbs.

A beautiful son of KING KORNDYKE SADIE VALE 24TH from 26-lb. dam who is a daughter of Prince Segis Korndyke from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A card will bring his photo and description.

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FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.

Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.

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The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

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This is the chance you have been looking for. We will sell a few, good A. R. O. cows. One with 27 18 in 7 and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions and prices, but *hurry* for they will go quickly. Also a few bull calves for sale, the kind you will be proud to own. Pedigrees and prices on application. State age desired.

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No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

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VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. **Otto Bradenburg, Mgr.**

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...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

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Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont,** the **First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **O. L. Reamer, North Liberty, Indiana.**

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

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4 FEMALES 4

We offer four cows due to freshen this fall and early winter. Good individuals, well marked and well bred. One in calf to a 31-pound son of King of the Pontiacs. Herd free from tuberculosis. These are priced to sell.

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The Pontiac Herd

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Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

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PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.

Sale Catalogs Printed — **Live Stock Printing Co., La Grange, Illinois**

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No. 1—A 32.02-lb. grandson of King Pontiac Champion and Johanna McKinley Segis. This calf's sire is a 38.03-lb. bull that sold for $12,500 and his dam is a most promising young cow, having a Jr. 4-yr.-old record of 32.02 lbs. butter in 7 days.

No. 2—His sire is by King Pontiac Champion and out of Hengerveld Colanthus, the cow that sold for $3,500 at the last National Holstein Sale, and his dam is a 26.07-lb. cow having three very creditable A. R. O. daughters.

Here is a splendid opportunity to line up with the blood of King Pontiac Champion. Write for further particulars.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.

ock River Valley Farm

Awarded

IRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced one year as a 3-year-old 1,021.72 lbs. but-. (80% fat.) Over 30 yearly record cows in d headed by Mutual Piebe DeKol.
a few young bull calves from these cows sired this bull for sale. (Herd tuberculin tested.)
HN HETTS, FORT ATKINSON, WIS.

LEVELAND HERD

Offers Two Holstein Bull Calves

e months old, good straight individuals, l grown. One is out of a 29.08-lb. 3-year- next dam a 26.10-lb. cow and the other out a 20.33-lb. Jr. 2-year-old daughter of a 29- cow. Both calves are sired by our K. V. P. artra whose eight nearest dams average 52 lbs. butter from 611 lbs. milk. Also a young A. R. O. cows bred to this bull and d by King Segis Pontiac Veeman, one of greatest sires of prize winning daughters the world. If interested send for pedigrees, ures and prices.
R. WEISKOPF, CLEVELAND, WIS.

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oung Bulls—5 to 10 months old, 2 sired by anna King Segis, the 40-lb. bull; 1 by the w bull, Beauty Walker Pietertje King; 2 our splendid senior herd sire, Czar Walker We also have 7 beautiful heifers 4 to 15 ths old sired by King and Czar above men- ed. *Eight well bred cows,* safe in calf to r 2d, offered. Must sell because of short- of feed. Breeders, not dealers.
Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Cedar Lawn Farms

5 months old bull sired by Cedar Lawn Champion out of a 19.37 lb. daughter of Sir Johanna De Kol. A ndid individual ¾ white. Price right.
., SCHROEDER & SONS, West Bend, Wis.

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r Sale: 2 yearling heifers sired by Sir Korndyke gerveld Grouw, whose dam is a full sister to Piet- Maid Ormsby. Also one bull ready for heavy ser- Write your wants. FAIRVIEW STOCK FARM, . Marshall, Prop., Whitewater, Wis.

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R. O. Holstein

rder to make room in our barns we t sell a number of cows and heifers are backed by large official milk butter records. They are bred to CONSIN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis

A Few Good Ones For Sale

am offering yearling and bred two-year old registered heifers for sale. Daughters of King s Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good ghters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac gerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for self.
J. D. McDONALD, WEST SALEM, WISCONSIN.



King Superba—Sire: King Segis Pontiac Colombo. Dam: Milanhurst America De Kol. 34.60 lbs. in 7 days, 1261 lbs. in 1 year. Owned by Baird Bros., W. J. Wright, Dr. David Roberts, W. J. Mann & Son.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown.
Write MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A. R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

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SIR PIETERTJE ORMSBY MERCEDES 43rd heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE

Wooderoft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 28-lb. bull Maplecrest King DeKol 2nd. A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

FINE BULL CALF

We offer a bull calf born Nov. 19th, 1917. A very fine, straight, growthy individual ¾ white; dam has 7-day A. R. O. of 24.6 lbs. butter and 567 lbs. milk. He is by a sire whose two nearest dams average 22.3 lbs. butter and 520 lbs. milk at 3 years. Price $125.00 if taken at once.
Miller Bros., R. No. 25, Oconomowoc, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

KING SUPERBA
Meet his sons and daughters on exhibition in the Waukesha County Live Stock Exhibit, at the Wisconsin State Fair. Combine individuality with production. For Sale—Sons of King out of our best cows. (See Baird Bros. ad.)
W. J. Mann & Sons, R.2, B.16, Waukesha, Wis.

MORE MILK—MORE MONEY

Get a grandson of this great cow, Milanhurst America DeKol, 143441, that produced an 8-gallon can and a ½ of milk per day equal to 13 tons, or more than her own weight each month for a whole year. If her milk was sold at 10c a quart her years production would amount to $1,300. A few choice bulls for sale, some of breeding age.
Dr. David Roberts Stock Farm, Waukesha, Wis.

BELLEVIEW STOCK FARM
Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
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DR. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

You Can't Afford to Overlook This Young Bull



Canary Ormsby Johanna De Kol 256894.

A SON OF THIS THREE-YEAR-OLD FOR SALE.

Canary Ormsby Johanna DeKol produced 28.18 lbs. butter, 503 lbs. milk in 7 days and 111.95 lbs. butter, 2,318.6 lbs. milk in 30 days at the age of 3 years, 1 month, 6 days. Her sire, Canary Fobes Bessie Homestead (20 A. R. O. daughters), is a 31-lb. grandson of Canary Paul and Homestead Jr. DeKol. Her dam is a 17-lb. 2-year-old daughter of Sir Ormsby Johanna DeKol (31 A. R. O. daughters, 2 above 30 lbs.). Every dam in her 4-generation pedigree has a good A. R. O. record.

The Sire of This Young Bull is Mutual Fobes Longfield DeKol 82959, a son of Mooie Mutual DeKol and from a daughter of Homestead Jr. DeKol that, as a Jr. 3-yr.-old, made 30.04 lbs. butter, 630.8 lbs. milk in 7 days and 124.42 lbs. butter, 2,651.6 lbs. milk in 30 days.

This youngster is well marked and as straight as they make them; so are his sire and dam. Moreover, he's a descendant of proven producers from one end of his pedigree to the other. His dam's record as a 3-yr.-old is bound to be increased. There's no question but that he'll prove to be a top notch herd sire. He was born April 10, '18. Write us about him today, for he won't be here long.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
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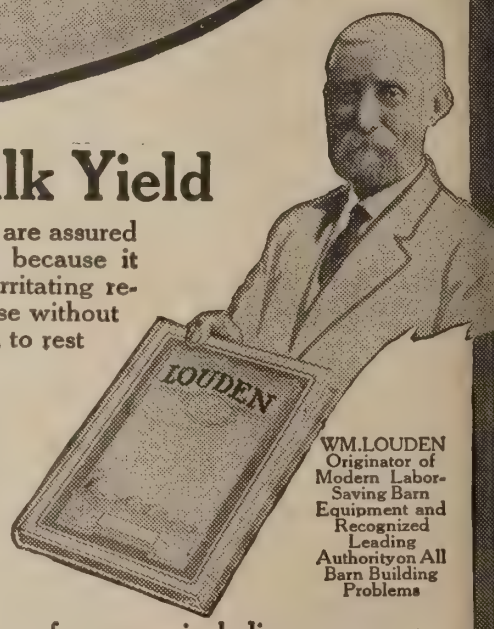
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A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



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ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Ayrshire Advanced Registry

Ayrshire Advanced Registry records for the quarter ending Sept. 15, 1918, show a total of 74 mature and immature completed yearly records averaging 10,124 lbs. milk, 407.88 lbs. fat with an average test of 4.03%.

The following is the class data:

Class	No. entries	Averages Milk Lbs.	Fat Lbs.	Fat %
Mature	28	11,574	459.33	3.97
Senior 4-year	4	10,418	440.89	4.23
Junior 4-year	4	10,688	420.03	3.93
Senior 3-year	8	8,891	374.66	4.21
Junior 3-year	5	9,032	368.87	4.08
Senior 2-year	13	9,493	386.09	4.06
Junior 2-year	12	8,415	334.81	3.98

A new class leader appears in the senior two-year-old class in Ryanogue Lady Peggy. Starting on test at the age of 2 years, 214 days, in 333 days she produced 14,017 lbs. milk, 575.86 lbs. fat, testing 4.11%. She carried her calf 252 days of test. So far she leads the Roll of Honor Class and stands sixth among the senior two-year-olds of the breed in the A. R. Class. Ryanogue Lady Peggy was bred by Ryanogue Farms, New York, and is owned and tested by Wendover Farms, New Jersey. During her test period she was shipped to and exhibited at the 1917 National Dairy Show, placing in her class. On September 14th she dropped a splendid heifer calf sired by the champion bull, Imported Howie's Mintmaster, and starts out with great promise of making another creditable record.

L. R. Grow of New York has completed his first Ayrshire Advanced Registry record, his cow, Gusta Lessnessock, not only making a record of 15,661 lbs. milk, 563.6 lbs. fat, but leading the junior four-year-old class for the quarter just ended and standing fifth among the junior four-year-olds of the breed.

Vermont. J. G. WATSON.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The New Spirit

There is a new way on the farm;
A new thrill sweetens all the air.
New strength has come to every arm—
New vigor stirring everywhere.
We're doing twice as much, I guess;
The herd has even caught the spell.
And once—so satisfied with less—
We thought we managed rather well.

War spurs us on to greater deeds;
To greater dividends of toil.
We sense the busy nation's needs,
And coax rich harvests from the soil.
From house to barn, this feeling goes—
This new-born energy and zeal.
And, somehow, at day's close, it shows,
The proof of what we do is real.

What pride surrounds each humble clod;
What glory, in the waving grain.
Farms reach a little nearer God
Than they can ever rise again.
This is the humble hour of them all—
Sublime—resplendent—paramount.
And we have answered to the call—
We're doing things that count—that count.

Little Ellen had been watching an old fashioned churn for nearly an hour. Finally she went to her mother with the observation: "Of course butter is nice and I like it on bread but I had no idea, mama, that you had to mistreat milk so to get it."

Half the profits of the Kentucky State Fair will be put straight into War Savings Stamps. Kaintuck always did have fine hosses, women, and patriotism.

It would be a lot easier to raise more hawgs and help Mister Hoover out if th' wind wasn't so contrary in blowing into yer own windows.

Letters Home

Dear Mother and Father: I don't mind fighting as much as I thought I would. But I do miss the farm. It's been so long since I've seen a glass of real old fashioned buttermilk, that if you brought me one I wouldn't know what to do with it. One of the boys found a female goat on an abandoned French farm not far from here and fed her up and milked her every evening when we wasn't fighting. He sold it fer twenty-five cents a glass and we stood in line to get it. But last Thursday a Boche shell blew his dairy about a mile away.

"I see where us Americans saved 140,000,000 bushels of wheat last season just to help feed our allies," said Uncle Ezra, "and, even at that, we didn't miss on any of our cylinders when it came to meal time. Most of us eat so much more than we need, that we could cut it in half and still have enough left over to give away."

He Said Them in His Sleep

A dairy farm Sammie, while snoozing in his billet, was heard to speak thusly:

"That calf has her feet tangled in th' rope."

"Pass th' butter, ma."

"Let's take a snooze under these old apple trees."

"Time we put up one of them nice new silos."

"Best crops we've ever had this year."

"Can't bear to see you feed them hogs skimmilk."

"Ain't it about time we had pork pie?"

"I'll blast th' stumps if you'll do th' weeding."

"Tell Susie I'll meet her at th' movies."

"Let's go in swimmin' this afternoon."

DE LAVAL SEPARATORS

SAVE IN 7 WAYS

QUANTITY of cream that no other separator will recover completely, particularly under the harder conditions of every day use.

QUALITY of cream as evidenced by De Laval butter always scoring highest in every important contest.

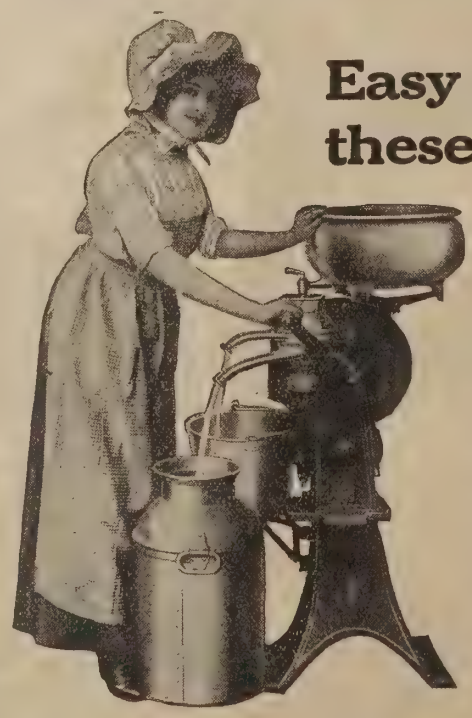
LABOR in every way over any gravity system, and also over any other separator, by turning easier, being simpler, easier to clean and requiring no adjustment.

TIME by hours over any gravity system, and as well over any other separator by reason of greater capacity and the same reasons that save labor.

COST since while a De Laval Cream Separator may cost a little more than a poor one to begin with, it will last from ten to twenty years, while other separators wear out and require to be replaced in from one to five years.

PROFIT in more and better cream, with less labor and effort, every time milk is put through the machine, twice a day, or 730 times a year for every year the separator lasts.

SATISFACTION which is no small consideration, and can only come from knowing you have the best separator, and being sure you are at all times accomplishing the best possible results.



Easy to prove these savings

These are all facts every De Laval local agent is glad of the opportunity to prove to any prospective buyer. If you don't know the nearest De Laval agency write the nearest De Laval office, as below.

The De Laval Separator Co.

165 Broadway, New York 29 E. Madison St., Chicago
50,000 Branches and Local Agencies the World Over

Re-testing Cattle for Tuberculosis

Questions Concerning State Regulations Answered by Dr. S. H. Ward, Hon. C. P. Norgord, Dr. J. A. Kiernan, and Dr. J. F. DeVine.

ALL cattle coming into the state of Virginia for dairy or breeding rposes, male or female, six months and over, must be accompanied by written certificate showing that said ttle have passed the tuberculin test t longer than four months before tering the state. Said test must ve been conducted by a qualified terinarian and approved by the live ock quarantine authority or state terinarian of the state from which id cattle originate, or by the United ates Bureau of Animal Industry. is certificate must be presented to d approved by the state veterinian of Virginia before said cattle all be allowed to enter the state."

"Upon arrival at their destination ey shall be held in quarantine upon e owner's premises subject to a re-t for tuberculosis not earlier than ty days nor later than ninety days om the date of arrival. This quartine is automatic upon arrival of id cattle at the destination."

A Virginian dairyman quotes the w or regulation of his state as given ove, and then submits the following estions:

"If the test made before being adtted into the state is good, why is e retest immediately following necsary or of any value?

"If the original test is not worth ything, why should it be required?

"Is it not detrimental to make such equent tuberculin tests of dairy cat-?

"Do you consider th of these requirents will promote the e stock and dairy inrest of the state, or scourage same?

"Will the requirent of the two tests time specified pro-te the interest of ybody; if so, who?

"Do you consider is law wise, or one at should be realed?

"To buy dairy cows out of the state at have been tuberculin tested costs out $10 per head, besides delay and her expense, more than those that ve not been tested. Why is this cessary if they have to be retested?

"I am both financially and as a citin interested in the promotion of the alth and progress of the live stock d dairy interest of the state, and n asking these questions for inortion, realizing your knowledge, d will appreciate a full and prompt ply."

To these questions we have given e following reply:

The requirements of the state of rginia are not unusual and have en made necessary because of e unfair manipulation of the test ich has occasionally occurred. The est acts as an additional precaution keeping the herds of the state free om this disease. We can cite one stance which occurred not long ago d which illustrates this point:

A certain wealthy man became interested in dairy cattle and he purased $47,000 worth of animals om one particular breeder paying 5,000 for a herd sire. He lately beme interested in placing his herd on the federal accredited list and und that under their regulations he uld be required to have a retest ide at his farm. This was fully satfactory to him but the breeder of om he purchased heard of this arngement and immediately informed m that if a retest was to be made he would insist that the cattle be returned to him. There is no evidence that these cattle were tuberculous, in fact they came with proper certificates showing that they had been properly tuberculin tested. However, reactors had been found in this breeder's herd and it is not unreasonable to suppose that he was afraid to have a retest made, fearing that with these high priced animals publicity would be given which would be very harmful to his business.

By requiring the retest the buyer in Virginia is protected against men who might otherwise attempt to issue fraudulent test sheets. Knowing that these animals are to be retested they will be more careful to see that their work is accurately and honestly done. Now, dishonesty in the application of the tuberculin test is not so extensive as some people think, but in cattle breeding, as in every other circle, there are some dishonest men and the purpose of the law is to either keep these men from being dishonest or to put them out of business if they attempt it. The retest also affords protection against animals in the incubative stages, animals that may have been exposed or that come from badly diseased herds, and animals which have been carelessly tested or tested under improper circumstances.

Of course, one might say that this same result would be effected if the cattle were not tested in the first place, but this would not necessarily follow. In some cases breeders will not only sell cattle subject to the tuberculin test but will also sell cattle subject to a retest made within ninety days provided the animals have been properly quarantined.

The frequent tests are not detrimental to the cattle and we are inclined to believe that the requirements of the law are in the main good. We hope to see the day come when a larger number of herds will be upon the federal and state co-operative accredited list; that is, that more herds will be tested yearly and have the certificate of the government that the herd is free of tuberculosis. Animals from herds of this character are accepted by practically every state without requiring a test just prior to shipment or requiring a retest upon entry into the state.

Dr. S. H. Ward of Minnesota

After sending the above reply, we referred the inquiry to Dr. S. H. Ward, secretary of the Minnesota Live Stock Sanitary Board. He replies to the various questions in order as follows:

No. 1. "If the test before being admitted into the state is good, why is a retest immediately following necessary or of any value?"

Because animal may have been in the incubative stage of the disease at the time test was made for export.

Again, because inferior tuberculin may have been used or the test not properly carried out.

Again, owner may have taken some steps to defeat the results of the export test.

No. 2. "If the original test is not worth anything why should it be required?"

Because we have no means of knowing the worth of the original test.

No. 3. "Is it not detrimental to make such frequent tuberculin tests of dairy cattle?"

The retest in sixty or ninety days should not be detrimental.

No. 4. "Do you consider both of these requirements will promote the live stock and dairy interests of the state, or discourage same?"

It will be to protect the buyer and prevent the introduction of diseased animals, thus encouraging the live stock interests.

No. 5. "Will the requirement of the two tests in the time specified promote the interests of anybody? If so, who?"

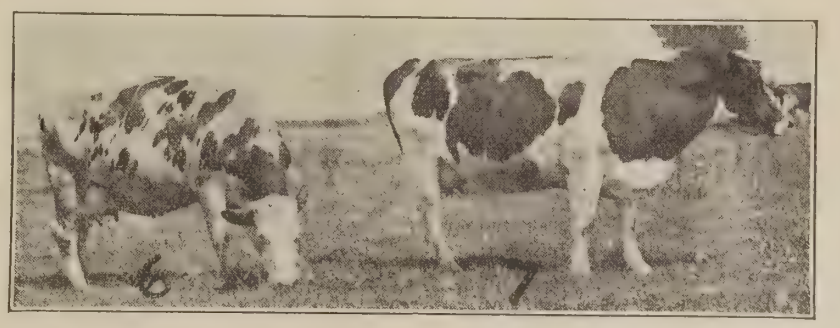
Second test usually conducted by the state, free of charge, therefore cannot be to the interests of any one but buyer.

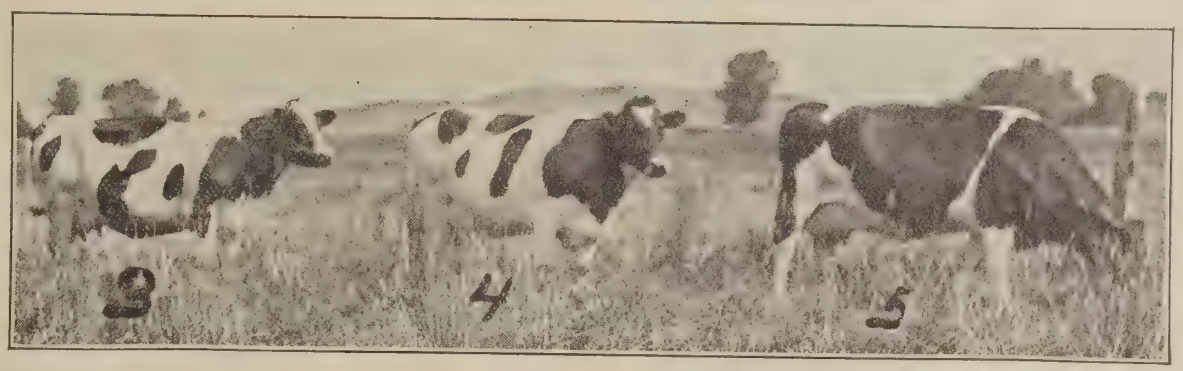
No. 6. "Do you consider this law wise or one that should be repealed?"

I consider it wise because it will encourage the establishing of accredited tuberculosis free herds from which cattle can be moved without restrictions. Virginia in its recent regulation permits the entry of such cattle without restrictions. Breeders who maintain accredited herds will meet with none of the vexatious delays and expense when shipping to another state. It is to their interest to be listed as early as possible.

No. 7. "To buy dairy cows out of the state that have been tuberculin tested costs about $10.00 per head, besides delay and other expense, more than those that have not been tested. Why is this necessary if they have to be retested?"

Because there is still an opportunity for fraudulent certificates of shipments of diseased animals similar to those which were made two or three years ago from the state of Illinois.







HIGH PRODUCING HOLSTEIN COWS OWNED BY DONLEY & SIMPSON, COLORADO

They are tested each month in the Tri-County Testing Association in Denver, Jefferson, and Adams Counties, and have lead the cows of the association herds in production. The records of these seven cows are a challenge to every other testing association in the country. From left to right they are: (1) Ismay Belle DeKol. During her three last lactations she has milked over 60,000 lbs. and in July, 8 months after calving, made a 7-day butterfat production of 20.48 lbs. She was being milked but twice per day up to 5 days before the test began. (2) Colette Baker 4th has produced over 43,000 lbs. milk in less than 21 months. She has a 7-day record of 701 lbs. milk, 22.24 lbs. butterfat. (3) Peggy Mercedes Paul made 89 lbs. fat in May, 101 lbs. fat in June, and 75 lbs. fat in July, milked twice per day the last month. (4) Launa of Windsor 2d made 97 lbs. fat in May, 67 in June, and 69 in July, the last two records being made on two milkings per day. (5) Joan DeKol Wayne made 83 lbs. of fat in June and 75 lbs. fat in July. (6) Rose Chiron DeKol freshened July 9 and during the last 17 days of the month produced 67.5 lbs. fat. (7) Oberlin Countess Pontiac 2d in June, the month she was turned dry, made 24.5 lbs. fat.

Hon. C. P. Norgord of Wisconsin

Hon. C. P. Norgord, Commissioner of Agriculture for Wisconsin, replies to these inquiries as follows:

1. The retest is made by Virginia and a number of other states because they have found that some cattle reacted shortly after arriving at destination even though they had a clean bill of health following the test immediately previous to shipment. There are several conditions which may bring the reaction at destination under such conditions:

a. A dishonest test may have been made and no doubt sometimes is made where animals have been plugged or no test given them.

b. Certain animals may have the infection in initial stages not far enough developed so that they react when the test is made but later on being subject to the adverse conditions of shipment and new conditions, the disease develops far enough so that the animal reacts.

c. An animal may have been exposed to the disease either from animals, stock cars, or yards during shipment and disease develops later and sometimes rapidly.

d. The fact is becoming increasingly well known and recognized that the testing of a single animal bought out of an untested herd and tested with others is not a safe test upon which to rely. Only animals from herds that are tested every year are really safe animals to buy. It is practically only animals of accredited herds that are safe. A number of the western states have taken similar action to Virginia but have permitted animals from accredited herds to be shipped in without any test whatever merely upon certification that they are from state

(Continued on page 410)

Iowa Dairy Cattle Congress

WATERLOO put on its ninth and very successful Dairy Cattle Congress Sept. 30 to Oct. 6. Seemingly it is the habit of those responsible for the show to make each one just a little better than its predecessor and this year was no exception.

There is, we believe, a very good reason why the Cattle Congress as a dairy show is increasingly successful each year. It was originally started by the Iowa State Dairy Association for the express purpose of serving as an educational show for dairymen and those engaged in allied industries. Later it was sold to the city of Waterloo, but the new management like the old, has hewed strictly to that line even to the extent of shutting out the pike, so familiar at many fairs, which while it might add very considerably to the gate receipts and concession money, would not at all increase the educational value of the show.

The machinery exhibit, including everything from small gasoline engines to tractors and cream separators to barn equipment, filled exhibition hall and extended along both sides of the roadway down to the main entrance of the grounds. The increase in this department, a very considerable one, was largely among the tractors and the daily plowing demonstration held on fields adjoining the grounds proved one of the drawing cards of the entire show.

The automobile show this year was strictly a war-time exhibit. In fact, there was no auto show,— it was entirely an exhibition of various makes and styles of trucks, something which, just at present, undoubtedly appeals to farmers more than would automobiles.

The auto truck exhibit only occupied about half of the automobile building. The remainder was well filled with a Canadian war exhibit which consisted of trophies from the battlefield and pictures of battlefields over which our own and the allied armies are fighting. The pictures were particularly instructive for they gave one a better realization of what has been and is being done over there, than he could get in any other way. This proved to be one of the most, if not the most, popular exhibit on the grounds.

Last year the horse show was an innovation which proved so satisfactory that a similar but somewhat larger one was held in connection with this year's exposition. Heretofore the horse show has been held in a tent and the dairy cattle judged in the open. This year the Cattle Congress Association built a splendid amphitheatre capable of seating about 3,000 people. It is not completely roofed yet and probably will not be until building conditions return to somewhere near normal levels, but a canvas roof has been prepared for stormy weather.

The Butter Contest

Entries in the butter contest were one-fourth more numerous than last year and fully as good in point of quality. But one of the 30 entries in the whole milk class scored less than 90. Harley Everte, Iowa, won first in this class with a score of 97, H. C. Ladage, Iowa, entered the second prize sample that scored 96¾, and the third prize was won by Theo. F. Slack, Iowa, where butter scored 96½.

In the gathered cream class, 61 entries, M. P. Christenson was first with a score of 96, and J. O. Ersland, J. M. Rasmussen, and E. M. Guiney competed for second place with scores of 95 each.

The class for navy butter was a new one this year which perhaps accounts for there being only 12 entries. R. Jorgensen won first in this class with a score of 95, Chris Russler, second, with 94.75, and W. P. Hughes with 94.7.

There were 9 entries in the American Cheddar Cheese class, C. G. Strombach, Minnesota, winning first on 95, Village Cream Factory second on 94, and H. A. Kalk, Wisconsin, third, with 93½. With but five entries in the cottage cheese contest, F. H. Merkley won first, G. A. Hanson, second, and Frank Brunner, third.

The United States Department of Agriculture had two booths of interest to creamerymen, one of them to demonstrate a creamery accounting system, the other to show how cottage cheese is made.

The Ayrshire Sale

For the first time, a consignment sale of Ayrshires was held at the Dairy Cattle Congress. Forty-nine animals from 5 different herds were sold for $18,340, an average of $374. Bargenoch's Rising Star, Van Etta's herd sire that has been a very successful show ring contender for the past few years and that is transmitting his type to his offspring, topped the sale, going to D. W. Henderson for $3,500. His nearest competitor among the bulls was Auchenbrain Union Jack that sold for $525. Henderson's Laurie, consigned by Aldebaran Farm, Wis., was the top female, going to D. W. Henderson for $850.

The entire sale was not a complete success. Cattle of that quality are worth more money than some of these brought. One reason for the low prices was that this was practically the first consignment sale of Ayrshires ever held in the middle west. Another is found in the fact that some of the animals were not in very good condition. Col. Geo. W. Baxter did the selling with Clyde Smith of the Ayrshire Breeders' Association in the box and D. W. Henderson serving as sale manager.

Dairy Council and Association Meeting

One of the most important and most interesting meetings at this year's congress was a joint meeting of the Iowa State Dairy Association and the Iowa Dairy Council to which had been invited representatives of the dairy industry from neighboring states as well as all interested Iowans.

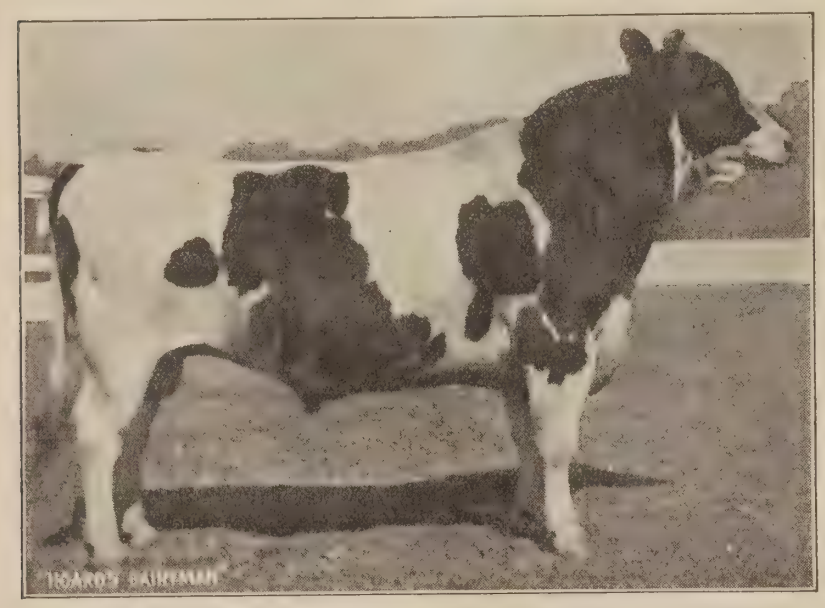
After the banquet, Mr. Hugh G. Van Pelt, acting as toastmaster, opened the program by giving a brief history of the Dairy Cattle Congress which was started nine years ago by the State Dairy Association. The show was started for dairymen and those interested in dairying or allied lines. It was later sold to the city of Waterloo, but only on the understanding that this be continued as the primary object of the exhibition and as Mr. W. R. Law, president of the Congress and the next speaker, pointed out, this has been done.

Mr. M. D. Munn, Minnesota, president of the American Jersey Cattle Club and of the National Dairy Council, was the principal speaker of the evening. In opening his address, Mr. Munn called the attention of the hearers to the seriousness of the present situation of the dairy industry. We are the most important dairy nation in the world and at the present time are under the responsibility of supplying dairy products not only for ourselves, but also to a large extent for our allies. Last year we produced 45 billion quarts of milk, a generous part of which was used to supply the export trade. This amount of milk is less than enough to supply our own population did everyone use as much as Dr. McCollum recommends, and it is vitally necessary to develop a home market for dairy products that will take care of the surplus which will result when our abnormal foreign demand ceases. Furthermore, the speaker asserted, it is essential for the welfare of our people that they be educated to a sufficient use of dairy products because only those people who do consume dairy products reach their best and highest development. To accomplish this is one aim of the Dairy Council.

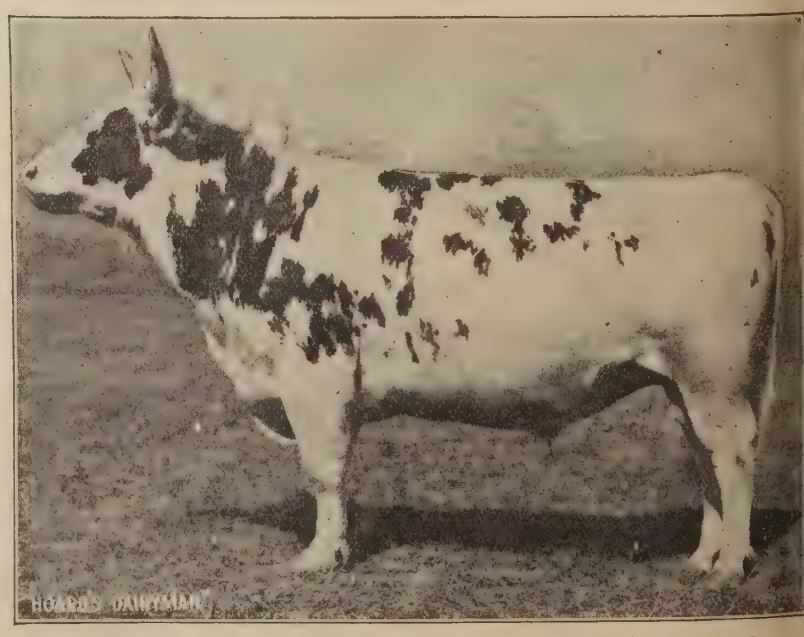
Mr. Munn talked at considerable length about present conditions. He spoke of the present shortage of dairy products and prospects of consequently high prices. This would not necessarily be a boon to the industry since it would encourage the use of substitutes here at home and make possible a surplus of milk, butter, etc., when our foreign war demand ceases. This in turn would discourage the industry just as an under-supply



LADYSMITH'S CHERUB, SENIOR AND GRAND CHAMPION GUERNSEY BULL AT THE IOWA DAIRY CATTLE CONGRESS
OWNED BY D. D. TENNEY, MINNESOTA



JOHANNA BONHEUR CHAMPION 2D, SENIOR AND GRAND CHAMPION HOLSTEIN BULL AT THE IOWA DAIRY CATTLE CONGRESS
OWNED BY CHESTNUT BROS., KANSAS



CAVALIER'S LORD ROSEBERRY, SENIOR AND GRAND CHAMPION AYRSHIRE BULL AT THE IOWA DAIRY CATTLE CONGRESS
OWNED BY ADAM SEITZ, WISCONSIN

too high prices are actually injurious to the general public, children in particular. To meet this condition, or rather prevent it, it is highly probable that the Food Administration will fix a minimum price for butterfat.

In conclusion the speaker asserted that of the 14 major dairy states, New England included as one, 10 had already formed state dairy councils and that he hoped to see the other 4 organized in 30 days. These state councils are to be dairymen's organizations and by uniting them in a national council, a very strong organization should be effected.

Dean C. F. Curtis of the Iowa State College spoke briefly of the farmer as a man and it his contention that the farmer who successfully owns and controls a $30,000 to $50,000 farm is no ordinary man. Further than that, the farmer is today producing an increased amount of food in the face of the present labor shortage, while men in general, who are engaged in the trades, have shown no such increase in efficiency. Dean Curtis pointed out the necessity of increasing this efficiency still further as one of the factors that will assist in a successful prosecution of the war.

Mr. W. B. Barney, state dairy commissioner, gave a brief history of the State Dairy Council and what its aims were. Following his talk, butter prizes were awarded and the butter on exhibit at the show sold.

Holstein Breeders' Banquet

Holstein breeders did not put on a very good cattle show but they did hold a very successful banquet Wednesday evening of the Cattle Congress at the Russell-Lamson Hotel. The banquet was given by the Iowa Holstein Breeders' Association, and following it was a most satisfactory program, President Cass presiding.

Mr. Evans, Deputy Commissioner of Agriculture in Manitoba, spoke very briefly, calling the attention of his audience to what the province had already accomplished along dairy lines and what still remained to be done. It seems that as late as 1912 butter and dairy products were imported to help supply the needs of a population that really should have been producing enough to more than supply their own needs. The local department of agriculture realized this and started a campaign of dairy education, one result of which is that that same province is today exporting dairy products, this in spite of war's handicap.

Mr. Evans called particular attention to the fact that the Holstein cow fills the need of the Canadian farmer who lives, perhaps, quite a distance from a railroad and who wants an animal that very nearly approaches the much talked of dual-purpose cow. Already the government has purchased a considerable number of Holsteins from dairy sections and sold them to the farmers on long time notes, but there is still a great market for the Holstein cow in that particular province.

D. J. Murphy, president of the State Dairy Association, when speaking a little later, pointed to cheese as one of the best markets for Holstein milk and to cheesemaking districts as the best of markets for good Holsteins. Mr. Murphy has himself been very successful as an organizer of cheese factories in Northeastern Iowa and if one might judge from his talk, he would appreciate having Holstein breeders do more to develop a market in that particular section.

Fred W. Merrill of Kimball's Dairy Farmer spoke of the necessity of increasing the number of our dairy cows to supply the present growing demand for dairy products and the demand for dairy cows that is bound to come from war stricken Europe



EDGARD L., JUNIOR AND GRAND CHAMPION BROWN SWISS BULL AT THE IOWA DAIRY CATTLE CONGRESS
OWNED BY L. S. MARSHALL & SONS, MICHIGAN

once this war is over. Mr. Merrill supported the stand that it is a crime to slaughter any dairy cow no matter how unprofitable a producer she may be.

John B. Irwin of Minnesota spoke briefly regarding the present increasing use of butter substitutes. He called attention to the fact that today in some dairy sections the use of substitutes even among dairy farmers has increased from 50 to 75 per cent since the war commenced. As a remedy he urged a campaign of education to make producers as well as consumers realize the true value of dairy products.

D. D. Aitken, president of the Holstein-Friesian Association of America, was really the speaker of the evening. Closely connected with both the National Dairy Council and the largest dairy breed association in the country, Mr. Aitken is particularly well fitted to speak on conditions that are affecting the entire dairy industry. He spoke not as a breeder of Holsteins, but as a dairyman. His advice to every breeder was to think just a little less of his own particular business and more of the entire industry because every cattleman, whether he be breeding Holsteins or Jerseys, must stand or fall with it. Moreover, every breeder should be a member of his own particular breed association, his stand on the matter being that the man who is not willing to pull his weight in his association will not succeed as a breeder.

Regarding the matter of prices of dairy products, President Aitken stated that at present he was more afraid of too high prices than too low. The former will discourage home consumption so that when the present export demand stops, there will be no home demand to absorb the surplus that is bound to accumulate. Last year we exported 1,000,000,000 lbs. of milk. A few years after the war there must be a market in this country for this enormous quantity.

The Cattle Exhibit

In spite of extreme labor difficulties this season, the cattle exhibit was fully as heavy as at last year's show and quite up to it in the matter of quality. The Holsteins made the poorest showing in years and one not at all comparable with that put on by the other breeds. Even the Brown Swiss, the least numerous of any of our dairy herds, made a better showing in point of numbers and one of fully as good quality.

Two hundred ninety-eight cattle from nine different states were entered.

Jerseys

Exhibitors:—Ed. C. Lasater, Texas; Longview Farm, Missouri; Myrtle E. & Earl F. Pyle, Ohio; Oscar L. Casey and L. R. Sisson, Iowa.

Judge: M. D. Munn, Minnesota.

The Jersey show this year was but little larger than that of last, there being but 75 animals entered. It was, however, fully up to previous shows in the matter of quality and in practically every class competition was exceedingly close.

Raleigh's Oxford Prince from Lasater's herd and Flora's Queen's Raleigh, the Longview entry, were the only aged bulls shown. Both of them are excellent representatives of the breed, and there was considerable speculation among those at the ringside as to which would find favor in the judge's eye. The latter has a wonderfully deep body, with well sprung rib. He was, moreover, very well fitted, better than the Texas sire. However, he was just a little too heavy over the shoulders and not quite good enough in placing of rudimentaries to win over his southern rival.

It was not until the two-year-olds were brought out that the real champion of the show was uncovered. Poet's White Heart, Longview's entry, was an outstanding first with his really excellent type, his depth, and his style. His chief criticism, and it is a hardly noticeable one, is a slight tendency toward a weak top. He is so good that Mr. Munn did not hesitate long in awarding him senior and grand championship honors.

Noma's Perfect Raleigh, one of Longview Farm's junior bull calves, was by all odds the best bull calf shown. He was not only an outstanding calf, but he was extremely well fitted and entered the ring in the very pink of condition. Winning in his class, he easily outdistanced his older rivals in the contest for junior championship.

The female classes were better filled than were the bulls, and competition was keener. Eight aged cows were shown and among the top four, any one could have been grand champion with credit to the breed. Oxford Majesty Crocus, from the Missouri herd, is a really wonderful type of dairy cow, particularly when one considers her age, 10 years. She has an excellent udder, fairly well placed teats, and the very best of milk veins. Moreover, she showed more capacity and more depth of body throughout than Willow's Brightness, the Falfurrias entry. The old cow, however, was not in the best of flesh. She had been milking since February and showed in just good dairy form while her rival that had recently freshened was in much better show shape. The older cow is not as full back of the shoulders and her fore udder is breaking away a very little, but we believe she was the best cow. Judge Munn, however, thought otherwise and placed the Texas cow first. She was later senior and grand champion.

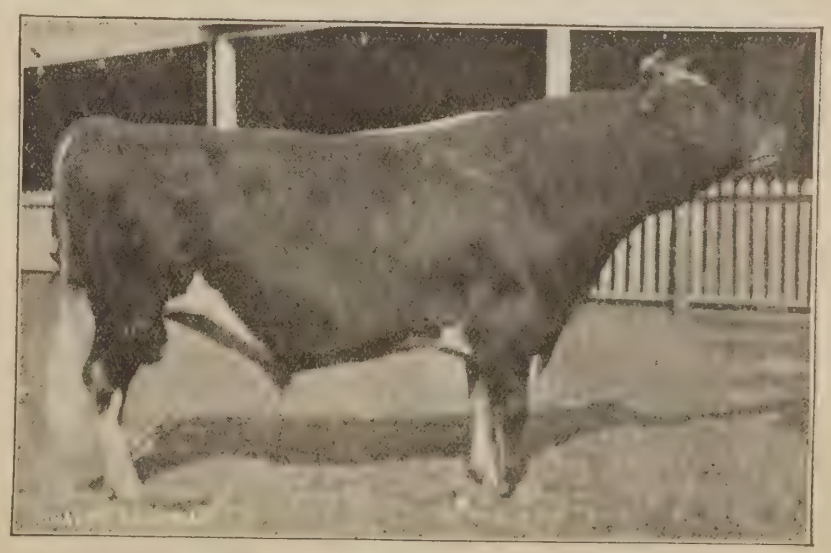
Another very close contest was between the four-year-old entries from these same herds. Swanigan, with Longview, showed an extremely stylish cow, Undulata Nena. She had finish and an excellent shaped udder with very well placed teats. She was, however, just a little lacking in veins and depth as compared with Constance of Falfurrias, owned by Mr. Lasater and it was these very things that beat her.

Raleigh's Oxtivity, Longview's junior yearling heifer, was junior champion.

The complete awards are as follows:

Bull 4 years or over—1, Lasater on Raleigh's Oxford Prince; 2, Longview Farm on Flora's Queen's Raleigh. Bull 3 years, under 4—1, Longview Farm on Warder's Chieftain; 2, Pyle on Angelica's King. Bull 2 years, under 3—1, Longview Farm on Poet's White Heart; 2, Pyle on Sans Aloi's Niece's King; 3, Lasater on Esther's Eminent Noble. Bull 1 year, under 2—1 and 2, Longview Farm on Chief Raleigh and Dahlia's Noble Fern; 3, Lasater on Olive's Calla Allen; 4 and 5, Pyle on Rosa Sans Aloi K. and Financial Richmond. Bull calf, six months, under 12—1, Lasater on Royal Majesty of Falfurrias; 2 and 3, Longview Farm on Warder's Oxford Chieftain and Raleigh's Bright Prince; 4, Pyle on King's Rosa's Sans Aloi E. Bull calf under 6 months—1 and 4, Longview Farm on Noma's Perfect Raleigh and Jolly Oxford Majesty; 2, Pyle on Stockwell's Niece's King; 3 and 5, Lasater on Sensation's You'll Do and Rosebud's Royal Majesty.

Cow 5 years or over—1 and 4, Lasater on Willow's Brightness and Stockwell's Noble Wonder; 2 and 3, Longview Farm on Oxford's Majesty Crocus and Fairy Glen's Flora; 5, Casey on Woodvill's Best Coinage. Cow 4 years, under 5—1, Lasater on Constance of Falfurrias; 2, Longview Farm on Undulata Nena; 3, Pyle on King's Columbine F. Cow 3 years, under 4—1 and 2, Longview Farm on Rower's Benedictine Glory and Fontaine's Pretty Maiden; 3, Lasater on Aldan's May



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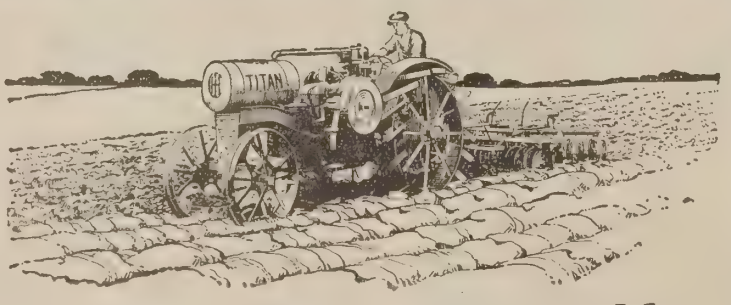
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Lass of F.; 4, Pyle on Financial Mary K.; 5, Casey on Raleigh's Noble Louise A. J. C. C. Heifer 2 years, under 3—1 and 2, Longview Farm on Fontaine's Nema and Raleigh's Star of Peace; 3, Lasater on Aldan's Combination Letty; 4 and 5, Pyle on Financial Maria P. and Rochette's Jolly Sultana. Heifer 18 mos. and under 2 years—1 and 4, Lasater on Aldan's Oxford Fontaine and Aldan's Noble Letty; 2 and 3, Longview Farm on My Rosary and Fairy Feather; 5, Pyle on Lady Silver You'll Do. Heifer 12 mos., under 18 mos.—1, 2, and 4, Longview Farm on Raleigh's Oxtivity, Chieftain's Flora, and Raleigh's Velvet; 3, Lasater on Majesty's Mona of Falfurrias; 5, Pyle on Financial Elfie's Fairy. Heifer calf 6 mos., under 12 mos.—1, 2, 3, Longview Farm on Majesty's Golden Plymouth, Raleigh's Evening Star, and Raleigh's Red Feather; 4, Lasater on Great Scot's Actress; 5, Pyle on Niece's King's Columbine. Heifer calf under 6 mos.—1 and 4, Longview Farm on Raleigh's Fairy Finance and Warder's Oxford Leda; 2 and 5, Lasater on Raleigh's May Princess and Knight's Oxford Tulip; 3, Pyle on Sans Alois Golden Diploma.

Exhibitor's Herd—1 and 3, Longview Farm; 2, Lasater; 4 and 5, Pyle. Breeder's Young Herd—1 and 2, Longview Farm; 3, Lasater; 4, Pyle. Calf Herd—1, Longview Farm; 2, Lasater; 3, Pyle. Get of Sire—1, 2, 3, Longview Farm; 4, Lasater; 5, Pyle. Produce of Cow—1, 2, 4, 5—Longview Farm; 3, Lasater. Dairy Herd—1, Lasater; 2, Longview Farm, 3, Pyle.

Senior and Grand Champion Bull—Poet's White Heart. Junior Champion Cow—Noma's Perfect Raleigh.

Senior and Grand Champion Cow—Willow's Brightness. Junior Champion Cow—Raleigh's Oxtivity.

Guernseys

Exhibitors:—Island Farm, D. D. Tenney, Minnesota; W. W. Marsh, Mountain Bros., Dairyland Farm, Jos. Golinvaux, and Paul C. Elgin of Iowa.

Judge:—H. H. Kildee, Iowa.

As might have been expected from the result at earlier fairs, the Guernseys made an excellent showing at the Dairy Cattle Congress, better in many respects than some of the other breeds if one considers the actual number of Guernseys in this country as compared with the numbers of one or two other breeds. Seventy-one animals from seven different states were shown.

Among the aged bulls Ladysmith's Cherub, owned by Mr. Tenney, and undefeated since last year's Waterloo show, was an easy winner. He possessed considerably more style and depth and a much better top than his nearest competitor, Kenilworth Gold, from the Marsh herd, the bull that defeated him just a year ago. Ladysmith's Cherub was senior champion over Imp. Kitchener's Express, a very stylish two-year-old shown by Mountain Bros., and was later grand champion.

The largest bull class brought out was the senior calves with nine entries. Marie's Cherub of the Prairie, the winner, owned by W. W. Marsh, was easily the best bodied calf in the lot and he possessed sufficient style to go with it. He was not, however, sufficiently good to win over Cherub's Prince, the yearling from the same herd, in the contest for junior championship honors. The latter is a wonderfully growthy bull for his age. While he would easily pass for a three-year-old he is not at all coarse, and should prove a serious contender at future shows.

Imp. Bella 2d du Grand Fort, Island Farm's aged cow that has been a consistent winner at all earlier shows, ran true to form this time and finished with the blue in every individual contest in which she was entered. While she undoubtedly has minor defects, she is of the type that at once impresses anyone as a most excellent Guernsey and dairy cow. She won first in her class, senior and grand championship, and was also first in the class for Official Record Cows with records begun at 5 years or over and grand champion official record cow.

The very largest and perhaps the best female class brought out the junior champion. Thirteen junior calves were brought out and Professor Kildee spent considerable time, for him, before he finally placed them to his satisfaction with Cherub's Miss Mademoiselle of Shorewood, entered by Tenney, first. This calf is wonderfully deep bodied and straight, with a promising mammary system. She was so good that she was not only first in her class, but later junior champion.

The get of sire class brought out two of the very best groups shown. Marsh's entry included the grand champion bull, the junior champion bull, first prize senior bull calf, and the first prize junior yearling heifer. Opposed to them as the strongest competitor was a calf group entered by Tenney. These four junior calves, the get of Ladysmith's Cherub, were not only excellent calves, but were especially remarkable for their wonderful uniformity. They were, however, finally forced to yield to the older group.

Complete awards follow:

Bull 3 years or over—1, Tenney on Ladysmith's Cherub; 2, Marsh on Kenilworth Gold; 3, Island Farm on Gold Lassie's Julian; 4, Mountain Bros. on Cherub's Winner; 5, Dairyland Farm on Duke Sheet Anchor of Tilly Bardin. Bull 2 years, under 3—1, Mountain Bros. on Imp. Kitchener's Express; 2, Dairyland Farm on College Star's Dairyman; 3, Marsh on Ladysmith's Bopeep. Bull 1 year, under 2—1, Marsh on Cherub's Prince; 2, Island Farm on Maxim of Linda Vista; 3, Mountain Bros. on Cherub's Glenwood of Iowanola. Bull calf 6 mos., under 12 mos.—1 and 2, Marsh on Marie's Cherub of the Prairie and Lily du Preel's Prairie Gold; 3, Tenney on Cherub's Sergeant of Sherwood; 4 and 5, Golinvaux on Grace's Memento and Rosalie's Memento. Bull calf under 6 mos.—1, Tenney on Cherub's Corporal of Sherwood; 2, Marsh on Alyssum's Cherub; 3, Island Farm on Princess' Jewel of Island Farm; 4 and 5, Dairyland Farm on Star of Dairyland and Marie's Fanny Sequel.

Cow 5 years or over—1, Island Farm on Imp. Bella 2d du Grand Fort; 2, Tenney on Imp. Althea of Sarnia; 3, Marsh on Hayes Felois 4th. Cow 4 years, under 5—1, Dairyland Farm on Yeksa's Margarett; 2, Mountain Bros. on Martha W. of Alfalfa Farms. Cow 3 years, under 4—1, Tenney on Pearl's Dot; 2, Marsh on Figtree of the Prairie; 3, Island Farm on Starlight May Rose. Heifer 2 years, under 3—1 and 4, Marsh on Imp. Prospects Rose des Hourds and Ingleside Pretoria Vrangue; 2 and 5, Island Farm on Bella's Gold Lassie and Bella Golden Lassie; 3, Tenney on Bell Buoy's Golden Lassie of City View. Heifer 18 mos., under 2 years—1, Marsh on Felois of the Prairie; 2 and 4, Island Farm on May Rose of Island Farm and Gold Lassie's Beldame; 3, Dairyland Farm on Bonny Boy's Beauty Eagle. Heifer 12 mos., under 18 mos.—1 and 3, Marsh on Bopeep Queen 2d and Golden Cherry of the Prairie; 2, Golinvaux on Hope of Highland Place; 4, Tenney on Pearl's Golden Secret Girl; 5, Dairyland Farm on Flossette of Grayside. Heifer calf 6 mos., under 12 mos.—1 and 3, Island Farm on Beda Maid of Island Farm and Milvia's Beda of Island Farm; 2, Dairyland Farm on Broad Ripple's Beauty Eagle; 4, Golinvaux on Beauty Mar's Alyssum; 5, Mountain Bros. on Cherub's Lilly of Iowanola. Heifer calf under 6 mos—1, 2, and 4, Tenney on Cherub's Miss Mademoiselle of Shorewood, Cherub's Ultra May Rose of Shorewood, and Cherub's Coquette of Shorewood; 3, Marsh on My Figtree of the Prairie; 5, Dairyland Farm on Dairyland Fancy.

Exhibitor's Herd—1, Tenney; 2, Marsh; 3, Island Farm; 4, Dairyland Farm; 5, Mountain Bros. Breeder's Young Herd—1, Marsh; 2, Island Farm; 3, Mountain Bros. Calf Herd—1, Tenney; 2, Marsh; 3, Island Farm; 4, Golinvaux; 5, Mountain Bros. Get of Sire—1, Marsh; 2 and 5, Tenney; 3 and 4, Island Farm. Produce of Cow—1, Marsh; 2 and 5, Island Farm; 3, Mountain Bros.; 4, Tenney. Dairy Herd—1, Marsh; 2, Island Farm.

Senior and Grand Champion Bull—Ladysmith's Cherub. Junior Champion Bull—Cherub's Prince.

Senior and Grand Champion Cow—Imp Bella 2d du Grand Fort. Junior Champion Cow—Cherub's Miss Mademoiselle of Shorewood.

Brown Swiss

The Brown Swiss made an excellen showing, probably the best show eve made at Waterloo for the breed. Th distinctive thing about the exhibi was the marked difference in type be tween the Montana herd and the tw from the Middle West. Bohart's cat tle represented the older type; wer thick, heavy cattle with more coarse ness than has been pleasing to th judges on the Middle West circuit.

The Michigan and Ohio herds divid ed winnings quite evenly with a num ber of very close placings. In th

aged bull class Judge Cort favored Marshall's Stasis' Boy of Sedgely over Dick of Lake View owned by Hull Bros. Dick of Lake View is of better dairy type, being cleaner cut throughout but lacks the scale of the Michigan bull and is hardly as desirable in breed type.

Grand championship went to Edgard L., the calf owned by Marshall. Judge Cort considered him to be a bull of great promise, being better in rump and back and of somewhat greater proportionate length.

Swiss Valley Girl 7th, Hull Bros.' famous winner, again attached the grand championship. She was a scalier individual than competed against her in the aged class and was superior in mammary development to all other females. Judge Cort followed the Brown Swiss score card closely in his judgment on females and criticised many of them severely because of their lack of mammary development.

The awards follow:

Bull 3 years or over—1, Marshall & Sons on Stasis' Boy of Sedgley; 2, Hull Bros. on Dick of Lake View; 3, Bohart on College Master. Bull 2 years, under 3—1, Hull Bros. on Vogel's College Boy; 2, Marshall on Marcus; 3, Bohart in Nich's Prize Master. Bull 1 year, under 2—1, Marshall on Bravura 2d's Son; 2, Hull Bros. on Supreme of Lake View; 3, 4, 5, Bohart on Gallatin Browny, Moose, and Alice's Master 2d. Bull calf under 1 year—1, Marshall on Edgard L; 2 and 3, Hull Bros. on Hoover W. and Irene's Reuben; 4 and 5, Bohart on Beauty C. W. N. and Dan C.

Cow 4 years or over—1 and 3, Hull Bros. on Swiss Valley Girl 7th and Bessie May; 2 and 4, Marshall on Brownie F. and Bessie F.; Bohart on Zell's Beauty. Cow 3 years, under 4—1 and 2, Hull Bros. on Reuben's Ruth and Bessie May 2d; 3, Marshall on Betsey Girl; 4, Bohart on Master's Upland Nick. Heifer 2 years, under 3—1 and 3, Marshall on Valley Girl M. and Jackson Lady; 2, Bohart on Master's Lady D. 2d; 4 and 5, Hull Bros. on Swiss Valley Girl 10th and Bessie May 3d. Heifer 1 year, under 2—1 and 3, Marshall on Betsey Girl's Bravura and Beaut's Bravura; 2 and 5, Hull Bros. on Belle of Lake View and Nina of Lake View; 4, Bohart on Master's Lady D. 3d. Heifer calf under 1 year—1 and 2, Marshall on Mollie 2d and Styx 2d; 3 and 5, Hull Bros. on Swiss Valley Girl 7th Merney and Cinderella of Lake View; 4, Bohart on Beauty D.

Exhibitor's herd—1 and 3—Marshall; 2 and Hull Bros.; 5 Bohart. Breeder's Young herd—1, Marshall; 2, Hull Bros.; 3, Bohart. Calf herd—1, Marshall; 2, Hull Bros.; 3, Bohart. Get of Sire—1 and 2, Marshall; 3 and Hull Bros.; 5, Bohart. Produce of cow—and 3, Marshall; 2 and 4, Hull Bros.; 5, Bohart. Dairy Herd—1, Hull Bros.; 2, Marshall; 3, Bohart.

Senior champion bull—Vogel's College Boy. Junior and grand champion bull—Edgard L. Senior and grand champion cow—Swiss Valley Girl 7th. Junior champion cow—Mollie 2d.



BARGENOCH SILVER PET, SENIOR AND GRAND CHAMPION AYRSHIRE COW AT THE IOWA DAIRY CATTLE CONGRESS
OWNED BY ADAM SEITZ, WISCONSIN

Ayrshires

Exhibitors:—Adam Seitz and Jas. Van Etta of Wisconsin, and C. H. Peverill, Iowa.

Judge:—Hugh G. Van Pelt, Iowa.

Three full herds made the Ayrshire show this year a larger and more interesting one than usual and practically all of the entries were good enough so that the judge's work was far from being easy sailing.

The aged bulls made a very good showing. Two of the entries, from the Seitz and Van Etta herds, were sons of Imp. Bargenoch Gay Cavalier and both of them bore the stamp of that veteran show ring contender. Bargenoch Rising Star, from Van Etta's herd, is a mature bull of excellent type. He is straight, deep bodied, and has plenty of quality but he lacked the style, finish, and stretch of Cavalier's Lord Roseberry, Seitz's 3-year-old entry. It was not a case of the older bull being weak but of the younger being especially strong that gave him the blue.

The real battle royal in the bull classes, however, came when the winner in the aged class met Cavalier's Lord Stuart, the winning two-year-old from the same herd. The latter has been a consistent winner not only in his class but also for championship honors and only once before this season has the older bull been the victor. The Stuart bull, also a son of Gay Cavalier, is in many respects an exceptional animal. His unusually good forequarters, depth of body, and general style makes him a hard one to beat but his older stable mate carries just a little better top and tail setting, and a much better length of hip and body, which makes him a somewhat better dairy type of bull and incidentally in this particular case gave him senior championship and later grand championship honors.

Cavalier's Netherall Chancellor, Seitz's winning senior calf, was junior champion.

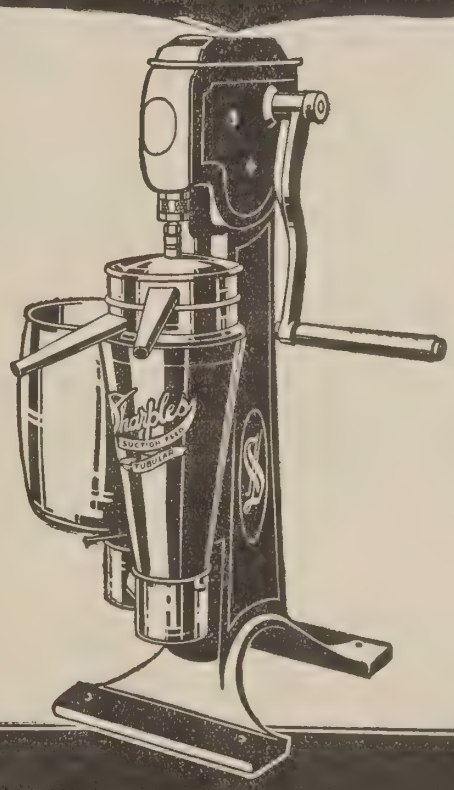
The influence of Gay Cavalier did not stop with the male classes. One of his daughters, Bargenoch Silver Pet, was first among the aged cows, and a second, Cavalier's Lady May Stuart, proved the winning three-year-old. The latter had freshened within twenty-four hours so that she did not show in the very best of condition. This, together with a low attachment of rear udder, put her second to the old cow in the contest for senior championship.

Nearly all of the heifer and heifer calf classes were well filled and two or three of them proved as difficult to place as any in the entire show. The winning underage female was Cloverdale Fashion Plate, a junior calf from Van Etta's herd. She is an exceptionally typy heifer, well grown, and with plenty of quality, but she was not strong enough to win against the aged cow for grand championship.

The complete awards follow:

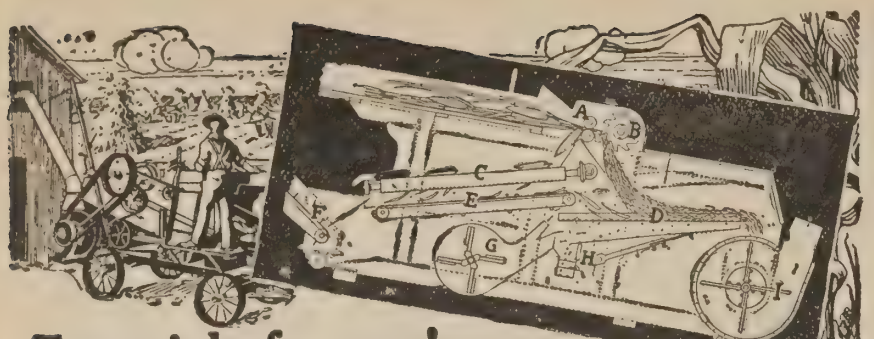
Bull 3 years or over—1, Seitz on Cavalier's Lord Roseberry; 2, Van Etta on Bargenoch Rising Star; 3, Peverill on Willowmoor Robin Hood 19th. Bull 2 years, under 3—1, Seitz on Cavalier's Lord Stuart. Bull 1 year,

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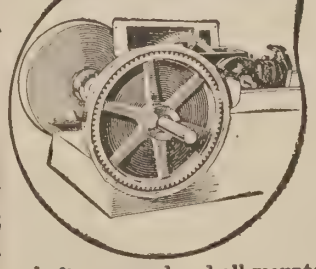
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under 2—1, Van Etta on Madison of Cloverdale; 2, Peverill on Enid's Good Gift. Bull calf 6 mos., under 12—1, Seitz on Cavalier's Netherhall Chancellor; 2, Van Etta on Cloverdale Choice Goods; 3, Peverill on Penshurst Champion of Osage. Bull calf under 6 mos.—1 and 3, Peverill on Cavalier's Fashion Plate and Rosebud's Pride; 2, Seitz on Cavalier's Rising Surprise.

Cow 5 years or over—1, Seitz on Bargenoch Silver Pet; 2, Van Etta on Mayflower of Rock Ridge; 3, Peverill on Enid Lessnessock. Cow 4 years, under 5—1, Seitz on Willowmoor White Lola 4th; 2 and 4, Peverill on Lessnessock Carlton and Lena's Beauty; 3, Van Etta on Favorite. Cow 3 years, under 4—1, Seitz on Cavalier's Lady May Stuart; 2, Peverill on Nona Spencer; 3, Van Etta on Aldebaran Rose Mary. Heifer 2 years, under 3—1 and 4, Seitz on Cavalier's Kilnford Dorothy and Cavalier's Lady Bountiful; 2 and 5, Van Etta on Cavalier's Fleckie and Cloverdale Lady Bountiful; 3, Peverill on Good Gift's Nona. Heifer 18 mos., under 2 years—1, Van Etta on Beauty of Cloverdale; 2 and 3, Seitz on Cavalier's Kilnford Belle 3d and Buttercup's Perfection; 4, Van Etta on Cloverdale Violet. Heifer 12 mos., under 18 mos.—1 and 3, Seitz on Cavalier's Kilnford Lily and Cavalier's Silver Dream; 2 and 4, Peverill on Minnie Good Gift and Lora Garland. Heifer calf 6 mos., under 12—1 and 5, Seitz on Cavalier's Hillhouse Rosebud and Cavalier's Bunter Bell; 2, Van Etta on Hazel Gray of Cloverdale; 4, Peverill on Bertha Carlton; 3, Seitz on Cavalier's Silver Queen. Heifer calf under 6 mos.—1, Van Etta on Cloverdale Fashion Plate.

Exhibitor's Herd—1 and 2, Seitz; 3, Van Etta; 4, Peverill. Breeder's Young Herd—1 and 2, Seitz; 3, Van Etta; 4, Peverill. Calf Herd—1, Seitz; 2, Van Etta; 3, Peverill. Get of Sire—1 and 2, Seitz; 3, Van Etta; 4, Peverill. Produce of Cow—1 and 2, Seitz; 3, Peverill; 4, Van Etta. Dairy Herd—1, Seitz; 2, Peverill; 3, Van Etta.

Senior and Grand Champion Bull—Cavalier's Lord Roseberry. Junior Champion Bull—Cavalier's Netherhall Chancellor.

Senior and Grand Champion Cow—Bargenoch Silver Pet. Junior Champion Cow—Cloverdale Fashion Plate.

Holsteins

Exhibitors: Chestnut Bros., Kansas; Mayowood Farm, Minnesota; H. O. Larsen, J. H. Cleverly, E. J. Erickson, and Cass Farm Co., of Iowa.

Judge: W. S. Moscrip, Minnesota.

The Holstein showing at most of the fairs this year has been very light and that at the Dairy Cattle Congress was no exception. Quite the contrary; it was even lighter than might have been expected from the earlier shows. Only 44 animals entered the ring as against well over 100 some other years. The showing in many classes was so small that most of the prize money was unclaimed and in one case, not a single animal was entered.

As classes the bulls were consistently poor although several excellent individuals were brought out. There were but two aged bulls, Johanna Ondine Grahamholm Lad from the Mayowood Farms and Johanna Bonheur Champion 2d entered by Chestnut Bros. Both were very good Holstein bulls, but the Kansas entry possessed enough more style and general smoothness of conformation to make him an easy first and senior champion.

The younger bull classes were better filled and Judge Moscrip had several good ones to pass on in the competition for junior champion. Johanna Glenda Lad, an outstanding yearling, and Ondine Homestead Posie, winning junior calf, both from the Mayowood herd were the closest competitors. The yearling possessed plenty of style and was of good type but he was a bit too high on his legs to win from the younger animal, which was an exceptionally good one.

Johanna Bonheur Champion 2nd was grand champion.

The females were much better than the bull classes and one of them, the senior heifer calves, proved the best of the entire show. There were nine calves entered and the first three were close enough to keep most of the spectators guessing. Cass Farm had two very good entries and Mayowood Farm one that offered them plenty of competition. Choice for first place finally narrowed down to Glenda Ondine Doede from the Minnesota herd and Sadie Fobes Homestead entered by Cass Farms. Both were deep bodied, straight, growthy calves but the former lacked a little of the life, pep if you will, so necessary for successful showing and the Cass entry was placed first, later winning junior championship.

There were but 2 aged cows entered, Almeda Luecke Hengerveld by Cass and Mayowood Fernwood DeKol from the Minnesota herd. These two were fairly evenly matched, the former excelling particularly in her veining and udder, the latter in depth of body. Mr. Moscrip decided in favor of the Iowa entry and later made her senior and grand champion.

The detailed awards follow:

Bull 4 years or over—1, Chestnut Bros. on Johanna Bonheur Champion 2d, Mayowood Farm on Johanna Ondine Grahamholm Lad. Bull 3 years, under 4—1, Cass Farm Co. on King Aaggie Hengerveld. Bull 2 years, under 3—1, Cass Farm Co. on Fayne Bessie Homestead; 2, Westfall on Sir Mercedes Piebe Ormsby. Bull 1 year, under 2—1, Mayowood Farm on Johanna Glenda Lad; 2, Larsen on Sir Korndyke Clothilde Forum; 3, Cleverly on Sir Pietertje Watson Homestead; 4, Erickson on Oakdale Spring DeKol. Bull calf 6 mos., under 12 mos.—1 and 2, Erickson; 3, Cleverly on Fairlawn Burke Ormsby; 4, Larsen on Sir Korndyke Pontiac Forum; 5, Mayowood Farm on Ondine Colantha Hazeltine. Bull calf under 6 mos.—1, Mayowood Farm on Ondine Homestead Posie; 2 and 3, Cass Farm Co. on Aaggie Almeda Hengerveld and Aaggie Hengerveld Lilith Walker.

Cow 5 years or over—1, Cass Farm Co. on Almeda Luecke Hengerveld; 2, Mayowood Farm on Mayowood Fernwood DeKol. Cow 4 years, under 5—1, Larsen on Bracelet Clothilde Korndyke. Heifer 2 years, under 3—1 and 5, Larsen on Forum Aaggie DeKol and Forum Hartog Rauwerd; 2 and 4, Cass Farm Co. on ———— and Mercedes Aaltje Johanna; 3, Mayowood Farm on Johanna Ondine Soo. Heifer 18 mos. and under 2 years—1 and 2, Mayowood Farm on Posie Homestead Ondine and Johanna Tritomia Mercedes; 3, Cass Farm Co. on Alcartra Pink Johanna; 4, Erickson on Beauty Ina Segis Lone Cedar. Heifer 12 mos., under 18 mos.—1, Cass Farm Co. on Pietertje Fayne Concordia. Heifer calf 6 mos., under 12 mos.—1, 3, and 4, Cass Farm Co. on Sadie Fobes Homestead, Aaggie Hengerveld Carlotta, and Aaggie Hengerveld Daisy Homestead; 2 and 5, Mayowood Farm on Glenda Ondine Doede and Mayowood DeKol Fernwood. Heifer calf under 6 mos.—1 and 3, Cass Farm Co. on Aaggie Hengerveld Canary Segis and Aaggie Mona Clothilde; 2 and 4, Mayowood Farm on Johanna Korndyke Ruth and Avanelle Canary Ondine; 5, Larsen on Owanda Barber Cornucopia.

Exhibitor's herd—1, Cass Farm Co.; 2, Mayowood Farm. Breeder's young herd—1, Mayowood Farm; 2, Cass Farm Co. Calf herd—1, Cass Farm Co.; 2, Mayowood Farm; 3, Larsen. R. B. Young's Special—1, Cass Farm Co. Get of Sire—1 and 3, Mayowood Farm 2, Cass Farm Co.; 4, Larsen. Produce of cow—1 and 2, Mayowood Farm; 3, Cass Farm Co.; 4, Larsen.

Senior and grand champion bull—Johanna Bonheur Champion 2d. Junior champion bull—Ondine Homestead Posie.

Senior and grand champion cow—Almeda Luecke Hengerveld. Junior champion cow—Sadie Fobes Homestead.

Dairy Exhibit at the South Dakota State Fair

HOARD'S DAIRYMAN:—Unique among the exhibits in the dairy building at the South Dakota State Fair was the booth of the Dairy Husbandry Department of the State College. At one side was a chart showing the production of two cows. The first cow, representing the average dairy cow of South Dakota, had been fed on a ration of 15 lbs. wild hay and 4 lbs. corn, producing 5 quarts of milk in one day. Contrasted to this was a picture of College Belle Wayne who had been fed a ration of 35 lbs. silage, 15 lbs. alfalfa, 4 lbs. corn, 3 lbs. oats, 8 lbs. bran, and 4 lbs. linseed meal, producing in one day 35 quarts of milk. The lesson was clear. Dairymen must feed more judiciously and breed better animals to get large production.

Three charts illustrated clearly the value of the pure-bred sire in increasing dairy production. Scrub cow 1 at the South Dakota Station, with a record of 4,125 lbs. milk and 174 lbs. fat, mated to a pure-bred Holstein sire, produced a daughter that milked 8,927 lbs. milk containing 307 lbs. fat. This daughter mated to a pure-bred sire produced a daughter that made 10,194 lbs. milk, 374 lbs. fat in one year. Another similar chart show

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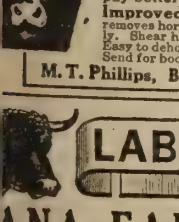
become so popular in its first three years that sands have been called for to replace, on their owers, other makes of mills, and to replace, at ll cost, the gearing of the earlier notors, making them self-oiling. Its enclosed motor s in the oil and s out dust and The Splash Oiling tem constantly ls every bearing with oil preing wear and enabling the to pump in the lightest breeze. oil supply is renewed once a year. ble Gears are used, each carrying half the load e make Gasoline Engines, Pumps, Tanks, er Supply Goods and Steel Frame Saws.



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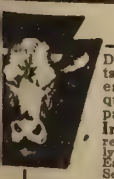
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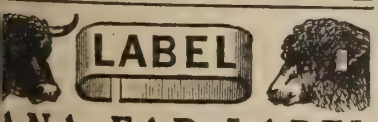
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the three generations, a scrub cow and her daughter and granddaughter, the two sired by pure-bred Holstein bulls. The production of the three was 139.5, 228.7, and 304.3 lbs. fat respectively in one year. A pure-bred Jersey sire, mated to a scrub cow with a record of 3,286.5 lbs. milk, 139.5 lbs. fat, produced a daughter with record of 6,993 lbs. milk, 330 lbs. fat, an increase of over 115 per cent.

The creameries of South Dakota are also doing their bit in producing butter. Thirty-five million pounds are produced annually, enough to make a solid wall 20 inches high between North and South Dakota if laid in pound prints; or, as the dairy husbandry department said, enough to feed our boys "over there" for 180 days.

The advertising of dairy products was not overlooked. A miniature cow was mounted on a small box with the inscription "Without the dairy cow we could not have these foods", and below her were placed milk, cream, condensed milk, brick ice cream, pie a la mode, cheese, and cottage cheese. The value of dairy products as food was brought out in a comparison of cottage cheese to other protein foods. This showed one pound of cottage cheese costing 20c to contain as much protein as 13 eggs costing 43c, 1.11 lbs. salmon costing 44c, 1.58 lbs. pork chops costing 71c, 1.27 lbs. sirloin steak costing 44c, 1.44 lbs. smoked ham costing 64c.

The showing of dairy cattle was limited to Holsteins, seven herds being represented by 49 animals. The champions were outstanding animals of the breed. The grand champion bull was Sir Ollie Watson, who has five times won the purple this season. Although but two years old he possesses great style and masculinity coupled with almost perfect Holstein type. The grand champion female was Lilac Hedge Bismarck Colantha, a very showy 4-year-old matron nearly perfect in type but lacking scale. Another season she should be a strong contender in the aged cow class. Both grand champions were owned by D. C. Bacon, North Dakota. The other exhibitors, all from South Dakota, were: P. R. Crothers & Son, Frank E. Johnson, Robt. Cleveland, A. M. Knutsen, South Dakota State Penitentiary, and E. A. Howell.

Following is a list of the awards:

Bull 3 years or over—1, Bacon on King Watson Segis Star; 2, South Dakota State Penitentiary on Redfield Korndyke DeKol Burke. Bull 2 years and under 3—1, Bacon on Sir Pontiac Ollie; 2, Crothers on Sir Veeman Wayne Hengerveld Vale; 3, Howell on King Florence. Senior yearling bull—1, South Dakota State Penitentiary on Sioux Joh Lyons. Junior yearling bull—1, Bacon on Lilac Hedge Sir Colantha. Senior bull calf—1, Howell on Brookings Chief; 2 and 4, Bacon on King Segis Star Aaggie and Colantha Zubrod Segis; 3, Johnson on College Korndyke Bess Piebe; 5, South Dakota State Penitentiary on Sir Burke Gerben Lad; 6, Knutsen on Lilac Hedge Pontiac Colantha; 2, South Dakota State Penitentiary on Sir Burke Watesa; 3 and 4, Crothers on Sir Veeman Vale and Sir Dykstra Vale; 5, Johnson on Sir Veeman Beauty Val.

Cow 3 years and over—1 and 4, Bacon on Lilac Hedge Bismarck Colantha; 2, South Dakota Penitentiary on Dakota Homestead Rue; 3, Crothers on Plentywood Annie DeKol; 5, Cleveland on College Leda Beauty. Cow 2 years and under 3—1 and 5, Cleveland on Alba Mead Fannie and Aaggie Vale Korndyke DeKol; 2, Bacon on Aaggie Fay DeKol; 3, Crothers on Plentywood Dykstra Vale; 4 and 6, Johnson on Hengerveld Helena Boon and Ormsby Korndyke Johanna. Senior yearling heifers—1, Bacon on Lilac Hedge Fay Colantha Bismarck; 2, South Dakota State Penitentiary on Pauline Burke Brookings. Junior yearling heifers—1, Bacon on Lilac Hedge Korndyke; 2, South Dakota Penitentiary on Allie Homestead Korndyke; 3, Crothers on Plentywood Tehee Vale. Senior heifer calf—1, South Dakota State Penitentiary on Tarnia Burke DeKol; 2 and 3, Cleveland on Dame Segis Hengerveld DeKol and Keystone Beauty Rue; 4, Bacon on Ruby Veeman Mercedes DeKol; 5, Crothers on Plentywood Nora Nudine Vale. Junior heifer calf—1 and 3, Bacon on Colantha Pontiac Zubrod and Lilac Hedge Tykstra Homestead; 2, Crothers on Plentywood McKinley Veeman; 4, South Dakota State Penitentiary on Sioux

(Continued on page 428)

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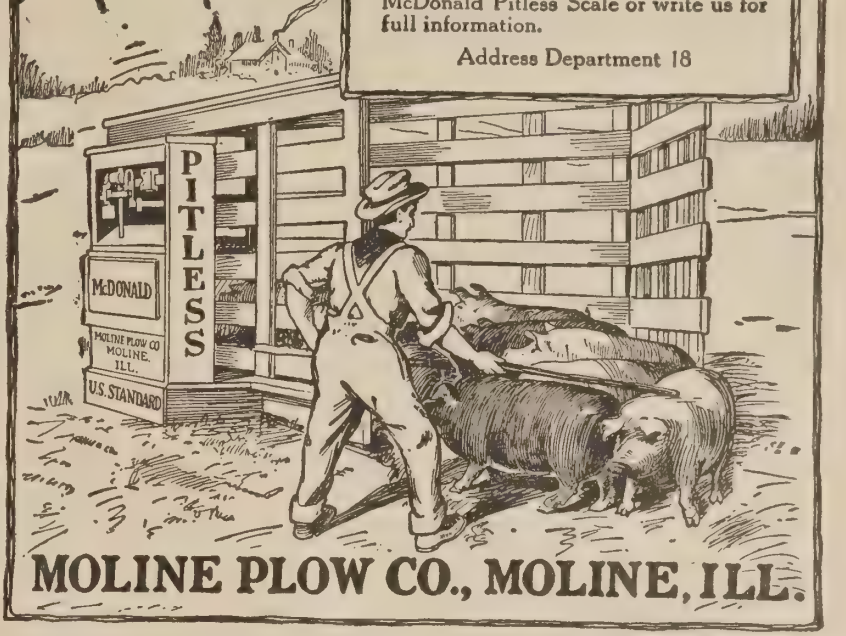
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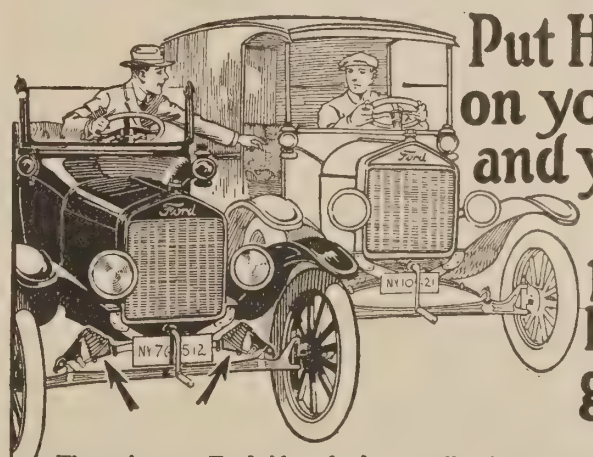
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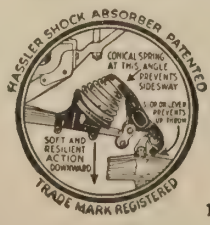
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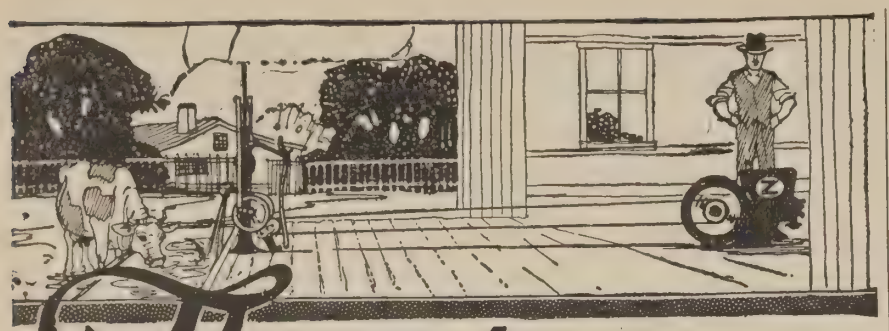
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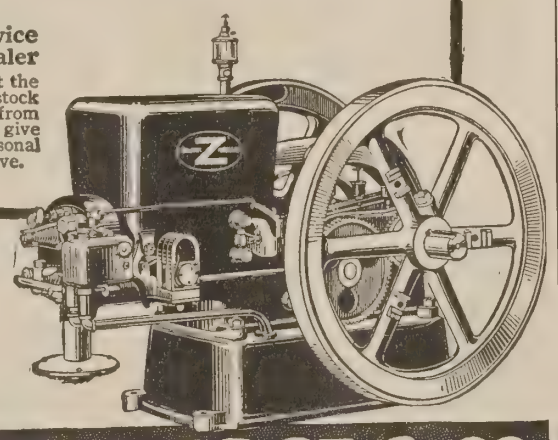
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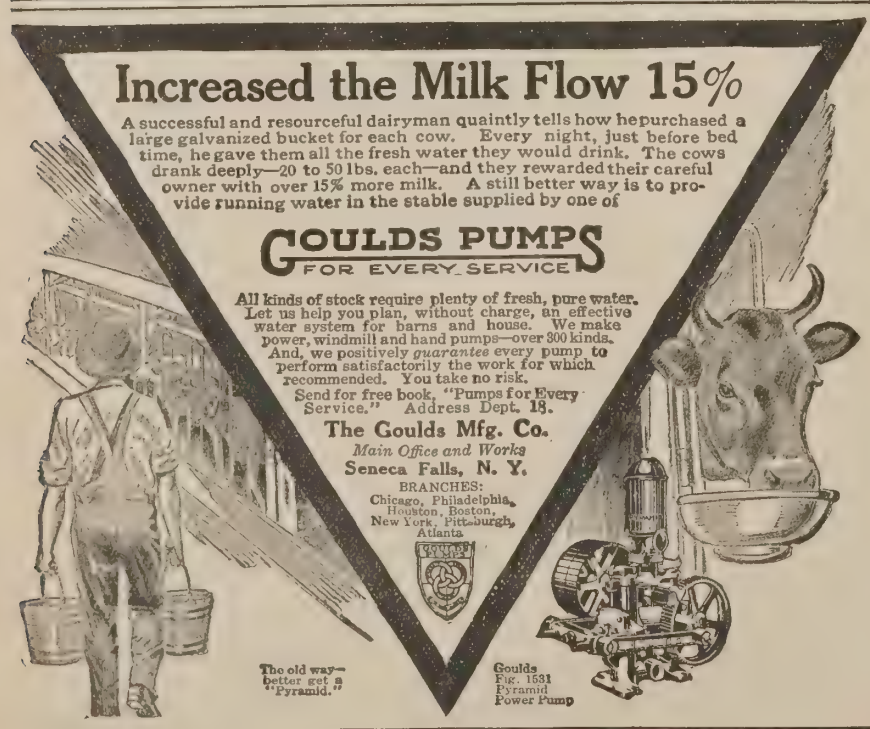
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The old way—better get a "Pyramid."

Goulds Fig. 1531 Pyramid Power Pump

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Re-testing Cattle for Tuberculosis

(Continued from page 403)

or state and federal accredited herds.

2. It would seem unnecessary to have tests made by both states, particularly if proper care is exercised in making and supervising the test in the state from which shipment is made and proper care is exercised by the purchasers in selecting agents by whom the purchase is made and the methods used in assembling and testing the animals by these agents.

3. Such double testing will certainly make it difficult for the trade in cattle and will discourage trade. Certainly some loophole should be made for those herds that are tested each year and safe herds from which to purchase. These requirements call attention of breeders to necessity of getting their herds cleaned up but at the same time they are more stringent than they ought to be.

4. Such regulations, of course, tend to keep tubercular cattle out of the state, but it places a lot of risk upon those who sell cattle for which they must of course be paid. When rules are thus made too stringent, it is possible that the building up of the dairy industry from improved cattle will be somewhat hindered and delayed.

5. I think that this ruling should be modified so that the testing is done in the states from which the cattle are shipped and purchasers be advised to take cattle only that have been tested under normal and favorable conditions. The test should be broadened so as to require not only a subcutaneous test but also an eye test and possibly the intradermal test. Make the test as searching as possible under the present development of science along that line. Veterinarians and cattle owners should be more thoroughly acquainted with the fact that any shady or unwise dealing affects the whole trade and eventually reacts upon themselves; that the state must strictly supervise or itself make tests for interstate shipment in order to protect trade in cattle; that interstate testing, if not all tuberculin testing, is a duty of the state for which the state is responsible and not the privilege of any profession or class of people.

One of the chief sources of errors in testing by which tubercular animals are permitted to pass the test is the so-called doping of cattle for the test by the injection of tuberculin. This is made possible by the fact that anyone can buy all the tuberculin they wish without record by simply crossing the state line for it and the state can have no jurisdiction over the purchase. The various states are endeavoring to control the sale of tuberculin but as long as there is no federal regulation controlling its sale, the state regulation will be of no avail and the evil will go on. There should be federal regulation controlling this and Wisconsin has asked for such regulation.

A further matter which states purchasing cattle should more fully recognize and make clear to their citizens is the fact that the most of the tubercular animals are brought in to their territory by professional buyers of cattle through the methods which they use in collecting animals and testing. Their usual practice is to buy up animals from many sources, gather them together in one place, usually at the local stock yards, have them driven in or hauled in and herded together under conditions which make them wild and excited to the highest degree. They are tied up by strangers and immediately tested also by a stranger. The effect of this is abnormal temperatures not due to disease but to the excitement. With such initial temperatures it becomes exceedingly difficult to determine from post injection temperatures whether a variation in temperature is due to the action of tuberculin or to excitement, and in fact any test made under these circumstances is so unreliable that no one can guarantee its accuracy. Any purchaser of any state who will persist in buying cattle and have them tested under these conditions is absolutely certain to get reacting animals and the most of the tubercular animals secured by states buying cattle have been obtained in this way.

It is also true that nothing is known of the history of these animals and the herds from which they came and the statements above concerning the uncertainty and lack of safety in buying cattle from untested herds even though the individuals themselves are tested, applies to everyone of the animals tested in this way. This state cannot and does not guarantee tests made in this way and every test sheet sent out which has been made in this way is and will hereafter be marked so that the official authorities of the state into which shipment is made, as well as the purchaser, may plainly see under what conditions the test is made.

The purchasers should also be acquainted with the fact that they can not expect to keep their purchase free from tuberculosis when they buy cattle that have been shipped from a non-dairy state into an important dairy state and kept in the latter state only long enough to be tested and reshipped as cattle coming from that important dairy state simply to get the reputation that the latter carries with it. It would be beneficial for the purchasing states to make sure that their agents are actually purchasing cattle from the state from which they think they are buying.

I believe these latter paragraphs carry some fundamental proposition that the trade in cattle might advantageously look into.

I wish to say I know it to be a fact that Wisconsin has a mighty host of clean herds of cattle from which any state can safely buy.

Dr. J. A. Kiernan of U. S. Bureau Animal Industry

Our Virginia correspondent's inquiry was also referred to Dr. J. A. Kiernan, Chief of Tuberculosis Eradication Division of the U. S. Bureau of Animal Industry. He replies as follows:

"You probably are aware of the fact that many cattle tested for interstate movement in a number of localities are afterward tested and found to be tuberculous. No doubt Virginia has experienced this on a number of different occasions, and believes that to protect the live stock industry of the state these regulations are necessary. This quarantine should certainly not discourage the live stock industry in any state, but should promote the interstate traffic of known healthy cattle.

"Frequent testing of dairy cattle not known to be detrimental to them in any way."

Dr. J. F. DeVine of New York

In reply to these same inquiries Dr. J. F. DeVine of New York makes the following statement:

"I have read with interest the regulations of Virginia and they would not suit me at all, either in the capacity of sanitary officer or as a breeder and shipper of cattle.

"In the first place, the time allowed between the tests and the time they may be shipped is altogether too long, that is, if there is any tuberculosis infection in the herd of which they are a part or if they should come out of a clean herd at time of test and then be kept free from exposure for the subsequent four months. As one who has had several years' experience



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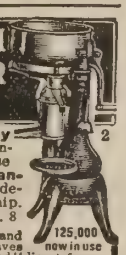
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state sanitary control work and also as one who has bred and shipped cattle for a quarter of a century, I think three weeks previous to shipment is plenty of time for any shipper to arrange for and have a test made and it surely is as long a period as cattle ought to be subjected to exposure and then shipped as tuberculosis free.

On the other hand, if the cattle come from a free herd or a herd on the accredited list, as is now being arranged by the federal government and some states, and which I am positively in favor of, the holding of such cattle in quarantine and delaying their distribution or sale or whatever it may be, is an unnecessary hardship on the shipper with no sanitary advantage. However, if there is no proof that the herd is free from tuberculosis either by thoroughly reliable records or by being on the accredited list, it is desirable and advisable to hold the cattle in quarantine and make a retest. Diseased cattle coming from an infected herd may be passed by the most capable and conscientious veterinarian living and such animals may react on the retest after they reach their destination, that is particularly so of the animals that were in the incubative stage at the time of the initial test or that the disturbance by shipping accidents or systemic disturbance attendant upon it may cause a closed lesion to become an open one.

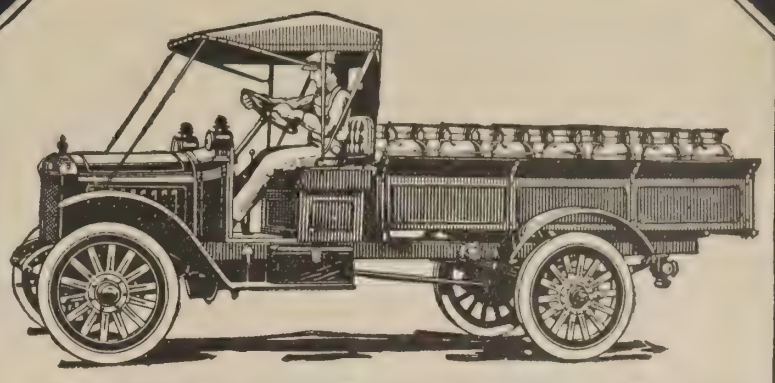
The statement that they shall not be retested under 60 days is not in keeping with our latest knowledge on the subject. If actively diseased ones have been purposely passed I believe as many would react on the 7th day after the test as would on the 60th day, and as for the incubative or closed cases the regulations could well read that the retest shall be made not earlier than 60 days after the previous test rather than from the date of arrival.

It is not detrimental to make frequent tests of dairy cattle, that is, the injecting of tuberculin in a healthy cow does not injure her in any way. It is true that a carefully conducted test where many preliminary temperatures are taken and the post temperatures continued for a long time after, that the cow is disturbed and broken of her rest but this is not serious as it happens only occasionally. To show that I practice what I preach: I have a herd of pure-bred Holsteins and Jerseys, some of the most noted families of each, and if there are enough interested in this question I would give my permission to have my herd tested every month for twelve consecutive months and I have no fear whatever that it will do them any harm.

I think these requirements can be modified to promote the live stock and dairy interests of the state. The requirement of two tests, if modified slightly, will protect and promote the interest of the purchaser in the case where cattle come from herds that are infected. It is an unfailing rule that every time a purchaser is protected and gets value received, it encourages, increases, and promotes faith and interest in that branch of industry, let it be what it may.

I do not think regulations, with rare exceptions, should ever be legislated into laws. The power should be given, by legislation, to the live stock executive officer or board to promulgate such rules or regulations as he or they deem advisable for the protection of the live stock interests.

The delay and expense of testing cattle that are to be shipped into the state is well repaid if such tests and examinations are carried on carefully and in good faith. The previous test may save the purchaser the loss of many dollars that he might suffer if the animals were allowed to be shipped in and he had to abide by the results of what is here styled the retest.



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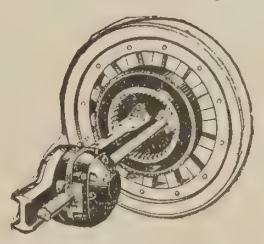
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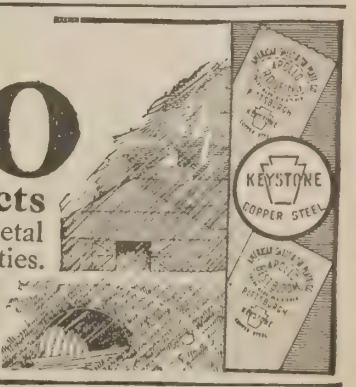
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Coming Events

Farmers' National Congress meets in Jacksonville, Florida, December 3-6, 1918. President, J. H. Kimble, Port Deposit, Md.

Wisconsin Cheesemakers' Association meets Jan. 8—10, 1919, at Milwaukee. Secretary, J. L. Sammis, Madison, Wis.

Wisconsin Dairymen's Association meets at Menomonie, December 5 and 6. Secretary, P. C. Burchard, Ft. Atkinson, Wis.

New York October Milk Price Reduced

An action has just been taken which will materially affect every dairyman in the country. The Dairymen's League price for October milk of $3.65 per hundred has been reduced by the United States Food Administration to $3.57 per hundred, and the new base price zone established by the League for October as 250 miles from New York has been changed back to 150 miles as it was before October.

At a special meeting of the League Board of Directors called at the request of Herbert Hoover, United States Food Administrator, in New York October 2nd and 3rd, the directors were read a request which was practically an ultimatum ordering them to accept the above price and conditions. There being no choice in the matter, the directors passed the following resolution:

Whereas, Herbert Hoover, Food Administrator of the United States, has requested this organization to agree to a price of $3.57 a hundred for the month of October for 3 per cent milk subject to previously existing freight and butterfat differentials, and

Whereas, he states that the acceptance of this request by producers will be a material assistance to his war efforts,

This statement is to us imperative and is interpreted as a mandate, as every personal and organization interest must be subordinate to winning the war: Therefore be it

Resolved, that we advise our members to comply with such request.

As has been previously explained, the October price was not set arbitrarily by the League but came as a result of a careful and scientific investigation of a great amount of evidence bearing on the costs of milk production. Doctor Warren of the College of Agriculture at Ithaca and several other scientists of the country have found from many surveys on the costs of production and from evidence given before milk commissions, the qualities of the different factors such as feed, hay, labor, etc. which are required to produce one hundred pounds of milk. These amounts have been assembled in a formula known in the trade as the Warren formula. To determine the price for any month by use of this formula, it is only necessary to substitute the values of each factor in the formula. This method of determining costs of production is conceded by the leading experts of the country to be the most correct and scientific method in use for finding the cost of milk.

Several conferences for the purpose of determining the price for October were held between the dealers and representatives of the League in September and at many of these conferences representatives of the Food Administration were present. The use of the formula was agreed to and an agreement was reached on all of the costs of each factor in the formula for October milk, except the price of labor. The dealers claimed that this should be under 30 cents per hour, and the league maintained that it should be at least 35 cents. Because of the disagreement on this factor and also the fact that the dealers would not agree to extending the zone to 250 miles, no agreement was reached, and as the time for putting out the October contracts was approaching, the League determined the October costs of milk by use of the Warren formula and announced the result, which was $3.65 a hundred.

After the announcement of the league price, contracts were put out and accepted by the dealers and the price was announced and posted at most stations in league territory. On September 28th, three days before the October contracts were to take effect, the Executive Committee of the League was asked by Arthur Williams, Federal Food Administrator for New York City, to rescind its contracts and reduce the price for October on the ground that milk should not be sold in New York City for more than 15 cents a quart. The Executive Committee replied to Mr. Williams that they were unable to reduce the price because it only represented the costs of production to farmers and that in any case it was too late to change prices for October because contracts were closed and prices posted. It was also pointed out to Mr. Williams, and later in a letter to Mr. Hoover, that to first determine a price that consumers should pay and from this allow the distributors their costs and profit, giving to the farmers what might be left, is a method as fallacious as it is unjust. Following the conference with Mr. Williams, a telegram was sent to Mr. Hoover by the New York City food authorities, stating that the League could not agree to modify its prices, after which Mr Hoover asked the League to call a special meeting of the Board of Directors and sent an official representative who brought a request from Mr. Hoover which was interpreted by his representative and by the League directors as an ultimatum to arbitrarily reduce the October price. Mr Hoover stated that the acceptance of his request would be of materia assistance to him in his war efforts

The League, of course, could not be in a position of refusing to follow the directions of Mr. Hoover, as it is recognized by all that every interes must be subordinate to that of winning the war.

The League believes that Mr. Hoover intends to be absolutely just, bu that he misunderstands the situation Mr. Hoover has announced that a conference will be called in the nea future to determine prices and at such conference the League hopes to be able to explain the farmer's position —THE DAIRYMEN'S LEAGUE, INC.

THE END OF A PERFECT DAY AT THE DAIRY CATTLE CONGRESS



THREE VETERAN SHOWMEN

Reading from left to right: J. R. "Happy" Allen, at present showing Shorewood Guernseys for D. D. Tenney; J. H. "Jimmy" Lee, Dean of showmen, who is showing Guernseys for W. W. Marsh; John Swanigan, who is showing Jerseys for Longview Farm. Jimmy Lee has been showing for 32 consecutive years, Happy Allen for 23, and John Swanigan for 23. With these men, showing dairy cattle is an art and it is a safe bet that they could win with an inferior animal over the layman with a better one.

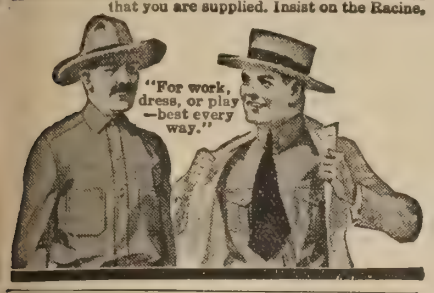
Sale Announcements

Oct. 21—Jerseys. Robert I. Young, R. F. D. 5, St. Joseph, Mo.
Oct. 21—Holstein Dispersion. Dr. A. D. Blackburn, Cuba, Ohio.
Oct. 22—Holsteins. H. L. Persing, Clyde, Ohio.
Oct. 22-23—Holsteins. Lake Mills Holstein Breeders' Semi-Annual Consignment Sale, Lake Mills, Wis. F. H. Everson, Manager.
Oct. 24—Guernseys. First Annual Consignment Sale of the Massachusetts Guernsey Breeders' Association at New England Fair Grounds, Worcester, Mass. Leander F. Herrick, Sale Manager.
Oct. 24—Holsteins. Howell Sales Co., Howell, Mich. Jas. B. Tooley, Sec'y.
Oct. 24—Guernseys. Massachusetts Guernsey Breeders' Ass'n. Worcester, Mass. L. F. Herrick, Auctioneer.
Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 29—Holsteins and Poland China hogs. Pleasant Valley Stock Farm, Thos. Maher, Brookings, S. D.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 29—Holsteins. Chas. Rupp's Dispersion Sale at Indianapolis, Ind. F. G. Johnston, Sale Mgr., 37 West Lane Ave., Columbus, Ohio.
Oct. 30—Holsteins. Michigan Breeders' Consignment Sale Co., at Howell, Mich., H. W. Norton, Jr., Mgr. East Lansing, Mich.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Oct. 31—Guernseys. A. C. Ramseyer, Mara Alva Farm, Smithville, Ohio. H. C. McCamon, Sales Mgr., Lisbon, Ohio.
Oct. 31—Holsteins. Western Dairy & Ice Cream Co., St. Joseph, Mo.
Nov. 6-7—Guernseys. Waukesha County Guernsey Breeders' Association Semi-annual Sale at Waukesha, Wis. F. E. Fox, Sec.
Nov. 7—Holsteins. The Walworth County Holstein Breeders' Sale at Elkhorn, Wis. J. G. Voss, Manager.
Nov. 11—Holsteins. Porter County Holstein Breeders. J. B. Turner, Sec'y., Valparaiso, Ind.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
Nov. 19—Guernseys. Dispersion of W. J. Hyde's Guernsey Herd at Ft. Atkinson, Wis.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Nov. 26—Holsteins. Tri-county Holsteins breeders' second semi-annual sale at Dixon, Ill. Sales Mgr., E. M. Detweiler, Polo, Ill.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

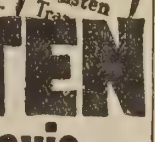
New York Butter Market

NEW YORK CITY, OCT. 8—Appa ently the upper limit of butter price was reached last week. For some tim there had been an under-current feeling among butter buyers tha there must be a halt in the upwar trend of prices else butter consump tion would cease entirely. The chang came quite hurriedly. For a day two there was an unsettled feeling the market and practically no butt moved. Stocks began to accumula and holders began to feel uneasy. Wednesday of last week the brea came and the first decline in pri since the market strengthened in Se tember took place. On that day qu tations on all grades were lowered o cent. Stocks continued to accumula and a further decline of one cent o curred on Thursday. Thereafter the was a decline on each day until Tue day, it being one cent on Friday, o and a half cents on Saturday, a one and half cents on Monday. T quotation on extras at the close Monday was 57c or exactly five cen less than that for the previous Mo day.

On Monday afternoon the mark seemed to gain some strength. Th was due to several big buyers taki on considerable stock. In practica all stores butter began to move mo or less freely and it became evide that the decline was checked, tempor rily at least. Today quotations a one cent higher than those of yest day. The trade is thrown on fresh ceipts entirely as holders of accum lated stocks, which came in on t high market, refuse to dispose of th at prices that will cause large loss Unless larger stocks of fresh but are received, provided present ac mulated stocks are retained by holders, it will mean that prices w forge ahead again although it is

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expected that the high prices of last week will again be reached. We may look forward to fluctuations in quotations throughout the coming months.

At the close today quotations on butter were as follows: Extras (92 score), 57½@58c; higher scoring than extras (93 score or above), 58½@59c; firsts (88 to 91 score), 55½@57c; and seconds (83 to 87 score), 53@55c. As yet unsalted butter has not recovered from its slump but it is quoted at a differential of one and one-half cents over corresponding grades of salted butter.

W. B. LIVERANCE.

Holstein Breeders of Pennsylvania to Meet

There will be a meeting of the State Holstein-Friesian Association of Pennsylvania at Hotel Sterling, Wilkes-Barre, Pa., on the evening of October 23rd. The Northwestern Pennsylvania Breeders' Association is holding a two days' consignment sale in the city at that time, and the time of the meeting has been so arranged that the breeders can attend both the sale and the meeting. No effort has been spared to make this meeting the greatest possible success.

The meeting will open by a dinner given in honor of D. D. Aitken of Flint, Michigan, president of the Holstein-Friesian Association of America, in the main dining room of Hotel Sterling, to which all breeders and persons interested in Holstein cattle are cordially invited. President Aitken stands foremost among breeders of Holstein cattle, and the breeders of Pennsylvania are glad of the honor and privilege of having him present at their meeting.

The National Holstein-Friesian Association of America will hold its next annual meeting at Philadelphia, and it will be necessary for the breeders of Pennsylvania to strengthen their state organization in order to give the National Association the royal reception that it has been accorded in other states.

We hope that every breeder of Holstein cattle in Eastern Pennsylvania will make an effort to attend the meeting in Wilkes-Barre.

HOWARD C. REYNOLDS.

Rider Goes With Holstein-Friesian Association

Professor William H. Rider, at the head of the animal husbandry and dairying department of Syracuse (N. Y.) University since the year 1915, has accepted the appointment as director of the extension service of the Holstein-Friesian Associaton of America.

Professor Rider has had experience in practical dairying in the middle west in addition to advanced courses in the Michigan Agricultural College and the University of Wisconsin. He spent the entire summer of the year 1913 touring Europe for the purpose of studying the animal husbandry and dairying interests. Professor Rider is secretary of the Onondaga Farm Bureau and Master of the Syracuse Grange.

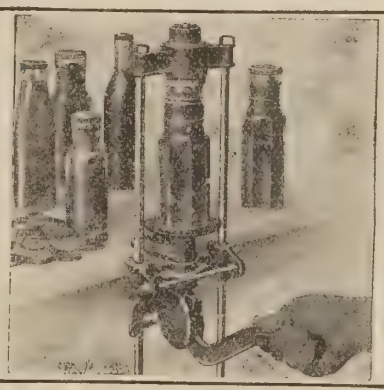
Bulletins of the Week

The Four Essential Factors in the Production of Milk of Low Bacterial Content, by S. H. Ayers, L. B. Cook, and P. W. Clemmer. Bulletin 642 of the U. S. Dept. of Agr., Washington, D. C.

Washing of Soils and Methods of Prevention, by J. G. Mosier and A. F. Gustafson. Bulletin 207, Illinois Experiment Station, Urbana, Ill.

Contagious Abortion of Cattle, by W. L. Williams. Lesson 131 of the Cornell Reading Course for the Farm, published by New York State College of Agriculture, Ithaca, N. Y.

Rubber Footwear at the "Front"
In the first line trenches, where the need is greatest, rubber footwear is helping to make life more livable for the doughboy
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EDITORIAL COMMENT

DR. Cyril G. Hopkins has accepted a call to head the agricultural section of the Red Cross Commission to Greece. He has been granted a leave of absence from the Illinois College of Agriculture for one year. His plans are now to return to the United States by October 1st, 1919.

We are not fully advised regarding his duties in Greece under the direction of the Red Cross, but we assume that he is engaged to interpret the needs of the soil of that country. It is recognized by every thinking nation that at the close of this war, there is going to be an unlimited demand for agricultural products, for the food reserves of the whole world are low. It will require intelligent agricultural practice to restore the proper food reserves. We know of no one more capable of giving sound agricultural advice than Dr. Hopkins who has had many years of scientific and practical experience in dealing with the soil problems of not only Illinois, but of the East and South.

WE are sure the dairy farmers and breeders of dairy cattle will welcome the appointment of B. H. Rawl as Assistant Chief of the Bureau of Animal Industry. The law requires that the chief of the Bureau shall be a veterinarian. The present chief is J. R. Mohler, who is not only a veterinarian but a trained scientist and a capable executive. Mr. Rawl brings to the executive department of the Bureau of Animal Industry, information regarding live stock which is highly essential to the proper conduct of that office. To discharge its duties, it requires not only a thorough understanding of the principles of veterinary science and all its allied sciences, but also an understanding of the principles and practices employed in the successful rearing of live stock. A person may be a well qualified veterinarian, but lack woefully in knowledge pertaining to the principles and practices of live stock farming.

This department in the past has been severely criticised because it did not seem to be properly balanced, that the veterinarians were predominating, and that there was a lack of live stock understanding by those directing the affairs of the Bureau. The adjustments which Mr. Rawl made between the Bureau and the National Dairy Show cattle, which carried a quarantine through the foot and mouth disease in Chicago in 1914, recommend him highly for his new position. He has proven that he has an understanding of the principles and practices which govern the handling of our live stock interests. We know that his appointment will be well received by our live stock interests and will have their hearty support.

TIMOTHY HAY

The feeding value of timothy hay, as well as other hay, depends upon the time it was cut and how well it was cured. Timothy hay at best is not a high class feed for dairy cows but considerable of it is used by the dairymen of the country because clover fails and in order to be sure of a hay crop, some timothy is sown with the clover.

Timothy hay contains a low percentage of protein but the protein content varies a great deal, depending upon the period of cutting. When cut before bloom, it contains 4.7 per cent digestible protein; cut early to full bloom, 3.6 per cent digestible protein; cut at late bloom to early seed, 2.4 per cent digestible protein. In other words, timothy cut before bloom contains nearly twice as much protein per hundred pounds as when cut at late bloom to early seed.

Permitting any of the grasses, which are used for hay, to ripen, tends to lock up their nutrients firmly. Oats cut when in the milk stage make a very acceptable hay but oat straw is rather a poor feed. Cutting timothy before bloom will secure a higher percentage of digestible protein but it is doubtful whether it would pay to cut it quite so early. Early to full bloom will secure the largest yield of digestible nutrients from an acre.

RATHER STRANGE ADVICE

Kimball's Dairy Farmer announces with quite a flourish that it is proud of advising the farmers against getting rid of cows that have proved unprofitable producers at the pail. Its excuse for this strange advice is that there is going to be a great scarcity of butter. That may be, but is it not asking too much of the farmer that he keep on with unprofitable cows in order to help prevent that scarcity?

The great economic fact is, that the low price of butter for years was caused by so great a number of farmers keeping unprofitable cows. Their product loaded down the market to the enormous benefit of the consumer, but to the great loss of the producer. Every man is in duty bound to look out for himself to start with. He is supposed to know what he is about. He is supposed to have business sense enough not to keep an unprofitable cow. He is supposed to have the good sense to institute ways and means to find out what his cows are actually doing. All this he owes to himself at the beginning and the public has no right to ask that he feed it with butter that is costing him more than he gets because he keeps a class of cows that cannot produce enough to pay their keep and give him a little profit besides.

VELVET BEAN MEAL OR FEED

Elsewhere in this issue will be found a communication regarding velvet bean meal. This feed is made of velvet beans and pods ground together. It seems to us it would be better to call this velvet bean feed and then when the beans are ground alone, to call the product velvet bean meal. Following this method of naming these products would be in keeping with the way cottonseed products are named; for instance, when cottonseed hulls are mixed with cottonseed meal, it is called cottonseed feed; without the cottonseed hulls, the ground seeds. after the oil has been removed, is called cottonseed meal.

We are looking forward to the time when velvet beans ground without the pods will be an important feed for supplementing home-grown grain rich in carbohydrates. The feeder will buy the ground beans for increasing the protein content of his ration and there may be instances when he will care for the ground pods and beans.

These products are now finding their way on the market and we suggest that one be called velvet bean meal when the beans are ground without the pods, and when ground with the pods be called velvet bean feed.

BEST FARMERS IN THE WORLD

"The best farmers in the world." How often have we heard this statement made with reference to the farmers of some European country where the production per acre exceeds that in the United States. And how effectively does the American farmer refute it! He has not been forced to compete in intensive cultivation except in a few sections where he has acquitted himself most satisfactorily. It is the "per man" basis of calculation that counts in this country—not the "per acre". The American farmer, for each individual on the land, produces more food than the farmer of any country of Europe.

The Department of Agriculture makes this informative statement on the point:

"Man power per acre is much more effective in the agricultural production of this country than it is in any European country. In France, Germany, Hungary, and the United Kingdom, before the war, there was one person engaged in agriculture to about 7 acres in cultivation; in Belgium and Italy, one person to about 5 acres; and in the United States, one person to 27 acres. In the foreign countries, cultivation is more intensive and the fields are often small and scattered; in this country, large and contiguous fields permit the use of machinery, draft animals, and tractors. Production per acre is comparatively low in this country, but the product per worker is much greater than it is in the other countries named."

BUTTER PRICES

The rapid advance in the price of butter has caused alarm among the consumer, the manufacturer, and the jobber. It is our opinion the dairy farmer does not feel that the price of butter has advanced out of proportion to the prices of other staples, and in view of this there is nothing to cause serious concern.

People not directly interested in the dairy industry seem to feel that the present price of butter will lead the consumer to use substitutes and that he will not return to eating butter when its price recedes. We do not have this conception. It is true that when the price of butter advances there is an increase in the consumption of so-called butter substitutes, but people prefer butter. Most people return to eating butter when they think they can afford to eat it.

The rapid advance in the price of butter is due to a large demand and a small supply. There are those who hold that the law of supply and demand has been suspended, but we can not accept this reasoning as being wholly correct. Without question, our present abnormal conditions are interfering with the law of supply and demand, but to say this law is suspended is ridiculous.

If we had a billion pounds of butter in cold storage instead of the few million that we have, it would drop to a ridiculously low price. It would be the cheapest fat on the market. In these abnormal times we should keep in mind the factors that govern prices and we should also realize that prices of all staple products tend to establish themselves in relationship to other staple products. Butter is not proportionately higher than flour or pork or cotton cloth, and many other things which might be mentioned. When the price of one product is in proportion to the prices of other products, there is nothing to cause serious alarm.

FACTS FROM 450 MICHIGAN FARMS

Four hundred and fifty farms in Lenawee County, Michigan, furnish some interesting figures on "what to grow and how much".

According to a Department of Agriculture specialist who studied the profits and losses of these farms, the most profitable plant 30 to 50 per cent of their total crop area in corn, 10 per cent in oats, 30 per cent in wheat, 1 to 10 per cent in barley, and 20 to 30 per cent in hay. The most satisfactory rotation, from the standpoint of net results, is one of corn, corn, oats and barley, wheat, and hay. Alfalfa was found to be a valuable addition to this rotation and the Department advises that the acreage should be increased.

Of the best general types of farming, the Department states, from this study of actual farm conditions, "it was found that specialized dairy farms paid better normally than dairy and grain farms, but on the average did not pay as well as the combination of dairying and hog raising. Dairying with hogs and grain usually yielded better labor income than any other combination. The outstanding advantages of this type as compared with others are greater diversity of income, a larger percentage of receipts for sale of live stock and live stock products, and a comparatively small percentage of the income from the sale of crops, because for the most part the crops are sold to better advantage by feeding them to live stock. The types of farming and the general conditions which prevail in this section make the size of a farm a very important factor bearing on the income, according to the bulletin. There is also a direct relation between the amount of capital invested and the labor income of the operator. Generally speaking, the larger the farm and the greater the investment, the greater the percentage or rate of income."

FOOT AND MOUTH DISEASE IN ENGLAND

The Bureau of Animal Industry has informed us of an outbreak of foot and mouth disease in the county of Essex, England. This report brings vividly to our minds the tremendous struggle we had in 1914 and 1915 to wipe out this insidious disease which was accomplished, very largely, through slaughter.

The herds of dairy cattle exhibited at the 1914 Dairy Show were stricken with this disease and permitting the disease to run its course under a strict quarantine, were finally saved. Only a few of the dairy show cattle had to be slaughtered because of the effects of foot and mouth disease. Many of the owners of these herds were led to the firm conviction that the government should establish rules under which highly bred cattle might be quarantined and saved, and they believe that slaughter is unnecessary to control the spreading of this disease.

It is held, too, by many who have given the matter serious consideration, that much good meat was lost and all the hides were wasted by slaughtering and burying animals in herds where a few were suffering from the disease. It seems reasonable that animals that have not contracted the disease could be utilized for meat and that the hides of all cattle slaughtered could be so treated with a solution of corrosive sublimate that they could be used and still make the spreading of disease from such sources impossible.

It is our opinion that the U. S. governmen

should send to England a few well qualified veterinarians and scientists that they might familiarize themselves with the methods adopted there and satisfy themselves as to whether herds might be handled in quarantine and foot and mouth disease successfully and economically eradicated. We are confident that slaughter of grade herds or herds of no breeding is the cheapest and most effective way of handling foot and mouth disease, but it is quite possible with a better understanding of quarantine and the use of disinfectants, that well bred animals could be saved without danger of spreading the disease. The United States government should at this time seize the opportunity offered in Essex County, England, for studying methods of quarantine and present definite recommendations as to what course to follow in case this country again should have an outbreak of foot and mouth disease.

Silage Settles Away from Wall

We have 3 tile silos, 18, 16, and 20 feet across and about 50 feet high and have had trouble with silage settling away from wall. In filling we try to keep silage level and especially well packed close to the wall. Use 3 men inside for tramping. Silage, mostly field corn, some cane and kafir.

Beloit, Kans. C. L. B.

There are various reasons why silage draws away from the wall, such as lack of sufficient moisture to pack well, the cut material not being well mixed, failure to keep the outer edge higher than the center, and lack of sufficient tramping, particularly when the silo is rapidly filled.

Under moisture, we would suggest that corn be cut when it is well dented and the lower leaves dry but the stalk still full of juice. This will be a week or ten days prior to the usual time of cutting and putting corn in the shock for husking. Sometimes this condition goes by before the corn can be ensiled, in which event water should be added in sufficient quantity that the cut material will pack well when taken up in the hands or when it packs firmly under the foot when tramped. Experience is necessary to determine the amount of water to be added and no set rule can be given. Running a stream of water into the blower is the best method of handling it, and more water should be used in the upper portion of the silo than in the lower. Some men add water at the top of the silo but it is more difficult to get an even distribution and to get the water up into the silo.

Possibly the most frequent cause of spoilage is the lack of proper mixing and even distribution. Where the blower distributor is used, this can be most easily done but, possibly because it is easy, it is often overlooked. Care should be exercised that the distributor is moved about and not allowed to stay in one place, and this should be one man's work all the time in order to insure best results. The tendency is for the heavier pieces of stalk and ear to drop just under the blower while the lighter portions and leaves, which do not pack so readily, are blown to one side. These lighter portions are most likely to accumulate at the wall where they do not pack down solidly. This is, perhaps, the most usual cause of silage settling away from the wall.

The friction of the walls tends to keep the silage from settling as compactly or as fast as at the center, therefore special effort should be made to see that the cut material is not only well mixed and sufficiently moist, but that it is thoroughly tramped at the outer edge. This holds particularly true of the upper portions of the silage where there is less weight of material to pack that underneath. As a further aid in securing even settling, the outer edge should be kept higher than the center, the surface being kept in the form of a saucer. After the filling is practically complete, reverse this process, filling up the center and leaving the surface rounded like an inverted saucer with the top higher at the center.

Professor Reed, formerly of the Kansas Agricultural College, suggests that the cut materials be built up about two feet high around the walls and tramped well, then fill up the center and tramp it well, then again build up the outer edge. This will be of real service in keeping the silage from settling away from the walls.

When silos are filled rapidly with large outfits, there is greater necessity of keeping the cut material well tramped and more men should be kept in the silo. With slower filling there is not only more time for tramping the silage, but the daily settling helps out materially in securing a somewhat more even packing. Tramping and proper settling also help to increase silo capacity as otherwise there is a much larger settling after the siloing outfit has left the farm or work has been discontinued.

Oat and Wheat Hay to Cows

We shall be pleased to have you advise us with reference to the feeding value of oat and wheat hay to dairy cows for the production of milk in comparison to that of alfalfa.

Great Falls, Mont. A. M. E.

Experimental findings and the results of practical feeding on dairy farms indicate that there is no single roughage which supplies nutrients more satisfactorily to cows than does alfalfa hay. We count alfalfa hay the best basis for a dairy ration which there is, that is, where it can be secured at reasonable price. It has a considerable advantage over oat and wheat hay in its mineral content but excels them chiefly in the amount of digestible protein it contains. While oat hay contains about 4.5 per cent crude protein and wheat hay about 4, alfalfa has an average content of 10.6%.

At the present prices of concentrates, alfalfa has a considerably higher feeding value than either of these hays. While good results may be secured by feeding the two hays it will be necessary to supplement them with larger amounts of high costing concentrates than may be the case when alfalfa is fed.

The value of the hays depends quite largely upon the time of cutting. If they are allowed to ripen and shatter part of their grain their feeding value is greatly decreased. This fact may be realized from the analyses of oat and wheat straw which give only one per cent of digestible protein to oat straw and only .7 of one per cent to wheat straw. If these two cereal grains are to be cut for hay they should be cut when the grain is in the early milk stage at which time the stems and leaves may be cured into a bright, dustfree hay of quite good quality. If wheat is of bearded variety it should, of course, be cut before the awns harden.

Ration for Pigs

I just got twenty-one nice little pigs from two sows. I would like to keep them until they are six months old, but I don't know if there is any profit in keeping them at present feed prices. Please tell me what would be the cost of feed for one pig for six months. What is best to feed them? How much should one pig get for each meal? I have oats, barley, and, if the weather conditions are favorable, I will have corn too.

Iola, Wis. C. H.

Whether there is profit in maturing these splendid litters of pigs depends a great deal upon the care given them. Of course, the prices of feeds influence the profit very largely also.

It can be figured that with good care these pigs will average a gain of approximately .8 of a pound per day until they weigh about 50 lbs. each. After that weight they will grow somewhat more rapidly. Up to the time when they are 50 lbs. in weight, for each pound of gain, approximately three pounds of grain will be required. After the pigs are older and larger, an increased amount of grain is required for each pound of gain made. From this an estimate can be made as to whether feeding the pigs will be profitable.

Just at this time it is wise to feed the mothers of these pigs very liberally, supplying at least as much grain per day as 1% of the weight of the mother hog. A grain mixture of 300 lbs. of corn or ground barley, 200 lbs. ground oats, and 100 lbs. oil meal makes a very suitable feed. The oil meal can be replaced in the mixture by one-half of that weight, or 50 lbs., of tankage.

There is no feed which can successfully replace skimmilk. If it can be supplied to the mother hogs, it will encourage milk production and indirectly be of great benefit to the small pigs. As soon as the pigs will eat it, a grain supply should be kept before them in a little pan where their mothers can not reach it. Also, milk should be fed the little fellows as soon as they will drink it. Feed growing pigs all they will clean up.

It is most economical to supply suitable pasturage at this time and throughout the period of feeding the pigs until cold weather comes. Rape, alfalfa, clover, fall rye, or most any green feed gives a great advantage over yard feed.

The Nursing Calf

We have been allowing new born calves to remain with our milk cows for a week or ten days, then we take them away and feed them from pail. The question has arisen as to the advisability of letting the calves suck at all; that by doing so it might injure the milking qualities of our cows.

I am told by some producers that a calf should be permitted to be with its mother only for two days, that a longer period will reduce milk production and eventually permanently affect the value of milk producing cows.

Chicago. H. M. H.

Good dairymen hold different ideas concerning the practice of letting calves suck their mothers for a few days after birth. It is the practice of some to permit a calf to nurse once or twice in order to get the colostrum milk and then take the calf away from its mother. Others permit the calf to remain with its mother for a week or ten days, being careful, of course, not to let the calf have too much of the mother's milk, and then after the calf has finished, milk the cow dry by hand.

There is no danger of injuring a cow in any way by permitting a calf to suck a week or ten days, providing the cow is milked clean after the calf has had its milk.

Calves permitted to nurse a week or ten days require a little more time to teach them to drink. For this reason, many dairymen prefer to let the calf nurse once or twice and then let it get good and hungry. No harm will come to the calf if it goes 36 to 48 hours without feeding and then give it 3 or 4 lbs. of its mother's milk. As a rule, when the calf is hungry and has not formed the habit of nursing, it takes to drinking its ration more readily than the calf that has formed the habit of nursing.

Value of Silage

Please advise me how to arrive at a just valuation of corn ensilage after settling about two and one-half months.

The corn would have yielded between twenty and twenty-five bushels of corn per acre. Could a just value for the ensilage be determined, by comparing it with alfalfa hay at $15 to $20 per ton in the stack?

Chadron, Neb. H. E. B.

In a measure, alfalfa hay and corn silage are not comparable, but there is opportunity to arrive at the price of silage based upon the selling price of alfalfa.

Corn silage contains about one-third of the nutrients contained in alfalfa hay. For instance, in 100 lbs. of corn silage there are 17½ lbs. of digestible nutrients; in 100 lbs. of alfalfa hay there are 52.2 lbs. Therefore, corn silage is worth about one-third of the value of alfalfa hay.

Another way to arrive at the price of corn silage is through the price of ear corn. An acre that will yield 50 bushels of corn will produce about 10 tons of silage. Corn selling at $1.50 per bushel or at $75 per acre would make the corn silage worth about $7.50 per ton.

Feeding Pigs

Please make a ration for me for 75 spring shotes, which I desire to sell as fat hogs about Dec. 1. I have plenty of oats, barley, and corn. Distance to nearest mill is 4 miles, and price for grinding is 12½ cents per sack. I also have whey from 500 lbs. of milk delivered daily at Swiss cheese factory.

Darlington, Wis. L. B. H.

Barley is a much cheaper feed than corn and it is nearly as valuable as corn for the feeding of hogs. The present price of oats is too high to be used for fattening hogs. Oats is a rather bulky feed and may be used when rather low in price, and especially for growing pigs.

We suggest grinding barley and feeding it in rather liberal quantities, perhaps supplementing it with a little corn. In order to secure the required amount of protein, we would suggest the use of tankage or oil meal. The tankage or oil meal may be mixed with the whey. In making cheese, the protein of the milk has been removed and whey contains only a small percentage of this element. In order to supply the pig with the necessary protein for growth and development, some feed rich in protein like tankage or oil meal must be used.

If tankage is used, it may form about 7 to 9% of the pig's total ration of grain. For instance, for every 10 pounds of ground barley fed, about 1 pound or a little less of tankage should be used. If oil meal is used, the amount should be 1½ to 2 lbs. for every 10 lbs. of barley fed. Feeding much more of either of these feeds will not bring increased results.



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Wheat By-products in Mixed Feeds

Revised Food Administration regulations now in effect limit the amount of wheat by-products which manufacturers may combine with other feeds. The relative cheapness of wheat feeds resulting from the controlled price might, it is recognized, be an incentive for feed manufacturers to use larger amounts of wheat by-products than in the past for mixing with coarse grains and selling this mixed feed at uncontrolled prices.

A new rule in the latest Food Administration regulations specifically prevents this practice. The text of the rule follows:

"No wheat miller shall mix any greater percentage of his output (1918) of wheat mill feed with other feedingstuffs, or sell any greater percentage to feed mixers for such mixing, than he mixed or sold in the year 1917."

Investigations by the Food Administration have shown that the practice which this rule prevents has not become prevalent, and the regulation is principally one of safeguard.

In addition to this means of control, a similar rule applies directly to manufacturers of commercial mixed feed. This rule, effective October 1, 1918, provides:

"The manufacturer of commercial mixed feeds shall not use more wheat mill feed in the manufacture of the mixed feed than he used in the corresponding month of the year 1917."

The profits which manufacturers of mixed feeds may take are limited to a specified reasonable margin.

These rules do not apply to farmers who mix their own feed, but they will be asked to sign a pledge of honor "not to use wheat mill feeds for any other purpose than the feeding of dairy cattle, poultry, young pigs, young calves, or the preparation of a weekly bran mash for work animals." In addition the farmers are asked to agree not to feed any more wheat feeds than is customarily fed to such animals and not to have at any time more than a 60-day supply of wheat feeds on hand.

The purpose of these regulations and pledges is to make possible an equitable distribution of wheat mill feeds so that the benefits of controlled prices may be shared by the greatest number of producers and users of wheat feeds.—U. S. FOOD ADMINISTRATION.

"Victory means more to those who earn their bread in the sweat of their brow than any other class."—LLOYD GEORGE.

Abortion

Could you tell me what I could do for a cow that has lost her calf? Is there any medicine I could give her? The cause is from an affected bull, I think. This is the first time she ever lost her calf.

Taylorville, Ill. W. M. S.

There is no certain remedy for contagious abortion. Sell the cow to the butcher if she is an ordinary animal, in good flesh, and the only one that has aborted. Cleanse, disinfect, and whitewash the stable and use disinfectants twice a week on stall floors and in the gutters. See other recent answers relative to abortion.

ABORTION



Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.

Dr. George Hollabush, Fort Atkinson, Wis.

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This Remedy strengthens the weak parts and helps hold the foetus. Its success has been remarkable.

Injection with Hood Farm Breeding Powder every day for 21 days before service, then every day for 21 days after service, destroys abortion germs, disinfects the organs and keeps cows in a normal, healthy breeding condition.

PRICES: Abortion Remedy, prepaid, $1.25, $2.75 and $9. Breeding Powder, prepaid, $1.15, $2.75 and $5. Injection Tube, by mail, 90 cents. One medium Breeding Powder, one medium Abortion Remedy, one Tube, prepaid, $5.75.

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Keep your hogs' skins healthy and free from lice and you'll get more pounds of high priced pork. Sprinkle Dr. Hess Dip and Disinfectant freely about pens, feed troughs and yards. Use it the year round to kill lice—to destroy disease germs—to purify the air—to ward off contagious diseases. Disinfect the barns and poultry houses. Also use it about the house, in the sick room, in sinks and cesspools to establish better health conditions.

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If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY
Dept. A2. 398-408 Columbus Ave., New York City
Reference Colonial Bank.

Lump Jaw



The farmer's old reliable treatment for Lump Jaw in cattle.

Fleming's Actinoform

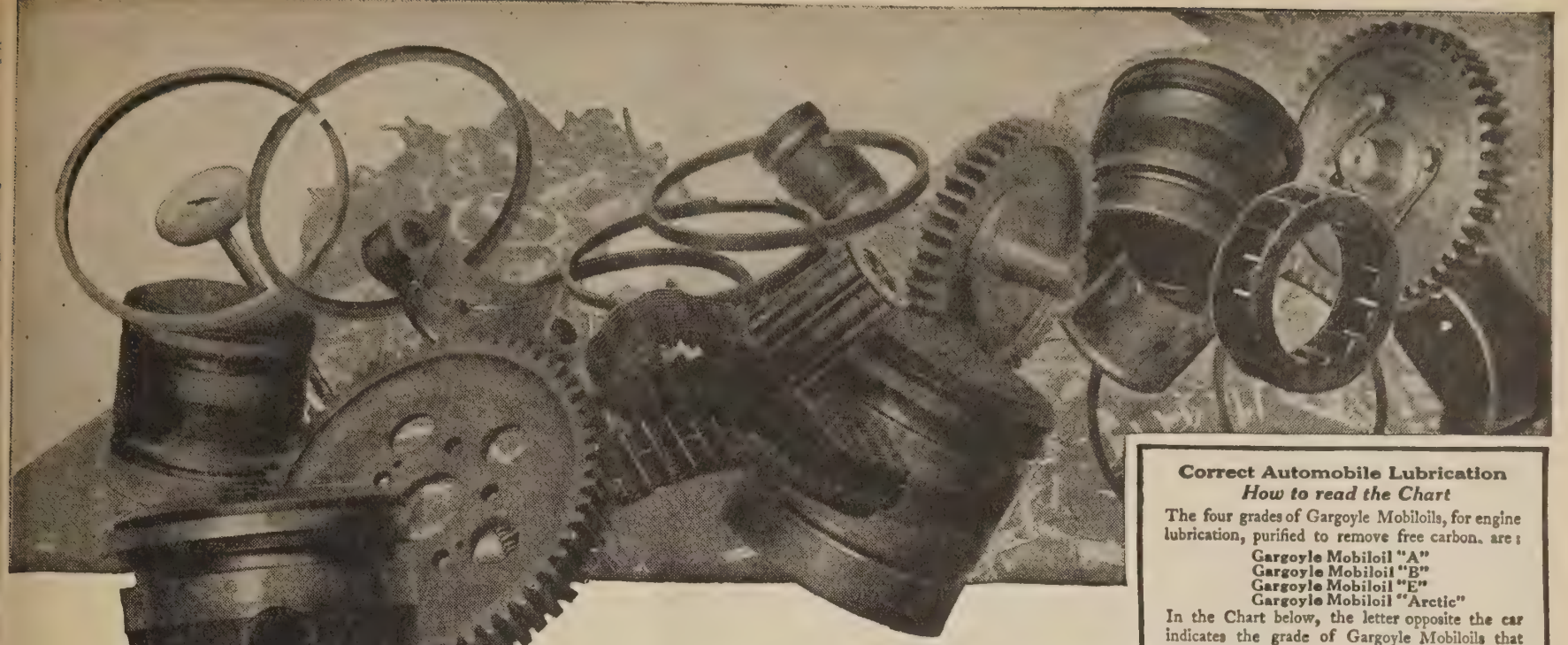
Sold for $2.50 a bottle under a positive guarantee since 1896—*your money refunded if it fails.* Write today for FLEMING'S VEST-POCKET VETERINARY ADVISER A book of 197 pages and 67 illustrations. It is FREE.

FLEMING BROS., Chemists, 255 Union Stock Yards, Chicago

MILK BOTTLE CAPS

Wholesale and retail. Stock caps shipped same day order is received. Caps printed to order requires a week to ten days. Write for prices and samples.

W. G. Depoy Mfg. Co., Dept. G., 1200 W. 10th St., Muncie, Indiana



Costly parts

War times demand that you protect them from undue wear. Three suggestions.

There is a serious shortage of automobile repair men. You are going to find more and more difficulty in getting repairs made. And you are going to pay more for repair service. Labor charges are up; prices of parts are higher and still on the rise.

Meanwhile many motorists are as unconcerned as ever about their cars. The needless wearing out of engine parts goes on.

Why? Incorrect oil — incorrect use of oil — or both.

Here are three points which should be observed by every motorist:

(*1*) ***Get the correct oil.*** You should use an oil of high quality and of the correct body to suit the lubricating requirements of your car. The use of such an oil is the first and most important step in the protection of your engine parts.

(*2*) ***Maintain at all times an adequate supply of oil in the oil reservoir.*** Lack of attention to this may result in insufficient lubrication, premature wear, and in extreme cases—burned-out bearings.

(*3*) ***Drain old oil and replenish at proper intervals.*** If your instruction book advises fresh oil every 1,000 miles, do not run 1,500 or 2,000 miles before replacing. Oil gathers impurities and thins down in use through condensation of the fuel mixture. Running on such "oil" means premature wear to parts.

It will pay you to send for the booklet, "Correct Lubrication" and read the article beginning on page 3. This book treats this and other subjects with authority and clearness in articles prepared by our Board of Engineers. Address our nearest branch.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you.

VACUUM OIL COMPANY, New York, U.S.A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: Boston, Detroit, Kansas City, Kan., New York, Philadelphia, Chicago, Minneapolis, Indianapolis, Pittsburgh, Des Moines

Correct Automobile Lubrication
How to read the Chart

The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil "Arctic"

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil Arctic, etc. The recommendations cover all models of both passenger and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models		1914 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6 cyl)					A	A				
Allen	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Auburn (4 cyl)					A	Arc	A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-38 & 6-39)			A	Arc	A	Arc				
" (6-39B)(Teetor H)	A	Arc								
" (6-39B)(Cont'l)	Arc	Arc								
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Buick	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
Cadillac	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Case	Arc	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	A	A			Arc	Arc	Arc	Arc	A	A
" (6-40)					A	Arc				
" (6-30)			A	A	A	A				
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)	A	A	A	A						
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	A	Arc	Arc	Arc	A	A
" (Mod C)			A	Arc	A	Arc	A	Arc	A	A
" (2 & 3½ ton)	A	A								
Detroiter	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Dodge Brothers	A	Arc	A	Arc	A	Arc	E	E		
Dort	A	Arc	A	Arc	A	Arc	A			
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc					
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. S-X)	A	A	A	A						
" (Special)	Arc	Arc								
Flat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes			Arc	A	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
Hudson					Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							A	Arc	A	A
" (8 cyl)	A	A	A	A	A	A	Arc	Arc		
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (Mod. 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod.M)			A	Arc	A	Arc				
" (Mod.MW)			A	Arc						
Locomobile	A	E	E	E	E	E	E	E	E	E
McFarlan	A	Arc	A	Arc	A	A	A	Arc	A	A
Madison	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A	A					
Marmon	A	A	A	A	A	A	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer	A	A	A	A	A	A	A	Arc	A	Arc
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	Arc	A	A
" (12 cyl)	A	A	A	A	A					
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
" (Com'l)	A	A	A	A	A	A	A	A	Arc	Arc
Paige (4 cyl)							A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-36)					A	Arc	A	Arc		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A					
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A					
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	Arc	Arc	Arc		
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	A	A	Arc	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (3½ ton)			A	Arc						
Simplex			A	A	A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (2 & 3½ ton)	Arc	Arc								
" (1½ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	A	A						
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six	Arc	Arc	Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.



Interior o.
Dr. Johnson's Barn,
Kimberlin Heights, Tenn.

Showing part of the
Famous "Dixie Herd"
Milked with Hinmans.

No Equipment So Necessary As This

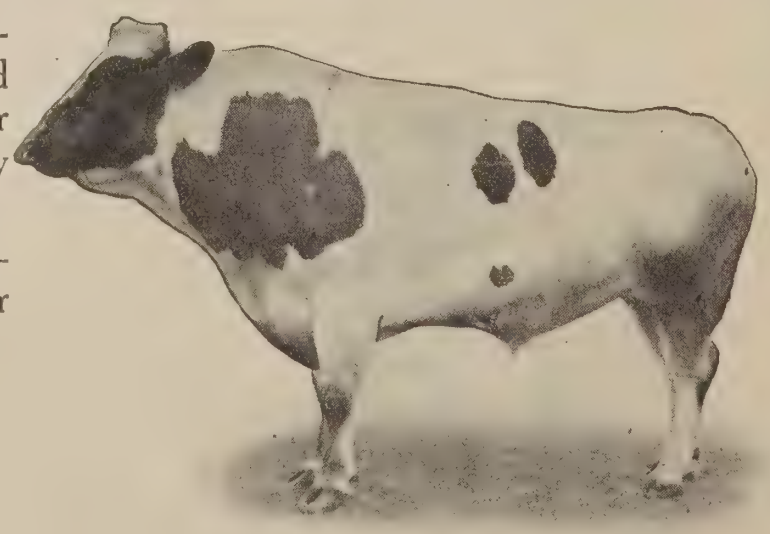
Because Hinman Milkers so effectively offset tne help-shortage and high-costs problems, and because they are used not one month in the year, but *every day* and *twice a day*—greatly simplifying what otherwise is the worst daily drudgery on the farm—they are the most important equipment you could possibly install. Thousands of users will tell you that their Hinman Milkers have solved their help problem, reduced operating costs, *improved* the milk flow, and the

HINMAN MILKER

has turned out to actually be *better* for the cows than hand milking!
And Hinman Milkers are so extremely simple, so easy to keep clean—boys and girls the country over have for years successfully operated them.
Their cost is low, because you don't pay for a large pump, tank, gauge, pipe line, or complicated pulsator.
The mere fact that more Hinmans are in use and being sold than any other milker, is your proof that you'll be thoroughly satisfied with the Hinman.
Get the Hinman Catalog—it is worth reading. Write for your free copy.

Hinman Milking Machine Co.
Oneida, New York.

In stock at many convenient shipping points.



"The $20,000 Bull" King Segis Pontiac Alcartra 2nd,
Head of the Dixie Herd of Holsteins.

Feeding Velvet Beans to Cattle

HOARD'S DAIRYMAN:—Experiments have been conducted at various experiment stations and by others to determine what is the best form in which to feed velvet beans to cattle. Of course, the most economical method is to allow the cattle to do the harvesting, but where it is not practicable or advisable to do this, probably the next best method of feeding is to soak the beans in the pod and feed in this form; at least this is probably the most economical and most satisfactory method of feeding them on the farm where they are produced. However, when bought by those from a distance the beans should of course be ground into meal, as this is the most desirable method of handling, even though it does add a little to the cost for grinding.

When corn silage and corn stover or other dry hay is available and fed along with soaked velvet beans to cattle, the results are very satisfactory as a rule. When beef cattle are first put on feed one should commence with a small quantity of the beans, say 2 or 3 pounds per day, gradually increasing the amount given until 8 to 12 or 14 pounds per day are being fed, depending on the size of the cattle. If 25 to 35 pounds of corn silage and 5 or 6 pounds of corn stover or other dry hay is fed to each animal per day, along with the above mentioned amount of soaked beans, the result should be quite satisfactory. The above mentioned weights of beans refer to the weights before soaking. The beans should be put in water for soaking at least 10 to 12 hours before they are to be fed.

Beans With Cottonseed Meal Relished

Dairy cattle do not relish velvet beans quite so well as do beef cattle as a rule, yet they seem to like them and consume them to advantage when only about one-half of the grain ration is in the form of beans; the other part being cottonseed meal or some other concentrated feed. A method that has proven quite satisfactory in many instances is to feed a one-half grain ration in the form of cottonseed meal and the other half in the form of soaked velvet beans; replacing 1 pound of cottonseed meal with 2½ pounds of velvet beans. Careful experiments have shown that it takes about 2½ pounds of velvet beans in the pod to equal 1 pound of cottonseed meal in terms of milk production.

All in all, the velvet bean is one of the best home grown feeds we have in the South, and it seems quite clear that the day is not far distant when velvet bean meal will be sold in the North and East to dairymen quite as generally as cottonseed meal is now sold in those sections. When we speak of velvet bean meal, we mean the product secured from grinding the bean along with the pod, as that is the way in which it is now produced.

Alabama. L. A. NIVEN.

Velvet Bean Feed vs. Bran

HOARD'S DAIRYMAN:—I read your article on bran with interest as it is quoted here at $42.20 plus freight from New York. I find, however, that the cheapest and best feed on the market is the new velvet bean meal feed made in Alabama. This has 17.50% protein against 12.3% in bran, 4% fat against 2.6% in bran, and 51% in carbohydrates against 3.71% in bran. This feed sells for $43.50 a ton and is therefore the cheapest feed value on the market. With corn it should make an ideal ration and should be pushed at this time.

Ridgefield, Minn. L. M. S.



How One Truck Pays Many Farmers

Here's a familiar picture.

Train time; and the truck with her full load of milk cans is backed up to the platform.

She's made her route in short order, picked up milk from your farm and others, and taken it double quick to the point where it can be shipped to the city.

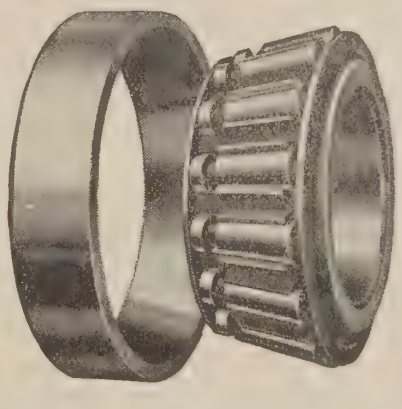
You don't have to get up hours before daybreak in order to hitch up your team and take it to the train, because you can always depend on the truck to make a short quick trip of it.

But don't think for a minute that this truck's job is done when the cans are on the train and the engine has puffed away to the city—its work has only started.

Until dark—or after—just as long as it's needed—this same truck can be saving money for the whole community by hauling supplies, machinery or fertilizer to the farm and hurrying farm products to markets where prices are most favorable.

Through the motor truck new markets have been opened up—old ones given new life—goods carried more quickly and with less spoilage—and distances between farm and city shortened beyond belief, so that your land has greater value.

In this widening of farm opportunities through the motor truck Timken has taken an important part because it has developed a type of bearing which not only makes the truck more practical but greatly lengthens its life and reduces upkeep through the protection it affords to working parts. There's more about this bearing in the booklet F-80, "The Timken Primer." You ought to have a copy.



THE TIMKEN ROLLER BEARING CO.
Canton, Ohio

TIMKEN BEARINGS

FOR MOTOR CAR, TRUCK & TRACTOR

THIRTEENTH AND

Semi-Annual Sale

OF

150 Waukesha County Guernseys

Nov. 6th-7th, 1918, Waukesha, Wis.

WEDNESDAY, NOVEMBER 6th, 1918

EIGHTY-FIVE PURE-BRED FEMALES AND MALES. The breeding and individuality of this offering surpass that of any previous sale. The blood lines are the best in the land, a greater portion of it being of the popular May Rose breeding.

There will be included such offerings as:

Fourteen cows that have either completed Advanced Registry records, or are now on official test. Completed records include: 551.51 lbs., 307 lbs. at 2 yrs., 340 lbs. at 2 yrs., 340.2 lbs. at 2 yrs., 477 lbs. at 3 yrs., 502 lbs. at 3 yrs., 456 lbs. at 4 yrs., 523 lbs. at 3 yrs.

A superb collection of young heifers, out of cows with large A. R. records, many of them bred to sires whose dams are Class leaders.

Pure-bred males backed by production and show winnings as: 2 sons of Itchen May King 25174, one of them out of a 796-lb. cow. Grandson of Langwater Hope, A. R. 1,003 lbs. fat, 2 sons of Langwater Eldorado 39136, and out of officially tested dams. 1 son of Lady Lishman A. R. 698.84 lbs. fat.

Special feature: Complete dispersal of the herd of J. R. Bent, (herd located at Genesee Depot, Wis.). This herd is rich in the blood of the May Rose family, and includes several A. R. cows, with records of 551 lbs. fat, 307 lbs. fat at 2 yrs., 477 lbs. fat at 3 yrs., etc.; also a daughter of May King of Ingleside A. R.

THURSDAY, NOVEMBER 7th, 1918

PURE-BRED MALES AND GRADE COWS AND HEIFERS. There will be included: 2 sons of Royal Rose King of Edgemoor No. 34361. 1 son of Imp. Itchen May King No. 25174. Many others equally as well bred. The grades are all good producers, either fresh or due to freshen soon. Carefully inspected, and every animal offered will be tuberculin tested.

Sale at new sales pavilion just completed. Comfort assured to everyone regardless of weather conditions. **Write for an illustrated catalog.**

Auctioneers: Love, Bailey, Benjamin.

Waukesha County Guernsey Breeders' Association,

F. E. Fox, Secretary, Waukesha, Wisconsin.

DAIRY MARKETS

CHICAGO, Oct. 10—Butter—Creamery, extras, 56@56½c; extra firsts, 56@56½c; dairy, firsts, 55@55½c; seconds, 51½@52½c.

Eggs—Ordinary, 45@46½c; firsts, 47@48c.

Cheese—Twins, 34@34½c; Young Americas, 35½@35¾c.

MILWAUKEE, Wis., Oct. 10—Butter—Creamery, tubs, 58c; prints, 59@60c; extra firsts, 56@57c; firsts, 53@55c; dairy, fancy, 48@50c.

Eggs—Current receipts, returned, 43½@44c; cases, new included; 44½@45c; miscellaneous cases, 43@44c; dirties, 33@34c; seconds, 30@31c; checks, 27@29c; April, recandled, 42½@43c.

Cheese—Twins, 35@35½c; Daisies, 35½@36c; Brick, 37@38c; Limburger, new, 1 lb., 29c; 2 lbs., 28c; Swiss loaf, 45@47c; block, 34@36c; Longhorns, 36½@37c; Young Americas, 36@36½c.

APPLETON, Wis., Oct. 8—Five factories here on Tuesday offered 184 boxes of cheese. Of these, 125 Twins sold at 34c and 63 Double Daisies at 34¾c.

SPRING GREEN, Wis., Oct. 8—Sales on the Spring Green dairy board of trade on Tuesday were 874 boxes of Single Daisies. All sold at 35⅛c.

HIGHLAND, Wis., Oct. 8—Offerings on the dairy board here were 180 boxes of Twins, for which 34c were bid. No sales.

NEW YORK, Oct. 10—Cheese—Strong; state milk, common to specials, 32½@33½c; skims, common to specials, 8@25½c.

Butter—Firm; receipts, 10,003; creamery, extras, 58@58½c; state dairy, tubs, 46@57½c.

Eggs—Quiet; receipts, 10,595 cases; nearby white fancy, 72@77c; nearby mixed fancy, 50@57c; fresh firsts, 52@57c.

Jersey Cattle Notes

For week ending Oct. 4, 1918:

Number of animals registered: Bulls, 162; cows, 516; total, 678.

Number of transfers recorded: Bulls, 144; cows, 487; total, 628.

Butter Bred Jersey Bull

Dropped April 6th, 1916. Solid color. Black tongue and switch. Sire: Loretta D.'s Champion's Son 77902 entered in Register of Merit. Best day's average milk record of his dam and sire's dam 55.6 lbs. He combines the blood of Loretta D.'s Brown Bessie and Merry Maiden with that of Fancy's Harry and Tormentor. One of the best bred bulls in U. S. Dam: Juanita Pogis King 211353. Entered in Class A. A. Register of Merit with year's authenticated record of 9113 lbs. 4 oz. of milk, 487 lbs. 5 oz. butter as a 4-year-old. Dropped live calf 12 days after test. I am going out of dairying or this bull would not be for sale. Write for price. **R. H. CROPPER, NORA, ILLINOIS.**

PERSING'S

Dispersion Sale

of Milk Producing

HOLSTEINS

Oct. 22nd, Clyde, Ohio

Most of the mature cows have cow testing association records of 10,000 lbs. milk or better in a year under ordinary farm conditions.

There are fifteen registered cows and heifers. Also five grade cows that give between 750 to 1,000 lbs. milk per month. The registered cows come by their production honestly as they trace directly to such well known A. R. O. sires as King Burke Hengerveld, Sir Lilith Piebe Korndyke, Elzevere Barnum Sir Paul, and Lilia DeKol Johanna Lad; as well as to such high producing cows as Milly Johanna 27.25 lbs., Riverview Tietje DeKol Ormsby 29.98 lbs. and Peaceland Elzevere 25.59 lbs.

Here will be opportunity to buy practical production type Holsteins. Write for folder giving more complete information concerning these animals. (Sale one mile from Clyde.)

H. L. PERSING, - CLYDE, OHIO.

Indian Bridge Farm

— offers for sale —

ONE YOUNG BULL

dropped June 21, 1917. Well grown and nicely marked. Sired by Langwater Fisherman 21873 A. R. Dam, Imp. Neva's Snowflake 44585, A. R. 4874, 7610.5 lbs. milk, 372.82 lbs. fat, Class C. Herd U. S. Govt. Tuberculin Tested. Price of above bull $250.00. **WAYLAND, MASS.**

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old; four cows and six heifers, all bred; one two-year-old not bred, two heifer calves, one bull calf. Selling to make room for Holsteins.

RICHLAND COUNTY ASYLUM FARM,
Chas. W. Snyder, Supt., Richland Center, Wis.

Evamere Farm—Ayrshires

Heifer calves, yearlings and bred heifers and some very good milk cows. Some bulls nearly ready for service. **Evamere Farm, Hudson, Ohio.**

COMPLETE

Dispersion Sale

Tuesday, Oct. 29, '18

Absolutely Nothing Reserved

All cattle over six months of age will be tested by state authorized Veterinarian and a retest in sixty days will be allowed.

I regret having to part with this herd but circumstances are such that to relieve myself of the detail I have decided to sell all. The future is bright for the cattle business, and the buyer who selects breeding animals now and from this herd will be in position to take good advances on the stock when he is ready to sell. Don't stay away thinking the cattle will sell high. Good ones never sell too high and by being present you may secure some animals of excellent breeding at a very reasonable price. We have 40 cows and heifers which will be heavy springers or fresh at sale time. These are real producers—the nice straight individual kind.

Eighteen heifers are sired by the 38-lb. bull which I formerly owned.

There are A. R. O. cows, and daughters of A. R. O. cows, daughters of King of the Pontiacs, King Model, and It. A son of King of the Pontiacs from a 30.16-lb. daughter of Tidy Abbekerk Prince who has 84 A. A. O. daughters. King Pontiac Bettina, No. 204947, is as nice a straight individual as you often see. A son of King Korndyke Sadie Vale whose two dams average 34.56 pounds butter in seven days, and who has five dams in direct pedigree which average 33.514 in seven days. These bulls are under two years of age and very desirable. One son of Rag Apple Korndyke 8th, from an especially fine dam with an A. R. O. record. Remember this one is half brother to the $53,200 bull. A nice bunch of young heifers and three other good young bulls. In all about 85 head will be sold.

If we can't please you we don't want your money. We want our cattle to be as valuable to you, as your money is agreeable to us.

Only one old cow in the bunch; she has five children in high school—three in this sale; and we don't know why they should not be as smart as the other children. Remember the day and date and govern yourself accordingly. Sale will begin at ten o'clock and be positive.

BROOKDALE STOCK FARM IS FOR SALE and a set of Holstein Friesian herd books complete excepting Vol. 7; there are 48 volumes and 8 blue books.

We are going out of business for ever. For Catalogs address

I. J. CASE, ALTA, ILLINOIS.

GREEN COUNTY

HOLSTEIN SALE

MONROE, WISCONSIN

OCTOBER 30th-31st, 1918

In selecting the cattle for this sale, great care has been taken by the management to take only such animals as would be classed as good individuals.

While records have merit, the question of individuality is becoming recognized as being of even greater importance.

Green County is noted for the splendid individuality of its Holsteins and the management is therefore anxious to make the sale a public demonstration of this fact.

Green County Holsteins are not only superior individually, but they have their derivation from some of the best bred sires that have come to Wisconsin.

In this sale, for instance, there will be sons, grandsons, daughters, and granddaughters of such noted bulls as King Alcartra DeKol Pontiac, a 36.59-lb. son of King Segis Pontiac Alcartra, King Segis Pontiac Alcartra, the well known $50,000 bull, Colantha Johanna Champion, the famous son of Wisconsin's greatest cow, Colantha 4th's Johanna, the great King Pieter and King Pieter Lyons, Mr. Moyer's two great sires.

There are heifers in this sale from dams having records as high as 27.32 lbs., as well as from cows having good yearly performance.

In the forenoon of October 30, a carload of choice grade springers will be sold.

Catalogs ready October 21. Write to

Chris. Tochterman, Sale Mgr., Monroe, Wis.

Walworth County Holstein Sale

November 7th, 1918, Elkhorn, Wis.

75 Head of Registered Holstein Cattle

from some of the best bred herds in the state will be sold in the new Stock Judging Pavilion, at the Elkhorn fair grounds, Thursday, Nov 7th, 1918. JOHN G. VOSS, Sale Manager, Elkhorn, Wisconsin



Mr. Guernsey Breeder

We will sell at the

Mass. Guernsey Breeders' Sale, Oct. 24

Raider of the Gateways and 7 of his daughters. He is a 5-year old son of that famous bull Imp. Moss Raider. His dam is Imp Primrose II of the Courtil Ronchin, A. R. 12,087 lbs. milk, 522.7 lbs. fat. Look them up in your catalog.

Arthur W. Wellington, Wellesley Farm, Massachusetts

Butter Market Situation in New England

HOARD'S DAIRYMAN:—At present there exist some rather peculiar conditions on the New England butter market, which undoubtedly will show their effect for some time to come. These conditions have not come as a thunder storm but have gradually worked their way for several years. In some measure the war has hastened their progress because of the higher prices following in its wake.

Conditions in the Past

In years past the New England butter market has really been in a class by itself and practically without competition from outside sources. The reasons therefor are several. New England was nearly self-sustaining in its manufacture of butter. The raw products, milk and cream, arrived at the creamery in good condition and were there manufactured into butter in a satisfactory manner. The butter was shipped directly to markets at short distances, which made it possible for it to be sold and consumed within comparatively short period, whereas butter from the middle and far West, owing to difficulties in transportation facilities and long distances, could not reach the market before it was quite old and often inferior in quality.

These conditions resulted in the people of New England cities, Boston especially, developing a taste for New England made product. Again this butter was put up in fancy shapes and a large variety of packages, appealing to the individual taste and requirements of the various customers. These conveniences could not be had in butter shipped from the West, owing in part to the great distance and lack of refrigeration facilities.

Transportation Facilities Improved

In recent years improvement in transportation facilities and refrigeration while enroute has made it so that the western butter can arrive on the eastern markets in nearly as good condition as when leaving the factory. It can also be produced somewhat cheaper and sold at a lower price. This appeals to the dealers because they can sell somewhat cheaper to the customers and usually at a larger margin of profit. Besides coming in larger quantities, the western butter also is somewhat more uniform and possesses greater keeping qualities and, therefore, gives less trouble to the people who handle it.

Increase in Butter Price

Low prices have been other reasons why competition from New York and farther west was not felt in the New England markets a few years back. In 1906, for example, the average butter quotations were less than 25c per pound. Consequently, the best quality of butter was within reach of the common man. But, with butter now selling at wholesale for more than 60c per pound, the inferior, or lower grades, have a greater competing value. As a result of this, there have arisen new problems on the butter market with which the new England buttermakers must reckon in order to meet the ever increasing competition.

More Up-to-Date Methods in the West

It is still true that generally the milk, and especially the cream, in New England arrives at the factories in better condition than is true of the West but to make up for this, it must be said, with all regard to New England creameries, that the western butter factories are more up-to-date in their mechanical equipment and use more modern methods in the manufacture of their butter. There is really nothing strange about this because the New England factories are older and were equipped at a time when machinery had not yet reached the present high state of perfection. Again, the greater distance from the market made it essential for the western people to use such methods in the manufacture of their butter as would insure the greatest possible keeping quality of the product. For these reasons they have found it necessary to pasteurize practically all of their cream and by use of an artificial starter impart a more desirable flavor to the butter. As a result, their product arrives more uniform and possesses greater keeping quality than that produced in New England, where a more favorable location has not forced the people to use these additional measures.

Northern Butter Has Good Name

That northern butter has an especially good name on the market is well illustrated by the fact that until very recently some dealers found it to their advantage to ship the eastern style packages out West and have them filled with butter which was then sold under the name of Northern Butter. While this was, in a way, a compliment to the New England butter, yet it worked somewhat of a hardship on the manufacturers because, at times, an inferior product was used and in this way lessened the true value of the New England butter. It is this condition that we are very anxious to overcome, because we want to keep the good old reputation so well established. However, unless we realize the changes that are now taking place on the market, and adopt methods which will enable us to compete with the western contemporaries, it is questionable whether we will be able to accomplish this end. It should not be forgotten that the Boston market is rapidly changing its method of handling butter so that it will conform with those in vogue in other markets. The time is not far distant when butter will be bought on score and pasteurization of the cream almost required. The larger packages, commonly used in the West, are also gaining in favor very rapidly, as they entail less handling and smaller loss.

Great Opportunities for New England Buttermakers

The recent ruling of the Food Administration regarding price increase, margin of profit, standardization of packages, etc., has brought a great opportunity for the New England creamery men to reinstate their former superiority. They are again on an equal basis with the producers from the West and can, if they are willing to do so, easily meet competition. It will mean some work on the part of the buttermakers, to be sure, but there is every reason to believe that they will meet this emergency as promptly and as effectively as they have met previous emergencies.

A great many of the creameries are now equipped with machinery of such a nature that they can meet all the requirements of the market by a little extra work and special efforts on their part. Pasteurization of cream and use of artificial starters are some of the things which must be put into practice. In some cases it will be necessary for the buttermakers and creamery managers to see that some of the material reaches the creamery in better condition. In other instances it will be necesary to slightly change the methods of manufacturing, improve storing facilities as regards refrigeration, and methods of handling and packing the products for the market.

If these requirements are complied with the New England buttermaker will find it no hardship to compete with the western contemporaries and I have no doubt that this will be done. I am simply pointing out conditions as they exist in the hope that the old adage "A hint to the wise is sufficient" will still hold true.

MOGENS R. TOLSTRUP,
Vermont. Field Ag't. in Marketing.

The Lasting Benefits of Soil Blasting

Back among the hills of Georgia an interesting experiment in subsoil blasting has been in progress for the past four years. The soil in this district is of a rich upland grade, and the subsoil is red and hard, with emphasis on the hard. In 1914 two acres were measured off. One was left for a check acre, the other was subsoiled with dynamite. Charges were exploded with blasting cap and fuse every 15 feet, 30 inches deep. This thoroughly shattered the hard, red clay, making cobweb fissures in all directions and thus permitting more water to enter than had before been possible. The roots also benefited by the breaking up of the subsoil, new avenues being opened up for them to go out in search of plant food.

Both acres were planted to cotton in 1914. Both received the same cultivation and care, though the subsoiled one got a little more fertilizer than the other. The difference in this respect was not nearly enough, however, to account for the discrepancy between the yield of 1,804 lbs. of seed cotton for the blasted acre and 912 lbs. for the unblasted plot.

Corn followed in 1915. This year both plots received identical treatment and fertilization. They were both kept well worked and clean. The yield of corn in the husk was 2,614 lbs. for the blasted acre, 1,894 lbs. for the other. Owing to the wet weather, it was impossible to weigh the fodder; there were, however, 225 bundles on the blasted acre against 115 bundles on the check area.

In 1916 the plots were in cotton again, and the benefits of the blasting were more pronounced than ever. From the very start of the growing season, the cotton on the subsoil acre outgrew the other, and by midsummer it was at least twice as high. It also fruited much better than that on the unblasted land, and when the yield was measured it was found to have been exactly twice as productive—2,000 lbs. against 1,000.

In 1917 corn was once more planted on the two test acres. The blasted acre yielded 42½ bushels of corn and three full loads of fodder; the unblasted acre, 35 bushels and scant two and a half loads of fodder. The conclusion was therefore forced that the blasting had been a profitable investment. The increased yields soon took up the initial cost, leaving all subsequent crop increases as net profit. This is good farming as well as good business.—Scientific American.

Calf Enemies

WHITE SCOURS
BLACKLEG

Your Veterinarian can stamp them out with **Cutter's** Anti-Calf Scour Serum and **Cutter's Germ Free** Blackleg Filtrate and Aggressin, or **Cutter's** Blackleg Pills.

Ask him about them. If he hasn't our literature, write to us for information on these products.

The Cutter Laboratory
Berkeley, Cal., or Chicago, Ill.
"The Laboratory That Knows How"

Come to The Great Farm Market

The Special Opportunities Department of Hoard's Dairyman is the Market-Place for a great body of the most progressive and prosperous Dairy Farmers and Breeders in the United States. This feature of the publication has come to be one of its greatest assets, affording as it does a direct and inexpensive means of communication for the purpose of Buying, Selling and Exchanging.

Nothing of merit is too small nor yet too large to be successfully advertised in Special Opportunities. This department is a Clearing-House in the broadest sense for the wants and needs of all who patronize it.

Some of the Important Things Advertised

Farm Property—Hundreds of farms are bought, sold, exchanged or rented every year, the parties to the transaction meeting in the Special Opportunities market.

Live Stock—Hundreds of thousands of head of Dairy Stock change hands every year through Special Opportunities, going to all states in the Union and to foreign lands.

Labor—Special Opportunities is a Labor Exchange. It has placed many men in desirable positions and few are the subscribers to Hoard's Dairyman who do not depend upon it when in need of help.

Machinery, Hay, Grain, Farm Produce, Dairy and Milk Plants, etc.—These are a few of the major items that constantly appear in Special Opportunities and rare indeed is the "want" of the individual subscriber that cannot be supplied by some other subscriber.

Hoard's Dairyman,
Fort Atkinson, Wis.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

FEEDING THE FLOCK

J. H. HALPIN, WISCONSIN

A GOOD many boys and girls will have a flock of chickens all their own this winter. I wrote about the "Junior Poultry House" some time ago and since then have talked with several boys and girls that have started in the poultry business "on their own hook" as one of them said. Many of them are going to keep careful records of feed consumed, eggs produced, and other expenses. In this way they will know at the end of the year whether they have made or lost.

Whether the hens pay or not will depend upon many things, such as the kind of stock that is kept, the sort of a house that they have, how regular one is in caring for them and what and how they are fed. This time we are going to talk about feeding, but I hope you will not lose sight of the other things and if your hens lay better or poorer than the other fellows, try and find out what makes the difference.

In order to get eggs, one must feed plenty of nourishing feed so that the bird will store up a surplus in its body from which to manufacture eggs. A laying hen is always in good flesh at the start of a laying period and the better flesh you can keep her in the more likely she is to continue laying for a long time. The fear of overfeeding has kept many people from getting good egg production. At the same time the ration must be well balanced so that it will furnish about the right amounts and the proper material for forming the yolks and whites and the shells, and must be fed in such a way that the hen will keep in good physical condition. If a hen is fed heavily enough to give good egg production, but the feed is not fed in such a way as to keep her in good physical trim, she is likely to be a very unsatisfactory producer, and in flocks handled in that way the death rate is likely to be high. To prevent this sort of thing, feed every bit of grain that the hens get in a deep litter so that they have to scratch and work for it. To do this keep the floor of the house constantly littered with a deep litter of dry straw or some other kind of scratch material. This is just as essential as any part of the program. Then about an hour before the hens go to roost, feed a fairly liberal amount of the grain or scratch feed well kicked into this litter so that the hens have to work to get it out, but go to roost with good full crops. Then at night after the hens are on the roost work a little more grain into the litter so that they will have some to eat as soon as they come off the roost in the morning. The amount of grain that you want to feed can be determined exactly by the amount of mash or ground feed that your hens consume. For best results it is usually advisable to feed the mash feed in two forms. First, have the box or hopper of the mash in dry form where the hens can have access to it at any time. In addition, give a light feed of moistened mash at noon, about what the hens will clean up in ten or fifteen minutes. Then keep watch of the mash consumed and do not feed grain enough so but what your hens will eat at least one pound of mash for each two pounds of grain consumed. If they seem to refuse the mash reduce the amount of grain until they eat the mash in at least these proportions.

Milk, either sour skimmilk or buttermilk, is one of the best feeds for laying hens or growing chicks. The writer was talking with a man the other day that said he never had been able to get good summer egg production until this summer, and on inquiring found that he had been giving his hens all the buttermilk they would drink. Experiments at the University of Wisconsin have shown that milk for laying hens or growing chicks is very valuable. Perhaps some of you cannot have milk for the flock and in that case will need to use a substitute, such as fresh ground green bone, meat scrap, or tankage. These feeds may seem high in price but they are really economical when fed to a good flock. It has been frequently demonstrated that eggs could be produced much cheaper when some form of meat or milk is added to the feed.

A mash that we used for years with very good results was made up of equal parts of ground corn, gluten feed, bran, middlings, and meat scrap. Many other combinations can be fed and we shall be very glad to answer questions along this line and help each one to solve his or her problem according to local feed conditions. The composition of scratch feed will also vary. Some of you, perhaps, instead of feeding the night feed in the litter will want to feed corn on the ear. In the morning the grain can consist of oats and barley and corn or buckwheat may be added. Good dry corn alone makes a good scratch feed when fed along with mash feed, such as those mentioned above, but the greater the variety the safer the ration.

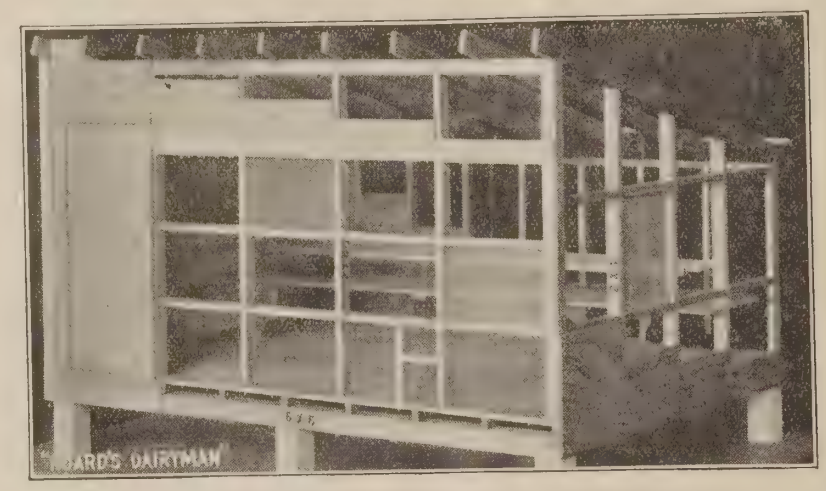
The boy or girl in town may find it cheaper and more convenient to buy ready mixed feed. In that case be sure and buy one of the egg mashes that contain some form of meat or dried milk. I know a boy that had twelve hens last winter that were fed on a mixture of corn and oats with an egg mash in the hopper and his hens laid more eggs in January than his father's flock of 150 hens. This winter he is to have charge of all the hens on the farm and I am sure that he will make a good profit.

In addition to grain and mash the hens should also have free access to oyster shell. It is just as essential to feed oyster shells as to feed any of the other things. Also it is well to give plenty of grit, lime rock grit preferred.

Some form of green feed is also desirable. For this one can use mangels, cabbages, sprouted oats, or silage, after the hens learn to like it. Clover chaff, from the barn floor, can also be used to add bulk and variety to the ration.

Fresh water should always be on hand so that the hens can help themselves. Perhaps the best way is to have a box or elevated platform next to the south wall of the house and place the water on this. Be sure and have it high enough so that the hens will not kick the litter into the drinking water. On cold days give fresh, warm water again at noon and when you feed in the afternoon, or add hot water. Keep the drinking dish clean.

Above all do not feed more grain or moist mash than the hens will clean up in a few minutes. If you find grain left in the litter after the hens are through eating omit the next feed. Only hens with good appetites are profitable. Watch your flock and discard the drones. It is unpatriotic to feed good feed to poor producers.



OPEN FRONT TYPE POULTRY HOUSE

Every poultry house, whether it is an expensive one or made of old lumber, must be dry, fairly warm, and provide for plenty of fresh air. Have it face the south and let the front have plenty of windows, part of them left open and protected from cold winds in severe weather by muslin curtains.

War Time Poultry Feeds

Grain (Scratch Feed) :—Corn, oats, barley, buckweat. *Take at least two from this list.*

Mash:—(1) Bran, (2) middlings, (3) gluten feed, (4) malt sprouts, (5) brewers grain, (6) ground corn, (7) ground oats, (8) oil meal. *Take Nos. 3 and 6 and as many more as you can secure.*

Animal Feed:—Skimmilk or buttermilk, ground fresh meat and bones meat scrap, tankage, insects (when the hens are on free range in summer). *Some kind of animal feed is essential to economical egg production.*

Green Feed:—Cabbages, mangels sugar beets, carrots, sprouted oats, silage, in winter time. Green grass vegetables, trimmings, etc., in summer. Clover and alfalfa chaff. Table scraps—Use all the waste materia that the hens will eat. Cooked carro peelings and such feeds are good. *Green feed cheapens the ration an keeps the digestive tract in good con dition.*

Mineral Feed:—The hen will no lay eggs until she has enough miner al to manufacture the shell. Oyste shell, lime rock grit, broken eg shells. *Just as important as any par of the ration.*

Charcoal:—Keep before flock at a times.

Water:—Fresh and in abundance before the flock at all times.

Good Laying Rations

No. 1. Feed in Deep Litter:—Fou pounds of corn and 1 lb. each of oat and barley. Feed light in the morn ing and heavy at night.

Feed in Hopper:—(all the time) A mixture made at the rate of 100 lb each of bran, middlings, ground corn and gluten feed, 50 lbs. of mea scraps, and 2 lbs. salt.

Feed in Trough:—(three times week). Same mixture of ground fee moistened with milk.

Green Feed:—Sprouted oats an mangels.

Grit.

Oyster Shell.

Charcoal.

Water.

No. 2. Feed in Deep Litter:—Fo pounds of corn and 1 lb. of barle Feed light in the morning and hea at night.

Feed in Hopper:—(all the time Mash of equal parts bran, middling and corn meal. Salt slightly.

Feed in Trough:—(at noon Boiled oats. Feed as much as t hens will eat in 20 minutes. Add t ble scraps, cooked vegetables, cook small potatoes, cooked potato ski and such feeds.

Milk:—Sour milk or buttermilk drink.

Grit.

Oyster Shell.

Charcoal.

Green Feed.



CALVES SHOWN AT THE GREEN COUNTY (WIS.) FAIR BY CALF CLUB BOYS

Calumet County School Fair and Holstein Sale

Calumet County will hold a Young People's Fair at every district school, and then a roundup fair October 17th and 18th at Chilton, Wis. The regular county fair has not been held for two or three years and it is no more than just that our boys and girls should be given opportunity to exhibit their products.

In conjunction with the fair on the 18th of October the Boys' Calf Club will hold a junior consignment sale. The calves which they fed and a few others will be sold to the highest bidder.

Wisconsin. ROYAL KLOFANDA.

Junior Letters

Hoard's Dairyman Juniors:—Hello, juniors, ow are you? I am just getting ready for my rapping. I have 12 traps, 10 No. 1, 1 No. 1½, nd 1 No. 0. I like the No. 1 the best; with he No. 1 you can catch skunks, muskrats, narten, oppossum, and other animals. There re skunks, muskrats, minks, foxes, raccoons, nd others around here. I have caught 4 unks and 2 muskrats last year. My gun is in ood order. It is a 20 guage; it is a dandy. I ink I will sell it and get a 16-guage. I have iled my traps and cleaned my gun. I have ot to make some stretching boards for unks and muskrats. It is raining today so I ought I would write. I wish some of the niors would write me and tell me their exeriences hunting and trapping. I will answer very letter. My address is Box 82, N. Scitate, R. 1. I have been writing to Joseph Peck n Connersville, Ind. He is my age; he is 14 ars old. I am thinking of buying a bicycle. e have 1 calf, 1 heifer, 3 cows. We have 4 gs but no horses. Our farm contains 21 res. I own a sow this fall. I expect to hunt d trap on over 10 farms around where I ed to live. I will close now and eat my nner.

Rhode Island. Alston P. Spencer.

Hoard's Dairyman Juniors:—I thought I ould write you a few lines telling you of y Holstein cow. I have a heifer. My father as six. They are doing fine. We have had em nine months. We live on a farm of 140 res. I have 4 acres of cotton. My father s 25 acres. I have a team of mules and a rd car. My father has a team of mules d a Dodge car. My mother has a buggy ny. I am going to school this summer. I e my teacher fine. Am in the 6th grade. I eleven years old.

Arkansas. Russell Dean.

Hoard's Dairyman Juniors:—I saw my letin print today and thought I would write ain.

have been very busy lately picking and ning blackberries and getting ready to go k to school.

Two weeks ago mamma and the children nt to grandmother's and stayed a few days. ile they were gone I picked and canned ½ quarts of blackberries in 3 days. Papa fixed pipes out in the factory so we can them by steam which is much easier and y keep just as well. We have over 60 quarts berries canned and 3 quarts of corn and ns canned.

Our little pigs are growing every day. They e some appetites though and we have had move the pig trough away from the fence ause our horse takes quite a fancy to pig i.

Our acre of garden down on the farm is cing fine now. We drove down there last ht to look it over. Our corn is from 8 to 10 high and some of the stalks have at least 3 ears of corn on them. If the frost holds we will have a bumper crop.

ur beans are getting ripe and we are being to gather them.

he potatoes are getting ripe and they are ding good too. The name of the corn is Golden Nugget.

y cousin is at Camp Lee, Va., now but we not know how long he will be there. He is the Medical Replacement Unit doing hosl work.

amma's cousin's son has been wounded rely in France and there is another cousin has not been heard from lately.

ast April I sent a cake of sugar to Iris 3. Hinckley in Alaska. She received it all t and about two weeks ago I received a which was made of Alaskan gold with the d "Alaska" printed on it, from Iris. Don't think that was a very nice gift? I do.

pa makes about 7 cheese and one tub of er now. The milk continues to shrink. largest dairy brings 450 or 460 lbs. of a day now. Help continues to be scarce papa thinks that maybe he has more prodthan he can harvest alone. A week ago I ed my cousin load oats and clover and the horses on the hay fork. I had never that kind of work before and I enjoyed ery much.

ell, I must close now. I will repeat the that some of the juniors write to me. address is Cincinnatus, N. Y.

Mary E. White.



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Styleplus make both sides of your dollar count

Good resolutions for every man to make in these war times are:

"I will buy only the clothes that I *need*.

"I will pay the price that brings genuine quality—*and not one cent more.*"

Every dollar you spend should count—Count for you and country.

You will be stylish and thrifty *both* if you buy Styleplus Clothes.

You get reliable quality and style at a nationally known price—*a sensible, medium price.*

By making only a few standard grades in big volume we reduce costs and produce clothing values justly famous with well dressed and economical men.

Correct style. Careful tailoring. Finished workmanship. Faithful wear. Known price.

The best place to buy clothes is at a store, where you can see the different styles, make your selection and get a good fit.

You buy with both eyes open at the Styleplus Store!

Two grades in Styleplus suits: $25 and $30.

Three grades in Styleplus overcoats: $25, $30 and $35.

Sold by one leading clothing merchant in most cities and towns. Write us (Dept. AG) for Styleplus booklet and name of local dealer.

HENRY SONNEBORN & CO., INC. Founded 1849 Baltimore, Md.

Trade Mark Registered



Styleplus Clothes $25-$30-$35

TRADE MARK REGISTERED

"Each grade one price the nation over"

America's only known-priced clothes



For style and comfort wear

Mayer HONORBILT SHOES For all the Family

Ask your dealer for Mayer Shoes. Look for the trademark on the sole.

F. Mayer Boot & Shoe Co. Milwaukee, Wis.



Not how much Protein —*but* how much *Digestible* Protein

The chemical analysis required by law on every sack of feed is no guide to the dairyman. The chemist does not distinguish between crude protein and *digestible* protein. Protein is of no more value than so much sand to the dairyman if his cows cannot turn it into milk. What *he* wants, is not crude protein, but *digestible* protein.

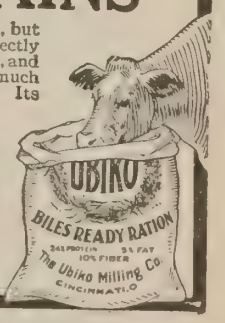
UNION GRAINS

Is the best feed not because it contains a certain per cent of protein, but because it contains 20% of *digestible* protein. Union Grains is perfectly balanced. It also has 45% digestible carbohydrates, 5% digestible fat, and only 10% fiber. Because of its digestibility, Union Grains gives much better results than other feeds with nearly the same *crude* analysis. Its nutritive ratio is 1:2.8.

The Food Administration wants you to order your winter supply of feed now while the railroads can handle the shipments. They allow you to order a four months' supply for shipment in sixty days. Union Grains will keep indefinitely. It contains only 8% moisture. At present the price is comparatively low. Place your order at once. Your dealer has Union Grains or can get it for you.

Know the profit or loss on every cow in your barn. Write for free record sheet

THE UBIKO MILLING COMPANY, Dept. H., Cincinnati, Ohio



GET A BUHR MILL

with genuine French Buhr Stones. Do your own grinding of feed and table cornmeal, buckwheat, rye, Graham and whole wheat flour. Do grinding for others—It is profitable. These mills do the fine class of grinding you would get at a big flour mill. Last a lifetime. A boy can operate and keep one in order.

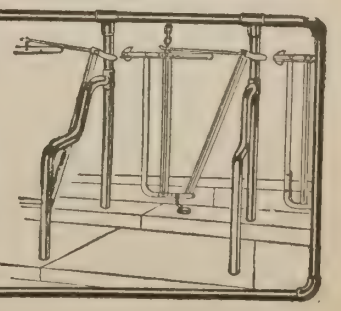


Send for book on mills and 30-day free trial offer.

FREE TRIAL

Nordyke & Marmon Co. 1416 Morris St. Indianapolis, Ind.

$7.60 Buys this Harris Sanitary Cow Stall



complete with Stanchion. The Stanchion has adjustable neck space—will fit anything from a small calf to a big bull. Wood-lined—no cold steel touches the neck. It is equipped with Sure Stop Bar and absolutely cow-proof latch. The Stalls are made of genuine, large-size (1½ in. inside diameter) steel pipe. Complete—any width—$7.60. Write today for descriptive folders.

Harris Mfg. Co., 540 Main St., Salem, O.



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Ten to fifteen head of registered Holstein cows and heifers. Well grown and good individuals at $150 and upwards. Prefer to sell in a bunch. Must reduce herd. J. M. WAGNER, Union Center, Wis. 11-3

Waukesha County Holstein-Friesian Cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct from the breeder and know what you are getting. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 11-4

For Sale—An entire herd of grade Holsteins of my own breeding. Cows giving up to 15,000 lbs. of milk yearly and everything bred to 30-lb. bull. From 1 to 7 years old. About 45 head, including two good registered bulls. A good working herd sold for no fault. R. F. JOHNSON, Assumption, Ill. 12-3

One of the best bred herds of Holsteins in West. Twenty-five females. Herd sire son of greatest bull in world. A. M. R. CROOKS, Gunnison, Colo. 12-2

For Sale—High grade Holstein cows and heifers in car lots. DODGE COUNTY HOLSTEIN BREEDERS' ASSOCIATION, W. P. Mann, Sec., Dodge Center, Minn. 12-2

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

Registered Holstein bull and heifer calves; 31-lb. sire; one bull ready for service. PHILIP LEHNER, Princeton, Wis. 13-3

One carload of high grade Holstein cows and heifers for sale; cows bred to Pabst Maplecrest Champion whose dam has a record of 34.492 lbs. butter in seven days. ELDER LAWN DAIRY FARM, Mike Kieffer, Proprietor, Fredonia, Wis. 13-4

For Sale—October 29th, 1918, I will sell at auction on my farm in the city of Coldwater, Michigan, 17 head of grade Holstein heifers; 10 head of grade Guernsey heifers; ranging in age from 8 months to 2 years old; 3 registered Guernsey bulls, from 2 months to 8 months old. I am selling these cattle on account of the shortage of feed. L. J. BYERS, Coldwater, Mich.

Holsteins and Poland Chinas at auction—On Tuesday, Oct. 29, at 10 a. m. at the Brookings County Fair grounds in Brookings, South Dakota, I will sell at public auction 40 head of registered Holstein cattle and 40 head of Poland China hogs. The cattle consist of cows, heifers and bulls. They are of the very best breeding, several with A. R. O. records. The hogs are 18 spring boars and 22 open gilts. They are a fine lot and sired by some of the best boars of the breed. Catalogue ready Oct. 15. THOS. MAHER, Brookings, South Dakota. Col. R. E. Hacger, Auctioneer. Dinner served on the grounds.

Fairview Farm offers three choice Holstein-Friesian heifers and a bull for foundation stock at a bargain price. Also other females with A. R. O. records and backing. Liberty Bonds are as good as cash. Full value given. W. A. TAYLOR, Roberts, Wis. 13-tf

Holstein Springers—7 heifers, junior two's. Send for photo. Price $110 each. ALBERT C. WOLLIN, R. 2, Johnson Creek, Wis.

One carload of large high grade Holstein springers, $100 to $120. MEL. SCHWARZ, Norwalk, Wis.

On account of being drafted, we will sell at public auction on October 30th, 20 head of registered Holsteins of good breeding, 4 high grades; 6 horses and all farm machinery. Location 6 miles east of Waukesha and 10 miles west of Milwaukee on the Blue Mound road. FRANK DECHANT, Waukesha, Wisconsin.

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

STOCK FOR SALE

Registered Guernsey bull calves, from one to six months, from A. R. dams. OTIS MARKEN, Valders, Wis. 1-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Registered Guernsey bull calves for sale out of A. R. stock. Gov. of Chene, May Rose breeding of imported stock at bargain prices. Also grade heifer calves and Poland China hogs. GLEN PALMER, Yorkville, Illinois. 11-spl

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Guernsey calves of excellent May Rose breeding. Low prices if taken soon. F. T. DUNLOP, West Grove, Pa. 11-4

For Sale—Registered Guernsey bull calf. Carries May Rose and Governor of the Chene blood. WALTER VAUGHN, Marion, Iowa. 11-3

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

For Sale—Guernsey bulls from record producing dams. Prices reasonable. H. C. ADAMS, Algona, Iowa. 12-tf

For Sale—Two fine registered Guernsey bulls, nine and seven months old. Priced to sell. GEBHARDT BROS., Palmyra, Mo. 12-2

Registered Guernsey heifer calf, daughter of "Allenwood Prince," grand champion Denver National. CLINTON GRISWOLD, West Salem, Wis. 12-2

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

For Sale—Splendid registered Guernsey stock, descendants of George Washington of Fairfield Farms. Bull calf $50.00; bull calf $75.00; heifer calf $100.00; heifer yearling calf $150.00. First check received gets first choice. F. O. B. South Bend, Indiana. C. A. CARLISLE, 407 Citizens Bank Bldg., South Bend, Indiana.

Guernsey bulls, Advanced Registry breeding. GLENN CLARK, Eau Claire, Mich. 13-5

My son drafted. Must sell accredited herd at once. 8 registered cows and heifers, three choice, high grade cows. Most all fresh or will be soon. A rare chance for some one. Herd bull, son of famous Hayes Cherub 2nd 25147, included. Four choice registered bull calves. GEO. WELCH, Colchester, Illinois.

Guernseys—My herd has increased to such an extent that I am compelled to reduce it. Will sell A. R. cows, heifers, and heifer calves. The young ones are all descendants of Langwater Raritan 17052. He now has 12 A. R. daughters and as a sire has no superior in this country. Write me what you want or come and see them. GEORGE C. COOPER, Superior, Wis.

May Rose 2nd, Raymond of the Preel, Masher's Sequel Penny Come Quick 2nd; these are the near relatives of the Guernsey bull that has headed my herd. Because of war conditions I am disposing of my dairy herd and offer this fine, 3-year-old bull for sale. Healthy, gentle, dehorned, a sure breeder. $400.00. RIDGEWOOD FARM, White Hall, Md.

Registered Guernsey bull for sale two years old, $85. ROLAND GANSER, R. F. D. 5, Jefferson, Wis.

For Sale—Two high class registered Guernsey heifers, fifteen months old, real show prospects, at a bargain. I bought these heifers when young from a very wealthy breeder who has a great show herd, as a foundation for a future herd, but other plans have forced me to sell. Here's a chance for a wide awake breeder. First draft for $300 buys both heifers crated. Will breed same to a high class bull if desired. H. E. SIMON, care Farmers' and Merchants' Savings Bank, Burlington, Iowa.

Jersey Bulls—One to twelve months, $35.00 to $100.00. Sire's dam 819 lbs. butter in year. Dams producing up to 500 lbs. butter in year. Sire is grandson of Eminent's Bess. M. EMERSON & SON, Wheeler, Wis.

For Sale—A golden fawn Jersey bull two months old, $25.00. One seven months old $45.00. A heifer calf weaned $35.00. CLARENCE RAGSDALE, 709 Monroe Ave., Moberly, Mo.

For Sale—40 head high-grade Jersey heifers. Will be fresh December and November. HARRY COVINGTON, Trenton, Ky. 11-3

STOCK FOR SALE

For Sale—Fresh registered Jersey cows and heifers. Also bulls sired by a grandson of Oxford You'll Do. W. O. DOUGLAS, Janesville, Wis. 12-3

For Sale—A number of very choice registered Ayrshire heifers, also a few choice bull calves. These animals have lots of type, quality and breeding. Write for prices and descriptions. TOMPKINS FARM, Lansdale, Penna. 13-3

Ayrshire, registered bull calf 2 months old for sale; from A. R. dam; sired by Golden Glow of Aldebaran; reasonable price. HUBERT PINSKE, Arlington, Minn.

For Sale—1 carload young registered Ayrshire cows and heifers, butter strain; reasonable prices. F. D. STOWELL, Black Creek, Allegany Co., New York. 12-2

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

Brown Swiss bull calves and yearling bull from registry of production stock, prize winners at Connecticut fair at Hartford. GEORGE W. HARRIS & SONS, Wethersfield, Conn. 12-2

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 13-2

AUCTIONEER

Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

STOCK WANTED

Wanted—Several good, young, registered, Guernsey cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 13-6

SWINE

Duroc herd boar for sale. First prize winner at State Fair. PHILIP LEHNER, Princeton, Wis. 13-2

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

Berkshire boars and gilts. March farrow. Good ones. $40 to $50. W. C. McMASTERS, Sparta, Ill. 12-2

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 11-tf

For Sale—Big type Poland China boars. V. E. HOLMES, West Liberty, Ia. 12-4

Duroc Jersey bred sows; boars, and spring pigs. PHILIP LEHNER, Princeton, Wis.

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

CREAMERIES

Creamery and ice cream manager for Illinois plant, good sized town; increasing business; good moneymaker. Yearly business $150,000. Prefer man who can invest $3,000.00 or more and take complete charge. Address BOX 271, care Hoard's Dairyman. 13-2

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Wisconsin grown winter sand vetch and pedigree rye properly mixed for seeding. VAN LOON, LaCrosse, Wis. 10-tf

FOR RENT

For Rent—Fine 500-acre farm on shares. Modern improvements. Located in the village one-half mile from milk plant. Present renter crippled hand filling silos this fall. Funds required to buy the renter's equity. Address D. C. COOLIDGE, Downing, Wisconsin. 13-tf

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Large Farm Wanted—Will rent or lease, for cash or shares, well equipped farm or estate 600 acres or over, in good order, for machine farming. Property will be in good hands, personal and financial responsibility very highest. Give full description. Address BOX 269, care Hoard's Dairyman.

MACHINERY

Ensilage Cutter—No. 24 "Hocking Valley" with 15-inch throat. Extra set cutter knives and shredders besides pipe and distributor pipe. Used one season only—in 1917. CARLETON L. HALLOCK, Clayton, N. J. 10-4

For Sale—Two-unit Hinman Milking Machine, used two years, good condition, a bargain. FRED H. FOX, R. 5, Ashland, Ohio.

For Sale—2-unit Calf-Way Milking Machine. New; used as demonstrator only. Any reasonable offer accepted. Address P. O. BOX 617, Marengo, Ill. 11-3

DAIRY FEED BAGS

From 10 to 20 cents for feed and other bags. We pay the freight or half the express. LARIMER BAG COMPANY, Washington, D. C. 17-tf

FARMS FOR SALE

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

If you wish a farm in the best grass section of the south where alfalfa and all the clovers including Red White, Alsike, Sweet, Burr Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B GURLER, Macon, Miss. 25-tf

Farms in the Mississippi Prairie Belt, alfalfa and clovers. Corn, hay and live stock proposition. Ideal climate, good neighbors, schools churches, good roads. Main line of railroad Close to large markets. Write now. H. H HANSEN, Macon, Miss. 11-tf

132-acre farm with fine modern buildings complete; bath, hot water, furnace, etc. Level sandy loam soil. Street car and R. R. station adjoining. Improved road to Lincoln Highway. One of the best farms in Ohio. Worth $200, will sell for $150 per acre, easy terms Address, OWNER, No. 208 City National Bank Canton, Ohio. 11-4

To Home Seekers—The Black Belt of Alabama is the garden of the south for stock breeding and dairying. Have a list of desirable farms, well located, for sale at $40, $50, and $60. Land equal in quality to Illinois farm selling at $200 and $250 per acre. Some samples: 3 of high class land, lying together 192, 200 and 350 acres at $50. One well improved 900 acres. Railway station on the farm 19 ms. from a modern creamery, at $45. Will divide and make 3 fine dairy farms. Write me for particulars of others. GEO E. BROWN Uniontown, Ala. 12-tf

For Sale—Ideal country home—Gladmor fruit and stock farm, home of the late J. H Baer. Excellent location, fertile soil, modern buildings, macadamized road, 2 miles south west of Baraboo, Wis. For information address C. J. BAER, R. D. 4, Baraboo, Wis. 12-3

Owner of 300-acre farm, New York State Ample modern buildings. Small herd registered Holsteins. Wants practical farmer with some cows and farm equipment to work it on equal shares. Good opportunities for a good man. Address BOX 257, care Hoard's Dairyman, Fort Atkinson, Wisconsin. 12-2

Farms of all sizes and all prices for sale this banner dairy section. Largest creamery in the world right here. Write F. W. MEYER Barron, Wis. 25-spl

Farm bargains—40 acres, good buildings, fine land, one-third cultivated, close to R. R., with cows, horse, machinery, and crop $3,000; 80 acre farm $2,900; 160-acre farm $3,600. Large snaps: 40 acres $300; 80 acres $600. Write for particulars to THE E. L. C. CO., M-C Dept 31, Merrill, Wis. 13-tf

When the war is over, there will be a grand rush for land. Better not wait. You'll pay much higher prices if you do. It's an ideal time to see the country, too. Aitkin county is at its best, right now. ARNOLD, Land Agent Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

Modern dairy farm, 160 acres, well fenced high state of cultivation, two silos, automatic waterer in barns, accommodations for 100 head of cattle, 20 rods from cheese factory, 11-room house, furnace heat, gas lights in house and barns. A bargain at $25,000. Address owner C. S. MULKS, Riceville, Iowa. 13-2

Dairy farm in southern Virginia, 270 acres new buildings, land nearly level and free of stone, fine alfalfa fields, right at station, high school and stores. Owner C. R. FINCH, Culver, Virginia.

Dairy farm; house, orchards, 2 barns. BOX 191, Wesson, Miss.

For Sale—560 acres, all good productive land in the famous winter wheat belt of northeastern Colorado. 150 acres in wheat now, looking fine. 18 acres Grimm alfalfa; good improvements, new barn, pit silo. 5 miles to farmers elevator, stores, church, post office, hundred rods to standard school; mail delivered daily healthful climate. $65 an acre, ⅓ cash, rest at 6%. Good reason for selling. Address owner, PAUL HUMBEL, Otis, Washington County Colo.

$3,000 down secures 16 cows, 270-acre farm and $500 pair horses, driving mare, Holstein bull, 3 calves, harness, wagons, mowing machine, tedder, ensilage cutter, harrows, plow all crops, furniture, all ready to go on making money. Dairy alone paying $170 monthly. 3 miles to 2 towns. Smooth, machine-worked dark loam fields, meadows cutting 70 tons hay, wire-fenced, spring-watered pasture for 70 head, estimated more than 1,000 cords wood, 40,000 feet timber, variety fruit. 7-room house, 3 stock barns, granary, other buildings. To settle, everything goes for $6,500, $3,000 down 2 nearest farms valued at $12,000. $15,000 Details page 17 Strout's Fall Farm Catalog of this and other bargains; east, west, north and south. Many with stock, tools, crops, copy free. E. A. STROUT FARM AGENCY Dept. 3001, 312 Marquette Bldg., Chicago,

First Class level 200-acre farm near high school, town 60 miles; Twin Cities. 100 acres smooth productive field, splendid new house, fine barn, silo and numerous outbuildings. One of the best farms in Polk County. Owner sick. Get photo and full information. BAKER L-- St. Croix Falls, Wis.

FARMS FOR SALE

For Sale or exchange—45-acre farm, suited to dairying and hogs. Ideal climate, good buildings, beautiful shade trees, bearing pecans, fruit; northern community, 3½ miles to county seat. A. J. PLUMBE, Edendale Farm, Bay Minette, Ala.

HAY

Alfalfa and Prairie Hay for Sale—Prompt shipment; good quality; thoroughly inspected cars. Reference, First National Bank, Lexington, Nebr.. H. J. GUNN. 9-tf

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

HORSES

For Sale—Registered Percheron mares and colts. H. J. YOUNG, Greene, N. Y.

SHETLAND PONIES

Shetland ponies for sale. $35 up. EDWARD RACE, Peshtigo, Wis.

WANT TO RENT

Wanted—Dairy farm on shares with everything furnished. Farming a lifetime experience, also German agricultural college graduate. Could start April 1, 1919. BOX 26, Hawthorne, Wis.

Wanted—Farm to rent on shares with everything furnished, or will make some investment. Address BOX 270, care Hoard's Dairyman.

EXCHANGE

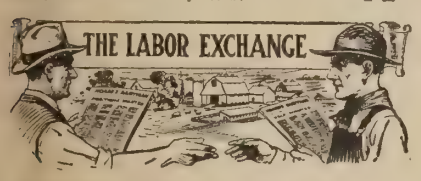
Excellent Holstein yearling bull for good small tractor. MANIKOWSKE FARM, Mooreton, N. D. 13-2

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—To employ three dry hand milkers. Good wages, board and living quarters. Apply PINEHURST DAIRY FARM, E. K. Magee, Manager, Sheboygan Falls, Wis. 3-tf

Wanted—Good, dry hand milkers, married or single, permanent position with good wages for right men. Address S. W. DORLING, Supt., Rose Hill Farms, Spencer, Mass. 10-4

Wanted—Young, experienced farm hand, not in draft, to work on large Guernsey dairy farm. Start at once. Good habits. $50.00 per month and board. HOMER F. RUNDELL, Livingston, Wis. 10-5

Man to care for herd of registered Jerseys. Must be expert milker, fond of Jerseys and his work absolutely clean, over draft age and give good references. Could use married man without children if wife willing to work in farm house. Permanent position and good wages. RIVERVIEW FARM, 1997 Montreal Ave., St. Paul, Minn. 10-tf

Herdsman, temperate, reliable, who understands feeding and proper care of cattle to take charge of 20 cows, young stock and calves. Universal Milker. Individual feed and production records of all cows. Location eastern Ohio. House, garden and milk provided. State qualifications and salary expected. B. F. POST, Clarington, Ohio. 11-3

Experienced dairyman, single or married, for general dairy work and to assist herdsman with A. R. O. work in Holstein herd. Can use woman or boy as helper. Modern equipment. Give experience, reference and wages expected application. STEVENS STOCK FARM, Sycamore, Ill. 11-3

Wanted—Boy or young man to help in dairy. Good home and fair wages. H. C. HURLEY, Rockville, Md. 11-3

Milkers and dairy barn men wanted in large Holstein herd in southeastern states. Apply at once Address BOX 261, care Hoard's Dairyman. 12-2

Herdsman wanted for Holstein herd on eastern shore of Maryland. If married, family must be small. State full particulars in first letter. Address BOX 258, care Hoard's Dairyman. 12-2

Wanted at Once—Single man to help milk and assist with retail milk plant, work on farm. Answer stating when could come, etc. Address BOX 259, care Hoard's Dairyman. 12-2

Wanted—Competent, single, working superintendent on medium sized, modern stock farm near Chicago. Must understand hogs, cattle and field work. State qualifications and references in first letter. BERKLEY FARMS, Glenwood, Illinois.

HELP WANTED

Wanted—A competent, reliable, married man. Must thoroughly understand feeding and care of cattle and farming in every branch. House, garden, wood, and milk. State wages per month, age, references and how many in family. Address S. P. BRADLEY, BRADLEY & METCALF CO., Milwaukee, Wis. 12-3

Man and wife wanted on large dairy farm in state of Maryland, man in dairy barn or milk plant. wife to run boarding house. Desire someone with experience. Address BOX 260, care Hoard's Dairyman. 12-2

Wanted Immediately—One experienced can washer, one general condensery helper. Salary $90 per month each. Apply MOREY CONDENSERY, North Prairie, Wis. 12-2

Wanted—Two expert machine milkers to handle B-L-K Machines. Thoroughly modern plant producing certified milk. One of the largest dairy establishments in Middle West. State age, experience, salary, etc., first letter. Apply to W. R. HALE, Manager Wilco Farms, Willisville, Ill. 13-2

Wanted—Herdsman for University dairy. Will pay $80.00 to start with good house and garden space. Married man preferred. References required. W. S. CUNNINGHAM, University of Arizona Farm, Tucson, Ariz.

Wanted—Settled woman for cook on large farm where men are boarded. Permanent position, good wages and living conditions. No objections to woman with small child. BRODLAWN FARMS, Newton Square, Delaware County, Pa.

Wanted—Experienced dairyman for permanent position with good, registered Holstein herd. Plenty of help to assist with the work. Write C. F. APPLEGATE, Supt., Mt. Pleasant State Hospital, Mt. Pleasant, Iowa.

Wanted at once—Married man with small family for general farm work. Address BOX 266, care Hoard's Dairyman.

Wanted—Farmer boy under draft age for the winter, general farm work and milking, pure-bred stock. Give age, weight, experience, and wages expected. W. J. MARTIN, Darlington, Wis.

Married herdsman wanted by November first for large Guernsey herd. Experienced feeding for records. New four-room house, close to school, milk, wood and garden. Wages $900 for year. Give age, experience and reference. HOMER F. RUNDELL, Livingston, Wis. 13-2

Wanted—Competent dairyman to furnish help and handle herd of 25 to 30 cows on shares. Selling whole milk. Big demand at paying prices. No separating or butter making. Good equipment, comfortable house, healthy section, mild climate. Splendid chance for man who knows to get into a business that is profitable. References exchanged. P. M. PITTS, R. R. D., Sumter, S. C.

Wanted—Experienced Holstein A. R. feeder and milker. Large herd of splendid Holstein-Friesians and thoroughly modern plant. State age, experience, references and salary first letter. Apply W. R. HALE, Manager, Wilco Farms, Willisville, Ill. 13-2

Wanted—A responsible tenant for a 480 stock farm. Good buildings, silo and water. He must own one-half of the stock and receive one-half of all proceeds. Located in Walworth County, Wisconsin. Good opportunity for the right man. Swede preferred. P. O. BOX 267, East Troy, Wisconsin. 13-3

Wanted—Farm superintendent. Dairy and stock farm. Pure-bred Guernseys. Two miles from city of fifty thousand. Excellent market. Modern machinery; electric power and lights; water system. To right man will pay salary and percentage of profits. State age, nationality, family, education, experience, salary expected, when at liberty. An exceptional opportunity for a man who has proved his ability but who has insufficient capital. BOX 994, New Britain. Conn.

Young women with dairy farm experience wanted for cow testing association work. Men in deferred classes also wanted. Expenses paid and good wages. Inquire NOEL NEGLEY, Wisconsin Dairymen's Association, Madison, Wisconsin. 13-spl

Wanted—A single man for general farm work, exempt from draft. Employment by the year. A splendid opportunity for the right man. Good wages and nice home surroundings. Farm twenty-two miles from Chicago. Please give references. Address A. H. CAIE, Room 1604, 20 E. Jackson Blvd., Chicago.

POSITIONS WANTED

Position wanted by manager, college graduate, married, thoroughly experienced in every branch of grain and stock raising. A. R. O. work. Address BOX 255, care Hoard's Dairyman. 11-3

As manager on modern farm by man experienced in dairying and general farming. Must have separate house. Wife willing to board help. FRANK WOOD, Bryant, Ark. 12-2

Wanted—Position as cow tester. Four years' experience. Address TESTER, 427 West Cedar Street, Kalamazoo, Mich. 12-2

Position wanted as manager or herdsman on up-to-date farm by young man, single, exempt from draft. Experience in A. R. O. work, best of references. Address BOX 262, care Hoard's Dairyman. 12-3

Position wanted as foreman or manager. American, age 37. Understands farming, feeding, A. R. O. and dairying thoroughly. Operate all farm machinery, hustler and good worker. Handle any number of men. Wife willing to board help. No children, no boozer or smoker. References. ROY BRANT, 1933 Orchard, Chicago, Illinois.

Position wanted at once by experienced man in grain farming and care pure-bred cattle. Married. Have boy 14 years to assist. Age 46. Southern Wisconsin or northern Illinois preferred. BOX 268, care Hoard's Dairyman.

Farm manager, scientific, practical, progressive, thoroughly experienced in care and management of pure-bred stock, Advanced Registry, modern farming, machinery, etc. Can manage farm on business basis and produce results. Only a large proposition considered. Temperate, capable, draft exempt. Excellent references. BOX 267, care Hoard's Dairyman.

Seed Market Notes

The receipts of clover seed on the Chicago market have been very small because of the short crop and delays in threshing caused by rainy weather. On September 27 prices of $35 per 100 lbs. for good country-run red clover, and $23 to $26 for alsike were reported as being paid to shippers. The demand for clover seed in the east and southeast has been good.

According to the Milwaukee report red and alsike clover seed have not been moving freely from growers' hands at $32.50 to $35 per 100 lbs. for red, and $23 to $26.50 for alsike. The demand for red and alsike clover has been good from the small dealers but only fair from the larger dealers, who appear to be unwilling to stock heavily at the prevailing high prices. White clover, however, has been marketed freely by growers and country shippers at $43 to $46 for 100 lbs., basis clean seed, and the demand from dealers has been fairly good.

The receipts of timothy seed have been about the same as last year, but less trading seems to have been done on the Chicago Board of Trade. The demand has been good from the smaller dealers but rather indifferent from the larger concerns. Shippers are being paid about $9 per 100 lbs. The quality of the seed in Iowa, Missouri, and Illinois is reported good; in Ohio and Indiana poor; and in Minnesota and Wisconsin very poor.

Timothy seed has been offered freely by country shippers at $8.25 to $9.50 for the better lots and the local demand in Milwaukee has been very good. The quality of the seed is not so good as that of last year, being badly hulled, discolored, and weedy.

Canada field peas are being bought from the growers at $5 per 100 lbs.; dried green peas at $7 to $7.50; and Scotch peas at $8. These kinds are being quoted recleaned f. o. b. cars, bags included, at $5.75, $8.50, and $9.50 per 100 lbs., respectively. The domestic demand for peas is not brisk and there appeared to be very little export demand the last week in September.—U. S. Seed Reporter.

Oleomargarine in Canada

The following from the editorials of the "Farm and Dairy" of Ontario pretty clearly shows how the Canadian people are taking to oleomargarine. In the United States the packing house by-product seeks to dress in the clothes of that which it imitates in order that it will be purchased by the people who do not know what they are buying. In Canada, however, the protection of the dairy industry seems to be sufficient and the information of even the "poor folks" enough that oleo is eaten only by the people "who have to take what is given them."

"Oleomargarine is not meeting with the public favor its advocates expected. Mr. J. A. Ruddick, Dominion Dairy Commissioner, reports that since the removal of the embargo on oleomargarine, a little over 4,000,000 pounds of that product has been imported into Canada and 6,000,000 pounds have been manufactured here. The actual consumption of oleomargarine will be even less than the figures given, because of the large quantities now held by importers who cannot dispose of them. "These quantities," says Mr. Ruddick, "are not large compared with 140,000,000 pounds of butter which we consumed during the same period."

When oleomargarine was first introduced, the curiosity of the public had been kept on edge by the great amount of free publicity given to butter imitations by the city press. Everyone was anxious to try oleomargarine and the opening demand was keen. Since then interest has waned. People have found that there is no really acceptable substitute for butter, and as long as consumers can secure the real article they will have it. Incidentally we might remark that the "poor folks", in whose interests oleo was supposed to be introduced, are buying it practically not at all. Here, as in the United States, the big market for oleomargarine will be the hotels, restaurants, and boarding houses, where it is served to people who have to take what is given them. Our experience with oleomargarine up to date has furnished no good reason why its importation into Canada or its continued manufacture in the country should be permitted after the war.

SWINE

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.

CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

POLAND CHINAS

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Hadley

Herd boars and farm boars, open gilts, or shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell us what you want. We can please you. March pigs weigh up to 275.

Dobson, Eastman & Rech, Lancaster, Wis.

Real Herd Boar For Sale

Have decided to sell my great herd boar, BIG BEN H, and will price him right. Also, some good heavy bone, big type Poland China spring boars to offer. All immune. Write at once. **F. A. MOREHOUSE, Lancaster, Wisconsin**

Send NO Money!



Just send coupon below and we will forward to you at once, postpaid, a pair of our famous **NATIONAL FARM SHOES.** They are the greatest work-shoe value ever offered. We are glad to send you a pair NO MONEY IN ADVANCE because they are built so full of wear and are so comfortable and so good looking that we know you will keep them. Send no money—don't pay until you get your shoes—mail the coupon only and shoes will come at once.

DIRECT TO YOU FROM THE SHOE MARKET OF THE WORLD

That is why the price is only **$3.65.** Why pay $5 or $6? Slip these shoes on in your own home. Note the splendid selected leather! Feel how soft and easy they are on your feet! Examine the "Indestructo" heavy leather sole. Customers write these shoes look good after 6 months of hard wear. If they aren't the best work shoe you ever saw, send them back and we'll return your money. You are the judge of the Style, Comfort and Quality. Use coupon TODAY and get your pair of these wonderful shoes while this special offer holds good.

SEND →

Only this coupon, no money. It brings these splendid shoes to you prepaid.

Boston Mail Order House, Dept. H
Beach Street, Boston, Mass.

Send me a pair of National Farm shoes prepaid. I will pay only $3.65 on arrival. If I am not satisfied in every way I will return them and you will refund my money.

Size..... Color.....

Name .....

Address .....

Boston Mail Order House, Boston, Mass.

The principal dairy states will waste, this winter, 3½ Billion Pounds of Milk

Simply by failing to get it; failing, too, when it would be easy to produce that increase for a world market that demands every possible ounce of food.

Surely this is not the time to overlook any opportunity for increased dairy production and profit. It is no time for waste or neglect. The bending of every effort toward bigger dairy results, for both patriotic and personal reasons, is the duty of every dairy farmer. Here is one way in which the dairy farmers of the principal dairy states could add this winter 3,600,000,000 more pounds of milk. At $3 per cwt. this would mean $108,000,000 more profit.

These are not wild figures. They represent bed-rock facts, and they mean that if all the cows in the principal dairy states were properly watered with James Drinking Cups they would add 3½ billion *more* pounds of milk to this winter's yield—milk that would be worth to the nation as a whole, and to you in part as a producer, at only $3 per hundred, more than a hundred million dollars.

A tidy sum for the dairymen of this country to think about, isn't it? A sum well worth saving in *any* year, but especially so in this period of advancing food prices, increased milk demand and costly feed.

Then there's your own question of labor, and the protection of your herd from disease, to be thought about in this great crisis. James Drinking Cups give each cow clean, safe water that no other cow has had her nose in. They do away with the hard, cold job of herding the cows out to the tank, herding them in again—chopping open the frozen tank.

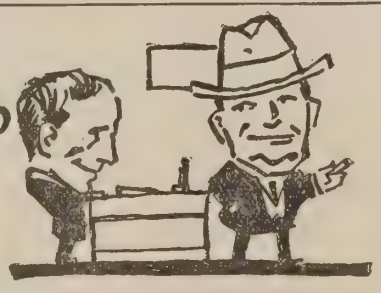
There are two shortages for you to think about: The world-wide food shortage, and your own pocketbook shortage caused by your cows not getting all the water they want, *when they want it*, at the right temperature, day or night.

They will give more. All they need is the opportunity. James Drinking Cups spell that opportunity. The milk increase of the average cow will *pay for her cup* in 90 days. At the end of that time the account covering the complete installation will be *squared* as a result of increased profit, leaving you the cups for many years of money-making service, either in your present barn or when re-installed in a new one.

Do *your* part toward getting the extra millions which American dairy interests can produce by making milk out of water. Get *your* share of those dollars. It's easy to buy, easy to install and easy to operate James Drinking Cups. We've solved this great watering problem, and solved it *right*—just as we have so many other questions relating to sanitary barn equipment. Write today for booklet, "How to Make More Milk."

JAMES MANUFACTURING COMPANY
ES23 Cane Street, Fort Atkinson, Wis. Elmira, N. Y.

Extra Cost for Quality? No, Sir!



You'll likely find it costs you even *less* to chew Gravely. It goes further. You only need a small chew of this class of tobacco, and it holds its good, satisfying taste a long, long time.

. . . .

It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND
Real Gravely Chewing Plug
10¢ a pouch—*and worth it*
P. B. GRAVELY TOBACCO CO., DANVILLE, VA.

Ditch Before Winter Rains



Protect your soil and your next year crop profits against injury by excessive water standing on land all winter. Can work land earlier in spring. Add 2 to 3 weeks to growing season. Do farm terracing now. Get

THE *Martin* Farm Ditcher, Terracer & Road Grader

All-steel, adjustable, reversible; no wheels, levers or cogs to get out of fix. Cuts new farm ditches or cleans old ones to 4 feet deep; builds farm terraces, dykes and levees; grades roads. Does the work of 100 men. Every farm needs one. Send your name for Free Book and Special Introductory Offer.

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Box 512 Owensboro, Ky.

10 Days' Free Trial

Water in the Stable a Nceessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

Death of Noted Ayrshire Cows

A few weeks ago, Adam Seitz of Wisconsin had the misfortune to lose his noted show cow, Oldhall Beauty 8th. Post mortem showed that she had swallowed some nails. It will be remembered that while on the circuit last year this cow went down seriously in condition and no amount of feeding could put her in condition. She succumbed as soon as the boys began fitting this year. Beauty 8th was well named. She carried one of the typiest of Ayrshire udders and would have been a strong contender at this year's shows. Her passing is a distinct loss to the breed.

Mr. Seitz also lost his young cow, Kilnford Bell 4th, a daughter of his show champion over all breeds, Kilnford Bell 3rd. The show herd was shipped direct to Sedalia, Mo., from Waukesha, Wis., and had a hard trip, encountering extremely warm weather. This animal succumbed shortly after arrival at Sedalia. Our sympathy goes out to Mr. Seitz in his losses but it takes more than that to discourage "Seitz of Waukesha".

Weymouth Farms, Massachusetts, report the loss of Willowmoor Moss Rose C. This young cow was purchased by Mr. Peter B. Bradley of Weymouth Farm at the 1918 New England Ayrshire Club Sale for the record price of $2,550. On post mortem examination, the veterinarian discovered a piece of wire about six inches long which had apparently been there for some considerable time. Willowmoor Moss Rose C. was a daughter of Morton Mains Queechy. She had three Advanced Registry records, the best of which was 17,005 lbs. milk, 714.32 lbs. fat.

Strathglass Farms, New York, sustained a heavy loss a week ago when their famous show cow, Shewalton Mains Queen, succumbed after a short illness. Shewalton Mains Queen was a prominent entry at the last year's National Dairy Show, winning the grand championship in the Ayrshire female classes. She was also an A. R. cow of merit having an official record of 12,853 lbs. milk, 512.30 lbs. fat.

Vermont. J. G. WATSON.

Larger Milk Demand Follows Prohibition

Increased demand for milk following curtailment of brewing in the United States is a probable development in the nation's food situation during the coming year. In a recent conference with Food Administration officials at Washington, R. C. Reed, Secretary of the Michigan Milk Producers' Association, presented facts of unusual interest to all dairymen. Since last May when Detroit became dry, consumption of milk, according to Mr. Reed, increased 20 per cent and of buttermilk about 50 per cent. To satisfy this sudden demand, it became necessary to bring in milk from greater distances and to a considerable extent utilize the supply formerly made into cheese.

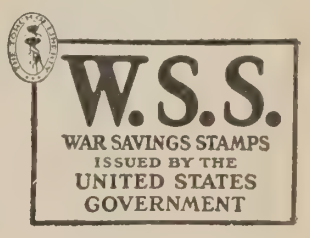
Not only has consumption of milk increased in private homes but many saloons have been converted into lunch rooms and ice cream parlors. These establishments have become new outlets for milk and its numerous products. The large increase in buttermilk consumption is explained by its milk acidity, which seems to allay the alcoholic craving.

While the Detroit percentages should not be considered an exact index to future conditions in other cities, they emphasize the present importance of dairy products in the world's food program. Curtailment in the supply of alcoholic beverages and similar drinks may be expected to stimulate demand for milk to a very material degree.—U. S. FOOD ADMINISTRATION.

Conservation

It's your duty to get every last ampere out of your old battery





It is the duty of each and every one of us to conserve all labor and material in every way possible.

If you neglect your battery, if you don't care how you drive your car, if you wear out the heart of its electrical system—you are working against your country's interest.

Therefore:

Don't neglect the hydrometer test.

Don't neglect filling with pure water.

Don't overwork, overheat or starve your battery.

Don't face the winter without letting us look over your battery and tell you if it needs attention.

Don't forget to call on us and get complete information on how to prolong your battery's life.

Willard Service.



Consider the Felt in a roofing

The backbone of ready-roofing is felt. Upon its quality, primarily, depends the life of the roofing. The felt, however, is no longer visible once it becomes a part of the finished product. So you should know something about its quality *before* buying roofing.

The highest quality of roofing felt is made from rags, consisting largely of cotton with a smaller proportion of wool fibres. Substitutes for rags are paper, straw, and clay. If these substitutes are used extensively a felt which very closely resembles cardboard results. Cardboard is not a good roofing material.



At present the supply of rags is limited and the price high. The possibility of using the substitutes mentioned presents itself. But The Standard Paint Company has never considered them in the manufacture of Ru-ber-oid Roofing.

The enviable reputation enjoyed by Ru-ber-oid during the last quarter of a century is due largely to the fact that only the highest grade of felt has consistently been used in its manufacture. This is only *one* of the reasons why Ru-ber-oid is regarded as the standard of ready-roofings.

THE STANDARD PAINT COMPANY

Chicago New York Boston

MAKERS OF

RU-BER-OID ROOFING

B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K

Clean and Clear as Water



Awarded Gold Medal Pan.-Pac. Expo.

For Milking Machines

B-K keeps rubber tubes and teat cups sweet and clean. It penetrates milk solids and makes milker parts easier to clean—kills the bacteria that spoil the milk. B-K leaves no taint or taste of itself—makes rubber parts last longer—does not injure metal—is the cheapest in actual use. Sold under absolute guarantee.

Recommended by all Milking Machine Manufacturers

B-K has been used by thousands of milking machine owners including certified milk producers with complete satisfaction for over six years. It is the original purifier.

Get B-K today—end cleaning troubles and sour milk losses. If your dealer does not have B-K send us his name with your order. We have a dealer near you.

Send for information—"trial offer"—and dairy farm bulletins.

General Laboratories
286 So. Dickinson St., Madison, Wis.

B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K B-K

Feed One Cow Four Weeks at Our Risk

Keep a record of her milk flow and the butter fat content for 28 days with rations of Ce-re-a-lia Sweets fed with ordinary roughage.

Ce-re-a-lia Sweets

If there's no improvement in volume or quality of milk, feed costs you nothing. Buy now from your dealer. Write us for details of Four Weeks' Trial At Our Risk.

THE EARLY & DANIEL CO.
301 Carew Bldg., Cinn., O.

Dairy Exhibit at the South Dakota State Fair

(Continued from page 409)

Homestead Rue; 5 and 6, Johnson on Veeman Bessie Blossom and Lady Vale Wayne.

Exhibitor's Herd—1, Bacon; 2, South Dakota State Penitentiary; 3, P. R. Crothers & Son. Breeder's Young Herd—1, Bacon; 2, South Dakota State Penitentiary; Calf Herd—1, Bacon; 2, South Dakota State Penitentiary; 3, P. R. Crothers & Son. Produce of Cow—1 and 2, Bacon on produce of Lilac Hedge Bismarck Colantha and Elmdale Aaggie DeKol; 3, Crothers on produce of Dykstra Mechtilde DeKol; 4, South Dakota State Penitentiary on produce of Dakota Homestead Rue. Get of Sire—1, Bacon on get of Greenwood Sir Fay Homestead DeKol; 2, Crothers on get of Sir Veeman Hengerveld Vale Wayne; 3, South Dakota State Penitentiary on get of Redfield Korndyke DeKol Burke.

Senior and Grand Champion Bull—Sir Pontiac Ollie. Junior Champion Bull—Brookings Chief.

Senior and Grand Champion Cow—Lilac Hedge Bismarck Colantha. Junior Champion Cow—Tarnia Burke DeKol.

South Dakota. ROBERT WYLIE.

Corn and Alfalfa Feeding Trial

A feeding trial was conducted at the New Jersey Experiment Station to compare a ration of corn and alfalfa with a ration of hay, silage, beet pulp, and a mixture of purchased concentrates. This trial is reported in the 37th annual report of the New Jersey State Agricultural Experiment Station. It was conducted as the first step in work to determine the best means of including in the ration the greatest possible amounts of alfalfa hay and corn, either as silage or grain. Further work will involve feeding trials with varying amounts of hay, corn, and silage and also work with heifers to determine whether they can be wintered on alfalfa and corn or corn silage alone to an advantage.

Eight cows were used in the trial through two periods of 30 days each. The cows were in two lots and were alternated after an intermediate period for change of ration. The grain mixture fed the cows on the regular or mixed ration was as follows:

Corn meal, 300 lbs.; hominy, 300 lbs.; distillers grains, 200 lbs.; brewers grains, 100 lbs.; bran, 100 lbs.; Buffalo gluten, 100 lbs.; cottonseed meal, 50 lbs.; linseed oil meal, 50 lbs.

A brief summary of the results is given below. The table shows the average daily consumption of the 8 cows for the 30 days they were on each ration and the average daily production of milk:

	Mixed Ration	Alfalfa and Corn Meal
Alfalfa hay	9.16	23.17
Corn meal		7.63
Silage	27.43	
Beet pulp	4.00	
Grain mixture	6.69	
Milk produced	27.52	25.30
Weight (at end of test)	988.00	982.00

It is evident that the cows did not maintain their production on a ration of alfalfa and corn alone. The decrease in production amounted to 8.1 per cent. This is not a marked decrease when the variety and efficiency of the regular ration is considered. Calculating alfalfa and corn at cost of production, $10 and $25 per ton, respectively, the corn and alfalfa ration was 19.8 per cent cheaper.

The cows readily consumed sufficient amounts of the ration to furnish the necessary protein and energy. One Holstein cow, weighing 1,200 lbs., consumed 25 lbs. of hay and 15 lbs. of corn meal daily and averaged 41.8 lbs. of milk.

Feeding for longer periods will be necessary before drawing any definite conclusions as to the possibilities of such a ration.

During the Iowa Dairy Cattle Congress, a flag raising for Black Hawk County, Iowa, was held at which time a flag with 3,181 stars was unfurled; 25 of these were gold stars.

When You Near the Top

Harder and harder grows the pull—hotter and hotter grows the engine.

Right here is another place to thank the builder who provided your motor-car with *Lynite* Pistons.

For Lynite Pistons stay comparatively cool, when cast-iron pistons would run hot.

And the cooler the pistons, the less the danger of carbon.

The cooler the pistons, the less the danger of pre-ignition or back-fire.

The cooler the pistons, the better your car performs.

On the long, steep climb you have two reasons to be glad there are *Lynite* Pistons in the cylinders.

When the engine heats up and the pistons slow down, carbon literally gets in its hardest knocks. The likelihood of pre-ignition is increased—the possibilities of a stalled engine multiplied.

Moreover, when the engine heats up, more carbon is likely to form unless the temperature of the piston-heads can be kept down.

Lynite Pistons stay cooler because the heat-flow from piston-head to cylinder walls is twice as rapid as in cast-iron pistons—due to the fact that aluminum is twice as efficient as a heat-conductor.

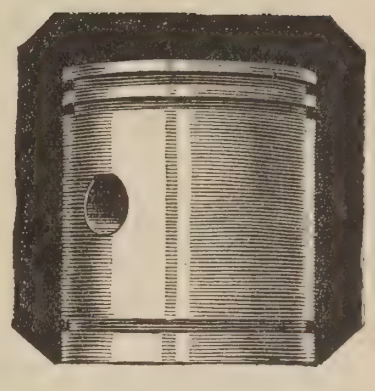
This means less carbon on the pistons, for carbon is simply oil or gasoline broken down by great heat.

And carbon is the cause of many engine ills. It cuts down power and boosts gasoline bills. It produces knocking. It gets into the oil and affects the whole lubrication system, causing increased wear on various parts. It adds to upkeep cost.

That *Lynite* Pistons greatly reduce carbon deposit, however, is but one of a number of reasons for their adoption by many leading manufacturers both in the automobile and aviation fields.

Because they weigh only a third as much as cast-iron pistons, they put new life into an engine. Quicker pickup, more rapid acceleration, greater flexibility, less vibration—all come from the use of *Lynite* Pistons.

If you don't have *Lynite* Pistons in your present car, see that they're in your next car.



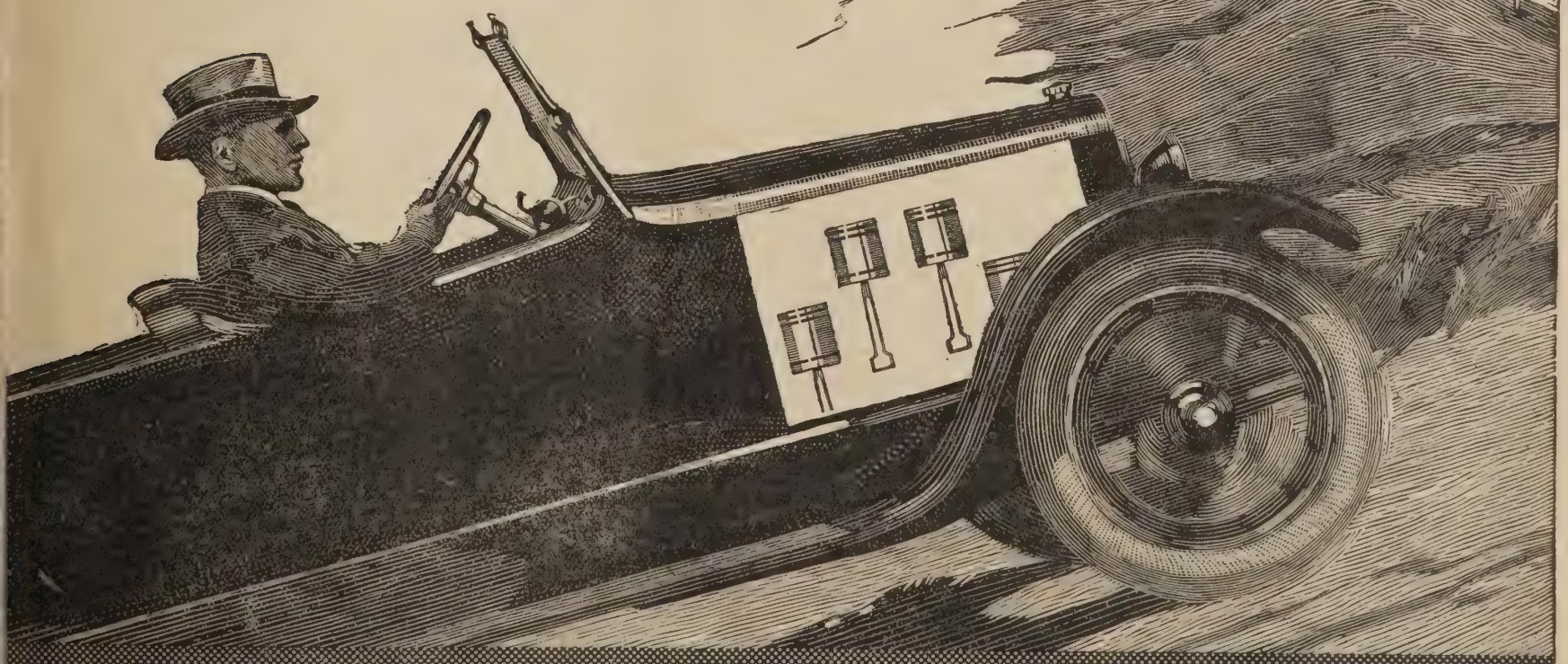


THE ALUMINUM CASTINGS COMPANY

LYNITE and LYNUX Products

Eight Plants in

Cleveland Detroit Buffalo Manitowoc, Wis. Fairfield, Conn.



LYNITE PISTONS



The JER$EY MAKES A DOLLAR WORTH MORE

Poor cows are like poor help—the more you feed them the less profitable they are. Jerseys make a dollar worth more because they give the biggest yield with the least amount of feed. In these days of conservation, the Jersey is the only breed for the working farmer who wants to lay something by for a rainy day. The least expensive breed to keep, the most beautiful and satisfactory breed to have. Buy one Jersey and you will never be satisfied until you have a herd. Write to Breeders for pedigrees and prices. Ask us for the facts that have changed many a cow barn from a liability to an asset.

THE AMERICAN JERSEY CATTLE CLUB 351 WEST 23rd STREET, NEW YORK CITY

PUBLIC SALE

At Belmont Stock Farm

Saturday, Oct. 26th, '18

Tacoma, Ohio

80 Head Jersey Cattle

Many Register of Merit Cows and their Offspring. This farm was founded 1878 by the senior Mr. Bailey and grew up a lot younger Baileys, interested and co-operating with the father. The kind of Dairy cows that paid for and equipped the farm and better still, kept the boys on the farm.

The Barnesville Cow Test Association is known wherever Dairy Papers are read, as having the highest average record of any Association in the world. 351 Cows in this Association averaged last year 369.25 lbs. 85% butter, beating the world. All but 14 cows in this Association are Jerseys and practically all of Belmont Stock Farm breeding.

We claim to have practical Dairy cattle, leading bulls of the breed both imported and American bred.

SEND FOR CATALOG

L. P. Bailey and Sons, Tacoma, Ohio.

Col. Perry, Auctioneer.

1st. Win the War—

and make the world safe for Democracy.

2nd. Breed Jersey Cattle and make the farm safe for Posterity.

I still have some classy heifer calves and a few bulls at moderate prices. Could furnish a carload of excellent milk cows. All stock registered. D. V. VANDIVER, COLUMBIA, MO.

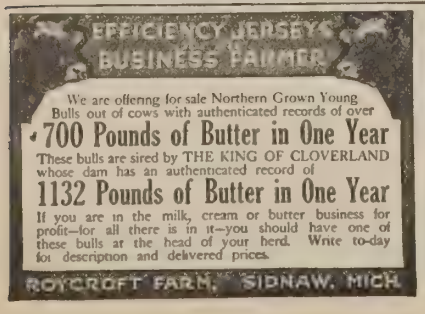
13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts



We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address FINCH FARM, - DAYTON, OHIO.

CEDAR SIDE JERSEY FARM

Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.

P. G. WARMINGTON, Honey Creek, Wis.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.

J. Q. EMERY AND SON, - Edgerton, Wis.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.

The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.

100 Head - - 100 Head

A few for sale.

H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

"The Hermitage" near Centreville, Maryland

Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.

Susan Williams, Owner. Edw. A. Nelker, Herdsman.

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from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.

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ALTON PARK, - TENNESSEE.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

Sophie's Tormentor JERSEYS

"Production" our Watchword.

FOR SALE—BULL CALF No. 257, dropped May 22, 1918; solid color, black tongue and switch; an excellent individual.

SIRE: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.

DAM: Varna 333660, in the R. O. M., Class AA—546.29 lbs. 85% butter in 1 year from 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. A daughter of the famous Hood Farm Torono 35th 99265. FAIRVIEW FARMS, Inc.

R. L. Pike, Gen'l Manager, Geneva, Ohio.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohoi.

HEIFER FOR SALE



A daughter of Trials Noble of Oakland who was grand champion at Wisconsin State fair 1918. His dam has a R. of M. record of 563 lbs. butter. The dam of this heifer May of Oak Grove has a R. of M. record of 334.41 lbs. butter as a 2-year-old, advance test 6.2%. Heifer was dropped April 22, 1917, is solid color, black tongue and switch and is bred to a R. of M. son of Eagle's Chief.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

READY FOR IMMEDIATE SERVICE

A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

Burn Brae Jersey

Bull calf dropped Dec. 5th, 1917

Sire:—Ibsen's Chief 135749, Majesty a Raleigh breeding. His dam has a record of lbs. 10 oz. "Chief" won first as calf, yearling a two-year-old, two championships and G Medal. *Dam:—Oxford's Majesty's Cha 357046.* Now on test. Her dam is also a R M. cow. Other bull calves and bulls ready light service. Guaranteed to please.

CHAS. A. PETERSON, Rosendale, W

JERSEY BULL

"Mable's Noble King, 14625 Dropped Sept. 4, 1914. Solid co Sire—Noble Rozel 101785. Dam—Matilda's Mabel 2342 the National Dairy Show winner—who in Associa work made 708 lbs. butter. Mable's Noble King wa prize yearling at Springfield. Guaranteed a bree Price, $300 F. O. B. Lake Geneva. See him or wr

G. D. GILBERT, Lake Geneva, Wisconsin.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. t mos. old, sired by Noble of Avranche 92571 and Gol Maid's Viscount 118344, both Imported sires. Will cheap to make room. Write

FRED STUBLEY, BLACK EARTH, W

REGISTER MERIT JERSEY HE

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99 Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. but Granddaughter, *Jacoba Irene,* young stock; *St. Lam* breeding for sale.

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Write me for descriptions and prices on s eral head of officially tested cows. Also calves out of tested dams. Address

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Pure-Bred Brown Swiss Cattle

Only high class, well bred animals fro clean and healthy herd offered for sale. M than 100 head to choose from and our 20 ye experience is back of every one. Write us

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Our August and Septembe

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40 head of splendid females—

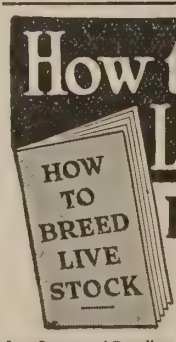
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Daughters of Proctor Knott IV ar Teddy's Best included. Write f sales list just off the press.

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Nickerson, Minn.

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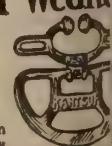
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"Kant-Suk" Calf Weane

LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but absolutely prevents sucking.



Extremely easy to put in place. Endorsed by dairymen everywhere.



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Sent Prepaid: Calf size 45c; Cow size 6

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is a sure way to increase your profits. Grade up your herd by using a pure bred Guernsey Bull and you will be surprised at Results.

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WARE, MASS.

ng bulls of May Rose breeding out of A. R. s and cows now on test. Herd tuberculin ed. Prices low.
GEORGE H. TIMMINS, Prop.

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325 GUERNSEYS 325

cellent bull calves for sale at exceptionally low s. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

ILLSWOLD FARM

Shrewsbury, Mass.

gistered Guernsey bull calves for sale. Dams in anced Registry and tuberculin tested. Prices right animals guaranteed to suit. W. A. Cloues, Mgr.

UPLAND FARMS

Ipswich, Mass.

ffers for sale a Bull Calf dropped ebruary 4, 1918.

ired by—*Langwater Cavalier* No. 1012. (A Double Grandson of mp. King of the May 9001.)

am—Imp. Chywoone Eulalia No. 4538. Record of *10,686.8* lbs. Milk *-558.62* lbs. fat in Class B.

rice and full particulars on request. F. P. Frazier & Son, Props. W. K. Hepburn, Supt.

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We Bred and Developed

Breed's Champion Roll of Honor Cow

len Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 milk 785.89 lbs. fat Class CC. We offer a bull calves carrying similar blood lines.
I. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

oice young bulls of exceptionally good Adv. breeding for sale. Strong individuals and as represented. Dams milking from 40 to ounds daily. Could spare a few young cows. rite for pedigrees and prices.
O W. POST, R. R. Station Owasco Lake, Ensenore, New York.

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a record of 579 lbs. fat recently ped a bull calf whose sire's dam made lbs. fat. Individually this calf and his are rather good and indeed a pedigree he calf shows that his ancestry is mainly really good kind. Nicely marked and col-. Price here, $150. Pedigree sent on request.
R. DUNLOP, Fayetteville, New York.

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ead sire is a double grandson of Barrington's May No. 19312, purchased by U. S. Government. The ge records of his daughters with first calf not only d the average first calf records of daughters of his lsire, Imp. May Rose King but also the average alf records of daughters of sons and other grand- f Imp. May Rose King. (See page 4 of Guernsey ers' Journal July 1, 1918.) For Sale—young cows f to Columbia, also an occasional bull calf by him. culin tested, abortion free herd.
ay Farms, L. W. Sheldon, Manager, Fulton, New York.

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een the home of such noted Guernseys, as Cherry dgewater, Miranda of Edgewater, White Wing of water, Imp. Queen Regent 4th, Imp. Topsey de ret, Miranda of Mapleton, Nellie Tostevin of Maple- d, The Great Bull Imp. Holden 4th and many other animals. We are offering a few choice Bull s. F. G. Benham & Son, Canandaigua, N. Y.

MELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

ung Cows, Heifers and Bulls

he greatest prize-winning herd of the Guernsey , at reasonable prices. My catalogue tells what ant, or come and see. L. V. AXTELL,
lomestead Farm, . . Perry, Ohio.

Registered Guernsey Bull For Sale

Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golden Secret 52629. Out of a 450-lb. A. R. cow by Golden King of Arcady, a grandson of Imp. Golden Secret 12899.

Price $100. For pedigree and photo write.
FOLLY FARM, LIBERTYVILLE, ILL

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. August Ziesing, Deerfield, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM **GUERNSEYS**

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.
Mountain Bros., R. 5, Des Moines, Iowa.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.
Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.
John H. Williams, Park Farm, Waukesha, Wisconsin.

GUERNSEYS A. R. RECORD COWS for SALE

Others of special breeding. Send for list of cows and heifers. ROY C. BUZZELL, Stanley, Wis.

THE FIRST ANNUAL SALE Of Mara Alva Guernseys

will occur on

Thursday, Oct. 31, '18

(Date Changed from Previous Announcement)

AT MARA ALVA FARM (Beginning at 12 o'clock)

SMITHVILLE, OHIO

5 Miles West of Orrville

Smithville has Pennsylvania R. R. and W. & L. E. R. R. service, and Cleveland & Southwestern Railway to Madisonburg sub-station.

To make room for another importation, we have selected from our herd of 175 head

75 Head for This Sale

Consisting of a few very fine show Bulls; about 60% Imported Heifers, bred and open, 40% American bred; a few fresh Cows and heavy springers; Heifers bred and open. Every animal especially selected.

We have sold privately in the last five years, 2,000 head of Registered Guernseys. This sale is held to try out the Public Sale plan, as Public Sales are becoming more popular. We consider this an opportune time to buy seed for the "After the War" demands.

The blood lines are of the most fashionable—Island and American.

Cattle have been tuberculin tested by U. S. Department of Agriculture B. A. I.

For Catalogs and further information address

H. C. McCamon, Sales Manager, Lisbon, Ohio.

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On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.
M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.
W. G. Jamison & Sons, Appleton, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

ELDERWOOD FARM

offers for sale a nicely marked 2-year-old

Granddaughter of Lord Waukesha

and out of an A. R. cow with a record of 374 lbs. fat at 2 years and sired by "Serpent" who has 4 A. R. daughters. Bred to a bull whose dam has a record of 465 lbs. fat at 2 years, due to freshen Nov. 3. Price $375. Roy Burton, Eagle, Wis.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. His Dam is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. The Bull himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.
W. A. LAWSON, Rosendale, Wisconsin

GERAR GUERNSEYS

Production Reproduction Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.
Louis McL. Merryman, Cockeysville, Md.

For and Against Bagasse Silage

In advocating the conservation of sorghum and sugar cane bagasse, I speak from years of actual experience in ensiling this valuable by-product of syrup making. My bovines of all ages eat the ensilage made from this heretofore waste cane pomace as eagerly as they consume maize ensilage.

For Bagasse

The points technically to be observed are to carry the fresh bagasse as soon as run through the cane mill to the ensilage cutter, and have that machine set to cut fine (short) and pack into the silo promptly, before the pomace dries, adding as much, or a little more, water to the bagasse than the mill expressed from the cane stalks.

For ensiling bagasse any good cutter will answer, but this shredded waste, as it comes from the cane mill, requires sharper knives than whole cornstalks, and the knives must revolve close to the plate in order to cut the flaccid cane stalks into short lengths.

Bagasse ensilage may be wet after being run into the silo. I usually put a garden hose into the blower, which carries the ensilage from the cutter to the silo, thereby wetting it en route, using a spray nozzle on the hose. One way is as good as the other, if performed with care and judgment.

I not only conserve all the sugar cane on my own farms, but I buy of others to add to my own cattle food.

Every successful manufacturing plant is turning waste product into use, and thereby increasing income, and the time has arrived for the agriculturist to stop waste on southern farms.

Georgia. BENJAMIN W. HUNT.

In reference to sorghum pomace silage will say that I have tried it. For stock cattle that it is desired to get through the winter in any sort of shape it may pay to put it up. A large amount of water is required at the time of filling the silo and the very best you can do at packing, etc., will not be too much. There will be a much larger loss at the top and around the sides than with corn silage. The cattle will have to be starved to it, and if it is not in the very best condition will practically starve with it in the mangers, so I shall not put up any more of it.

Against Bagasse

I have twenty or thirty tons that I have saved over because the cattle would eat so little of it that I shall try again next winter.

Compared with good silage it is about as second grade straw compared with good hay. I once hoped great things from it but have been disappointed. If any one finds a method that will render it of fair value I would be pleased to hear from him through the columns of the Dairyman. What I say does not apply to the unsqueezed sorghum stalks. I have not tried them but suppose they would be all right. But labor, silo space, etc., are too expensive to fool with pomace silage. But I believe it would take storage cattle through the storms of winter and under special circumstances might be worth considering. It is very hard to cut and elevate. Maybe it could be shredded.

Missouri. A. J. MEYERS.

GUERNSEYS

Rich Neck Farm

Bull Dropped July 29th, 1917

Dam 7112.5 lbs. milk, 398.23 lbs. B. F., Class G. His sire's first three daughters have the following records with 1st calf: 511.01 Fat, 521.54 Fat and 617.23 Fat. His Dam 631.24 Fat. Dam is Granddaughter of the wonderful cow Pandora's Valentine of Rich Neck A. R. 1742. Price $500.00.

C. A. Hofferberth, - Sterling, Virginia.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.
17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

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Ridgewood Farms

WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr.

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicohn. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.

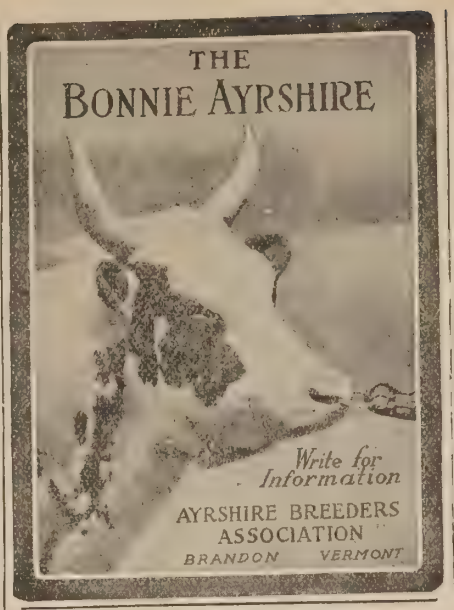
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High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.

F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.



Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle.



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Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

CRESTMONT FARM AYRSHIRES

Are offered in several choice bull calves. Handsomely marked, nearly all white, from tested cows in Advanced Registry. "Finlayston" and "Baron's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. W. H. Druckemiller, Sunbury, Pa.

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15,000 to 30,000 Pounds of Milk

Seventy-seven cows have been admitted to the Holstein-Friesian Advanced Register that have produced 7,000 to 15,000 quarts of milk in periods of ten months to a year. The capacity of the Holstein cow for milk is a matter of extraordinary interest.

If interested in

HOLSTEIN CATTLE

Send for our booklets — they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

BULL CALVES

We Have a Few Very Fine BULL CALVES FOR SALE

Sired by a 40-pound grandson of King Segis, from high producing, well bred dams. They are the kind that will sire producers. For prices and pedigrees write

BERTLEY FARMS, GLENWOOD, ILL.

FOR SALE

A WELL BRED BULL

Canary Paul Fobes Longfield 2d

Born July 29th, 1914.
Weight 2200 pounds.
Send for Pedigree.

Marblehead Farms, Manistique, Michigan.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

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A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

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Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

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WISCONSIN LIVE STOCK ADV. CO.
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FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 18 months old sired by King and Czar above mentioned. *Eight well bred cows,* safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis
Jas. McKone, Prop. Wm. Lucia, Manager.

CLEVELAND HERD

FOR SALE—One nine months old Holstein bull marked one-half white, good individual very large for age. Dam, a 29.08-lb. 3-year-old daughter of a 26.10-lb. cow. Sire a 30-lb. grandson of the $50,000 bull. Also a few young cows with large A. R. O. records, bred to freshen in January. They are daughters of King Segis Pontiac Veeman one of the greatest sires in the world. Prices reasonable.

H. R. WEISKOPF, CLEVELAND, WIS

Cold Spring Farm

A Young Bull Sired by Cedar Lawn Champion

the best son of Colantha Johanna Champion Dam, a promising 19-lb. 2-year-old. A splendid individual ready for service.

H. A. BRACE, LONE ROCK, WISCONSIN

Bulls—Bulls

ALL AGES

Johanna and Ormsby Breeding.

Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY
Sheboygan Falls, Wis.

Holstein Breeders' Sale Co.

Nov. 14th-15th, 1918

in their new $35,000 Sale Pavilion, Fond du Lac, Wis.

Dispersion sale of Ried & Dawson herd of 30 head, and Jas. Sales herd of 25 head. 25 head from Andrew Frank, and 11 head from John Puls including a 30-lb. bull. E. G. Race also consigns a 30-lb. bull. For catalogue apply to

S. H. BIRD, Sales Manager, South Byron, Wisconsin.

"The October Quality Sale"

100 Choice, Registered HOLSTEINS 100

Howell, Mich., Oct. 30, 1918

55 good young cows, fresh or due soon.
40 two-year-olds and yearlings, the majority of them bred.
2 heifer calves and 3 high class bulls.

The sale includes—

4 daughters of Grant Hartog Concordia, a double 32-lb. sire, bred to a 35-lb. bull.

3 daughters of Johanna Korndyke DeKol, sire of two 30-lb. daughters.

7 heifers, sired by a grandson of Colantha Johanna Lad, bred to a grandson of Pontiac Korndyke and Pontiac Pet.

2 daughters of King Hengerveld Palmyra Fayne, a brother to the 50-lb. cow.

10 cows and heifers bred to a son of Friend Hengerveld DeKol Butter Boy and a 35-lb. cow with a record of 1,344.3 lbs. butter in one year.

Cows with records as high as 27.2 lbs. and daughters of cows with records up to 33 pounds.

3 choice bulls from 30 to 35-pound sires and out of 25 to 31-pound dams.

Guaranteed free from tuberculosis and sold subject to sixty-day retest. Send for catalog.

The Michigan Breeders' Consignment Sale Co.
H. W. Norton, Jr., Mgr., East Lansing, Michigan.

Hazelhurst Stock Farms
Offer a Yearling Son of King Segis Pontiac Canary

who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.
H. H. Wickwire & Son, Hubbardsville, N. Y.

Holstein Bull At Bargain

Born May, 1918, more white than black, good lines, a fine individual. Sire, Count Piebe 152293, who has 34.43-lb. dam. Dam a heifer which we will test this winter. Her sire, Pabst Canary Pontiac Champion, he by King Pontiac Champion, the great Pabst bull. A half brother to this calf sold at National at Milwaukee for $1,200. Three half sisters averaged more than $600 each. Price $150 if sold within thirty days.
Pettis County Holstein-Friesian Co.
C. M. Long, Secretary, Sedalia, Missouri.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.
DR. J. A. ROBERTS STOCK FARMS, OCONOMOWOC, WISCONSIN.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. **His Dam:** Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4-year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.



AUCTIONEER

For pure-bred livestock and general farm sales. Write me before deciding on an auctioneer for your sale. Square dealing and satisfaction assured. References, State Bank of Honey Creek. Seven high grade 2-year old Holstein heifers for sale—bred to freshen this fall—$100 each. **Frank Drummond, Honey Creek, Wis.**

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. **E. A. POWELL, Syracuse, N. Y.**

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

When writing advertisers please mention Hoard's Dairyman.

DISPERSAL SALE

of entire herd of

64 Registered Holsteins 64

. . . and . . .

30 - Grade Holsteins - 30

Thursday, Oct. 31st, 1918

St. Joseph, Missouri.

Sales grounds at Lake Contrary take Union Line car going south. Sale starts promptly at 10:00 A. M. Write for catalog.

Western Dairy & Ice Cream Co.,
J. R. Fenner. **218 So. 5th St., St. Joseph, Missouri.**

THE PLACE TO BUY HOLSTEINS—Chas. L. Rupp's Dispersion Sale

INDIANAPOLIS, INDIANA, October 29, 1918

50 Registered Holstein-Friesians 50

Catalogs ready October 15th, and mailed only on application to
F. G. Johnston, Sale Mgr., 37 West Lane Ave., Columbus, Ohio

Beaumont Farm, Mt. Savage, Maryland

Our herd sire is KING COLANTHA RAG APPLE, son of Rag Apple Korndyké 8th. His dam is a 30.51 lbs. at three years; granddaughter of Colantha Johanna Lad. *Could you imagine a finer combination?* We consider him one of the best bulls Mr. Cabana ever sold. In build and conformation he is the admiration of everyone who sees him.

We have a son of his, born April 18, 1918, a beauty in every respect; beautifully marked, more white than black; straight in every way. He is out of Van Briseis Pontiac Asiatic 32.60 lbs., a granddaughter of King of the Pontiacs.

This bull will be sold at a reasonable price, and will be worth $2,000.00 when he is ten or twelve months old.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont, the First Tuesday and Wednesday of every other month,** Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*
Address The Purebred Live Stock Sales Company.

---

4 FEMALES 4

We offer four cows due to freshen this fall and early winter. Good individuals, well marked and well bred. One in calf to a 31-pound son of King of the Pontiacs. Herd free from tuberculosis. These are priced to sell.
CEDARDALE STOCK FARMS, O. A. Thomas, RUTLAND, VT.

START

Or increase your herd of Holsteins while they are on the bargain counter. Send for our free price list of 100 head of choice females that will double and treble in value in the next few years over the prices we are asking. If you need a bull send for our bull list.
WOODLAWN FARM, Sterling, Illinois.

PUBLIC SALE

MONDAY, OCT. 21

65—HEAD—65 REGISTERED HOLSTEINS

Complete Dispersion of the Famous BLACKBURN HERD

25 big, strong, fresh cows and nearby springers, 20 big 2-year-old heifers, bred to my 31-lb. herd sire and due to freshen this fall; 5 bulls (including my 2-year-old HERD SIRE) and several calves. Send for catalog.

Dr. A. D. Blackburn, Cuba, Ohio

Lisle Farms Co.

OWNERS

Het Loo Pietertje

World's Champion Jr. 2-year-old.

Holstein Bull Calves of very best breeding.
Write for bull sale list.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West of Chicago C. B. & Q. R. R.

Buffalo Creek Farm

OFFERS A SON OF

Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. **Albert R. T. Lillie, Supt., Arlington Heights, Illinois.**

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.
Sale Catalogs Printed **Live Stock Printing Co., La Grange, Illinois**

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

No. 1 born Feb. 17 almost white, his dam has A. R. O. rcd. of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now on yearly semi-official test and will complete records this fall and winter. Nearly every cow has completed cow testing records for three years and has produced up to 600 pounds of butter. These cows are never pushed to the limit. The bulls offered are sired by bulls secured from the E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butter. Bulls are heavy bone, straight, well marked and large for their age. They will and must please. We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby. Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junior herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

His Six Nearest Dams Average 29.31 Lbs.

HOME FARM — HOLSTEIN FRIESIANS

A beautiful son of KING KORNDYKE SADIE VALE 24TH from 26-lb. dam who is a daughter of Prince Segis Korndyke from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A card will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related to King Segis Pontiac Count and Colantha Johanna Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. **Otto Bradenburg, Mgr.**

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

OCT. 24, 1918

At Howells' Sales Pavilion

5th ANNUAL SALE

90 HEAD OF 90 Registered Holsteins

Mostly Milch Cows with good records consigned by 16 Livingston County breeders.

HOWELL SALES CO.

OF LIVINGSTON COUNTY

Catalogs Oct. 5th. Jay B. Tooley, Secy.

HOWELL, MICHIGAN

Bull Calf, Born Jan. 6, 191

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.2 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.

Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.2 butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Michigan

The Traverse Herd

This is the chance you have been looking for. We will se a few, good A. R. O. cows. One with 27 18 in and 110.85 in 30 days. Three others above 24 lbs. Come and see them or write for descriptions an prices, but *hurry* for they will go quickly. Als a few bull calves for sale, the kind you will b proud to own. Pedigrees and prices on appl cation. State age desired.

Traverse City State Hospital, Traverse City, Michiga

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich

Bloomingdale Herd

...HOLSTEINS...

For twenty-five years have been bred for large production and good individuality. Segis Fayne Johanna, the first 50-lb. cow, is of our breeding and made her first 30-lb. record while in our herd. Many of the large producers have been bred here. Foundation stock a specialty.

A. A. Courtelyou, Somerville, New Jersey

MILFORD MEADOW'S

CONSIGNMENT

To the Lake Mills Holstein Sale, October 22-23, 1918



A 31.77-lb. son of Mutual Fobes Longfield De Kol 82959 and Monona Josephine 157363.

A 31.77-lb. bull and brother to M. M. Rag Apple Fobes that sold at the last National Sale for $1,100.

M. M. Rag Apple Longfield is a promising individual sired by Mutual Fobes Longfield DeKol (82959), a well known show bull and son of Fobes Tritomia Mutual DeKol and Lady Longfield 4th's Homestead Lass, a 30-lb. daughter of Homestead Jr. DeKol.

The dam of M. M. Rag Apple Longfield is Longfield Monona Josephine, a 31.77-lb. cow that has increased her record every time she has been tested, having 15 lbs. at 2 yrs., 21.39 lbs. at 3 yrs., 25.50 lbs. at 4 yrs., and 31.77 lbs. at 6 yrs. She is a daughter of Monona Sir Dutchland Pontiac whose dam was a full sister to the dam of King of the Pontiacs, the only double century sire of the breed.

Another good bull calf in this consignment is a son of Lilith King of Rock, a 29-lb. son of King Segis Pontiac, and a 19.94-lb. daughter of Canary Fobes Bessie Homestead whose daughters are going strong.

In addition to these two young bulls we are consigning six splendid cows and heifers due to freshen about sale time to our own herd sires.

MILFORD MEADOWS STOCK FARM, Lake Mills, Wis.

LAKE MILLS

Holstein Sale

At Lake Mills, Wis.

October 22-23, '18

Some of the Best Cattle Ever Offered in the Lake Mills Sale.

The Best Bred. The Highest Records. The Most Valuable.

A 30-lb. cow and two of her Daughters.

A fine 27-lb. 5-yr.-old bred to The King.

A beautiful 34-lb. heifer whose dam, grandam, and sire's dam all have two 30-lb. records and whose dam will in all probability have a much larger record at next freshening.

A pair of twin heifers, perfect individuals, granddaughters of King Segis Pontiac Alcartra and from a 30.16-lb. dam.

A 31-lb. daughter of King Segis Champion and bred to the 41-lb. bull, King Valdessa Pontiac.

Some Well Bred Show Cattle of both sexes. Prize winners at the Fairs.

Classy Bulls hard to beat. A 33.69-lb. yearling from a 34.59-lb. son of Sir Pietertje Ormsby Mercedes.

A son of King Segis Pontiac from a 27-lb. 2-yr.-old.

A grandson of Johanna McKinley Segis from a 31.05-lb. daughter of King Pontiac Champion.

A 28-lb. son of Sir Korndyke Bess Pietertje.

A 31-lb. son of Mutual Fobes Longfield DeKol.

Special Feature of the Sale

Dispersal of the F. Lee Norton Herd, Racine, Wis. 60 Head Choice Cattle Headed by a fine 2-yr.-old, King Alcartra Pontiac Snowball, a 33-lb. grandson of the $50,000 bull, King Segis Pontiac Alcartra. He will be sold, and is an exceedingly well bred bull. Not many around here like him.

21 A. R. O. cows in this herd, with records up to 30 lbs. Some right good prospects for wonderful records. Write for Catalog to

Frank H. Everson, Mgr., Lake Mills, Wis.

Auctioneers: Haeger, Kelley, Mack. S. T. Wood in the box.

Pabst Bargains

No. 1—A 32.02-lb. grandson of King Pontiac Champion and Johanna McKinley Segis. This calf's sire is a 38.03-lb. bull that sold for $2,500 and his dam is a most promising young cow, having a Jr. 3-yr.-old record of 32.02 lbs. butter in 7 days.

No. 2—His sire is by King Pontiac Champion and out of Hengerveld Colanthus, the cow that sold for $1,500 at the last National Holstein Sale, and his dam is a 26.07-lb. cow having three very creditable A. R. O. daughters.

Here is a splendid opportunity to get up with the blood of King Pontiac Champion. Write for further particulars.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.



Walcowis Ollie Hartog 240660.

Sire—Iowana Sir Ollie who is sire of Walcowis Ollie Mooie, state record junior two-year-old for seven and thirty days. He is a son of the famous 31-pound cow, Ollie Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—27 pounds from 624 pounds milk in seven days. Best day's milk, 101.5 pounds. A granddaughter of King of the Pontiacs and first prize winner as a three-year-old at the 1913 National Dairy Show.

Calf is well grown, a very good individual and reasonably priced. Have other younger bulls for sale. Write or come and see us.

Walcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

Holstein Cattle

In Carloads or Less

ranging from 6 months to 8 years. Telegraph, 491 East Troy Exchange.
N MURPHY, R. 27, Eagle, Wisconsin

Two Ormsby Bulls

1. Born Jan. 1, 1918. Sired by a 29-lb. grandson of Ormsby Hengerveld De Kol. Dam, is a 21.07-lb. daughter of Sir Ormsby Hengerveld De Kol. The bull is a grand individual and mostly white. Price $200. Secured your station. No. 2. Born Feb. 15th, 1918. Sire as No. 1. Dam has a record of 19.74 lbs. butter. This is a heifer. Bull is a good individual and mostly white. Price $150 delivered. For further particulars and pedigree address
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The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

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Females of all ages. Some are springers and some are bred to the above sire. Some of the cows have A. R. O. records up to 27 lbs. in 7 days.

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Bull Calves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeKol 3rd,* a grandson of *Sarcastic Lad,* the sire that won Championship at the World's Fair—and by *King Segis Pontiac Polkadot 8th,* a grandson of *King Segis Pontiac* and *Johanna McKinley Segis.*

Write at once or come and see me. **W. W. QUACKENBUSH, West Salem, Wisconsin**

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
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All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

A. R. O. Holstein Cows and Heifers

In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
WISCONSIN STAR STOCK FARMS, ED. M. SCHULTZ, Hartford, Wis.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.
J. D. McDONALD, WEST SALEM, WISCONSIN.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.**



SPEED
Is Winning the War

When the news was flashed over the wires, "America Declares War," the answering thought of the people of the world was the one word—"speed."

That was their conception of our characteristic national trait—"speed."

Coincident with this news came the demand upon America's farmers to feed the world.

This demand continued to increase calling for the utilization of the most efficient time saving and production increasing methods.

The value of the motor car to farmers cannot be measured in dollars.

It has won its place as a necessity together with the reaper, the plow and other modern implements.

The economy, steady performance, and all 'round usefulness and complete satisfaction of the Overland Model 90 car has earned the universal esteem of American farmers.

Overland cars everywhere are helping their owners speed up the work of a nation at war, dependably, thriftily, saving time and economizing man power, alike for the captains of industry, the workers in industry, and for the farmers, large and small, and the farm workers.

Everywhere lines of communication between the great agricultural sections and the great industrial centers are being kept open by time-saving, man-saving Overlands.

We want every Overland built and delivered during the war to contribute its share to the war-speed of the nation.

And speed is winning the war.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., OCTOBER 25, 1918. — Number 14

Co-operation and a New Agriculture

E. R. EASTMAN, New York.

EN the British marched out of Boston in 1775 to fight the Amer- s at Lexington, their band was ing "Yankee Doodle" in derision he Yankees; but when they re- ed some hours later what was left he band was sadly playing the old lish tune "The World is Upside m".

ow fitting the same tune would o the whole world situation today. er in the history of civilization there been such an overthrow of ost all of the standards and cus- s by which we have been guiding business and our lives.

specially is this the case in Amer- agriculture. You can travel up down the land, North, South, t, or West, and no matter where go the same unsettled and un- sfactory farm conditions are id. A feeling of uneasiness and est among farmers is every- re. Nor is this all due to the war. war itself has simply brought to limax and forced upon the atten- of the farmer a series of evils in icultural affairs that have been mulating for many years. Up to 4, when the war began, farmers been selling many farm products w the cost of production and were to continue to do business only by ucing expenses to a minimum, by owing in their own labor and that their families free of charge, and many cases living on capital ac- ulated in better times. These con- ons were particularly true of the ry farmer.

The Push of Necessity

hen the war came and the farmer nd himself between the upper and her millstone. On the one side he s given the tremendous responsi- ty of raising food and clothing plies for almost all of the entire rld. He was told that "food will the war" and that he must raise food.

n the other side, farm machinery, tilizers, in fact all farm supplies nediately jumped in price and ne of them became impossible to ob- n at any price. Farm labor, al- dy at a minimum, began to leave farm attracted by the big wages d by war factories, and later to present the farmer in the trenches. as farmers were called upon to nost double production with only ut half the labor needed to do it. top of this and worst of all, mar- ing conditions were in such shape that although the consumer was paying enough for his supplies, the farmer was selling for less than cost of production.

At last the farmer saw what a few far-sighted leaders had seen and preached for years—that if American agriculture was to continue to prosper, something must be done.

What was done?

In the first place and as a first consideration, our country and our allies needed food and food there was, is, and will be. Profit or no profit, every red-blooded farmer has worked and is working as he never worked before to insure sufficient production to help win the war. So well has the American farmer responded to this great responsibility that he has won the admiration of all the world.

In the second place, history will record the last four years as the great turning point in American agriculture, the beginning of the co-operative movement that is destined to revolutionize our American farming and our whole business system.

Turning the Corner to Co-operation

Co-operative organizations have sprung up literally by the hundreds in almost every section of the country, and even though these organizations were formed hastily and have grown rapidly, they are built on foundations of business principles that mean they are here to stay. Already these organizations deal in nearly everything that touch farm life. Some are strictly buying co-operatives, some sell some single farm product, others do both buying and selling, and others go still farther and bring the influence of their united membership to bear upon many general problems that touch farm life.



CHILDHOOD'S HAPPY HOURS

Taking the business of selling milk as an example; it is only a little over two years ago since the dairy farmer had absolutely nothing to say about the price of his product. The dealers were in absolute control of the business with the result that most farmers were selling milk for less than the cost of production. Today there are at least sixteen milk producers' associations in control of the milk which goes into nearly every large city of the country, organized to sell their members' milk and to get a fair price for it.

A Short History of the Dairymen's League

The Dairymen's League is by far the largest of these dairy organizations and may be cited as a typical example of the rapid growth and success of the co-operative movement. This organization began work about eleven years ago but no one except a few patient, far-sighted leaders had any faith in it. It everywhere met with the old cry that farmers would not stick together. In fact, past experience of similar organizations would almost justify this conclusion. Up to the spring of 1916 this organization, after years of hard, discouraging labor, had only 13,000 members representing 190,000 cows, and many of these members had little faith and could not be depended upon in case of trouble.

Then in the spring of 1916 came the Chicago milk strike, in which the Chicago dairymen surprised the world by their ability to stand together until they were rewarded by success and recognition. Encouraged by the success of the Chicago producers and driven beyond endurance by the prices offered by the dealers, the Dairymen's League set its own prices for the contract period beginning October 1, 1916. The dealers refused to accept them and there followed a contest perhaps the most remarkable in the history of agriculture in eastern United States and in which the League won a complete victory.

The strike lasted for two weeks and the longer it lasted the more determined were the dairymen. In some cases it was difficult to get the men to release their milk even after the dealers had bought it on League terms. Farmers by the hundreds left their work and attended enthusiastic meetings, some of which were the largest ever held in the community. Others spent days and even part of the night canvassing their neighbors to get them to join the League and stop sending milk. Men who never before had said a word in public, made enthusiastic and able speeches at meetings, encouraging their weak-kneed brothers to hold on. Automobile tours with hundreds of machines in line made trips across the counties, and great torchlight parades led by bands marched the village streets. This great demonstration held throughout the New York district marked the beginning of a co-operative movement among dairymen that nothing can stop.

What It Accomplished

Two years ago, before the contest with the dealers, there were 13,000 members and 190,000 cows; today there are 58,000 members owning about 700,000 cows. Other similar organizations have been organized in all parts of the country and have made similar growth.

(Continued on page 452)

Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Hairless Pigs

There are born every spring a considerable number of hairless pigs. Practically every county in Wisconsin from which we have had reports and where swine raising is developed has had cases of this malady.

Goiter, or an enlarged thyroid gland with a disturbance of its function, is the cause of hairless pigs. Both sow and young are afflicted with enlarged glands.

The enlarged glands are deficient in iodine, which is essential to the proper action of this gland and the production of normal young.

Iodine supplied the female breeding stock during the gestation period will prevent this trouble. One-third to one-sixth of an ounce of potassium iodide per 100 pounds of feed will prevent hairless pigs. Do not use more. The potassium iodide can be procured at any drug store. It should be powdered to a meal, as fine as flour, and then mixed into 100 pounds of the feed. There is no way of telling beforehand whether or not a sow has goiter.

Rearing the breeding sows with plenty (25%) of good roughage, such as alfalfa or clover hay, in the ration, and not too much protein may do much toward preventing this trouble and avoid the necessity for the use of the potassium iodide treatment later. But if you had hairless pigs in the spring of 1918 it will be good insurance for a crop of live pigs in the spring of 1919 to use the potassium iodide treatment the coming winter. —Wisconsin College of Agriculture.

It is impossible to over-produce any line of essential food.—U. S. FOOD ADMINISTRATION.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The Hay Fever Season

The meadows gleam with molten gold,
That farm boys know as golden rod.
And summer, growing dim and old,
Throws frost across th' crumbling sod.
There is a change—a saddening change,
Bare stand the stripped and ghostly trees,
(This nose of mine is like a rose,
The red, red kind the south wind blows)
Excuse me—while I sneeze!

At dusk, in every farm house there
Across the valley and afar,
The home lights glimmer, faint yet fair,
Each one a sort of holy star.
It is a new and different world,
A new call on the evening breeze.
(I weep and sigh and groan and cough
And bark my blooming glasses off,
Excuse me, while I sneeze.)

The only way they could get that farmer's son to rise on time in th' morning, after he got to camp was to substitute a rooster for th' regular bugle.

Getting Him Down to Earth

The young college boy had been working his way on the dairy farm during a particularly beautiful summer. As Dairyman Jinks came through the barn door, he walked over to meet him.

"I could stay on a farm forever," said he, "see how the dusk settles upon the hills. Note that exquisite mauve and gold in the western sky. See the rich green and greys. And the fields of grain are waving so softly in the lush twilight."

"Son," said the dairyman, "all of that may be true, but would you mind feedin' th' hogs?"

"You get out of a farm what you put into it," remarked Hi Muggs, of Cloverhill Dairy, "but so many of us only want to do th' harvestin'."

Little Helen and her mother were takng a train ride. It was early in the morning and what seemed to be a freight suddenly loomed on a siding. A man with a wrench was mending something under one of the trucks.

"That, my dear," said mother, "is a milk train."

"And, oh look!" cried the little girl, pointing to the man, "there's somebody milking it already."

Heard in a Southern Town

"Rastus, are you patriotic? The government is asking you to raise more hawgs and help win the war."

"I sho is raisin' 'em boss,—twict as many."

"Then you are helping the Food Administration?"

"You bet I is, suh. De mo' I raise de mo' I eats. Mah food ain't been better since I kin remember."

The Sun Keeps Shining

No matter what the war may do,
No matter how the shells may fly.
The up-above is mighty blue—
The sun is shining in the sky.
So long as there are bumper crops,
So long as there is heaps o' grain,
'Twill find us—when th' fighting stops,
Serene and hopeful once again.

I've driven over miles and miles
Of farm land, shining in the sun.
And through th' weeping, there are smiles,
That make th' big job more like fun.
That warm flood on a fellow's back,
Th' golden dics there overhead,
There's not a thing the acres lack
To give us bounty and th' bread.

The sunshine helps a lot, I'd say,
To keep us optimistic, too.
It sort o' drives th' gloom away,
That sometimes gets th' best of you.
May it shine down far "Over there,"
On every fighting lad of ours,
And keep their cause supremely fair,
Through all th' solemn battle hours.



You Can't Afford This

No farmer is rich enough to feed 60-cent butter to his hogs or his calves in partially skimmed milk.

It's a waste of money.

It's a waste of food.

It's a waste that your pocketbook, your neighbors, your country, all condemn.

But it's a waste that is going on today on every cow-owner's place where an inferior or half-worn-out cream separator is being used, or where the farmer is skimming by the wasteful "gravity" method.

And it's a wholly unnecessary waste, too.

Because a De Laval Cream Separator will soon save enough cream to pay for itself, and put a stop to all the waste of cream and time and labor for many years to come.

There is no other cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, freedom from repairs, and durability. It's the world's greatest cream saver.

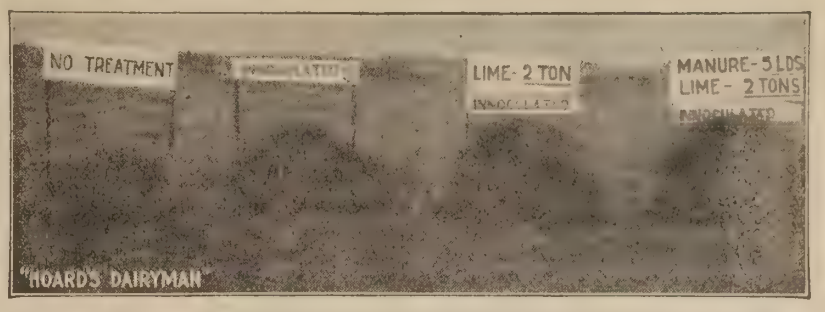
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165 Broadway, New York 29 E. Madison St., Chicago

[h]e Why, When, and Where of Acid Soils and Liming

EMIL TRUOG, Wisconsin College of Agriculture



THE VISIBLE RESULTS OF AN EXPERIMENT IN GROWING ALFALFA

Lime not only corrects acidity but it insures successful inoculation, and on this particular soil manure made a decided improvement in the crop. However, the soil was acid and the lime seems to have been the big essential. The Truog acid test will measure the amount of acidity in the soil and gives one a better idea of the correct amount to apply per acre.

[F]R two-thirds of the soils of Wis-[c]onsin are acid and will have to be [t]reated before they can be made to pro-[d]uce as they should. Food production [i]n Wisconsin at the present time can [b]e increased more through the proper [u]se of lime on the acid soils than any [o]ther available means. Many farmers [a]re fully recognize the need of lime as [i]ndicated by the fact that during [l]ast year the farmers of Wisconsin alone have probably used over [1]00 tons, or more than double the [a]mount they ever used before. Lack [o]f shipping facilities and scarcity of [c]ars prevented an even greater use. [I]n order to apply lime profitably and [e]ffectively, a clear understanding of [t]he cause, nature, and relation of soil [a]cidity to plant growth is very helpful and necessary.

What is Soil Acidity?

[T]here are few subjects in agricul-[t]ure about which there has been as [m]uch confusion as about soil acidity.



TRUOG SOIL TESTING OUTFIT WHICH DETERMINES THE DEGREE OF ACIDITY AND AMOUNT OF LIME NEEDED

[T]here is, however, nothing mysterious [a]bout soil acidity and it is not difficult to get a clear understanding of [s]oil acidity is due to an excess of [t]he acids over bases in the soil.

[S]oils and in fact most of the materials and substances in nature consist [o]f a combination of acids and bases. [C]hemists have found that all known [m]aterial can be broken up into simple [s]ubstances called elements. Some ma-[t]erials are composed of two elements [w]hile some of many more. After ana-[l]yzing all known materials they have [f]ound that there are about 80 ele-[m]ents out of which by various com-[b]inations all known [m]aterials are formed. [I]ron, gold, phosphor-[u]s, potassium, nitro-[g]en, oxygen, carbon, [c]alcium are ele-[m]ents and combine to [f]orm different com-[p]ounds. Some elements [f]orm acids when they [c]ombine and the others [f]orm bases. Common [v]inegar and muriatic [a]cid are typical acids. [S]oda is a base. Soaps [a]re usually alkaline [d]ue to the excess of [a]lkali they contain. A [s]imilar thing about an [a]cid and a base is that [t]hey always combine [w]ith each other when [t]hey come together and [f]orm a neutral com-[p]ound called salt. Com-[m]on table salt is [m]ade when hydro-[c]holric acid (muriatic acid) and the base sodium hydroxide are mixed together. If more acid is added than there is base with which to combine then there is some acid left over and the mixture is acid from the excess of acid. If there is an excess of base, then the mixture is basic.

As was stated, the particles of soil consist of a combination of acids and bases. The soil particles of upland soils are largely mineral salts. Now when there is an excess of acids over bases the soil is acid. If there is a great excess of bases the soil is alkaline. Soil acidity thus simply indicates an excess of active acids over bases in the soil and hence can be corrected or neutralized by adding a base like lime.

Why Do Soils Become Acid?

All soils where the annual rainfall is 25 inches or more tend to become acid due to the more rapid leaching away of the bases than the acids. When water comes in contact with the soil, it dissolves the bases of the compounds that make up the soil to a much greater extent than the acid constituents. As a result from 200 to 500 pounds of bases, mostly lime, are leached out and washed away per acre annually in Wisconsin, while the leaching of acids is comparatively very small. The more a soil is cultivated the greater the leaching and the more rapidly does it become acid. Many crops also take out much more bases than acids from the soil and help to produce an acid condition. The formation of acid soils is thus not at all strange or mysterious and it is entirely natural for soils to become acid after cultivation for a number of years. Sandy soils leach readily and are usually acid even in the virgin condition. Virgin clay and silt soils are sometimes also quite acid.

Some fields which are situated at the bases of slopes or in the bottoms of valleys receive lime in the drainage and seepage water from the higher land and hence do not become acid or do so only very slowly. The higher parts of a field usually become acid first.

So far, purposely, nothing has been said about organic acids that are formed when green crops or manure are plowed under, or when dead vegetation of any kind accumulates. Many writers state that soil acidity is entirely due to organic acids formed in this way. In the case of upland soils our experiments have shown that the organic matter, and hence organic acids, may be removed and still the soils remain practically as acid as before, indicating that the acidity is due largely to mineral acids, formed by the removal of bases from the mineral salts as just explained. Some upland soils contain scarcely any organic matter and yet are extremely acid. It is to be clearly noted, however, that the acidity of acid peats and poorly drained soils is often due largely to organic acids. In well drained and aerated soils organic acids soon decompose and hence do not accumulate. Plowing under heavy crops of green manure like rye may produce an acidity due to the formation of organic acids. This acidity is temporary and usually disappears in the course of a year.

Why is Soil Acidity Injurious?

It is often stated that soil acidity is injurious because it directly attacks and injures the plant roots and directly affects the bacteria in the nodules of legumes where nitrogen is fixed. Results of our recent experiments do not agree with this. We find that when soils become acid the supply of available lime and other bases in the soil becomes too low to meet the plant's own need for these. An acid condition is simply the positive indication that the supply of available lime is getting low.

It is to be clearly noted that even acid soils still contain lime that is bound up with the soil acids, but since there is an excess of soil acids, all of which try to hold on to the lime, it makes it extremely difficult for some plants to get sufficient lime unless more is added to the soil.

In the processes by which plants build up the different compounds of which they are composed, various acids are formed that must be neutralized, or else the plant sap becomes so strongly acid that the growth processes are interfered with or stopped. In order to neutralize these acids, the plant must get sufficient lime from the soil. If the growth of legumes is lowered or stopped by a lack of lime or any other cause, then nitrogen fixation in the nodules by the bacteria is also lowered or stopped. The nitrogen which is fixed is a by-product or waste material of the bacteria in the nodules and must be removed by the plant in order for the bacterial activity to continue and make possible the fixation of more nitrogen. The legume plant is not able to remove this nitrogen from the nodules unless other conditions are such that it can grow normally and thus have use for this nitrogen.

Plants like alfalfa and sugar beets require large amounts of lime and have comparatively weak feeding powers and hence are affected greatly when a soil becomes acid. It requires about 100 pounds of lime carbonate to produce a ton of alfalfa. A ton of red clover requires about 75 lbs. Oats, rye, wheat, and corn require only about one-fifth as much lime as alfalfa. Cabbage, lettuce, and most all garden crops require large amounts of lime. Gardens should always be limed if the soil is acid. It is thus very easy to understand why some crops like alfalfa, clover, and sugar beets are affected by an acid soil much more than crops like oats and hay. Some non-legumes are affected just as much by an acid condition as the most susceptible legumes. Legumes like cowpeas and lupines are not affected any more than

(Continued on page 442)



THE EASIEST WAY TO APPLY LIME IS TO USE A LIME SPREADER

Experiments at the Ohio Station have shown that 2 tons of limestone are as efficient as 1 ton of quick lime, provided the former is finely ground. Limestone is considered finely ground when three-fourths of it will pass through a sieve having 100 meshes to the inch. When 2 tons of limestone can be purchased and spread on the soil at an equal or less cost than 1 ton of quick lime or 2,650 pounds of hydrated lime, the limestone should be used. Limestone siftings sometimes can be secured. Although rather coarse, there is enough fine material present to justify their use, provided they can be purchased at a price which will make it practical to use 4 or 5 tons per acre.—From Ohio Extension Bulletin No. 1.

Southwestern Dairy Notes

SANDERS SOSLAND, MISSOURI

CONSUMERS of dairy products in Kansas City and generally throughout the Southwest are paying the highest prices in history for butter, cheese, milk, ice cream, and other food commodities of the cow. Despite this, there has been no noticeable let-up in the consumption of dairy food, which is reflected by the fact that the demand far exceeds the production in this territory. Creamery butter at this writing is quoted in wholesale lots at 48½ cents per pound, making the price which the ultimate consumer must pay at 65 cents per pound. Milk retails at 15 cents a quart, and cottage cheese sells at 20 to 25 cents a pound.

Drouth in the Southwest accounts for the present extremely high level of prices. Pastures have been available for dairy interests in only a few scattered districts. The drouth period, extending over several months, was the most serious in the history of the Southwest. Dairymen normally able to carry their stock through the summer on the grazing areas in this territory were forced to make heavy purchases of feeds at the highest levels ever known. The abnormal weather conditions reduced the output of milk products. Several times in the last few months, when the drouth was at its most serious stage, close students of the dairy situation sounded a warning against an acute shortage of milk, but rather than permit such a situation to arise, dairy interests exerted themselves to overcome the trying feed conditions.

Usually, when a sharp advance is witnessed in the price of dairy products, loud complaints are heard among housewives. However, a better knowledge prevails among consumers as to the conditions affecting the dairy industry; also, there is a feeling that "we can't pay too much for our essential foods," as one woman expressed herself when advised of a further advance in milk and butter.

One of the important handicaps to the dairy industry of the Southwest —the lack of a plentiful supply of efficient dairymen—is being slowly overcome. There is a tendency among eastern dairy interests to migrate to the southwestern territory, particularly in Kansas and other important alfalfa and wheat growing sections. Great difficulty has been encountered by dairy interests in the New England States and in other sections of the East the past two years. Last winter, car shortage and the acute congestion of freight material on railroads delayed shipments of feed to the eastern dairy interests. Today, there is a serious shortage of bran and shorts in the New England States. The Southwest includes the greatest alfalfa producing states in the country, Kansas, Nebraska, Oklahoma, Colorado, and Missouri, while mill feeds are more easily obtained owing to the generous production of wheat here.

A few years ago eastern dairymen were reluctant to migrate to the comparatively new dairy sections of the Southwest, owing to difficulty in disposing of dairy products. Now, however, this difficulty has been overcome; large creamery manufacturies are beginning to dot the southwestern country, and consumption of dairy products has expanded with the enlarged population.

"Please, help me get a car of bran."

Such a communication or plea, which a few years ago would have been considered "one of the seven wonders of the world", today is common in offices of agricultural journals. Nor are such communications from dairymen looked upon with surprise; rather "ye olde editor" seeks information as to where some bran may be obtained. But the feed specialist and the editor himself are as much at sea as is the dairyman in search of the feed. Heretofore, millers were forced to plead with consumers to make a purchase of their product, but those seemingly "good old days" have passed, temporarily at least. Now it is the consumer who pleads with the miller or dealer, and in most instances the pleading is futile.

Besides communications from dairy interests seeking a car of bran, complaints are coming about prices, which are reported far out of line with the maximum schedule fixed by the United States Food Administration. The complaints are against retail feed dealers. One Missouri dairyman reports that he was forced to pay a price practically double the government maximum for a quantity of bran. This may be true in other dairy districts. The small retail dealers are operating under no government license, so are at liberty to charge as much as they can (or desire) for bran. With the present acute scarcity, dairymen are almost forced to pay the price the profiteering dealer demands. However, where possible, the small retail dealer should be ignored if the prices he quotes are far out of line with the government maximum. It is regrettable that steps have not been taken to curb this rapaciousness among small dealers. They deserve punishment.

Co-operative bull associations are gaining a foothold in Kansas. At a recent meeting of community dairy farmers at Bonner Springs, Kansas, the need for better bulls was emphasized.

"With the cost of milk production advancing, the need for better cows is imperative," declared Professor O. E. Reed. "Good cows are not for sale. When you offer a few cows for sale, they are not your best, and this is true of your neighbors, also of outside dairymen. The best cows are profitable to the owner and only the stock that is not producing as much as it should, is, as a rule, offered for sale. However, it is possible to obtain good bulls, and this is what we must purchase to build up our herds."

Several communities in the Sunflower State have banded together in the co-operative use of bulls. According to advices from leaders of the plan, it is proving successful.

Kansas and Oklahoma will have a fourth cutting of alfalfa hay, but the yield is not expected to be heavy. Southwestern states have suffered severely in alfalfa production this year, owing to high temperatures and an absence of moisture during the greater part of the growing season. With the growing season closing, students of the alfalfa situation are of the opinion that the entire production of alfalfa in the Southwest this year will be less than 50 per cent of normal. However, dairy interests have been blessed in one respect by nature, for the quality of the hay produced is leafy which makes it excellent for feeding cows.

A better supply of milk is promised Kansas City consumers by the recently installed dairy commissioner, L. G. Rinkle, a former college dairy professor. Dairy distributors offering unclean milk are being prosecuted, and already a noticeable change has been witnessed in the quality of milk offered. The larger distributors in the city, who supply practically 80 per cent of the total milk consumed by Kansas citizens, are installing sanitary machinery and are complying with other requirements of the health commission.

A friend of mine visited one of the army camps in this territory many weeks ago. He had occasion to seek a light lunch in a town near one of these camps, and, to his surprise, found he could not obtain a cheese sandwich. "The army authorities have forbidden us to serve raw cheese to soldiers," the dairyman was told, "so we are keeping none of this fo in order to avoid any difficulty." U on making further inquiry, this dai man learned that at the camp wh he was visiting, and at others in country, a ban had been put on use of raw cheese at army mess Only cooked and baked cheese co be served. Why? The surpri dairyman was told that raw che was suspected of having been a sou of the spread of disease, owing to ceptional bacteria content. But ban did not remain long in effect. the investigation of the governm authorities progressed, it seems t they found the cheese was not blame for the spread of disease, now the ban is a thing of the past. the new and victorious armies America are again eating cheese w out restrictions.

HIS BOY

SOME fathers, here on Mayville Road, have trouble with their sons;
The youngsters want to leave the nest—that's how th' story runs.
I know a lot of them that went—they liked th' city plan;
They wanted life and fun and sport to match th' other man.
But I've been lucky with my boy—he never asked to go;
He sort o' loves th' humble place where crops and blessings grow.

It's part of him, this patient way, of liking home an' me;
And there's his mother! Dotes on her, like flower to a bee.
I guess he'd rather have her kiss when night-time comes along,
Than all the avenues of light, their laughter, and their song.
That's something I could never get—how boys could go away
And leave a little mother, there, whose locks were turnin' gray.

This lad of mine is fond of plows, of silos, and th' herd,
He'll spend an hour down th' lane with any singin' bird.
The open fields are sweet to him—the clover a bouquet;
His chariot or coach-in-four, a wagon-load of hay.
And, all the while, I hear him croon contented little songs
That make me think th' heart of him to me and ma belongs.

We go for walks through pastures fair, festooned with apple trees;
Just him an' me, without a word, th' clover to our knees.
And I can tell, by how he looks and how he holds his head
And how he breathes th' clean, pure air, the boy is country-bred.
He loves th' dignity of soil—the splendor of th' hills,
Th' music that is only found where there are mountain rills.

But, best of all, the mother love—that keeps him always true:
He folds her in his strong, young arms, th' same as sweethearts do,
And kisses her, and pats her head, and smiles across at me,
As if to say: "I love her, too, and claim my share, you see!"
Some fathers, here on Mayville Road, have trouble with their sons;
The youngsters want to leave the nest—that's how th' story runs.

—*W. L. Larned.*

Oregon State Dairy Council

HOARD'S DAIRYMAN:—The da cow as "queen of patriotic worke is being exploited in Oregon. stands with new dignity for she rivaling Mary Pickford and Cha Chaplin in the publicity she is gett

The Oregon Dairy Council ha been in existence long but it is do things. The dairy situation reached such a serious stage in gon that something had to hap and so a short time ago a few dea and producers in various lines of industry met with representatives the Food Administration, the S Dairy and Food Commission, Bureau of Health, and Oregon A cultural College and formed council.

First on the program there c the educational campaign. The pe had been cutting down on the us milk to such an alarming degree the health of the children of the s was endangered. Oregon has a h health standard and an exceedi low infant mortality rate. It was purpose of the council to keep standard high and that death low.

Headquarters were secured and publicity commenced. The co-opera of the Food Administration, of schools of the city of Portland, librarians, the home economics te ers, the women's committee of Council of National Defense, and Parent-Teacher Associations was cured and this co-operation was just "talk". It was real, active, ea help. Everyone "got busy". Wise such as Professor E. V. McCollu Johns Hopkins University, He Hoover, and others, were quote showing that milk is absol necessary as an important part o diet. Specialists were referred t showing that diseases of va kinds attacked the children wh not have sufficient milk. The co begged the people not to cut dow milk order but to increase it and told the reasons why and told the plain language.

Then it was shown how, even a advanced price, milk is cheaper any other food in point of nutri Then came the arguments that why the herds of Oregon mus saved from slaughter. The p commenced to think as they neve before. Milk all of a sudden bega assume a new importance. Ever talked milk and dairies. Before had said, "The price of milk is g up. We'll cut it out. The milkmen profiteers." They had never stopp see the milkman's side of question. They didn't think of high wages he had to pay his he the immense price he had to pa feed.

The dairymen who had been sla tering his cows did some thin too. He stopped and listened. caught a vision of the millions of

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Milepost in Guernsey Progress

E. A. ONSRUD, NEW HAMPSHIRE

RNSEY Day, as celebrated by e New York State Guernsey lers' Association at Tarbell s, New York, September 4, is a ct feature in Guernsey develop- circles, the effects of which are asurable. New York is one of eading Guernsey centers in the ry. Since the first introduction e breed to America, the Guernsey held a strong foothold in this and today there are within its daries more than 1,500 pure-bred nsey bulls owned and used by en- astic and prosperous breeders. ng these are some of the most l bulls of the breed, and hun- of the smaller herds have the l of these sires. Splendid produc- records such as those of Lang- r Nancy and Linden Girl of Har- Hill 3d are constantly attracting ttention of the Guernsey world. vancement has been the slogan e state association and with the nce of a hard working and ca- executive board this keynote is transformed into action. Two annu- nter meetings are each year, one at ell in connection the Farmers' Week he other in differ- parts of the state. e meetings are red by lectures talks by special- nd leading breed- In addition, annu- summer meetings held at the farm s of leading lers, where op- nities are given member and vis- to see what the fellow is doing. No argument can be offered at the winter ing is so effective in demon- ing the merits of the Guern- as a look at a good Guern- erd and a personal talk between ler and prospective breeder. In summer of 1917, the New breeders were fortunate to be tained by C. H. Mackey, Har- Hill Farm, the home of Imp. er's Galore and his famous hters. They were no less royally tained this summer by Gage E. ell, a breeder who can show, bly as no other Guernsey breed- the state, the results of almost n years of selection and consist- reeding.

ests began arriving before ten k in the morning and spent the noon in looking over the many ings stabling the pure-bred nseys, Percherons, Berkshires, he immense flock of poultry. The buildings are large, yet not massive, but conspicuous for their roominess, simplicity, and convenient arrangements.

After enjoying the appetizing family dinner, the members and visitors adjourned to the lot near the barn where seats had been constructed for the comfort of the guests.

Mr. Tarbell has studied Guernsey breeding just as he studied business methods in the financial world. He found that the selection of a sire was a tremendously serious step that required study and a look into the future. He selected Golden Secret of Pencoyd 23462, a true aristocrat in the dairy world, a son of Imp. Golden Secret 12599, out of Rose of Pencoyd 27300. Imp. Golden Secret is the sire of twelve Advanced Register daughters, among which is Nella Jay 3d 35082 that made 809.38 lbs. butterfat in class A. Rose of Pencoyd 27300 has three records, the highest of which is 865.72 lbs. butterfat in class A. She is a half sister to Nella Jay 4th 38233 by Imp. Golden Secret of Lilyvale 10028, which is by Imp. Golden Secret 12599. Golden Secret of Pencoyd 23462 traces four times to May Rose 2d 3251 P. S. Mr. Tarbell pinned his faith in this bull. He knew that a flock of white sheep will occasionally produce a black lamb; he knew that the records of the daughters would be the only absolute proof of the merits of the sire, but the new bull was full of promise.

Four years have passed since this selection was made. No time could be more opportune for Mr. Tarbell to entertain Guernsey enthusiasts. When the thirty daughters of Pencoyd's Golden Secret of Pencoyd 23462 were led into the ring, the visitors knew that there probably was no other Guernsey herd in the state that could exhibit as many daughters from one bull. They were shown the results of four years of consistent breeding and the faith in a sire.



THE TARBELL FARMS, NEW YORK, WHERE THE PICNIC WAS HELD

The daughters were marked for uniformly open ribbing, great length between the hip and rib, and for their straight backs. According to the barn records, the five daughters that have been tested exceed the production of their dams at corresponding ages by sixteen per cent and others are on test making very creditable records.

When Golden Secret of Pencoyd 23462 was shown with his son and grandson, Golden Secret of Tarbell Farms 36146 and Golden Secret of Tarbell Farms 2d, there was presented a splendid demonstration of transmission of type. The oldest bull is about six years old, the second about three, but the grandson is only a calf about four months old. All these have good length, depth, spring of rib, and quality. The two older bulls may probably be criticized for being a trifle small, but many breeders claim that quality is of greater importance than size, and these bulls have quality. Major Galore of Harbor Hill 47978 was added to the group and applause was elicited from the spectators.

Ten groups of cows, consisting of some of the foundation animals and their progeny, were next led before the visitors. The procession had been so planned out beforehand that the cattle were led into the ring from one door and led out through another one, and a continuous procession was thus kept up without any delay or interruption.

The groups were headed by Village Uter 32774 and her daughters, Village Uter 2d 59363 and Village Uter 3d 83365. Village Uter 32774 has records of 358.62 and 607.93 lbs. butterfat made at the ages of three and one-half years and five years respectively, and under retest has made 13,454.2 lbs. milk and 596.27 lbs. butterfat in 263 days. Village Uter 2d 59363 has a record of 8761.5 lbs. milk and 455.57 lbs. butterfat in class G.

The next group consisted of Village Evette 32773 and her two sons, Golden Secret of Tarbell Farms 36146 and Golden Pencoyd Secret of Tarbell Farms. Village Evette 32773 is a half sister to Village Uter 32774 and has three splendid records, the last being 13,314.2 lbs. milk and 680.87 lbs. butterfat in class A.

Among the other cows shown with their progeny were Quercus Maid 25643 with 428.30 and 697.95 lbs. butterfat in class G and class A respectively; Lisbeth of Tarbell Farms 50182, now under test and in 115 days has made 4,335.10 lbs. milk and 239.78 lbs. butterfat in class C; Imp. May Blossom of the Isle 49274, a daughter of Governor of the Chene 1297 P. S., with 9,252 lbs. milk and 506.87 lbs. butterfat in class B, carrying a calf 249 days of her testing period; Tarbell Farms Marjery 37954, with 399.78 and 586.35 lbs. butterfat at the ages of two and four and one-half years respectively. With the last group was shown the magnificent silver trophy, the Follyland cup, that was awarded by the New York State Guernsey Breeders' Association to Mr. Tarbell for the record made by Tarbell Farms Marjery 37954, the championship butterfat production in class B for the year 1917.

The last group consisted of ten members of the Clover Leaf of Charlton family.

The famous bull, Roy of Norwood 8141, a son of Strong Anchor 5849, that formerly headed the Tarbell Farms herd was represented by ten of

(Continued on page 445)



MEMBERS OF THE NEW YORK STATE GUERNSEY BREEDERS' ASSOCIATION IN ATTENDANCE AT THEIR ANNUAL OUTING HELD THIS YEAR ON THE TARBELL FARMS

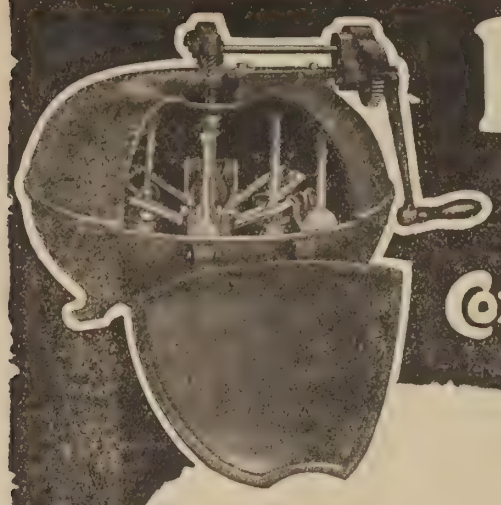


GAGE E. TARBELL SHOWING VILLAGE UTER. HER DAUGHTER, VILLAGE UTER 2D, IS IN THE BACKGROUND



SOME OF THOSE WHO HELPED MAKE THE NEW YORK STATE GUERNSEY BREEDERS' PICNIC A SUCCESS

From left to right, standing: C. D. Cleveland, B. P. Craig, F. M. Smith, W. B. Jones. Sitting: Professor H. H. Wing, G. E. Tarbell, C. H. Hechler, E. A. The two ladies between Mr. Smith and Mr. Jones are Mr. Tarbell's stenographer



Babcock Milk Tester Complete $12.00

Any Cow Owner Can Make Accurate Milk Tests With the Efficient and Simple Crepaco Babcock Milk Tester

There is nothing intricate about it—operated by hand. There is a size for every dairy, from the 2 bottle tester to the large size with 24 bottle capacity.

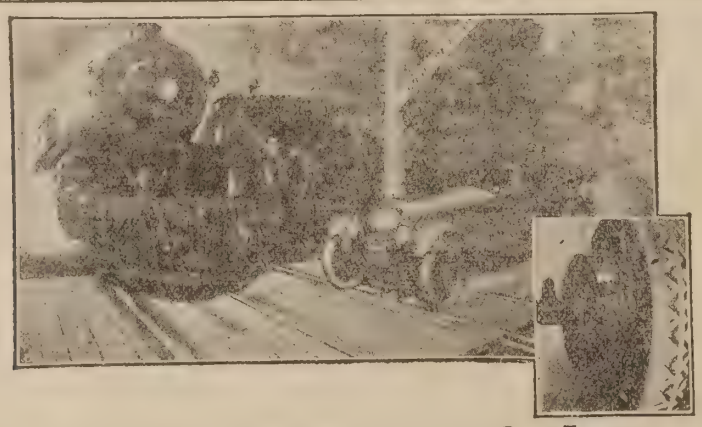
This tester is noiseless in operation, the high speed being attained without unnecessary friction, by means of a spur and worm gear with cut teeth. The full instructions which are supplied with each machine tell you how to make accurate milk tests.

Crepaco Babcock Tester complete with glassware as illustrated above—six bottle capacity costs only $12.00.

We have Babcock Testers as small as the 2 bottle size costing $4.25 complete with glassware.

Our big Dairy Catalog describes fully, all size Milk Testers and other appliances of value to the dairyman. Write for it TODAY.

THE CREAMERY PACKAGE MANUFACTURING CO.
68 W. Kinzie Street, Chicago, Illinois



The worst season of the year for automobile accidents

SEPTEMBER and October are the worst months of the year for automobile accidents. Here is the reason. All summer long you have been running your car. Naturally the brakes are worn. Then there comes an emergency when you must stop quickly—*but you find you can't.*

That is what is happening to so many motorists this month. That is what may happen to you.

Have your dealer inspect your brakes today

If they need relining have him put on Thermoid Hydraulic Compressed Brake Lining. Thermoid gives greatest security for three reasons.

1st—Contains over 40% more material and 60% more labor than ordinary woven brake lining.

2nd—It is Grapnalized, a special exclusive process which enables Thermoid to resist moisture, oil and gasoline.

3rd—Thermoid is Hydraulic Compressed. It wears down slowly and can be used until cardboard thin. Support the Brake Inspection Movement and have your brakes inspected today. Our Guarantee: *Thermoid will make good—or WE WILL.*

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At speed of	A car should stop in
10 miles per hr.	9.2 ft.
15 " " "	20.8 "
20 " " "	37 "
25 " " "	58 "
30 " " "	83.3 "
35 " " "	104 "
40 " " "	148 "
50 " " "	231 "

Will your car do this?

Thermoid GRAPNALIZED WONT GRAB OR SLIP — Thermoid HYDRAULIC COMPRESSED 100% BRAKE LINING — Thermoid GRAPNALIZED WONT GRAB OR SLIP

Makers of "Thermoid Crolide Compound Casings" and "Thermoid-Hardy Universal Joints"

The Why, When, and Where of Acid Soils and Liming

(Continued from page 439)

oats and corn, although they contain high amounts of lime. This is because their root systems have very strong feeding powers and hence are able to extract the lime they need even though the soil is quite acid and low in available lime. The oat plant is low in lime and has very strong feeding powers. It grows much better on acid soils than barley which is higher in lime and has weaker feeding powers. A liberal supply of lime is necessary to make good barley soil.

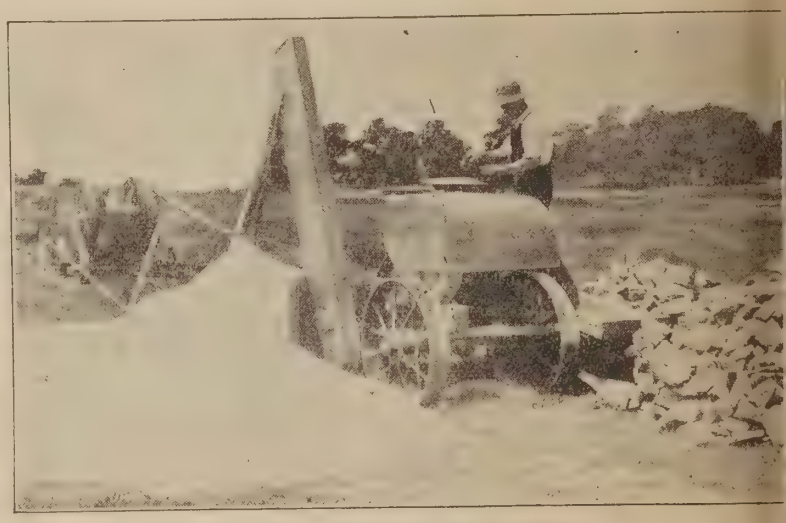
From what has been said it is apparent that whether or not a plant is directly affected by an acid soil condition depends on three factors: namely, (1) the lime content of the plant, (2) the rate of growth of the plant, and (3) the feeding power of the plant. The higher the first two factors are, the greater the need of lime and the more the effect of the acid condition. The third factor works in the opposite direction, that is, the stronger the feeding power the less is the effect of the acidity. The combined effect of all three factors determines what may be called a plant's lime requirement. If the lime requirement of a plant is high, then it is greatly affected by an acid soil condition. Alfalfa has a higher lime requirement than red clover and hence is more sensitive to soil acidity. Most of our principal legumes have quite high lime requirements. Since the successful growth of legumes is absolutely necessary to keep up the nitrogen and humus content of our soils, the importance of liming acid soils cannot be over emphasized.

The growth and multiplication of the legume bacteria and in fact all desirable soil bacteria is affected unfavorably by a lack of available lime and other bases due to an acid condition. A good supply of lime insures successful inoculation and nodule development of the legumes. It also makes the nitrogen, phosphorus, and potassium of soils more available. It favors early maturity, hardiness, and freedom from disease injury. It helps to prevent lodging of grain. Lime improves the physical condition of both heavy clay soils and sands by making the clays more open and workable and the sands more compact. An abundance of lime prevents the accumulation of soluble toxic or poisonous substances in soils. Lime is really the great regulator of soil fertility.

There are only a few cases where an excess of lime may be detrimental. Potato scab and possibly a root disease of tobacco are favored by a large excess of lime. When the potato s and root disease of tobacco are lo erly controlled, lime increases the r duction of both. Of the garden c the watermelon is the only impo one that usually grows better o acid soil. This may again be d plant diseases which live in thes and are favored by lime.

How Test for Soil Acidity and Need of Lime?

Since soil acidity indicates a due to a lack of lime, the test fo acidity tells whether or not lim needed. The litmus paper test been used a great deal in the pas this testing. To make this test, litmus paper is placed in close co with the moist soil and left ther five to ten minutes. If the paper t red the soil is acid. The great tr with the litmus paper test is th does not tell how acid the soil is hence how badly or how much li needed. When soils are only sli acid the results are often confu and unsatisfactory. The paper be handled with great care an fades when exposed to the light. bonic acid which is always prese



A PORTABLE LIMESTONE GRINDER

In localities where limestone is abundant, this product may be furnished to the farmer for a reasonable sum if, say, five or six co-operate in purchasing a machine fo crushing limestone and sell the limestone to the farmers. In many instances th freight rates are prohibitive, and it is only wise for farmers to form co-operative so cieties for the purpose of supplying themselves with ground limestone. It may be sai that there are conditions where it is cheaper for the farmer to purchase lime alread for use rather than to prepare it himself.

soils and is beneficial rather harmful may also affect the test.

A test has been devised by the er which indicates definitely wh or not a soil is acid and also i how acid the soil is and how lime should be applied. This t described fully in Bulletin 249 Wisconsin Agricultural Exper Station. The test is made with a ple apparatus which can be ca right into the field. Many c agents, teachers of agriculture in schools, farmers, and others inte in agriculture have purchased th paratus and are testing soils. If county agent is not equipp make the test, send about on cupful of your soil to Departm Soils, College of Agriculture, Ma Wis., and it will be tested fr charge. Samples of soil are bes by parcels post in clean paper wrapped in paper, or else in cloth sacks.

In taking this sample select a erage spot of a few square rod take from this small area a littl face soil from five or six pla that they will make altogether a ple of about one-half cupful. field varies widely in fertility pography, it is best to take seve tirely separate samples from di parts of the field. If part of th is high land and part low land, arate sample should be taken both places, and in no case shou soil from high land be mixed wi from low land in making up a

ı, as the results then will not mean ıything. Samples from different fıds should never be mixed. Different ırts of the same field and especially ıe different fields on the same farm ten vary greatly in acidity. Always ıst your soil before applying lime beıuse some soils do not need liming. is very profitable to put lime on id soils, but a waste of time and ıney to put it on soils that are not id.

ıw Much Lime Per Acre Should the Farmer Use?

The agricultural use of lime must considered as an investment on ıich the farmer is justified in excting a profitable return, and hence e rate of application should be such at the highest return may be sered for the money available for instment. The rate of application hich will give the most desirable net turn will depend upon the quality ıd total cost of the material applied, .e degree of acidity of the soil, the op to be grown, and the general ferlity and value of the land.

In the following outline there is incated in a general way the amounts lime which it is desirable to use unır different conditions. If lime is apıied in the rotation for clover and y beans as indicated, the other crops a general farm rotation will be lequately supplied. Alfalfa, sugar ets, canning peas, and many garden ops have a higher lime requirement ıan clover and other general farm ops. If a soil is acid, but otherwise a high state of fertility, it makes ossible the growth of a more vigorıs plant than on a poor acid soil. The ore vigorous plant is able to extract ınsiderable lime from even an acid ıil and hence the fairly fertile acid ils do not respond as much to liming s the poor ones. The more fertile id soils also, still contain more lime ıan the poor acid soils. Poor sandy ils when acid always respond most arkedly to liming.

The following amounts of ground mestone per acre are average applitions for the conditions indicated. urned lime should be used in onealf these amounts.

For Clover and Soy Beans			
egree of cidity*	Soils of poor fertility	Soils of medium fertility and cropped at least 10 to 20 years	Soils of high fertility and comparatively new ones of medium fertility
ery slight	1 ton	Usually not needed	Usually grow good crops of clover without the use of lime. If acidity is medium or strong lime will be beneficial.
ight	1½ tons	1 ton	
edium	2 tons	1½ tons	
rong	2½ tons	2 tons	
ery strong	3 tons	2½ tons	

or Alfalfa, Sugar Beets, Canning Peas and Garden Crops		
egree of acidity*	Soils of poor to medium fertility	Soils of very high fertility
ery slight	1 ton	May not be needed
ight	2 tons	1 ton
edium	3 tons	2 tons
rong	4 tons	3 tons
ery strong	Investigate carefully before seeding to alfalfa. If possible select less acid field.	4 tons

For method of determination see Bul. 249, Wis. Agr. Expt. Sta.

The question is often asked: "How ng will an application of lime last?" here is taken by crops and leaching rom 200 to 500 pounds of lime per cre annually. A ton will thus supply lime from four to ten years.

What Form of Lime is Best?

Pulverized limestone, marl, air laked lime, burned lime, and waste me of various kinds are on the maret and are used for correcting acid oils. These materials will neutralze the acids in a soil because they ontain either the free base lime, calium oxide, or else this same base comined with such a weak acid, caronic acid forming lime or calcium arbonate, that the soil acids can easly take the lime away and they themelves become neutralized or satisfied. This then allows the plants to get the ime they need. All except burned ime consist mostly of calcium carbonate. Gypsum or land plaster will not correct acid soils.

Burned lime is made by strongly heating ordinary lime rock so that the carbonic acid is driven out. When burned lime is used for acid soils it is first put in piles on the field and air slaked. By air slaking it again takes up carbonic acid from the air and forms the carbonate. The fresh burned lime is too caustic and difficult to spread without slaking. Fifty-six pounds of burned lime before slaking are equal to one hundred pounds of the pulverized limestone or carbonate. The carbonic acid which has no neutralizing power makes up the difference.

It should be noted that most of our pulverized limestones are really a mixture of calcium and magnesium carbonate and are sometimes called colomitic or magnesium limestones. This does not lower their value as the magnesium carbonate really has a little higher neutralizing power than the calcium carbonate.

Limestone should be pulverized to about the fineness of ground feed. Often it contains a little material that is about the size of kernels of wheat and corn. This is especially the case with the coarser grades and lime screening, resulting from the manufacture of road material. The fine material becomes available quickly. The coarser material furnishes a reserve that becomes available more slowly. The finer it is ground, the more quickly does it act. When ground very finely there is sometimes trouble due to blowing when it is applied. Good grades of ground limestone are now being manufactured by many firms and are on the market at a reasonable price. Small portable grinders are being operated by farmers to some extent in communities where limestone deposits exist.

There are large quantities of waste air slaked lime in certain places. Where this may be conveniently obtained in a fairly dry condition it is good material to use. Air slaked lime and burned lime are more soluble than ground limestone and hence act more rapidly.

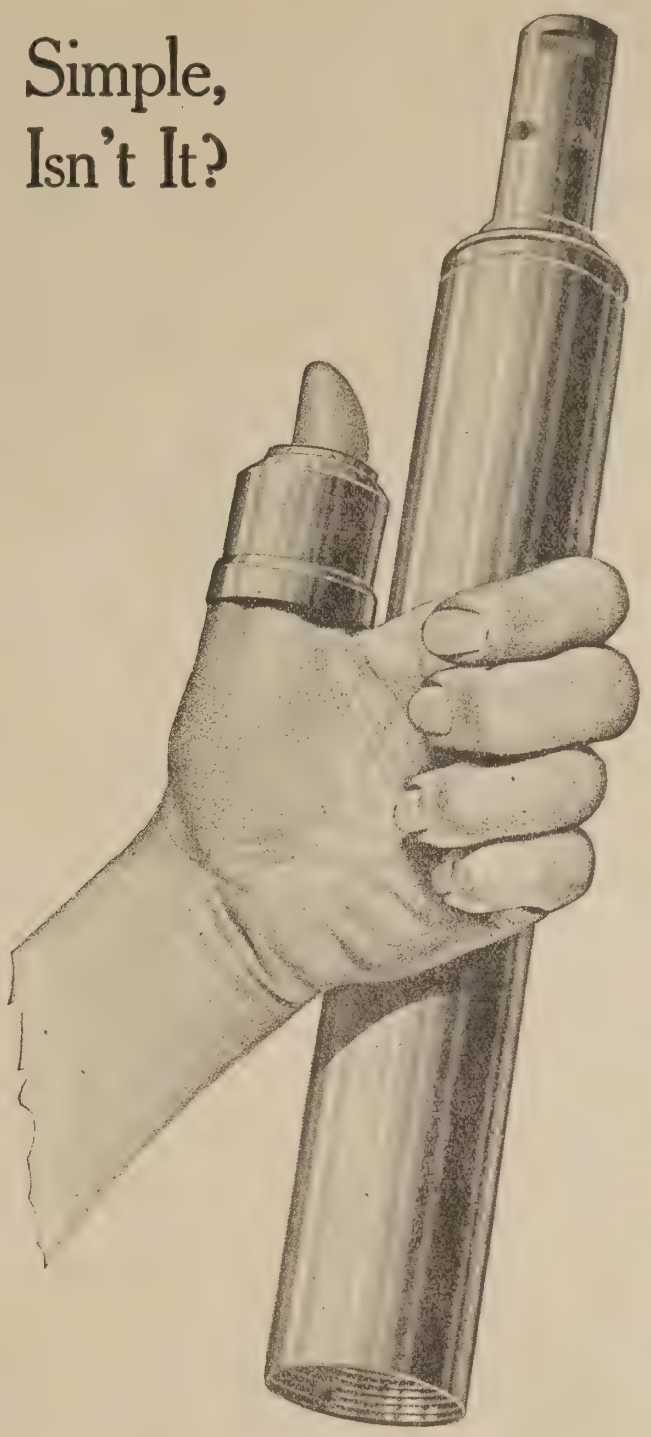
The most profitable form of lime for a farmer to use depends sometimes on how far it has to be shipped or hauled. That which is nearest at hand at a reasonable price should be thoroughly investigated.

How and When Should Lime Be Applied?

Where only small amounts of lime are used it may be spread with a shovel from the wagon or from piles. By making a few calculations and measurements the lime can easily be put on at any desired rate per acre in this way. A manure spreader may also be used. A little straw or manure is first put into the spreader to close the cracks. Where considerable amounts of lime are used, it pays to get a special lime and fertilizer sower which makes uniform distribution possible with the least labor.

It is always best to apply lime on plowed land that has been harrowed at least once. It should then be thoroughly mixed into the soil by harrowing or otherwise working the soil. Lime may be applied at any stage in the rotation. It is usually applied at the time the land is prepared for crops that have high lime requirements, like alfalfa, clover, soy beans, sugar beets, canning peas, and barley. It is sometimes applied a year before these crops are planted in order to have the lime well mixed with the soil.

A question often asked is: "Can



There is only one piece in the Sharples Tubular Bowl—no discs! Sharples Suction-feed Separator skims clean at any speed!

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West Chester, Pa., Chicago, San Francisco, Toronto

Sharples Milkers—used on half a million cows daily.

DC-61



Your Daughter and an Empire

can positively relieve you of the tiresome, irksome disagreeable task of milking. You and your sons can spend more time in the fields both morning and evening.

Empire Milking Machines are so simple—so easy to operate—that a boy or girl can milk the entire herd with it in less time than it took you and your hired hands.

Hard milkers or easy milkers—nervous or calm cows—large or small teats—even or uneven udders—make no difference to the Empire. It milks them all. And the teat cups stay on without surcingles.

The New Empire Super-Simple Pulsator has no piston. Nothing to wear and lose vacuum. Its action is regular and positive, gentle and soothing to the cow. Usually produces greater milk flow and lengthens period of lactation.

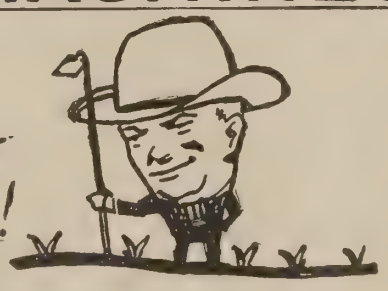
Learn the details. Have the Empire dealer in your locality give you a demonstration. Write for our 1918 Catalog No. 31,

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• • • •

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PEYTON BRAND
Real Gravely Chewing Plug
10¢ a pouch—*and worth it*

P. B. GRAVELY TOBACCO CO., DANVILLE, VA.

"GET A WITTE"
Kerosene Engine



Cash, Payments, or No Money Down. Operate at half the cost. Save $15 to $200, proven in my factory book, "How to Judge Engine"—FREE. Money back if not satisfied on my new 90-Day offer.—ED. H. WITTE, Pres.

Witte Engine Works 1641 Oakland Ave, Kansas City, Mo. 1641 Empire Bldg., Pittsburgh, Pa.

6% WISCONSIN FARM MORTGAGES
Prosperous Dairy Region.
Thirty years experience, best references. Ask for list.
HARRY D. BAKER,
Box A, St. Croix Falls, Wis.

When writing advertisers please mention Hoard's Dairyman.

lime be applied as a topdressing after the clover or alfalfa is up and growing?" Lime may be applied in this way, but it does not give as good results, by far, as when it is thoroughly worked into the soil. When lime is used as a topdressing, the more readily available, finely ground material or air slaked lime should be used. Topdressing works better on sandy soils than on clay soils because it works into the open, sandy soils more quickly.

A good time of the year to haul and apply lime is in the fall of the year. Waste air slaked lime can usually be obtained in better condition in the fall than at any other time. It may then be hauled conveniently when the roads are good and farm work is not so rushing. Some farmers find it convenient to haul their lime in the winter on sleighs. The use of lime on considerable areas entails considerable hauling and the farmer should plan to do this when it least interferes with other work. This should, however, not discourage the use of lime in the least. When a soil has become acid it is just as necessary to apply lime as it is to plow in order to get the best results.

What Results Do Farmers Get From Liming?

Where soils have become medium to strongly acid the use of lime has changed poor stands and even failures of alfalfa to excellent stands. Increases of 50% to 100% in the yields of alfalfa are common. Clover, canning peas, and soy beans yields have frequently been increased 50% and more by the use of lime. Barley has given very marked responses to the use of lime. The yields of corn, oats, wheat, and timothy have often been increased 25% to 50% and more through the use of lime in the rotation which has made it possible to build up the fertility of the soil by successful legume growing. Phosphate and potash fertilizers should be used with lime when needed. These fertilizers never give their full benefit on acid soils unless lime is added also.

There are some virgin or comparatively new soils and others which have received large amounts of manure, that are quite acid and yet they produce good crops of clover. Sometimes when these soils are limed there results little apparent benefit for a year or two. In the course of time lime always produces beneficial and profitable results on acid soils. An acid soil can never be brought to its highest state of fertility without the use of lime. When a soil has become acid, it has become "chronically sick", and one year is entirely inadequate to demonstrate the value of liming. Lime is the specific which always effects a sure cure, but the maximum benefit usually does not appear till the second or third year. It is the only material within the farmer's reach that will do this, and fortunately there exists in most states an absolutely inexhaustible supply of this precious material.

How Should the Farmer Proceed in Liming?

1. Have the county agent, experiment station, or someone test for acidity the soil that is to be put into alfalfa, clover, soy beans, canning peas, sugar beets, or other high lime requirement crop the coming year.

2. If the soil is acid order lime preferably this fall and apply it to the plowed ground. Otherwise, apply it early next spring.

3. Leave an unlimed strip and watch results continuously from year to year.

4. Use phosphate and potash fertilizer with lime where needed.

5. When time permits, have all the

With Concrete

You build once Only —Think of That!

¶ Fireproof, rotproof, ratproof, cycloneproof—no painting, no expensive upkeep, no insurance on the building—permanent.

¶ *We must stop waste*—waste of money, waste of labor, waste of transportation. *We can do it with concrete.* The bulk of materials required can usually be obtained on the farm or near by. Home labor can do the work.

¶ Granaries, silos, fruit and vegetable storage cellars, corncribs, milk, hog and poultry houses, hotbeds, cisterns, feeding and watering troughs or tanks, barns, all kinds of floors and pavements—any necesssary building or improvement you can think of—is most economically made with concrete, for *with concrete you build once only.*

Cold weather need not stop you.

Write for Bulletin 115, which will tell you what you can do with concrete in your spare hours this fall and winter.

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CONCRETE FOR PERMANENCE

W.S.S. WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT

elds tested and if acid order more me.

6. In the course of five to ten years etest the limed fields to see if more me is needed.

A Milepost in Guernsey Progress

(Continued from page 441)

is daughters and granddaughters. he members of this family are large, rong individuals, and all those in ilk are heavy producers. Seven of ie ten members shown have complet- l their Advanced Register records ith liberal margins above require- ents.

What in moving picture parlance is rmed the grand finale was the dis- ay of "a few head that are nice to ok at." This group consisted of venteen head, the pick of the Tar- ll Farms females.

Beauty was there, utility was evi- nt, quality and refinement were minent. The flowers were missing t the color was a clearly defined wn and white. It was truly an oc- sion for applause and the visitors d not lack appreciation.

Mr. C. H. Hechler of Harbor Hill arm gave an instructive address on uernsey breeding. Mr. Charles D. leveland, New Jersey, gave a demon- ration of the new score card adopt- l by the American Guernsey Cattle ub. Professor H. H. Wing of Cor- ll University urged the importance exhibiting at the local fairs for the rpose of increasing home markets. ie American Guernsey Cattle Club as represented by E. A. Onsrud, Pe- rboro, N. H., who told of the oppor- nities for spreading Guernsey inter- ts into the South Atlantic States.

Mr. Tarbell announced that he had cently sold to the American Live ock Company for export to Brazil, yearling Guernsey heifers and lls. This is the second sale this ar of pure-bred Guernseys to uth America that has been called our attention.

Mr. W. B. Jones, the president of e New York State Guernsey Breed- s' Association, presided at the meet- g. Mr. Frank M. Smith, the secre- ry of the association, was present d helped Mr. Tarbell and the offi- rs of the association to make the y a pleasant one for the visitors.

A hearty and unanimous vote of anks was extended to Mr. Tarbell r his hospitality and entertainment, ter which the meeting was declared journed. Expressions of satisfac- n and delight were common as the otor parties took their leave, many them having come from distances se to two hundred miles.

All in all, it was a most pleasant d instructive occasion, and surely milepost in New York Guernsey ogress.

Mother, to Thee!

and and salute when you see our bright flag!"
ou say to mothers of men.
they made that flag and they love it best,
or it means the most to them.
i- life-blood is dyed in the flag's bright red,
he white is their purity,
blue is the heaven of the homes they make,
nd theirs are the stars we see.
ght stars that mean sons who have gone abroad
o fight for our liberty;
l they cry aloud to fathers of men,
Hats off! Mother, to thee!"

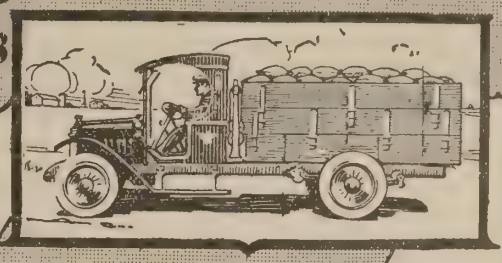
nd and salute when you see a bright star
inned on a brave mother's breast,
hers is the honor, yet sacrifice,
nd she is the one we should bless.
gave up her son, the life of her life,
nd sent him across the sea,
fight for the flag and hasten the day
hen freedom for all shall be.
hers is a gift to all of mankind,
ith her love, for liberty;
n salute the flag and the service star,
ats off! Mother, to thee!
isconsin. —A. S. ALEXANDER.

DON'T PUT OFF

eeing your friends and having them join for a club of subscribers.

Patriot Farm Truck

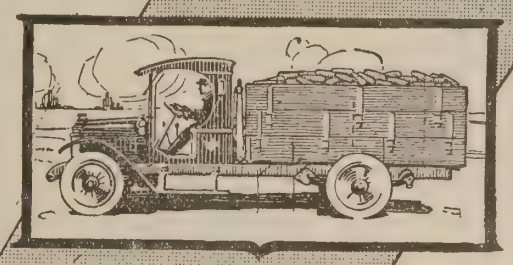
Built for Country Roads
Built for Country Loads



The Farmer Wants a Truck That He Can Dump

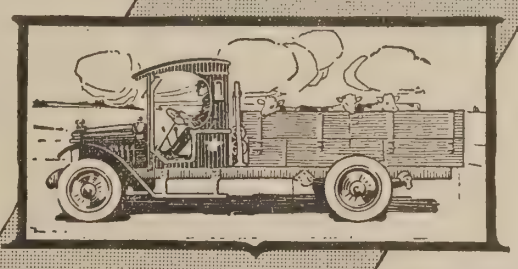
An Iowa Farmer writes of the Patriot Truck:

"You have got the right idea about dumping the load. It is what I have been looking for. The farmer wants a truck that he can dump at the country elevators."



The Patriot Dump Body, with the powerful Patriot Hand Hoist, makes it possible to easily and quickly dump the load by hand.

This Hoist is our own invention. The Body is built like a farm wagon body, except larger and better. It will stand long and hard wear.



Lincoln Model
Capacity
3000 pounds

Washington Model
Capacity
5000 pounds

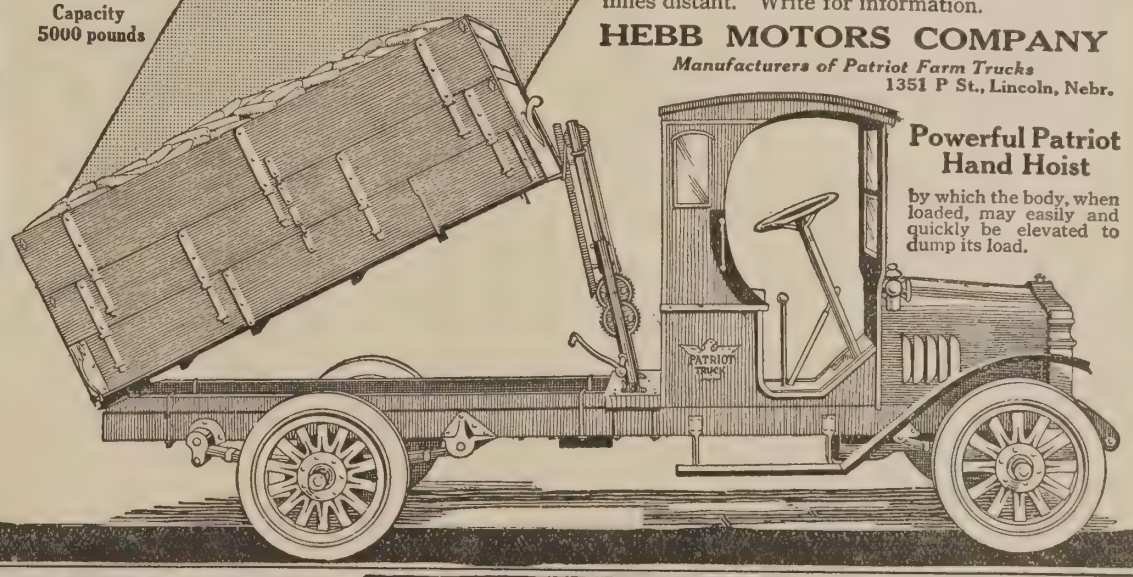
The Patriot Saves and Serves

Saves time and expense in hauling the farm crops and in getting grain and live stock to market.

Serves the country by serving the farmer—giving him cheap, quick, certain transportation at all seasons of the year.

The Patriot is the first Motor Truck built especially for farmers. It saves horses and high-priced feed. It brings bigger and better markets within reach, for with a Patriot you can readily drive to a market 100 miles distant. Write for information.

HEBB MOTORS COMPANY
Manufacturers of Patriot Farm Trucks
1351 P St., Lincoln, Nebr.



Powerful Patriot Hand Hoist

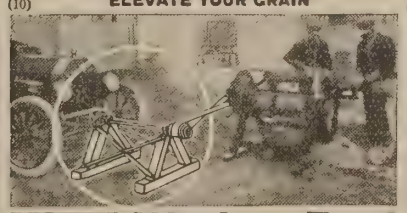
by which the body, when loaded, may easily and quickly be elevated to dump its load.

(17)

Use Your Ford!

to
GRIND YOUR FEED
FILL YOUR SILO
SAW YOUR WOOD
SHELL YOUR CORN
PUMP YOUR WATER
ELEVATE YOUR GRAIN

(10)



Ward Work-a-Ford

Gives you a 12 h. p. engine for less than the cost of a 2 h. p. The Ford car has a powerful engine—it will outlast the car—and you might as well save your money and use it to do all your farm work.

No wear on tires or transmission. Hooks up in 3 minutes. No permanent attachment to car. Cannot injure car or engine. Also used on other cars.

Friction Clutch Pulley on end of shaft. Ward Governor, run by fan belt, gives perfect control. **Money back if not satisfied.** Ask for circular and special price.

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TIRES ¼ LESS

There's a way to obtain high-grade tires at manufacturers' prices. Write and we'll tell you. Freshly made tires, every one

GUARANTEED 6000 MILES

(No seconds.) All sizes, non-skid or plain. Shipped prepaid on approval. This saving on guaranteed quality will open your eyes. State size tires used.

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Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed **free** on request.

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CHICKENS SICK? Roup, Colds, Canker, Bowel Complaint, Limberneck, Sorehead, etc., the best remedy is always GERMOZONE. At most dealers or 75c postpaid with 5-book poultry library free.

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Water in the Stable a Nceessity



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Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

PERFECT Farm, Shop or School SHOE

From Factory to Feet

Aluminum bottoms, perfectly water-proof, two styles, removable steel calks or leather and fibre half soles and heels. Best water-proof uppers. Army style footform shape. Easy and durable. Rust and rot-proof.



Sizes 1-12
6, 10, 13 or 17 in. High

Overland Aluminum Shoes

cheaper than leather shoes, will outwear several pairs. Ideal country school shoe, saving money on shoes and doctor bills. Easy and inexpensive to repair. Sold on money back guarantee. Illustrated catalog FREE.

Thousands wearing Overland Shoes with perfect satisfaction.

OVERLAND SHOE CO. Dept. 18C RACINE, WIS.

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Coming Events

Farmers' National Congress meets in Jacksonville, Florida, December 3-6, 1918. President, J. H. Kimble, Port Deposit, Md.

Wisconsin Cheesemakers' Association meets Jan. 8—10, 1919, at Milwaukee. Secretary, J. L. Sammis, Madison, Wis.

Wisconsin Dairymen's Association meets at Menomonie, December 5 and 6. Secretary, P. C. Burchard, Ft. Atkinson, Wis.

Michigan Dairymen's Association meets at Lansing, Dec. 3-5. Secretary, Martin Seidel, Bay City.

National Farmers' Exposition, Dec. 6—14, Toledo, Ohio. Manager, H. V. Buelow, Toledo.

Labor Conditions in the South

HOARD'S DAIRYMAN:—The present is a serious time in the history of dairying. With the new registering of males between 18 and 45 years it is likely to cut a wide swath in the ranks of farm labor.

Certain branches of labor have been placed in deferred classes and it is time that steps be taken to officially protect at least a competent milker to every 25 dairy cows that are in regular flow of milk and whose owner is commercially handling the product either by the manufacture of butter on his own premises or is daily shipping to a commercial creamery the cream from his herd.

The nervous, sensitive organization of the cow renders her peculiarly sensitive to any change in her administration and her best efforts in milk production are never attained if strangers are handling her or are in her immediate presence.

We in the South are in even worse state than you in the white belt. Dairying here is in its infancy in comparison and it is but recently that the process of milking has been performed by males.

The family cow has usually been milked by some negro woman when she happened to remember that the cow was to be milked, frequently but once a day, and then it was a catch-as-catch-can match between the woman and the calf, as they depended first on the calf calling the cow to the cow pen and its presence tugging at two of the teats to encourage a flow of milk while the milker worked on the opposite side for dear life to secure a small part of the lacteal fluid that was produced under such depressing circumstances.

With the advent of regular dairying the work was found to be unfit for the negro woman and was turned over to the negro man. It has been a man's job to educate him to a full sense of the responsibility that develops upon one who undertakes, at regular periods for feeding and milking, to get the full complement of milk.

With you every farmer's boy at some time or other has had to do with cows and it is largely a question of being willing, rather than of being able, to profitably handle the dairy cow.

I estimate that the average cow under best care will supply the needs of three persons in line of meat foods and butterfat. This is possible where the skimmilk is wisely converted into pork, beef, and poultry in combination with grains of various feeding values.

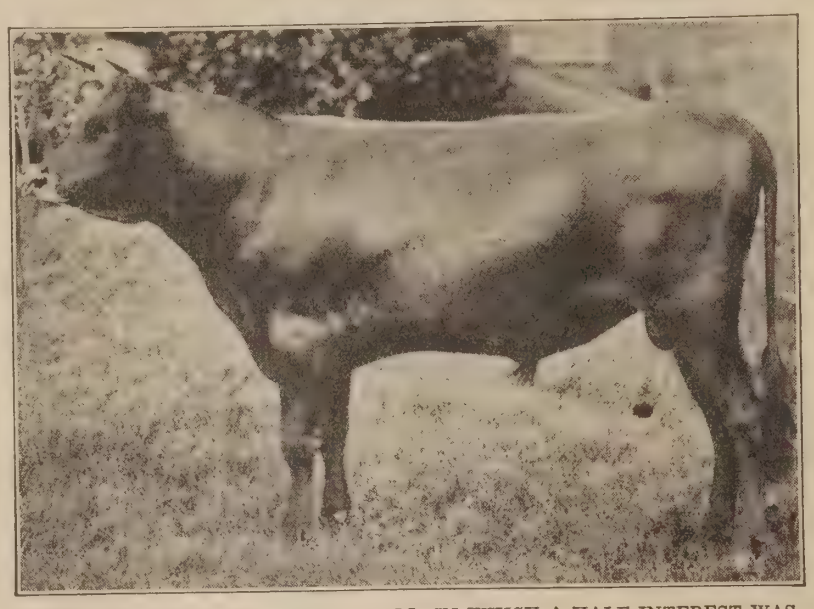
A dairy of 25 cows would then provide for the wants of 75 either at home or abroad fighting our battles.

Good milkers, like the poet, are born and not made. There must be those qualities of character that mean a gentle, firm, persistent trend of action, with patience unbounded and a love of his charges and his work, a pride that makes it possible by unbending interest to get all there is in the cow's make-up in line of milk.

We recently demonstrated the ill effects of a change in the dairy barn. A colored boy, who for two years had been doing our milking, was ordered to present himself to go with others to a training camp. So another man, accustomed in a family way to care for his own cow, was called in to take the place of the regular milker. The first morning there was a shrinkage of 6 lbs. of cream, and on the second morning the cream can showed a deficit of 11 lbs. from the usual average amount.

We feel that if Hoard's Dairyman should make a vigorous campaign looking to the exemption of at least one competent milker to every 25-cow dairy that the authorities would see that good business sense would be used and the exemption, or at least a deferred classification, be given that would allow time to effect a change with as little shock as possible to the sensibilities of the kine.

Mississippi. S. M. EMERY.



FINANCIAL SENSATION, JERSEY BULL, IN WHICH A HALF INTEREST WAS PURCHASED BY THE GREYSTONE JERSEY FARM, PENNSYLVANIA, FROM THE WATERLOO JERSEY FARM, IOWA, FOR $30,000

Sale Announcements

Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 26—Jerseys. Texas Jersey Cattle Club Sale at Dallas, Tex. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Oct. 26—Jerseys. L. P. Bailey & Sons, Tacoma, Ohio.
Oct. 29—Holsteins and Poland China hogs. Pleasant Valley Stock Farm, Thos. Maher, Brookings, S. D.
Oct. 29—Holsteins. Complete Dispersal Sale of Registered Holsteins. I. J. Case, Alta, Ill.
Oct. 29—Holsteins. Chas. Rupp's Dispersion Sale at Indianapolis, Ind. F. G. Johnston, Sale Mgr., 37 West Lane Ave., Columbus, Ohio.
Oct. 30—Holsteins. Michigan Breeders' Consignment Sale Co., at Howell, Mich., H. W. Norton, Jr., Mgr. East Lansing, Mich.
Oct. 30-31—Registered Holsteins. Green County Holstein Breeders' Association Consignment Sale at Monroe, Wis. C. Tochterman, Sale Mgr.
Oct. 31—Guernseys. A. C. Ramseyer, Mara Alva Farm, Smithville, Ohio. H. C. McCamon, Sales Mgr., Lisbon, Ohio.
Oct. 31—Holsteins. Western Dairy & Ice Cream Co., St. Joseph, Mo.
Nov. 6-7—Guernseys. Waukesha County Guernsey Breeders' Association Semi-annual Sale at Waukesha, Wis. F. E. Fox, Sec.
Nov. 7—Holsteins. The Walworth County Holstein Breeders' Sale at Elkhorn, Wis. J. G. Voss, Manager.
Nov. 11—Holsteins. Porter County Holstein Breeders. J. B. Turner, Sec'y., Valparaiso, Ind.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
Nov. 19—Guernseys. Dispersion of W. J. Heid's Guernsey Herd at Ft. Atkinson, Wis.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Nov. 26—Holsteins. Tri-county Holsteins breeders' second semi-annual sale at Dixon, Ill. Sales Mgr., E. M. Detweiler, Polo, Ill.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

An Economical Way to Apply Lime

HOARD'S DAIRYMAN:— The need of lime on most of our farm lands is now universally recognized and every year an increasing number of farmers use this amendment. The problem of how best to apply it and where to apply it is constantly arising. Most lime is now applied in the form of raw ground limestone which can be mixed with any manure and with most other fertilizers without harm.

Probably the ideal method of application is to use a lime sower and apply the lime on freshly plowed or harrowed ground to be harrowed in. This work, however, is a somewhat long process when we carry it all through from the hauling of the lime to the field to the final sowing. The machine must be filled many times to cover an acre. This requires much driving either with the sower or with a wagon. The work must be done at the very busiest time of the year. At no time in the growing season is time of man and horse more valuable than just at this season when the soil is nearly prepared for planting. Often a delay of a day or two in planting will mean a large loss on the crop.

After several years of experience with various ways of applying lime we have adopted a method which seems to solve the difficulties better than any other. This is on a dairy farm where lime is applied for the sake of improving the new seeding and increasing the amount of legumes in the hay. Although we recognize that the ideal thing would be to apply lime at the time of seeding, yet the big aim is to get the lime on the soil. An application of lime lasts for many years and if we spread lime on corn land it surely will be there for the oats and grass seeding the next year, although it may not be of particular benefit to the corn. If lime is applied to new seeding in its first year or to other grass land it certainly will be of great benefit to the hay and will last long enough to improve the next seeding on that field.

Bearing these facts in mind, we have applied our lime entirely by mixing it with manure. As lime is drawn from the car it is stored in a bin, a pile, or an empty box-stall in the cow stable. If possible, it is placed near the door through which the manure will pass on its way out of the barn. Even when the stable is crowded with stock we have found no difficulty in finding a place for our lime pile. Ten tons of lime can be stored in a small pile. This lime is used every day after cleaning out the stables, to sprinkle in the bottom of the gutters and to sprinkle over the driveways. On the driveways the ground limestone tends to prevent cows and horses from slipping. It also covers over the wet spots where liquid manure has leaked out of the spreader on the floor. In this way the barn is kept looking and smelling much more sanitary. Each day when the driveway is swept, the lime applied the previous day is swept into the gutters. This together with the quantity applied directly in the gutters tends to absorb some of the liquid manure although it must be admitted that lime has no great absorbing power. In the gutter, however, it tends to keep down some odors and helps to make the barn appear more neat.

Under this plan a considerable amount of lime goes out with every load of manure. Our manure spreader is set for ten loads per acre. We wish to apply lime at the rate of 100 pounds per acre. To do this, it would be necessary to get about 100 pounds of lime on each load of manure. We can not quite use this amount in our gutters and on the driveway. Hence the lime pile is placed near the exit door of the stable. Every day as the load of manure goes by we stop near the lime pile and throw on top of our load two or three bucketfuls of lime. We have already computed roughly the amount used on the driveway and in gutters and try to add at this time enough more to make up our 100 pounds. The load now goes on the field, is spread by hand or by spreader and the lime is also spread evenly without extra work. By spring, we find that in addition to having a neat sanitary stable all winter the lime has all been applied to the soil without any appreciable extra effort. Although some of this lime may not be in the exact places where we would prefer to have it, yet we are systematically covering the entire crop area. After all, that is the big thing which we wish, to get the lime on the soil so that it may benefit the entire rotation.

We always keep in mind one precaution; while manuring ground for potatoes we cease to use lime in the stable for fear it may promote the development of potato scab.

New York. F. L. CLARK.

The cost of machinery and implements is constantly increasing. Prepare now to protect implements and machinery from exposure during the coming winter. As far as possible all implements should be placed under a dry shed. Woodwork should be painted and all exposed iron and steel parts should be either painted or covered with grease or oil to prevent rusting

Canadian Dairy Notes

F. E. ELLIS, ONTARIO

rop season is just about com-d and the dairymen are now tock of their position. Here in Ontario we have har-rops vested a record crop of all the coarse grains. najority of dairy farmers plan r the most of the grain end r rations, their good grain ill be a great help; particular-w of the continued scarcity of ncentrates and mill feeds. too, will be plentiful. Hay, nately, is a short crop and No. ow sells for $20 a ton on the market, the highest price in ears. The corn crop, on the and, promises to be the best three years in tonnage. The of silage is still a disputed Much of the seed corn was of outhern varieties not suitable Canadian climate and a large age of the crop would have most worthless had it not been long fall with frost well de-Even as it is, much silage will er "soft". One desirable les-least has been learned,—good rn will be held for a couple of n advance by thousands of who heretofore started to r seed a few weeks before g time. It is possible, too, that e of more unsatisfactory corn ill make corn substitutes pop-



E THREE HIGH COWS IN THE AGED AYRSHIRE CLASS AT THE CANA-IAN NATIONAL EXHIBITION, ALL OF WHICH ARE OWNED BY R. R. 'ESS, QUEBEC. THE COW TO THE RIGHT IS HARLEYHOLM WHITE ROSIE RD. SHE WAS GRAND CHAMPION FEMALE.

many of the colder sections. Western Canada, grain crops been a partial failure and in sections where the live stock y is well developed there is a ge of hay. The Federal and cial Departments of Agricul-ave made arrangements for hay brought from the stockless s to the stock and even to he stock to sections well sup-ith hay. It has been made an to burn a strawstack without al permit. It would be a shame drought of the past summer o give the western live stock y, and particularly the rapidly ing dairy industry, a setback. e of everything some breeding will be sacrificed, but only a ercentage of what was at first

has accentuated a problem that eginning to trouble the dairy acturers of Canada, even in the balmy days of peace. tory Problem Where is cheese fac-tory help to come Since August, 1914, several d young factory workers have the army and are now overseas. wages in munition factories all skilled trades have drawn le recruits for dairy work into other branches of industry. So serious has the factory help situation become, that the government has placed cheese factory and creamery help in the same class as farm labor, and young men drafted into the army but enjoying extended leave to help on the farms and in the factories have both had their leave extended until November 1st. This extension of leave has materially assisted in carrying through the work this year. But what are the factory men to do next year?

There seems to be only one solution of the problem. Butter and cheese making will have to be recognized as a skilled occupation requiring more than average intelligence and wages paid accordingly. This is especially true in the case of cheese factories. Farmers have been getting their work done for them altogether too cheaply. In many districts the cheese factories are numerous, small, and largely privately owned. Makers have all their capital invested in their plants. They can't afford to let go. The competition for milk has been such that making prices was forced down to a living wage scale or less and have stayed down. The Dairy Inspection Act, by requiring a high standard of excellence in factory conditions and output, has caused a considerable deduction in the number of factories, but competition is still keen enough to keep making prices down and make it impossible to pay assistants such wages as they can command elsewhere. Conditions, it seems, are going to force a change. The rate for cheese-making, which is on a pound basis, seems due to advance considerably.

Canada is just completing its fifth series of war-time fairs. In Eastern Canada the series opened with the Canadian National Exhibition at Toronto, which is the world's greatest annual fair with an annual attendance of almost 1,000,000 people. This was a fair which reflected Canada's war effort. War products were on exhibition all through the industrial section of the fair. Women were doing much of the fair work previously attended to by men. National service girls, in their khaki uniforms, were much in evidence on Women's Day, representatives of women's work on the land: National service boys, of whom there were 25,000 in Canada this year, were more numerously represented. Even more suggestive of war was the great number of men in uniform. They constituted a considerable percentage of every crowd and sadder still, as a reminder of the conflict across the ocean, were the boys on crutches, cheerful all of them, though terribly handicapped for life. And, right and properly, agriculture was emphasized more strongly than ever before in this series of war-time fairs. Fairs



JERSEY COWS IN MILK AT CANADIAN NATIONAL EXHIBITION. THE FIRST COW IS COWSLIP'S DUCHESS OF ST. PETER, WINNER OF THE CLASS.

It was expected that the great boom in beef cattle, which has been general all over Canada, would probably result in greatly increased exhibits of the beef breeds and at least some reduction in the showing of dairy cattle. Beef cattle were out strong all right, but there was no sign of decadence in the dairy section. There were as many animals out as ever and in many respects the dairy end of our fairs had a record year. At the National Exhibition, for instance, there were 278 entries in the Holstein classes and 22 exhibitors. In fact, this dairy breed was represented by more entries and more exhibitors than any other breed at the fair, either dairy or beef.

This entry of Holsteins constituted a record for the breed. They were 50 per cent more numerous than last year. The quality was wonderfully good. It is not many years since the Holstein classes at our fairs represented a variety of types, but this year the classes were wonderfully uniform and one might look down the line of 20 entries and not see a poor individual in the whole lot. Mr. W. S. Moscrip of Minnesota, who acted as judge, expressed high appreciation of the quality of the classes on which he passed. The grand champion bull was Bonerges Hartog, shown by M. H. Haley, and the grand champion female, Beauty Pietertje Mechthilde, exhibited by Diamond Bros.

Jerseys were second in respect to numbers and the showing was probably the best ever seen at the Canadian National Exhibition. The great herds of B. H. Bull & Son, A. T. Little, and R. J. Fleming strongly competed all the way through. A notable decision in this breed was the placing of Beauty Maid at the head of her class by Professor Van Pelt. Beauty Maid holds the four-year-old championship of Canada over all breeds for the production of butterfat and holds second place, any breed any age, of all cows entered in our Record of Performance. The judge's action in placing her at the head of a strong class would seem to indicate some relationship between type and production. B. H. Bull & Son, owners of Beauty Maid, were the heaviest winners, capturing two of the championships and the most of the group prizes.

Ayrshires at Toronto numbered only a few head over the century mark, the principal exhibitors being R. R. Ness, A. S. Turner and Sons, Hunter Bros., and Alex Hume and Co. The Ness herd was probably never stronger and his entries at Toronto will be seen at the National Dairy Show at Columbus this year. Competition was keen, however, and Hunter Bros. had the junior and grand champion male in their recently imported Lessnessock Bunty Lad and also the junior champion female in an imported heifer, Whitehill May Scott 4th. An interesting feature of the Ayrshire section is what is known as the Record of Performance classes. Animals entered in these classes must also have qualified in Record of Performance and they are judged by a score card, so many points being given for conformation and so many more for production.

What was true of Toronto was true of all of our other great eastern fairs. At London, Ottawa, and Sherbrooke the dairy sections were stronger than ever before and attracted fully as much interest from fair visitors. In Western Canada, where the popularity of the beef breeds and the emphasis placed on grain growing might have been expected to militant against a successful dairy season, the dairy classes were as strong as ever. In British Columbia, particularly at the Vancouver fair, were seen some of the strongest classes of dairy cattle exhibited at any of our Canadian fairs. In fact, this province promises to be, if we may judge by its fair exhibits, almost exclusively a dairy country.

The Canada Food Board has adopted drastic methods to get the supplies of butter needed to fulfill our overseas obligations. By authority of a recent order all creamery butter made in the provinces of Alberta, Saskatchewan, Manitoba, Ontario, and Quebec, between the 30th day of September and 9th day of November, will be commandeered for export. In the meantime domestic requirements will be met from butter in storage and from the dairy make. For the butter commandeered the dairy produce commission is paying 46½ cents a pound for finest, 46 cents for grade No. 2, and 45 cents for grade No. 3, delivered at the warehouse, Montreal, freight and cartage paid. Butter Commandeered

Canadian creamerymen are fearful of the effects of this order. One creameryman with whom I was speaking recently anticipated a boom in dairy butter with prices for it so high that the shipment of cream to the creameries would drop off with great injury to the creamery business and disappointment to the Dairy Produce Commission. A limiting factor in the price of dairy butter, however, is the fact that cold storage men are limited by law as to the profits which they can take from the creamery butter which they have in storage. Were dairy butter to get unduly expensive, creamery butter coming out of storage would curtail further price increases. With the price of all dairy feeds as high as they are, however, it would almost seem that no price to which dairy products can advance, would be unjustifiable.

The Dairy Produce Commission which has been buying all Canadian cheese this past season for 23 cents a pound alongside water Montreal, has now advanced the price to 25 cents per pound for all cheese purchased from the factories after Sept. 30. The Commission took this action in view of the recent general advance in the value of dairy products. Cheese factory patrons have not considered that the price paid this summer was high enough and the fact that the output of creamery butter has increased at the expense of the cheese output, would seem to indicate that the patrons were right.

Jersey Cattle Notes

For week ending Oct. 11, 1918:

Number of animals registered: Bulls, 199; cows, 588; total, 787. Number of transfers recorded: Bulls, 138; cows, 462, total, 600.

EDITORIAL COMMENT

A KANSAS City firm offers us delivered No. 1 alfalfa hay at $34 a ton and No. 1 timothy at $35 a ton. It's a fool market that will put such a valuation on these two hays. The alfalfa contains in actual feeding value for any animal, from the horse down to the pig, three times as much as the timothy. Of course, the quotation is governed by the judgment of the market but it is a fool judgment, nevertheless.

THE agricultural appropriation bill, which recently passed Congress, provides that animals reacting to the tuberculin test may be reshipped interstate; that is, if John Doe of New York buys an animal of John Brown of Pennsylvania and after holding it for 60 to 90 days retests and finds that the animal reacts, our federal government will permit John Doe to return the animal to John Brown. The Bureau of Animal Industry will set forth certain regulations governing the reshipment of an animal of this character.

Much hardship has come to the live stock interests because the federal laws did not permit the interstate shipment of reacting animals. Valuable breeding animals have been sacrificed because of this law and we are glad to see that Congress has made it possible to reship interstate animals reacting to the tuberculin test.

The agricultural appropriation bill provides that a sum of $500,000 may be devoted to bovine tuberculosis work throughout the United States. The government is systematically undertaking the eradication of tuberculosis in several states and this appropriation should encourage those who have already accepted the government's assistance in the eradication of tuberculosis.

COMPLAINTS have been made to the Wisconsin State Council of Defense to the effect that much transportation service could be saved if shipping zones were established for milk and cream. The federal authorities have advised that there is no authority in the food control bill for the enforcement of such regulations, and that the railroads themselves will not undertake to establish such shipping zones.

At a meeting of the agricultural advisory committee of the Wisconsin State Council of Defense, Chairman Buckstaff informed the committee of the action of the Oconomowoc local council, requesting that as far as possible the consumer buy his food products from local dealers. The farmers have been encouraged to have their wheat milled and consumed locally. The advisory committee unanimously passed a resolution endorsing the action of the Oconomowoc Council and directed that all county councils be urged to take similar action where conditions are applicable.

As a country, we have fallen into the bad habit of buying foodstuffs from long distances and have lost the art of preparing our own foods as our forefathers did. The shortage of transportation and the curtailment in the use of foods are teaching us valuable lessons. We will learn to be more resourceful and to use the foods grown in our community to better advantage.

Isn't it strange that it has taken a great world war to show the necessity of following some simple practice of securing and using foods that was so common to the pioneers of every state in our Union?

BUY MULES

Those farmers who have never had experience have little idea of the superiority of the mule for farm use over the horse. About eight years ago we made our first trial with a mule team on the Hoard's Dairyman Farm. This team weighed 2,700 lbs. and we paid $500 for them—just what we had previously paid for a fine team of grade Clyde mares weighing 1,600 lbs. each. We kept the mares two years and lost one of them by disease.

The farm required at least four good teams and sometimes five. We were so well pleased with the mules that we purchased, at the Chicago Stockyards, three more teams, all of which have been steadily on the job ever since. Not a day's sickness, always ready for either heavy or light work. What is especially valuable about the mule is that you can not founder him. Bring him in, hot and sweaty as he may be, he will not eat or drink till he is cooled off. Except in case of an accident to one, we have not called a veterinarian to look after them in eight years.

The mule is so superior in hardiness, in strength, in proportion to weight, and in possession of good sense that never forsakes him, that we wonder that more of our farmers do not use them. The mule carries his own insurance. If kindly and patiently treated, they are quick and willing workers. But care should be taken in the first place to get a team that is well broke and has been kindly used. They will last till they are twenty years old in active service. Besides all this, they will keep in good flesh and working condition on less feed than consumed by horses. So much for the mule.

PATRIOTIC DAIRYMEN

Dairy farmers, what do you think of this?

A woman, bearing considerable reputation as a welfare worker in her city, stated at a dairy conference:

"Dairy farmers should for patriotic reasons be willing to produce milk, butter, and cheese at a loss, for no product is so highly essential to the welfare of America as milk and its products. It would be better for you dairymen to produce dairy products at a loss than to buy bonds. The government could well relieve you from the responsibility of buying bonds."

Can you beat that reasoning? A great class of American citizens producing a product highly essential to the welfare of the country asked to carry on their business at a loss and to be relieved of participating in the purchase of bonds! We wondered as we heard this lady speak if she didn't appreciate that dairymen want to be full-fledged American citizens, that they desire to have their business conducted on the same principles as other industries, that they want to participate in the support of their government the same as other people.

There was a time when people living upon the farm expected no profit. They were practically slaves, but centuries have passed since that time and the American farmer desires to have his business conducted on the same basis now as other industries are carried on, and he desires to do his part in the same way that others do. Strange how these abnormal times bring forth ideas of feudalism.

LABOR IN THE SOUTH

Elsewhere in this issue of Hoard's Dairyman will be found a communication from Mr. S. M. Emery of Mississippi discussing the labor problem of the South and suggestions as to how some relief could be brought to the dairymen of that section.

We fully appreciate that the dairy farmers of this country are short of competent labor and that they and their families are working too hard because they cannot find an adequate supply of help. The conditions under which the dairy farmers find themselves are leading many to change their methods of operating their farms. In the South, particularly, labor has been used very wastefully. This condition came about because there was a surplus of labor and it was not necessary to lay plans for using it economically. Negro labor has not only been abundant, but cheap.

The southern farmer is brought face to face with new conditions, new problems, and a new system of operating his farm. In many ways the circumstances under which he finds himself is going to lead to a better system of agriculture and labor is going to be used to better advantage. Instead of a good, strong negro laborer using one mule, he will be using two and even three and four mules, because there is no excuse for a competent laborer doing one-half to one-third of what he is capable of, provided the right machinery is selected for doing the work on the farm.

We know of some dairy farmers in the South who hire negro women to do the milking. We have visited their farms and found these women giving excellent satisfaction. One dairyman who owns over 200 cows finds the negro woman more satisfactory as a milker than the average hired man of the North. Not only is it possible to get the negro woman to do milking but there is opportunity to purchase milking machines. Not only can the negro be taught to drive two or more mules, which means the use of larger agricultural implements in preparing the soil for seed, but the tractor can be also used advantageously in plowing and disking, as it can be used practically night and day in the rush season.

We are assured by Gen. Crowder that it is his desire not to disturb agricultural labor any more than is necessary, for he appreciates the importance of agriculture and that farm products cannot be produced without help. On the other hand, we are informed that they cannot build an army of boes and town loafers so they must reach out every branch of industry and take men who m needed in those industries but who are n more in the army.

The dairy farmer should make known to t cal exemption board his conditions so that it have opportunity to recommend to the di board what laborer or laborers should be plac the deferred classes and left to serve on the On the other hand, the dairy farmer shoul plans to use labor economically.

CO-OPERATION AND SUSPICI

Since the inception of Hoard's Dairyma have pointed out to farmers the benefits of erative effort, and have urged them to org for the purpose of not only preparing their ucts for the market, but for purchasing feed other things needed in the operation of farms. We sometimes get discouraged to not little headway that has been made and espe to find that there are altogether too many co nities unable to work together.

In a recent report from one of the cow te this statement was made: "Some feed has bought co-operatively, but the farmers seem suspicious of one another and such movemer not bring the results generally expected." not fully understand why farmers should b picious of one another or why they can not organizations to prepare their own product market and place themselves in a position cure the full market price for their products.

It is a tremendous advantage to them to b position to buy feeds in carload lots. In s instances, communities have bought enough co-operatively and have saved more than e to pay all expenses connected with having herds tested. If the farmers could but real their greatest power for securing the large turns for their products and puchasing wha need to the best advantage lies in working tog but jealousy and suspicion have in too ma stances kept them apart and made them ar prey for organized industry. We have point many times of late what has been accomp where farmers have pooled their interests a cured capable leadership, and it seems to u no community of dairy farmers should be w organization and weapons to protect their

One of the causes for much of the trouble has taken place in the marketing of milk for consumption, is due to the fact that the f has permitted the creamery and cheese fact pass out of his hands, and he has no other for his milk but the city market. If there located in every community, where four hundred farmers are shipping their milk, equipped plant which could take care of th should the prices offered for it not be suf then there would be less need for milk co sions and less grievance upon the part farmer, because he would be master of hi product.

There is no law that can compel a farmer duce milk for the city consumer, but with plant for turning the milk into butter, che other dairy products, the farmers are at the of those who purchase their milk. We look the controversy between the milk produce the distributor as only a temporary incide we believe that in the near future the farme see what they should do in order to meet ot ganized industries upon a business basis. N ty will force them to lay aside their jealou suspicion of one another and organize milk through which they can control their own p and market it upon a business basis.

ALFALFA AND SILAGE

Dairy farmers well supplied with alfalf and corn silage can provide a most admira tion for their cows. They are in position lize the feeds which can be purchased most ably. Alfalfa hay not only supplies an ad amount of protein, from which the cow ma tures the casein of milk, but also supplies m matter which is highly essential to proper and health. There are no two feeds which ment each other more completely than alfal silage. The silage furnishes the carbohydrat succulence, and the bulk which is so highly able for dairy cows. What the silage lacks, falfa supplements.

To gain the best results, some grain sh

th these two excellent roughages. At times the prices of feeds are relatively higher dairy products the feeder may well con- s cows to nothing but alfalfa hay and silage. esent, the prices of feeds and dairy products bout in the same proportion as they have n other years.

e it is well not only from a production stand- but from the standpoint of keeping the cows d physical condition, sustaining their milk and producing strong, healthy calves, we advise the feeding of some meal mixtures. efer to use at least three kinds of feeds if an be obtained at reasonable prices. This es good variety and at the same time assures eder of supplying the animals with all the nts of nutrition necessary for the manufac- f milk, for the growing of the fetus, and for g them in good physical condition. These feeds should consist of those palatable and ous and rather rich in carbohydrates. There be no objection to using some feeds rich in n, but a pound or two per day per animal be all that is necessary to use with feeds like l barley, rye, or corn, which may be termed aceous feeds, in order to supply the proper hment for a cow to do good work.

Phosphatic Fertilizers

se give me all information you can on phos- as how applied, what form, etc., and how it be used in Southeastern Kansas.
sas City, Mo. R. W. O.

amount of phosphatic fertilizer applied per epends upon the soil conditions and the rich- f the fertilizer. Raw rock phosphate may lied at the rate of 500 to 1,000 lbs. per acre. ould always be associated with organic mat- We have been following the practice of mix- w rock phosphate at the rate of 50 lbs. per manure and applying in this way, or plowing with the fourth crop of alfalfa. The phos- in the raw rock phosphate is not made avail- plants until it has been acted upon by the position of organic matter. It is for this rea- at we always apply it with manure, or plow er with a green crop. Phosphatic fertilizers phosphorus in the available form are ap- it the rate of from 200 to 400 lbs. per acre. following paragraphs are taken from Dr. 's book entitled, "First Principles of Soil ty:"

tural Phosphates. There are two general s of phosphates—the bones of dead animals, ertain phosphate-containing minerals which briefly considered.

bone meal is made by grinding raw bones to ler, and the finer it is the more valuable the t. This substance contains about 22 per f phosphoric acid and 4 per cent of nitrogen. ones contain a small quantity of fat as well, s this prevents rapid decay of the bone, the oric acid and nitrogen in the meal are some- lowly available to the crop.

med bone meal. Most of the bone meal sold present time is made from bones previously d to remove the fat, and a part of the nitro- mpounds. The fat is used in making soap e nitrogen in glue and gelatins. Steamed ontains from 28 to 30 per cent of phosphoric nd about 1½ per cent of nitrogen. The d bones can be ground to a much finer pow- d the removal of the fat causes them to de- ore rapidly so that they must be considered valuable source of phosphoric acid than the nes.

kage is an important source of phosphoric the so-called animal fertilizers. When the t contains a very large proportion of bone it etimes designated as bone tankage, and may n from 7 to 18 per cent of phosphoric acid.

e black or animal charcoal is made by heat- ne in air-tight vessels until all the volatile is driven off, and is used in the refineries to sugar. After it has become spent or useless refiner it is sold for use as a fertilizer. Bone contains from 32 to 36 per cent of phosphor- l.

eral phosphates. In a number of places rock ts are found that contain varying percen- of phosphate of lime. These phosphates are y named after the place where they are ob- , as, Carolina phosphates, Florida phos- , and Tennessee phosphates. These rocks n from 18 to 32 per cent of phosphoric acid, ffer from the bone products in that they are mineral substances and contain no organic matter. Ground into a fine powder they are sometimes sold under the name of floats, but the rock phosphates are used only to a limited extent in the crude condition.

Superphosphates or manufactured phosphates. The phosphoric acid in all of the natural phosphates described is combined with lime in a form that is extremely insoluble in water. In order to make the phosphate soluble it is sometimes treated with sulphuric acid which unites with part of the lime, leaving a phosphate which contains only one-third as much lime as the natural phosphate and which is soluble in water. The lime and sulphuric acid make a compound which is the same as that found in gypsum or land plaster. This combination of soluble phosphate and gypsum, made by treating the natural phosphates with acid, is called by the various names of superphosphate, soluble phosphate, acid phosphate, acidulated rock, etc. For its manufacture the rock phosphates are generally employed both because they are cheaper and because the organic matter in the bones interferes with the use of sufficient acid to make all the phosphate soluble. A good sample of superphosphate or acidulated rock contains about 16 per cent of phosphoric acid in a form that is soluble in water.

Sometimes when insufficient acid has been used a part of the soluble phosphate will change into a form intermediate in solubility between the natural phosphate and the acid phosphate, and the phosphate is said to have undergone reversion, and the new compound is called reverted phosphate. The latter product is supposed to be more available to the plant than the insoluble or natural phosphate, hence, the soluble and reverted phosphoric acid taken together are known as the available phosphoric acid.

In some instances bone meal is treated with a limited amount of sulphuric acid and the product is called acidulated bone. This substance contains a much smaller proportion of its phosphoric acid in the soluble form than does the rock superphosphate. When soluble phosphates are added to the soil they soon combine with the mineral matter, and are converted first into the reverted phosphate, and finally into the insoluble form such as is found naturally in the soil. In this way the phosphoric acid is fixed and there is no danger of its being lost by leaching.

Relative value of phosphate fertilizers. The soluble phosphate present in the acidulated goods is generally considered the most valuable form of phosphoric acid for use as a fertilizer. At first sight it seems useless to go to the expense of making the phosphate soluble when it is again rendered insoluble by the soil before the plant can make use of it. The real object in making it soluble is to aid in its distribution in the soil. When an insoluble phosphate is applied it remains where it falls except for the slight distribution it receives by cultivation. In the case of soluble phosphate, on the other hand, the phosphate dissolves in the soil water and is widely distributed before it becomes fixed by the soil. In the former case the roots must go to the phosphate while in the latter the phosphate is carried to the roots. It follows from what has been said that after the soluble phosphate is distributed throughout the soil the individual particles must be very much smaller than is the case with the insoluble phosphate.

There are some soils upon which the super-phosphates cannot be used without injury, usually those that are deficient in lime; the superphosphate in such cases having a tendency to make them acid. Indeed, it is even asserted that soils containing an abundance of lime in the beginning may be made acid by the continued use of superphosphate if no lime is added.

When the natural phosphates alone are considered there is no doubt that the preference should be given to those derived from bones. The organic matter present in the bones decays when it is incorporated with the soil, and this process doubtless causes the phosphate to become more readily available to the plant, while the rock phosphate on the contrary is very slowly decomposed. The degree of fineness to which bone meal or mineral phosphate is ground is of prime importance. Very fine bone meal is much more available than that which is coarser and is always rated at a higher price a ton."

A Virginia Ration—Lice

I have on hand 150 bus. of rye, that at present time there is no sale for at all, 130 tons of exceptionally rich silage, 15 tons of first class clover hay, and very little corn but think that could be bought for eight or nine dollars a barrel. I can also get all the wheat bran I need for $38 per ton. I don't know the present price of cottonseed. Under these conditions what do you think would make my cheapest and best balanced ration? I milk from fifteen to twenty cows.

My young heifers are kept in a good house with stanchions and cement floor but for the past two winters they have been full of lice. Is there anything I can do to prevent its occurrence this year? The stable was whitewashed with lime and carbolic acid last summer but that didn't seem to help any.
Brisbow, Va. C. C. L.

We suggest giving each animal about 30 lbs. of corn silage daily and it may be advisable to feed a little more. In connection with this, feed all the clover hay each cow will consume without waste. If there is not enough clover hay to carry the herd through the winter on this allowance, we would suggest the use of a little other roughage, such as corn stover or oat straw, in order to make it last. If there is sufficient clover hay, we would not feed any oat straw.

A mixture consisting of 300 lbs. ground rye, 300 lbs. bran, and 100 lbs. cottonseed meal will supplement the roughage very well. Feed about 1 pound of this mixture for each 3½ to 4 lbs. of milk produced. If barley can be obtained we would suggest feeding some. If not, perhaps our correspondent could purchase a carload and resell a portion of it to his neighbors. We have a very large crop in this state and it is selling around $1.00 per bushel, making barley one of the cheapest feeds. It is nearly equal to corn in feeding value and is much cheaper.

The Bureau of Animal Industry suggests the following treatment for lice:

"Cattle infested with lice should be dipped in the spring and again in the fall, using a cresol or nicotine dip, or Beaumont oil emulsion. The arsenical dip is also another remedy which may be effectively used against lice. When possible a second dipping should be given after the lapse of 10 to 14 days, and in some cases several treatments may be necessary before the lice are brought under control. The dips mentioned are, as a rule, more efficacious against lice than lime-sulphur dip. Though lime-sulphur is an excellent mange remedy, it is less satisfactory for lice, especially blue lice. If only a few cattle are to be treated the dip may be applied with a brush or cloth, or with a small spray pump, or a mixture of one-half pint kerosene and one pound lard may be smeared on the body."

Ration With Velvet Bean Meal

Please tell me how to mix a feed with oat hulls, $26.50 per ton; cottonseed meal, $56.50; sweet feed, $50.00; velvet bean meal, $46.00. Cows have been milking since spring and will not freshen until late. Do you think cottonseed meal the best feed at $56.50 or velvet bean at $46.00? Have silage and some pea hay; also have some gluten on hand.
Rainer, Tenn. G. F. B.

Feed each cow daily about 30 lbs. of silage; some will require a little more, others a little less. Also, feed all the pea hay they will consume without waste. If there is not enough pea hay to feed liberally throughout the winter and until grass comes again, we would feed less, and give some other less desirable roughage to supplement it.

A mixture consisting of 300 lbs. velvet bean meal, 200 lbs. gluten feed, and 100 lbs. cottonseed meal will supplement the roughage very well. Feed about 1 pound of this mixture for each 3½ to 4 lbs. of milk produced. We may state that this mixture is a little heavy and also richer in protein than necessary for the animal's needs, but we believe these feeds will provide about the cheapest and best combination that can be made of those mentioned. It is our opinion that it would be wise to feed this mixture on top of the silage.

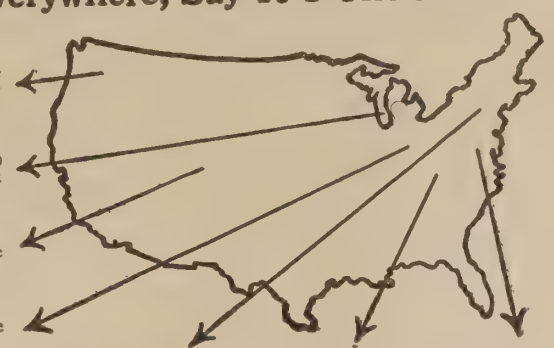
Oat hulls at $26.50 a ton are too expensive to use. Oat hulls are a little better than oat straw for nourishing a cow. In other words, it requires nearly as much energy to digest and assimilate the oat hulls as they furnish to the animal. If they could be purchased at one-half of the price stated, it might be that a pound or two could be used for lightening the meal portion of the ration, but when feeds of a higher nutritive content can be obtained, we would not feed any of the hulls.

The velvet bean meal furnishes total nutrients, that is, protein, carbohydrates, and fat, at about 3c a pound, while in the cottonseed meal it costs about 3.4c. Cottonseed meal furnishes protein at about 7.6c, while the velvet bean meal costs about 15c. If protein were the main element to consider in building this ration, cottonseed meal would be cheaper, but on total nutrients velvet bean meal is a little cheaper.

Universal natural milker

Alternates, Like Milking With Hands

Farmers, Everywhere, Say It's The Best



From Washington
"It is so much better than the ---------- Machine, I am ordering two more Universal Milkers"

From Michigan
"We are milking 12 cows in 20 minutes—and get more milk than by hand"

From Colorado
"It is the best milker on the market"

From Ohio
"No other machine on the market can equal it"

From Vermont
"It is the best machine on the market"

From West Va.
"It is giving excellent satisfaction and does all you claim"

From N. Y.
"One man milks three times as many cows as by hand, and easier. No trouble breaking cows"

Better For Cow—Better For You

There is no question about the supreme superiority of the Universal Milking Machine—the only question is, how soon will *you* adopt this time- and labor-saving method?

The Universal is a great benefit for the cow—it always milks the cow the same way—its alternating action (massaging two teats while milking two others), stimulates the flow of milk and affords a comforting relaxation.

The Universal rubber-lined teat cup fits all cows, no bother, no adjustments, and one Universal lasts a lifetime. Write us.

Hundreds of other farmers find true satisfaction and genuine economy in the Universal. Why not you?

Put Universal to work on your farm today. Increase your profits.

See our nearest dealer or write us for catalog.

The Universal Milking Machine Company
406 Mound Street, Columbus, Ohio



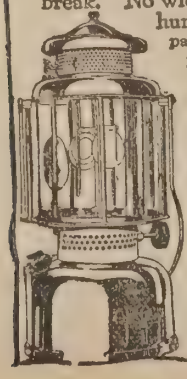
"Mother-that's the greatest light I ever saw"—

said Tom, just home on furlough—

"We had Quick-Lite Lanterns in the trenches"

The Coleman Quick-Lite Lamps and Lanterns mark the farthest advance in the development of artificial lighting. Make and burn own gas from common gasoline. Give remarkably brilliant white light, without glare or flicker—steady, soft, mellow. *Save the eyes* and simplify your work.

No trouble to care for, no bother with daily cleaning, no chimneys to smoke or break. No wicks to trim. No odor, no soot, no dirt or trouble. No delay hunting around for a torch. Just hold a lighted match under the patented coil, and directly you have an astonishingly brilliant light, more powerful than electricity, more light than 20 coal oil lamps or lanterns would give, cheaper to use than all others, and absolutely safe.



The **Coleman Quick-Lite**

SEE YOUR DEALER about Coleman Lamps, Lanterns and Lighting Plants. Insist on the genuine—the invention of W. C. Coleman, originator of the gasoline table lamp. If your dealer can't supply, write our nearest office for Catalog No. 9

THE COLEMAN LAMP COMPANY
WICHITA ST. PAUL TOLEDO DALLAS CHICAGO
Largest Manufacturers of Gasoline Lamps, Lanterns and Lighting Systems

Dairying on the Boom in Southern Indiana

Bank Deposits Increased More Than Fifty Per Cent in One County

HOARD'S DAIRYMAN:—Five years ago agriculture in many sections of Southern Indiana was at a low ebb. Large sections of it are very rough and broken and through a system of continuous grain farming the fertility of the soil has been depleted. Today an entirely different story is told of these same sections, and it seems that each county, even the poorest one, is racing with its neighbors on the road to prosperity.

For example, in one of the counties where the statistics have been very carefully tabulated the deposits of the four county banks have increased more than three hundred thousand dollars, or more than fifty per cent. All of this is due to an organized effort to establish a system of dairy farming on these farms. Quoting from the report of the local or county Jersey Cattle Club we have an accurate account of the wonderful progress that has been made:

"The start was made with no silos, no more than one or two cream separators in the county, no dairying other than the selling of a little surplus farm butter, no more than twelve head of registered dairy cattle, no alfalfa, no soy beans, no Japan clover, no sweet clover, no application of limestone to the soil and no farm records kept by the farmers.

"There is now a striking contrast to these conditions. One hundred and fifty or more silos can be found and to this number from seventy to one hundred will be added this summer. About two hundred cream separators are in use. Farmers are successfully and profitably growing alfalfa and other legume crops; more than two thousand tons of limestone will be applied to the soil during the coming year and some farm records are being kept to show how the money comes, how it goes, and how the leaks can be stopped.

"What the dairy cow has done is indicated by the value of the cream that has been shipped from the five railroad stations in the county. Every can of cream that has left the county from the railroad stations has been traced, and its capacity and value have been determined with all transportations charges accounted for."

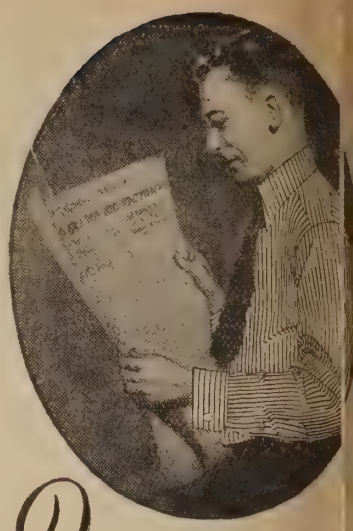
Value of the Cream Shipped From the County	
1913	$621.12
1914	2132.10
1915	4788.00
1916	25116.48
1917	68910.36

"With the coming of the cow the hog business has advanced with a bound as is shown in the record of the carload shipment from the county seat town.

July 1912		June 1913	-	6 cars
" 1913	-	" 1914	-	3 "
" 1914	-	" 1915	-	6 "
" 1915	-	" 1916	-	14 "
" 1916	-	" 1917	-	24 "

Southern Indiana Dairy Convention

It is easy to see that the farmers in these southern sections are keeping more and more dairy cows on their land and they are making an effort to practice improved methods. They have called a dairy convention to be held at Seymour Oct. 30 to Nov. 1st, where railroad facilities make it easy to reach from most of the southern half. At this convention they will solve many labor, feed, and management problems that are bothering us all. Labor saving devices, results of feeding experiments and improved methods of operation will be strong features of the convention. Some of the best talent in the country will be there to discuss the problems. They have arranged for a sale of dairy cat-



Quality kept

HALLMARK SHIRTS

Your Dealer is Displaying

GRADUATED Scarf space and time and temper-saving Shi exclusive features in all

SLIDEWE COLLARS

Newest models now being shown tically every city and town in the

HALL, HARTWELL & CO., Makers, T

For An Auction

and one that knows values of bo

Pure-bred and Ordinary Live

Write me for dates as I have 95 per c sales in this section of country. Also Estate at Auction.

F. H. HEMBROOK, - Chetek, W

QUIT

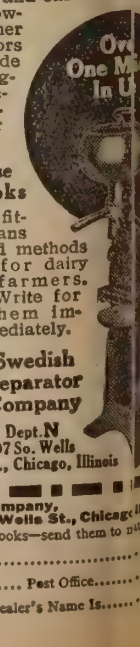
Wasting Cream Pro

NINE out of ten dairy farmers ar throwing away $20.00 per cow They are doing it by using wasteful cream separators—or, even worse ing to the old-fashioned gravity, sh method of separation. Stop th waste at once on your farm.

Get ALL the Cream—

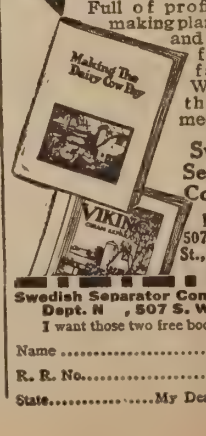
VIKING CREAM SEPARATOR

Over One Million In Use! Each Vi anteed For a Lifetime! Greater i than any other separator of equ Easiest operated and easiest cle arator on earth. Lower in price than other standard separators —because it is made in the World's Largest Separator Factory. See the Viking at your dealer's.



Send For These 2 Free Books

Full of profit-making plans and methods for dairy farmers. Write for them immediately.



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Swedish Separator Company, Dept. N , 507 S. Wells St., Chicag
I want those two free books—send them to m

Name .....

R. R. No..... Post Office.....

State.....My Dealer's Name Is.....

le and have secured the services of Col. Perry as auctioneer. Some of the best dairy stock in the state has been consigned to the sale in order to introduce better stock into Southern Indiana.

As more and more are catching a vision of what the dairy cow can do for a country there really is no end to the future expansion and development of dairying in Southern Indiana.

Indiana. W. O. MILLS.

To the Farmers of America

Three million American boys on the battlefields in France, in the cantonments on this side, and on our great ships everywhere are fighting the battle for Democracy.

Back of them is another army—the splendid, untiring men and women on the farms of America, who have taken up the additional burden laid upon them by the absence of many of their boys, and by their toil and sacrifice have produced the crops that today are helping to feed the allied world. From you, who are soldiers of that army, every patriotic call has had an unhesitating and united response.

Today in the name of the president of the United States another call is sent to you on behalf of your sons and brothers. They are far away from their own homes, yet through the generosity of the American people the influence of the homes which they have left still follows them. Seven great organizations have taken it upon themselves to do for the boys in camp and at the front the things which every parent would wish to do for them if he could.

These seven agencies are the Y. M. C. A., Y. W. C. A., National Catholic War Council, Jewish Welfare Board, War Camp Community Service, American Library Association, and the Salvation Army. Together these splendid societies represent every one of the best elements in our American life. Their huts are the soldier's church, his college, his library, his club, his theatre, and his gymnasium.

To provide this comfort, to make the American home follow the American flag, requires money in large amounts. These seven agencies will need more than one hundred and seventy millions to push their work forward through the forthcoming months. And because their work is done in the same spirit, and for the same great end, they have wisely agreed to make their appeal to the public not separately, but together.

That appeal, which will be made you in the week of November 11-18, will offer the American people one of the most splendid opportunities of the war to signal across the seas their united support of the boys who are fighting there. The cause is great; the total amount asked for is great; but not greater than the patriotism of the American farmers. Every house that flies a service flag will have a special interest in the success of that campaign. For every dollar means cheer and comfort to the son of such a house.

On behalf of the Administration I send you this great call. But more particularly on behalf of the boys themselves. In the chill and damp of those French villages they are waiting for your answer—waiting for you to say to them: "No matter how great the sum, we promise that you shall have the comforts of life over there. The success of this United War Work Campaign is tho proof that we are standing shoulder to shoulder behind you."—D. F. HOUSTON, Secretary of Agriculture.

Sylvanite Guernseys Sold

The demand for good Guernseys still holds strong if we may judge from the recent sale of Sylvanite Guernseys held at Baraboo, Wis., Oct. 4. Although a small sale and with no very high prices, a very satisfactory average of $265 was obtained.

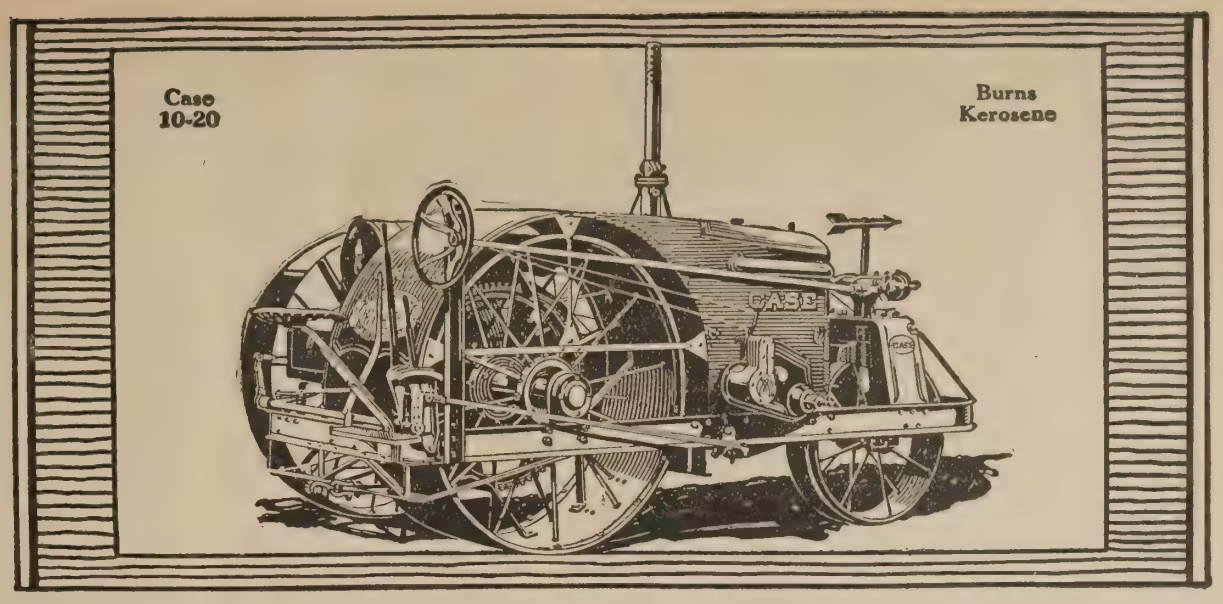
J. E. Mack and J. R. Love did the selling.

A list of animals sold, prices, and buyers follow:

Wichern Bros., Wisconsin	
Bravo of Rich Neck 4th	$150
Nancy of Sylvanite	185
Phoebe of Sylvanite	165
Froome's Queen of Sylvanite	195
Braveen of Sylvanite	200
A. E. Wilcox, Wisconsin	
Dolly of Sylvanite	$160
C. J. & W. A. Connell, Wisconsin	
Violet of Sylvanite	$325
Imp. Ruby Red of Castel	395
Galaxy's Daybreak	300
M. S. & A. G. Fisher, Nebraska	
Brightness of Sylvanite	$240
May Queen of Sylvanite	175
Primrose of Sylvanite	500
G. W. Spear, Wisconsin	
Fair Daisy of Springbrook	$175
C. F. Cooley, Wisconsin	
Imp. Beauty, Pride 4th of New Grove	$325
Clifford C. Capener, Wisconsin	
Bravo of Rich Neck	$480

Calumet County Sale Postponed

The Calumet County, Wis., Holstein Breeders' Sale and Young People's Fair, advertised for Oct. 18, at Chilton, Wis., has been indefinitely postponed because of the Spanish influenza epidemic.



Ready for Immediate Delivery

TO supply a limited number of hurry-up calls for tractors to put to work at once, we offer this Case 10-20.

We do not know how long our supply will last, but those we have will be distributed as fast as transportation facilities can bring them.

Thus you are able, if you act at once, to obtain a well-known, tried machine, of which there are thousands in daily use all over the country.

We have built this 10-20 since 1914 and farmers everywhere attest to its economy and dependability.

This 10-20 has plenty of reserve power. Its rated pull of 1,650 pounds on the drawbar can be increased to 2,600 pounds. It pulls three plows anywhere a good team can pull one plow continuously.

Its design and hitch is such that all side draft—so common in most 3-plow tractors—is avoided. All wheels run on unplowed ground—the combined tire width is 32 inches.

It has a 4-cylinder Case motor, with removable head. It is equipped with a Case-Sylphon Thermostat which insures complete combustion of kerosene at all loads. And it has a Case air washer, which prevents dust and grit from entering the cylinders.

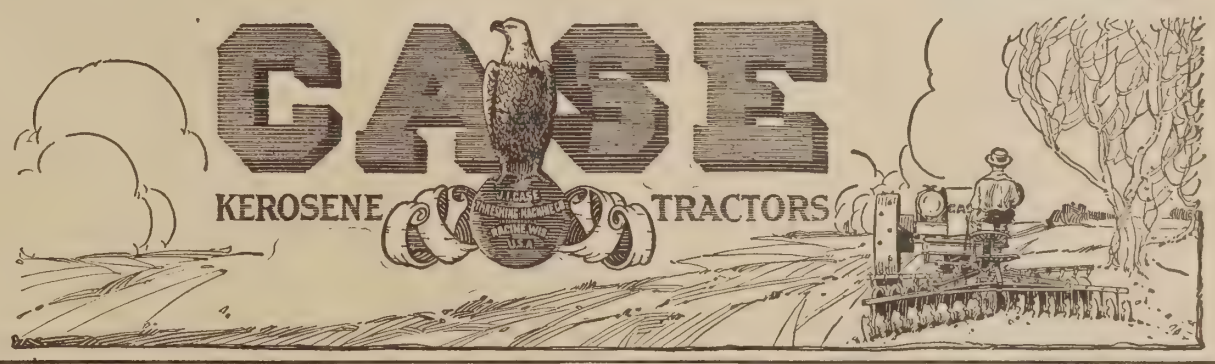
Examination of this 10-20 will disclose its splendid design and workmanship. As you go over its specifications and illustrated description you are certain to agree with the thousands of owners that this tractor is 100 per cent efficient.

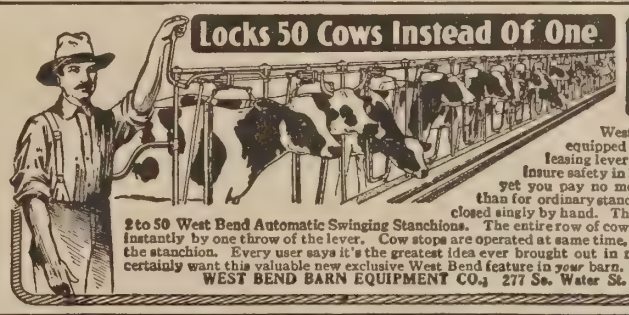
Write for our catalog. Or obtain it from a Case Dealer.

And if you are interested in the immediate delivery of this Case 10-20, place your order at once, so as to avoid disappointment.

J. I. Case Threshing Machine Company, Inc., 1411 Erie St., Racine, Wis., U. S. A.

Founded 1842 (808)







Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. HOARD'S DAIRYMAN, Ft. Atkinson, Wis.



Champion
Dependable Spark Plugs

Big Increase in Porcelain Efficiency

2½ Times the Resistance to Breakage from Shock

HOW to make porcelain for spark plug insulation, offer greater resistance to shock and vibration!

Ten years of original research work and the three-thousand-four-hundred-and-fiftieth experiment, revealed the secret.

Champion 3450 Porcelain offers two and a half times the resistance to shock and vibration compared with the best previous Champion porcelain.

What an increase in that dependability which has given Champions their enormous prestige.

See that the name Champion *is on the porcelain* of the plugs that serve your motor as well as on the box. There is a Champion Spark Plug for every type of motor car, motor truck, tractor, motorcycle and stationary engine.

Champion Spark Plug Company, Toledo, Ohio

Champion Spark Plug Company of Canada, Limited, Windsor, Ontario



Seven Times More Food Value

"Yes, I bought all the Liberty Bonds that I could carry. And I've found a way to pay for them out of *extra* earnings and at the same time help folks Hooverize: I make my skim into delicious cottage cheese and pack it in

KLEEN KUP

The Package of Quality for Foods of Quality

Government experts say that skimmed milk furnishes seven times as much actual human food when made into cottage cheese as it does if fed to live stock. My customers are very glad to get it on meatless days—and other days, too.

"I use Kleen Kup packages also for my private brand of butter and for farm-made buttermilk. They are neat, convenient, inexpensive. I'd hardly know how to run a dairy without Kleen Kup."

You, too, can increase your dairy profits by the use of Kleen Kup packages. Let us show you how. A postal will bring samples, selling helps and the Kleen Kup story. Write today.

THE MONO-SERVICE CO., NEWARK, N. J.

SAVE BIG MONEY on GROCERIES



WHOLESALE PRICES

Comparison with what you have been paying will show that you can buy Direct at Wholesale Prices from us. We guarantee our prices are based on the actual cost plus a reasonable wholesale profit only. All transactions are Direct to You—the Consumer. You must save money by buying with us—You must be satisfied or your money is refunded.

FREE CATALOG

Your copy of the Grocery Price List is waiting. Write today for this wonderful book. It will save you money.

WILSON GROCERY COMPANY
PEORIA, ILLINOIS, U. S. A. Dept. F-27

GUERNSEY BREEDER'S JOURNAL

Indespensable toall interested in Guernseys or improving their herds of dairy stock. Well gotten up. Full of pertinent facts. Giving latest records of production. With Hoard's Dairyman 1 year, $2.75.

Send for sample copy.

GUERNSEY BREEDER'S JOURNAL.
Peterboro, New Hampshire.

Co-operation and a New Agriculture

(Continued from first page.)

What are some of the results already gained by the dairy organization? The dairyman naturally thinks first of the financial results. Taking the League and the New York City market again as an example, the average price paid by the dealers for the ten years preceding October 1, 1916 was $1.48 per hundred pounds. For the two years since the League has determined the price, it has averaged $2.52 per hundred. Due to war conditions there would have been some increase probably without organization but after having attended price conferences with the dealers and heard the prices offered by them, prices they would have paid had there been no organization, the writer believes and all members of the League believe that there would have been very little increase given by the dealers if there had been no organization.

For the first time in years thousands of farmers are beginning to realize what it is to get at least cost of production for their milk. Volumes could be written on what these better prices are going to mean in increased prosperity in rural life. Bitter, grinding poverty is an enemy to all progress. Moderate prosperity—an honest return for honest labor—will mean a better social life, better education for the children, and a broad-minded rural people who will in all truth be the backbone of the country.

A Sorry Independence

Much is said about the independence of the farmer, but before he organized, the dairy farmer had little independence. He sold his product for whatever the dealer wanted to pay and he bought his supplies for whatever another set of dealers wanted to ask. At contract time he could sign the contract, all the terms of which were written by the dealer, or he had no market for his product. Since 1916, however, this condition has been exactly reversed. The farmers' organization makes the contract for the sale of milk and the dealer agrees to it or he gets no milk.

The League office receives letters in every mail from enthusiastic members telling of the results of organization. Here are a few quotations taken at random from hundreds of such letters on file:

"First, and greatest of all, I would say that the League has emancipated us from a condition of slavery that was humiliating, and has given us self-respect. Where before we felt helpless and subservient to the dealers, we now feel independent and confident that we can act on business principles that permit any manufacturer to fix the selling price of his product in accordance with the cost of production."

Co-operation Leads to Real Independence

"To change the attitude of the farmer from one of the most strenuous competition in the sale of milk and potatoes and apples and all other farm produce to the attitude of co-operation in the sale of milk and other farm products, has been a long step and is a greater change than most of us realize even now.

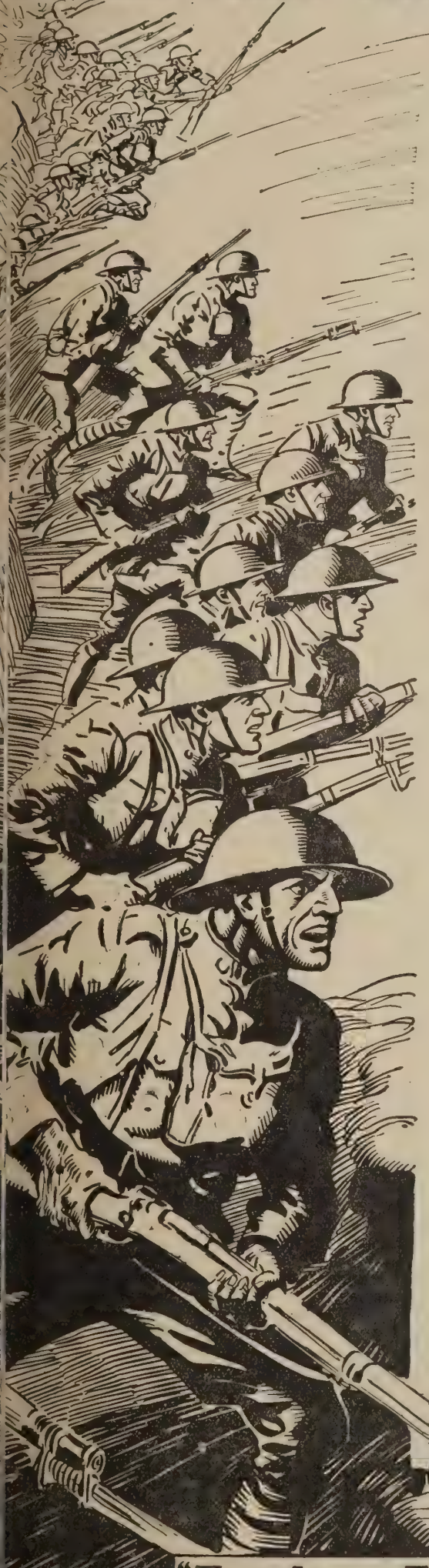
"It means turning squarely around and helping each other to greater prosperity instead of selfishly grabbing what we can for ourselves and letting the other fellow look out for himself."

"Two years ago this was a cream community. I had just moved into the neighborhood and sent for one year and found I could not make it pay sending cream. A neighbor and I at

(Continued on page 461)

Order Spring Fertilizers Shipped *NOW*

A War-time Measure and a Patriotic Duty



FOOD will be needed next year more than ever. Fertilizer ***must*** be used to produce it.

Fertilizer factories have lost 30 to 40 per cent of their labor. Fertilizer production can be maintained ***only*** by utilizing the remaining labor to the fullest possible advantage.

Fertilizer must be shipped as soon as ready. Double and triple handling must be eliminated. Factories, with their depleted forces, must operate every day and ship every day from now on until Spring—if the supply of fertilizer is to even approach the demand.

Fertilizer must move steadily from factory to farm throughout the Fall and Winter to replace the usual Springtime rush. In no other way can the situation be met.

You gave up wheat, economized on sugar, observed heatless Mondays and gasless Sundays.

These were *War Measures*.

Now order your Spring fertilizer shipped at once. It is a *War Measure* and a Patriotic Duty.

Do your share again. Get your Spring fertilizer in your own barn NOW. Place your order TODAY.

Soil Improvement Committee
of the
National Fertilizer Association

Postal Telegraph Bldg., Chicago **The Munsey Bldg., Baltimore**

"Fertilizer Feeds the Crops that Feed the World"

WAUKESHA COUNTY

Holstein Breeders' Association Sale

November 12-13, 1918

125 PURE-BRED HOLSTEINS 125

The Offerings Include:—The five highest record serviceable bulls for sale in the county. All with records of above 30 lbs. 15 other well bred bulls.

70 choice young cows from 2 to 7 years old with records up to 30 lbs. and bred to 30-lb. bulls to freshen this fall.

Our sales have always contained high class animals. We can truthfully say that the quality, both as to breeding and individuality, surpasses that of any previous sale.

REMEMBER:—All animals of breeding age are guaranteed to be breeders. All animals are tuberculin tested and from tuberculin tested herds. Each animal is inspected for fitness prior to sale.

This is a Breeders' Sale. Watch for announcement next issue.

Waukesha County Holstein Breeders' Assn.
Waukesha, Wisconsin.

MILK ..... and WAR TIME

In these days of high prices for dairy products, the "poor milker" is more than ever a liability.

But before you sell the cow that is not producing well, try to improve her condition. Her milk value is much greater than her meat value.

Most poor milkers are non-productive because of some defect of health, which can be quickly remedied by intelligent treatment.

Kow-Kure is a medicine that acts quickly on the organs of digestion and milk production. Its widely known tonic and curative qualities have made it the standard cow medicine for the prevention of disease and the treatment of Abortion, Barrenness, Retained Afterbirth, Scouring, Lost Appetite and Bunches.

Give Kow-Kure a trial; it will do for you what it is doing for thousands of others. Feed dealers and druggists sell Kow-Kure; 60c and $1.20 packages. Send for **free** treatise, "The Home Cow Doctor."

DAIRY ASSOCIATION CO.
Lyndonville, Vt.



Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

After Calving

Every Cow Should be Treated With

Hood Farm Breeding Powder

It cleanses, disinfects, causes the cow to clean quickly and breed readily. It is a safeguard against Abortion, there is less use of the bull, and calves are stronger.

We quote what Mr. H. F. Weaver, of Millard, Wis., says:

"I have used your Breeding Powder for about four years with very good success. I think if every dairyman made a practice of injecting every cow three or four times after calving there would be very few barren cows."

Treatment of all cows with Hood Farm Breeding Powder is the most profitable and economical thing you can do.

Mail an order today, mentioning this paper.

Prices, prepaid, $1.15, $2.75 and $5.00. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75.

C. I. HOOD CO., Lowell, Mass.

Cow Testing Associatio

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Colo.	Arkansas Valley	Geo. W. Barr	Sept.	353	4	52.3	H. Heath
Ill.	2nd Lake Co.	R. Williams	"	417	32	64.3	Rouse Br
Minn.	Pioneer	H. C. McMurray	"	800	18	71.2	J. F. Mel
N. J.	Middlesex-Somerset	J. G. K. Duerr	"	458	7	53.7	Forsgate
Wash.	Stillaguamish	H. W. Quimby	"	444	19	58.3	A. G. Zie
Wis.	Rice and Cedar Lake	A. Arnold	Aug.	374	6	54.2	F. D. Stc
Ohio	First Lake Co.	W. Remely	Sept.	346	5	64.0	H. K. Vo

Association Notes

Arkansas Valley, Colorado:—One concrete, one underground, and two hollow tile silos have been constructed by our members this fall. One more barn has been fitted with a milking machine, which makes 10 of our herds now milked by machinery. In September market milk sold for $2.92 per hundred pounds. The average test required was 3.5 per cent and for each point above, 3c were paid. The prices of feed are: alfalfa hay, $20 per ton; corn silage, $8; barley, $2.75 per cwt.; and cottonseed meal, $3.15.

Second Lake County, Illinois:—With the busy season and shortage of help, some of the herds were slightly neglected for this month and a decrease in production followed. With the exception of one or two members, who have sold most of their cows, our members are planning to reorganize for another year. Market milk sold for $2.92 per hundred pounds, the average test required being 3.5 per cent. Prices of feed are: Unicorn, $67; Special Dairy, $46; Schumacher, $56; bran, $38; oil meal, $60; oats, 75c per bushel; and barley, 86c.

Pioneer, Minnesota:—The creamery paid 56c per pound for fat during the past month. Milk retails for 10c per quart and butter for 64c per pound. Prices of feed are: pasture, $1 to $2; hay, $8 to $12; silage, $4; bran, $31; oats, $34; barley, $35; and oil meal, $60.

Middlesex—Somerset, New Jersey:—Five boarders have been sold and three pure-bred heifers and cows purchased. In September market milk sold for $2.90 per hundred pounds, the average test required being 3 per cent and for each point above, 4 cents were paid. Milk retails for 14 to 16 cents per quart and butter for 65 to 70 cents per pound. Prices of feed are: Cypho Feed, $60; Dairymen's League, $64; oats, 65c per bushel; corn, $1.85; dried brewers grains, $70 per ton; beet pulp, $55 to $60; cottonseed meal, $65; Larro, $64; linseed meal, $65; gluten, $65 to $75; alfalfa hay, $35; and clover, $20 to $25.

Some of the herds complete their year's work with the Septemb Good records have been made which are the following: A fi old pure-bred Holstein, owned E. Stricker, has produced 11, milk containing 377.5 lbs. fa garet Beauty, a seven-year-old by C. M. Quick, has produced lbs. milk containing 400.3 lbs nine months; Queen Segis C a five-year-old owned by J. D has produced 12,110 lbs. milk ing 366.9 lbs. fat; Queen pia, a three-year-old owned Quick, has produced 11,070 l containing 385.5 lbs. fat; a gr stein, owned by W. D. Jelli produced 9,106 lbs. milk co 310.5 lbs. fat.

Clark—Harrison, Indiana:—month of September we ha cows in the 50-lb. class and si 40-lb. One member has 8 cow list of the ten highest produc he has put them there very la cause he feeds more heavily other members in the ass Prices of feed are: Homin $66 per ton; bran, $48; and seed meal, $60.

Stillaquamish, Washington-results are noticed from th good bulls by all of the ass The older cows that have m records are being sold and spring of a better breeding ing their places. In Septembe milk sold for $3.35 per pounds. The average test r quired was 3.7 per cent. series paid $3.10 per hundre for milk and the creamery, pound fat. Milk retails for ter for 58c per pound, and c 34c per pound.

Rice and Cedar Lake, Wisc Fifteen low producers will for beef. One new separator installed to take the place of er. There are 27 silos in the tion which have been filled w crop of corn and give promis good records next winter. I market milk sold in this co for $4 per hundred poun creamery paid 50c per poun and the cheese factory, 63c retails for 50c per pound a for 28c. Prices of feed are: bran, $33; ground oats, $40 lage, $5.

First Lake County, Illino pure-bred bulls purchased t others of poorer breeding. I ber market milk brought 3.5 per cent, with 4 cents for higher tests. Creamery per pound fat, with butter at 67 cents.

BULL CALF

Dam's Record (3 yr.) 23.63 lbs.
Sire's Dam's Record 34.56 lbs.
Seven Dams Average 29 lbs.

Calf born April 6th, 1918. Fine individual, beautifully marked. Write for photo and full pedigree. Delivered express prepaid any point in U. S. A. Price $250.00.

HARRY L. BENEDICT,
R. D. No. 1, East Syracuse, New York.

ABORTION IN CATTLE

PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT, REGULAR BREEDERS BY

STERILOID



STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for **FREE BOOK.** It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY, Dept. A, 398-408 Columbus Ave., New York City. Reference—Colonial Bank.

DAIRY MARKET

CHICAGO, Oct. 17—Butter—Cr tras, 55½c; extra firsts, 55½c; dairy, seconds, 50@53c.

Eggs—Ordinary, 46½@48c; firsts,

Cheese—Twins, 34@34½c; Young 35½@35¾c.

MILWAUKEE, Oct. 17—Butter-tubs, 57@57½c; prints, 58½@59c; 55@56c; firsts, 53@54c; dairy, fan

Eggs—Current receipts, returned cases, new included, 45½@46c; cases, 45½@46c; dirties, 34@35c; 31c; checks, 27@29c; April, reca 43½c.

ational Dairy Union Finances

lance on hand Sept. 1, 1918	$4,324.17
tal receipts	85.50
	$4,409.67
tal disbursements	372.16
lance on hand Oct. 1, 1918	$4,037.51

This is to certify, I have today au- ted the books for S. B. Shilling, easurer of the National Dairy nion, and find the receipts from ept. 1, 1918, to Sept. 30, 1918, to be 5.50, and the amount paid out for hich he holds vouchers, the sum of 372.16, leaving a balance on hand ct. 1, 1918, of $4,037.51.

F. P. COLLYER, Auditor.

Bulletins of the Week

Necrobacillosis in Swine, by Robert raham. Circular 222, Illinois Ex- riment Station, Urbana, Ill.

Fertilizing Constituents Excreted Two-year-old Steers, by H. S. rindley, H. W. Mumford, A. D. Em- mett, and S. Bull. Bulletin 209, Illinois Experiment Station, Urbana, Ill.

Influence of Lime Upon the Yield of Dry Matter and Nitrogen Content of Alfalfa, by J. G. Lipman and A. W. Blair. Bulletin 316, New Jersey Experiment Station, New Brunswick, N. J.

Value of Nitrate of Soda in Crop Production, by J. G. Lipman and A. W. Blair. Bulletin 323, New Jersey Experiment Station, New Brunswick, N. J.

Field Investigations of Forage Poisoning in Cattle and Horses, by H. P. Rusk and H. S. Grindley. Bulletin 210, Illinois Experiment Station, Urbana, Ill.

Sources of Fertilizing Materials for Illinois Farms, by C. G. Hopkins and F. C. Bauer. Circular 223, Illinois Experiment Station, Urbana, Ill.

Home Gardening in the South, by H. C. Thompson. Farmers' Bulletin 934, U. S. Dept. of Agr., Washington, D. C.

Lovell Hutchen's Guernsey

Dispersion Sale

Fort Atkinson, Wis.

Friday, Nov. 8, '18

Having decided to quit farming I am placing my entire herd of richly bred Guernseys on the market.

There are eighteen registered animals in the herd whose breeding represents some of the best blood of the breed.

Two of this number are daughters of the great show bull, *Lord Mar*, one of the greatest bred bulls that Mr. W. W. Marsh, the breed's greatest breeder and importer, ever owned.

Well bred herd sires have always been used to head this herd. Such sires as Skidoo of Folly Farm, who traces to the noted sire, Benjamin and Hambros Prince, who traces directly to Dolly Dimple and Langwater Hayes Rosie, have left their mark in the herd.

To the breeder who is in a position to do official testing here is an excellent opportunity to buy Guernseys whose breeding is practically a guarantee that they are capable of making good on test. Our cattle have been well grown and are splendid individuals. In fact they are just ready to make some one a big profit who is in a position to develop them.

All farm equipment necessary for running a medium sized farm will also be sold. Our farm is midway between Fort Atkinson and Whitewater on the Whitewater road.

Lovell Hutchens, Prop.,
Fort Atkinson, Wis.

Gleim Bros'. Consignment Sale

Oelwein, Iowa, Wednesday, OCT. 30, 1918

50 HEAD 50

Some rare animals will be sold in this sale, including the daughter of a 30-lb. daughter of Homestead Jr. DeKol. An especial feature of the sale will be the dispersion of the herd of W. D. Hostrop of Riceville. The females in this herd are bred to a 25-lb. grandson of Rag Apple Korndyke 8th.

Sale is the day following the Perrin & Curtis sale at Allison, both places being on the Chi., Gt. Western R.R., and easily accessible.

For further information and catalog, address **HARRIE W. GLEIM, Arlington, Iowa**

Walworth County

HOLSTEIN SALE

Elkhorn, Wis.

Thursday, Nov. 7, '18

75 Head of Registered HOLSTEINS 75

consigned by the breeders of Walworth County will constitute the offering.

This is to be strictly a breeders' sale where the choicest animals from the best Holstein herds in Walworth county are to be consigned.

It is always a source of great satisfaction for the prospective purchaser *to know* that every animal in a sale is backed up by a reliable breeder. That this sale is backed by the progressive breeders in the community for the best interests of the breed cannot be questioned. The Holstein Breeders' Sale is based identically on this policy. Among the animals consigned there are grand individual A. R. O. cows and dams of A. R. O. animals. Some of these cows are bred to such bulls as King Pontiac of Brothertown whose dam is a twice 32-lb. cow and whose two nearest dams average 38.53 lbs. A beautiful daughter of King Segis Pontiac as well as a daughter of Iowana Sir Ollie, one of Wisconsin's best show bulls are consigned from one of the leading herds in the state. Also a number of very milky females bred to a 28.60-lb. grandson of King of the Pontiacs and out of a 28.60-lb. granddaughter of King Segis, will be in the sale.
The sale will be held in the new Stock Judging Pavilion recently erected at the fair grounds in Elkhorn.

For further particulars address

John G. Voss, Elkhorn, Wis.
Sale Manager.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

The Herd Bull

"The sire is half the herd." You have heard that said many times and it certainly is true, but did you ever stop to think why, and what it means to your father's dairy herd? The sire is responsible for at least part of the good and bad qualities of every calf that is born in the herd. He is the sire of all of them. Each cow is, on the other hand, the dam of only one calf.

Does that mean anything to you, a junior dairyman? Certainly it means that a good bull at the head of your father's herd is absolutely necessary; he can't afford anything else. The only way we can improve our dairy cattle is to raise heifer calves that will prove better than their dams. That's the way your father works to improve his herd, but he can not do it unless he has a first class bull to sire those calves.

Just what is a good herd sire? First of all, it is a pure-bred of the breed to which the cows belong, whether they are pure-breds or grades. You must understand that hundreds of years ago there were no real dairy cows such as we have today, cows capable of producing from 5,000 to 20,000 lbs. or more of milk in a single year. Men have succeeded in getting cows to produce heavily only by careful breeding,—using sires from the very best producing ancestry. A pure-bred bull is a descendant of a long line of cattle that have been bred for production. A grade bull or a scrub bull is not, and if your father was to use a grade or a scrub bull, he would be going backward. Instead of getting heifer calves that would be as good or better producers than their dams, they would undoubtedly prove to be poorer producers.

Of course, your father is not in this class, but there are dairymen and plenty of them, too, who are using grade bulls. More than that, a good many of them live in communities where they have a chance to buy pure-breds. Anyone certainly is a poor business man to buy a grade bull simply because it costs $25 or $50 less than a pure-bred bull. He loses more than that on his first crop of heifer calves.

Nor is it enough to simply have a pure-bred bull. Get a good pure-bred bull, one that is backed by several generations of good producers and one that is, moreover, of the right type. It may take a little time and trouble and cost a few extra dollars to buy such an animal, but it's time and money well spent.

In his book on "Dairy Cattle and Milk Production," Professor Eckles gives several illustrations of the results obtained by using good and poor herd sires in the University of Missouri Jersey herd. The first bull they used left 4 daughters in the herd. Milk records were kept on these four for a total of 26 lactation periods and on their dams for 23 periods. Here is what the records show:

	Dams	Daughters
Average milk yield, lbs.	5,380	4,381
Average % fat	4.35	4.95
Average yield of fat, lbs.	234	216

A later sire used was Lorne of Meridale. He left 12 daughters in the herd with records for 67 lactation periods, from dams with records for 66 lactation periods as follows:

	Dams	Daughters
Average milk yield, lbs.	4,559	5,969
Average % fat	4.85	4.81
Average yield of fat, lbs.	221	287

Compare those records and think what they would mean in an average dairy herd, in your father's herd for instance. The average production of the first bull's daughters was 999 lbs. of milk and 18 lbs. of fat less than that of their dams. If 20 of his daughters had been kept in the herd it would have meant a loss of about 20,000 lbs. of milk in a single year. At $2.50 per 100 lbs. for milk that would have amounted to $500. Not many dairymen can feel they can afford to lose that much these days.

The second bull's daughters showed an increase of 1,410 lbs. of milk and 66 lbs. of fat over their dams. Compare 20 such daughters with 20 daughters from a bull such as the first. In a single year, instead of a loss there would be a gain of over 28,000 lbs. of milk and over 1,300 lbs. of fat. Figuring the milk at the same price as above, it would amount to $705. These figures are for but a single year. If you will remember that the average cow remains in the herd for 5 or 6 years at least, you can begin to see what a good or poor bull means.

Both of these bulls were pure-breds, but one was from stock whose production was unknown; the other was backed by excellent production records. Undoubtedly the second cost more than the first but the chances are that the difference was not more than $300 or $400 at the most, and certainly that extra money was well spent. A bull that is priced low may not turn out to be such a cheap one after all.

How About an Aged Bull?

When your father buys a herd sire, does he always buy a young bull? Most dairymen do because a young one is easy to handle, not so liable to be ugly. This isn't always the best policy, however. When you buy a bull calf or a young bull, you don't know what kind of daughters he will sire. If he is backed by good producing dams and is a good animal himself, you can expect good heifers from him, but you can't be positive,—it doesn't always turn out that way.

Suppose, on the other hand, that you buy a 6-year-old bull, one that is for sale because the owner has a large number of his daughters in the herd. In that case you not only see the bull himself, but you can see the kind of daughters he sires and can learn something about their production.

Hundreds of good aged bulls go to the stockyards every year. Their owners can't use them any longer and no one else seems to want them. A good many of these could have been purchased for a few dollars above beef price and in a great many cases are better bulls than the youngsters that can be purchased for anywhere near the same price.

These aged bulls could in most instances be used for several years, if they were properly handled. Moreover, there is no particular reason why they should be vicious, other than in exceptional cases.

The greatest danger in buying an aged bull is that he may bring contagious abortion into your own herd, but by buying from a reliable breeder who has a clean herd, that danger is largely overcome.



USE A PURE-BRED SIRE OF YOUR FAVORITE BREED AND BE SURE HE IS A GOOD INDIVIDUAL

Take Care of the Bull

To get a good bull is one thing; to keep him a good one is another and quite important one. A good many dairymen buy good bulls but after a few years not all of them are still good ones. Some have become too ugly to keep, while others are, perhaps, non-breeders. Sometimes these things can't be helped. Occasionally a comparatively young bull will go wrong in spite of everything, but more often the owner has neglected to give it the right care. There are several things to be remembered about taking care of a bull, things which most dairymen know but which they sometimes forget.

First of all, don't allow the bull to run loose in the pasture with the rest of the herd. A dairyman should have a record of all service dates and know when cows are to freshen, which cannot be done unless the bull is kept separate from the herd. Furthermore, cows and heifers may be bred too soon or too young if they run with the bull. Then, too, this is a dangerous practice, because if the bull is at all inclined to be vicious, and most of them are sometimes, he has an opportunity to attack anyone that may cross the pasture.

Practically all breeders do keep their bulls confined, but there is one thing that many of them neglect. They don't see to it that those bulls get plenty of exercise. Did you ever go into a barn and find the bull shut up in a small box stall or perhaps locked in a stanchion? It's all right to have him fastened that way, but not all of the time. The herd sire needs plenty of exercise just as much as any other animal and the lack of it is one of the biggest reasons why so many good ones are uncertain breeders after they are five or six years old.

Sometimes a special pen or yard is built so that the bull's stall opens out into it. In all but the most severe weather, this gives him an opportunity to take as much exercise as he wants. Other breeders use a small treadpower for this purpose. Some of them even have the treadpower attached to the separator so that the bull will be doing useful work while he is exercising.

There are many different ways of forcing the bull to exercise and nearly all are good. The big thing is not so much how he exercises as it is to be sure that he does it. It not only helps to keep him healthy but it also helps to keep him from being ugly.

One thing more, and here is something especially for boys. Don't ever tease a bull, even when a calf. Let the bull strictly alone except when it is necessary to handle him. He isn't a good playmate for any boy and the bull that is teased is just the one to get ugly first.

Junior Letters

Hoard's Dairyman Juniors:—We have just received our buttons, fobs, and creeds. The first two are very nice but the last is best of all. Our mother says that if we make that creed our guiding star in life we shall be great men, even if we are never anything but dairy farmers, for greatness lies not in man-made distinctions but in having a high ideal and living true to it.

We do not have much land but we make good use of it all. Have two acres of good corn out and about a quarter of an acre of potatoes. Also good garden and truck patch. We have four cows, three of which we are milking. Manliff is past eleven and Richard ten years old today, and we can milk and take care of all the cows. We also have four nice spring pigs which are doing nicely, and two fine Shetland ponies with which we plow the corn and potatoes and do all the work except the breaking of the ground. We made five tons of fine timothy hay and just now we are helping harvest a nice piece of oats.

Our address is National Road, West, Addison, Pa., and we shall be glad to hear from any of the juniors at any time.

Thanking you for the buttons, fobs, and creeds, and with best wishes for all the juniors, we are, Manliff and Richard Dean.

Hoard's Dairyman Juniors:—I received your welcome letter some time ago and as it is Sunday I'll take time to answer it.

I am always very busy around home. Papa and the hired man were gone threshing every day for the last two weeks. They thresh very long at night, therefore mamma and I are through milking when they come home. We only have to help two of our neighbors thresh yet. We got 370 bus. oats, 30 bus. rye, 60 bus. speltz, and 10 bus. wheat. Our corn is doing well especially that which we are going to put into the silo.

We are still feeding ensilage and mix it with



AN ILLINOIS PIG CLUB BOY IN BUSINESS FOR HIMSELF

ran. We make Swiss cheese and the cheese maker says it doesn't hurt the milk any.

About six weeks ago mother and I made a trip to Rice Lake, Wis., where we visited a family who used to be our next neighbor. It was a fine trip and I liked the country very well. They have good roads and they all run on the section line. They can do this because there are no bad hills. There are plenty of lakes to go swimming, fishing, and boat riding. I had a very good time as there were a good many children of my age in the neighborhood.

I have good news to tell you. Papa now has a hired man and therefore I can go to high school. I think I will take up Dometsic Science. One of my best friends and I are going to board in the same place. High school will start on Sept. 9. I think I will like it very well.

We are going to put the electric lights in the house and both of the barns. We ordered a light plant; it seems to be very simple but we can make it run almost anything. Papa promised to get me an electric flat iron, which I think I will like.

We put the gas lights in the house when we built our house. We had to buy carbide and the generator would produce the gas. We had the generator in the cellar and it always worked all right, but the people were telling us to move it out for something might go wrong and explode. This happened in a few places as people were too careless about it. Then we moved it out and put it into a cellar under the shop; the water always froze and often we had no light. This spring something broke and now papa got tired of it and said it was getting to be a dangerous thing, so we are going to install a light plant.

Wisconsin. Emma Naef.

Hoard's Dairyman Juniors:—Part of the last two days I have been picking my corn, which is very good. As I stated before I expect to get between forty and fifty bushels of good seed corn, and a few bushels for the chickens.

Friday night, Mr. VanderLinden, local agent for fertilizers, from whom we bought one ton and a half for our garden, came to our place to get some of my corn to take to the state fair. He took three stalks and about a dozen cobs and said it was the best corn he had ever seen in Wisconsin. I would have sent some to the state fair but I did not have enough picked to select from to get it there on time. I will send you a couple of cobs under separate cover to show the kind of corn I raise.

Next Tuesday, September 10th, I will have to go to school. The school would have started a week ago but they were doing some repairing and did not have it ready. This will be my senior year in high school. I took the first and second grade in one year and skipped the eighth grade, thus being two years ahead of most of the boys and girls of my age. I don't know if I will go to Madison or not, I would like to.

Well, as my letter is getting rather long I will close for this time, and if I get a chance will write you when my corn is harvested.

Wisconsin. Harvey D. Knorr.

Hoard's Dairyman Juniors:—I received your letter of August 15 and was glad to get it. We have all of our grain threshed. Some hemp around here is cut. Ours is not cut yet. It averages eight feet and in some places 10 feet.

Some of our corn is ripe but we have not cut any yet. We have 30 acres of corn.

It has rained here for the last two days.

Our school will commence next week.

There are 8 boys from around here who are drafted. Some are going over and some are at Camp Grant.

Wisconsin. Melvin Miller.

Hoard's Dairyman Juniors:—Well, how are you juniors? I suppose you think I have forgotten you but I have not; I have been so busy that I have not had time to write but I have been reading the junior page every week and it is very interesting I have not got any stock just now except half share in a horse; my brother has the other share. We expect to breed her this fall and raise her colt; she is quite old and my brother would sell his share for $4.50.

I cut most of our wheat and succotash and some of the barley this fall. We threshed our barley and oats quite a while ago; we threshed that out of shocks. We were through stacking succotash and wheat quite a while ago. We have 7 stacks.

We are busy plowing now. I do the plowing with two horses and a sulky plow. They are quite big horses, otherwise we have to use three. I like to plow. We are picking seed corn now; I have made a seed corn rack that holds 76 ears which I have full. I made the rack by taking a 2x2 and driving eight-penny nails in on all four sides. The one I made is to hang up but I am making one like it to stand up that will hold 100 ears. I like to pick seed corn and it is none too early now as it is liable to freeze any night.

I have a garden with potatoes, popcorn, and navy beans.

I am going to try to get a heifer pretty soon. If I get one I am going to try to get a registered Holstein heifer. I am buying war savings stamps now and have three five-dollar stamps so far. I am going to buy many more.

I wish some of the juniors would write to me. My address is R. 1, Hayward, Minn. I guess I will close now wishing the juniors good luck and will gladly correspond with any of the juniors. I live in Freeborn County. I milk 4 cows now.

Minnesota. Russell Hanson.

La Crosse Happy Farmer TRACTOR

FOR only $1075 you can have the greatest tractor ever built. It is the Happy Farmer.

Because of the thousands of Happy Farmer Tractors we are building and selling, we are able to buy the best materials in great quantities and at bottom prices. Every part of the Happy Farmer is made in our own plant by the most up-to-date labor-saving machinery.

The low price of $1075 is the direct result of the size and system of the great company which makes the Happy Farmer Tractor.

Simplicity of Design

The Happy Farmer has the simple, wide tread and perfectly balanced design, which does away with unnecessary weight and keeps down fuel cost.

The Happy Farmer is the one man tractor. Every working part can be reached without stooping. Thousands of satisfied Happy Farmer owners testify that it is the perfect kerosene burning tractor for every size farm. It is the tractor which is self-guiding in the furrow and which turns short in its own tracks in a space of less than nine feet.

The Happy Farmer is rated at 12-24 horsepower and is the tractor which can be made to act like horses and throw more power on either side when needed.

Happy Farmer Tractor Implements

Happy Farmer Tractor Implements lead the field with the Happy Farmer Tractor. The Happy Farmer Grain Drill is the one with the patented automatic power lift and power pressure. Happy Farmer Disk Harrows have special strength and durability for tractor work. Happy Farmer Moldboard Plows are operated by the simple pulling of a cord from the driver's seat on the tractor.

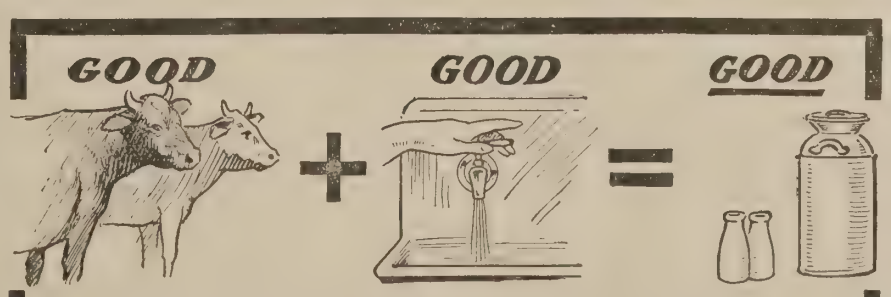
See the Happy Farmer Yourself

Dealers are taking orders for the Happy Farmer Tractor now. We cannot guarantee to supply the demand unless orders are placed at once. There is a Happy Farmer distributor near you who holds Happy Farmer demonstrations from time to time. See the Happy Farmer at work and let it prove its leadership. Write us today for the name of nearest distributor who will let you know when the next demonstration is to be.

LA CROSSE TRACTOR COMPANY
DEPARTMENT 836A LA CROSSE, WISCONSIN

12-24 H.P. for $1075





and good milk means good Profits—for YOU! You have the good Cows. We can supply you with the

BETHALTO Water System

which will furnish abundant pure water, on tap, in your Dairy, Bathroom, Kitchen, Stables, Barnyard, Pastures, Garden — anywhere you want it—any time you want it—fresh from the very bottom of your Well or Cistern. Positively eliminates freezing troubles. Extremely simple, and stays in order. No trouble at all to install. You can install it, or we will.

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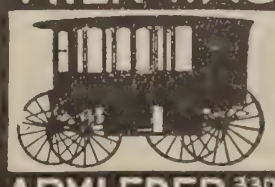
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STOCK FOR SALE

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Waukesha County Holstein-Friesian Cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct from the breeder and know what you are getting. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha. Wisconsin. 11-4

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

Registered Holstein bull and heifer calves; 31-lb. sire; one bull ready for service. PHILIP LEHNER, Princeton, Wis. 13-3

One carload of high grade Holstein cows and heifers for sale; cows bred to Pabst Maplecrest Champion whose dam has a record of 34.492 lbs. butter in seven days. ELDER LAWN DAIRY FARM, Mike Kieffer, Proprietor, Fredonia, Wis. 13-4

Fairview Farm again offers choice registered Holstein-Friesian females, with high record backing. Ormsby and Pontiac breeding. Liberty Bonds as good as cash. Face values given. W. A. TAYLOR, Roberts, Wis. 14-spl

For Sale—High grade Holstein cows and heifers in carlots. Dodge County Holstein Breeders' Association. W. P. MANN, Sec., Dodge Center, Minn. 14-2

Before snow flies will sell at a bargain ten yearling heifers and six nine-month-old bull calves, thirty-, forty-, and fifty-pound breeding, fine individuals. Herd accredited by state of Minnesota and United States government. Come to Lake Shore Stock Farm. E. J. OPPLIGER, Prop., Forest Lake, Minn.

For Sale—15 high grade Holstein cows, 6 yearling heifers. Also good farm of 200 acres. Address M. J. STAS, Fabius, N. Y. 14-3

For Sale—Four pure-bred Holstein cows, three to five years old. One six months old bull. All have records or record dams. LITTLETON FARMS, Savedge, Va.

Pure-bred Holstein bull calf, King Segis breeding; 10 months old; $100. Another 9 months $75. Also cows, heifers and calves. H. AUGUST LOHMANN, R. 4, Duluth, Minn. 14-2

For Sale—Pure-bred Holstein bull; 9 months old, well bred, straight and nearly white. Price $75. A. H. CROSBY, New Buffalo, Mich.

Auction Sale—Oct. 31st, Assumption, Ill., 40 head of grade Holstein cows, heifers and springers. Cows in this sale giving 13,000 lbs. milk yearly. Everything bred to 30-lb. bull. Sold $9,000 worth of milk last year from 34 cows. Am going into pure-breds. R. F. JOHNSON, Assumption, Ill.

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernsey bulls, Advanced Registry breeding. GLENN CLARK, Eau Claire, Mich. 13-5

For Sale—A few choice bred young Guernsey bulls from such sires as Imp. Clara's Sequel 29414 and Dairymaid's Glenwood of Pinehurst III 26948 and from A. R. dams with records as high as 836 lbs. fat. CHAS. A. WILKINS, Mound City Farm, Platteville, Wis.

In order to settle the estate of the late W. Henry Bell, we offer for sale his entire herd of registered Guernseys. The herd consists of 40 cows in milk, 20 bred heifers, 14 heifer calves, 10 bull calves and the herd bull. This is a fine herd just in their prime and we will make a very attractive price on them as a whole. H. SCOTT BELL, Executor. Address communication to David Bell, Mgr. of Cattle, Scott's Station, Ky. 14-tf

Guernsey calves of excellent May Rose breeding. Low prices if taken soon. F. T. DUNLOP, West Grove, Pa. 11-4

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

STOCK FOR SALE

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernseys, choice bulls 2 to 6 months old. Excellent blood lines. All have A. R. dams. KEEWAYDIN FARMS, Gates Mills, Ohio. 4-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

For Sale—Guernsey bulls from record producing dams. Prices reasonable. H. C. ADAMS, Algona, Iowa. 12-tf

Guernsey bulls of serviceable age. Also bull calves, A. R. dams, noted sires. May Rose, Golden Secret and Strong Anchor breeding. Satisfaction guaranteed. TARBELL FARMS, Smithville Flats, N. Y. 14-4

For Sale—Three milch cows and one heifer, all four bred to freshen next spring; two heifer calves, half year old; one male Inglewood Peter Butter Boy, 2 years; all pure-breds, the seven head for $1,000. A bargain for somebody. For information write to WM. C. KASTE, Texhoma, Okla. 14-2

Dispersion sale Guernsey cattle and Hampshire swine, both sexes. G. D. FELLOWS, Algoma, Wis. 14-2

For Sale—Fresh registered Jersey cows and heifers. Also bulls sired by a grandson of Oxford You'll Do. W. O. DOUGLAS, Janesville, Wis. 12-3

For Sale—Eight registered, fifteen high grade Jersey cattle, one to eight years, freshening now and during winter. Most cows bred to son of Golden Fern's Noble, also for sale. One hundred dollars up. A. L. FITCH, Westmoreland, N. Y.

For Sale—A number of very choice registered Ayrshire heifers, also a few choice bull calves. These animals have lots of type, quality and breeding. Write for prices and descriptions. TOMPKINS FARM, Lansdale, Penna. 13-3

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 13-2

SWINE

Duroc Jersey bred sows: boars, and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Young Duroc boar. Write me. JAMES B. LAWRENCE, LeRoy, N. Y.

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

Duroc herd boar for sale. First prize winner at State Fair. PHILIP LEHNER, Princeton, Wis. 13-2

For Sale—300 stock pigs six to eight weeks old. $8.50 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 11-tf

For Sale—Big type Poland China boars. V. E. HOLMES, West Liberty, Ia. 12-4

Registered big type Poland China spring boars, average weight 280 lbs. Price $74 each. Also fall pigs. L. E. PEASE, Waukesha, Wis. 14-2

Big, growthy, registered Poland China boar pigs ready for service, also gilts and sows with litters. Big type breeding. CHAS. W. O'NEILL, Bridgeport, Wis. 14-2

Registered Berkshires, April pigs, both sexes, good breeding, prices reasonable. THEO. J. KURTZ, Cedarburg, Wis. 14-2

For Sale—Registered Berkshire sows sired by Iowana Baron Premier 3rd out of Baron's Lady D, no better breeding, splendid individuals and type, farrowed April, 1918; just right to breed for spring pigs; price reasonable. QUINEILO FARMS, Milwaukee, Wis.

MACHINERY

For Sale—A two-unit Sharples Milker and fixtures for 26 cows. Price $125. GEO. HUTCHINGS, Mayville, Michigan.

STOCK WANTED

Wanted—Several good, young, registered, Guernsey cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 13-6

Wanted—Several cars large type pure-bred Holstein springers about three years old, subject federal tuberculin test and retest. Forward cow testing association reports of your cattle, giving yearly record milk and average per cent. Give weight, pedigree, price, full description first letter. Also bull from dam with above, 1,100-pound yearly record, 4% test, Pontiac or Korndyke breeding preferred. MAYFIELD FARMS, Denmark, S. C. 14-2

AUCTIONEER

Auctioneer—My specialty Holstein cattle and Poland China hogs. Highest of reference. Sales made everywhere. CHAS. W. O'NEILL, Bridgeport, Wis. 8-8

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

The Airedale—The most wonderful dog on earth; great watch and stock dog. Will do anything any dog can do, and do it better. Pedigreed puppies for sale at farmers' prices. Descriptive circulars free. P. H. SPRAGUE, Maywood, Ill.

HAY

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

EXCHANGE

Excellent Holstein yearling bull for good small tractor. MANIKOWSKE FARM, Mooreton, N. D. 13-2

Wanted to Exchange—160 or 320 acres of fine, well improved, all tillable land, in the Red River Valley of Minnesota for registered or number-one grade Holstein milk cows and heifers. Address WM. OHLHAVER, Aurora, Ill. 14-4

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

FOR RENT

For Rent—Fine 500-acre farm on shares. Modern improvements. Located in the village one-half mile from milk plant. Present renter crippled hand filling silos this fall. Funds required to buy the renter's equity. Address D. C. COOLIDGE, Downing, Wisconsin. 13-tf

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

CREAMERIES

Creamery and ice cream manager for Illinois plant, good sized town; increasing business; good moneymaker. Yearly business $150,000. Prefer man who can invest $3,000.00 or more and take complete charge. Address BOX 271, care Hoard's Dairyman. 13-2

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Wisconsin grown winter sand vetch and pedigree rye properly mixed for seeding. VAN LOON, LaCrosse, Wis. 10-tf

Seed corn, grown here, Minn. No. 23. Write STROHSCHEIN BROS., Turtle Lake, Wis.

AGENTS WANTED

A-1 Milking Machine Man—We have the easiest selling and most efficient mechanical milker on the market. Every farmer a prospect whether he has 6 or 600 cows. Splendid territory still open. Big commissions. Don't answer unless you can organize and produce. Correspondence confidential. THE BURTON PAGE COMPANY, Dept. 4547, 9 S. Clinton St., Chicago.

MILK PLANT

For Sale—Milk distributing plant in city of 20,000. Well equipped. Pasteurizing and refrigerating machinery, two horses and wagons, one truck. Doing business of $26,000 per year. Chance for large increase. Good shipping point. One of best towns in western Pennsylvania. Will sell cheap. Write BOX 95, care Hoard's Dairyman, Fort Atkinson, Wis.

SHEEP

For Sale—2,000 selected Rambouilet breeding ewes; 1 to 4 years old, price $14.50 to $18 per head as per quality. Can make immediate shipment. Will sell in any size lots from twenty-five up. Can furnish a few good rams with them. C. A. SOLIDAY, Phillips, Wis. 14-3

STANCHIONS

For Sale—Thirteen James Steel Stanchions with self stop and partitions. Have been used one year. Price $5 each. WM. C. KASTE, Texhoma, Okla. 14-2

SALESMEN

Salesmen—Many of our salesmen have gone to war and we are filling their places with men exempt from draft. Lack of competition and great prosperity of our customers makes sales the best we have ever known. Selling experience desirable but not necessary. McCONNON & COMPANY, Dept. 67, Winona, Minn. 14-4

FARMS FOR SALE

Wanted—Fifty dairy farmers to locate in Northern Columbiana County (Ohio), ten of whom are capable of making herd records of 400 pounds of butterfat or over; five of them to be members of the Winona Cow Test Association and five to be members of the Salem Cow Test Association; fifteen of whom are to find membership in the Northern Columbiana County Bull Association; 40 to become members of the Eastern Ohio Jersey Breeders' Association; ten to become members of the Columbiana County Guernsey Breeders' Association. The children of these farmers are to assist in making a banner calf for us next year, and all are to co-operate in buying feed through The Salona Supply Company, (a co-operative enterprise). Those joining the cow test associations are to fill the places of those who fail to make winning records, thus holding for us our world leadership in this work. While Northern Columbiana county is as thoroughly equipped for the co-operation of its farmers as any locality in the United States, the demand for its cows and their products has outrun our dairymen's ability to produce them. We therefore ask fifty progressive dairymen to come to us and buy our half-operated farms that are offered at prices only forced upon the owners by the scarcity of farm help and exceptional opportunities in the industrial world. Address inquiries to DILLWYN STRATTON, Winona, Ohio.

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-42

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. B. GURLER, Macon, Miss. 25-tf

80-acre farm, five miles town, fair buildings, easy terms. Price $3,600.00. LEWIS GREENE, Route 3, Stanley, Wisconsin.

For Sale—80-acre farm. Good farm; good location. R. 3, Box 33, Juneau, Wis.

To Home Seekers—The Black Belt of Alabama is the garden of the south for stock breeding and dairying. Have a list of desirable farms, well located, for sale at $40, $50, and $60. Land equal in quality to Illinois farms selling at $200 and $250 per acre. Some samples: 3 of high class land, lying together 192, 200 and 350 acres at $50. One well improved 900 acres. Railway station on the farm 19 ms. from a modern creamery, at $45. Will divide and make 3 fine dairy farms. Write me for particulars of others. GEO E. BROWN Uniontown, Ala. 12-tf

For Sale—Ideal country home—Gladmon fruit and stock farm, home of the late J. E Baer. Excellent location, fertile soil, modern buildings, macadamized road, 2 miles south west of Baraboo, Wis. For information address C. J. BAER, R. D. 4, Baraboo, Wis 12-3

Farm bargains—40 acres, good buildings, fine land, one-third cultivated, close to R. R., with cows, horse, machinery, and crop $3,000; 80 acre farm $2,900; 160-acre farm $3,600. Land snaps: 40 acres $300; 80 acres $600. Write for particulars to THE E. L. C. CO., M-C Dept 31, Merrill, Wis. 13-tf

Modern dairy farm, 160 acres, well fenced high state of cultivation, two silos, automati waterer in barns, accommodations for 100 hea of cattle, 20 rods from cheese factory, 11-roo house, furnace heat, gas lights in house an barns. A bargain at $25,000. Address own er C. S. MULKS, Riceville, Iowa. 13-2

140 acres rich, brown, clay loam, 115 tilla ble, balance extra fine pasture. Farm we watered by springs and wells. Barn forty b eighty, nearly new, slate roof, lightning rod House roomy and pleasant, now occupied b two families. Silo, hog house, hennery, an garage. All buildings well painted. Acetylen lights. Tenant house and large barn also Farm on macadam road three miles fro Johnstown, five from Gloversville, eight fro Amsterdam. All fine markets, 1½ miles t trolley station, ⅛ mile to school. Good reaso for selling. Price $12,000. Write owner, RO P. RUNKLE, Johnstown, N. Y.

$2,000 down gets Central West farm, stock tools, crops, pair horses, cow, mowing machin double gang plow, cultivator, harrow, rolle disk, seeder, long list tools, crops. 100 acr smooth, loam tillage, clay subsoil, high cult vation, record corn, grain, general crops, 4 acres wire-fenced pasture big herd, estimate 1,000 cords wood, 50,000 timber, much frui Splendid house, 8 big rooms, gas, 2 fine barn poultry, carriage, hog houses, buildings value $6,000. On improved road near hustling ra road center, bus passes daily. Milk sold door. Aged widow sells all $9,000. $2,000 dow Details this high value central west opport nity page 71 Strout's Fall Farm Catalog with other real bargains. Copy free. E. STROUT FARM AGENCY, Dept. 3001, 3 Marquette Bldg., Chicago, Ill.

The map shows why Aitkin County is th best stock and dairy county in the state. It located just right, so near the markets, and has never been bomed. You won't have to pa high prices for this reason, and when you bu direct from our company, no one is making an profit off of you. Can't I send you a map, an illustrated folders? You will be glad. Al NOLD, Land Agent, Rock Island Railway, 1 Wolvin Bldg., Duluth, Minn.

FARMS FOR SALE

or Sale—Consisting of eighty acres, high land, good buildings, silo. Lo- miles south of the Twin Cities on good l close to town. Full information. AS. BERK, Northfield, Minn.

of the best buys in West Central Wis- st of markets, ten trains daily, sell to creameries, cheese factories and lensery. Climate same as Southern . 80-acre heavy clay loam soil fair- all under plow, basement barn, nice ouse, 18 head of cattle, 3 horses, all , crop hay, etc.; possession at once; o town. $12,000.00. 240 acres, all y loam soil, 100 acres under plow, imber and pasture, fine set of build- h over $6,000.00. 6 miles of one town es of another town, near church and ood neighborhood. 19 head of Dur- e, all machinery, and feed with place, 500.00. $4,000.00 down, balance on acres all under plow, a fair set of level, prairie land. You can't beat .000. Near town. Write, H. C. IN- T, Menomonie, Wis. 14-3

e or Trade—240 acres of as good land is in Wisconsin. Everything up-to- this year. Will take in 80 towards sell stock and tools, a little down and time on the rest, or twenty years. EUGENE T. BELL, Hustler, Wis. 14-4

in the Mississippi Prairie Belt, alfalfa rs. Corn, hay and live stock propo- deal climate, good neighbors, schools, good roads. Main line of railroad. large markets. Write now. H. H. f, Macon, Miss. 11-tf

FARMS WANTED

you sell your farm, if you got your ell direct, no commissions. Particu- . CHARLES RENICH, Woodstock, 14-tf

FOXES

ale—Silver, black and Patch foxes. G LYONS, Waterville, Nova Scotia. 14-10

MISCELLANEOUS

Long Tom—If you happen to see this C. ENGELHARDT in care Hidden arm, Redwood, Calif.

ir, we have a special opportunity for ng spare time, an opportunity to do od work in your neighborhood, for rment of dairy farming, that will pay ash for the effort you put forth. Write "Special Opportunity Getting To- folder. Address HOARD'S DAIRY- ort Atkinson, Wis. 2-tf

es—Pure sorghum, made the good old- i way. 6 ten-pound pails to case, $7.50 e. Sample mailed 10c. S. ROSEN- Hawesville, Ky.



tising in this department is 5c per word. Remit in advance.

HELP WANTED

ed—Married man on my dairy farm do general farm work and willing to te with my herdsman in caring for my ys. Wife must be willing to board two en. State wages in first letter. H. C. , Algona, Iowa. 7-tf

ed—To employ three dry hand milkers. ages, board and living quarters. Apply RST DAIRY FARM, E. K. Magee, r, Sheboygan Falls, Wis. 3-tf

ed—Young, experienced farm hand, not , to work on large Guernsey dairy farm. t once. Good habits. $50.00 per month rd. HOMER F. RUNDELL, Livings- s. 10-5

to care for herd of registered Jerseys. expert milker, fond of Jerseys and his bsolutely clean, over draft age and od references. Could use married man children if wife willing to work in ouse. Permanent position and good RIVERVIEW FARM, 1997 Montreal t. Paul, Minn. 10-tf

ed—A competent, reliable, married man. oroughly understand feeding and care e and farming in every branch. House, wood, and milk. State wages per age, references and how many in fami- dress S. P. BRADLEY, BRADLEY & LF CO., Milwaukee, Wis. 12-3

ed—Two expert machine milkers to han- L-K Machines. Thoroughly modern producing certified milk. One of the dairy establishments in Middle West. ge, experience, salary, etc., first letter. o W. R. HALE, Manager Wilco Farms, lle, Ill. 13-2

ed herdsman wanted by November first ge Guernsey herd. Experienced feeding ords. New four-room house, close to milk, wood and garden. Wages $900 for ive age, experience and reference. t F. RUNDELL, Livingston, Wis. 13-2

ed—Experienced Holstein A. R. feeder lker. Large herd of splendid Holstein- ns and thoroughly modern plant. State perience, references and salary first let- pply W. R. HALE, Manager, Wilco Willisville, Ill. 13-2

ed—A responsible tenant for a 480 arm. Good buildings, silo and water. st own one-half of the stock and re- ne-half of all proceeds. Located in th County, Wisconsin. Good opportuni- the right man. Swede preferred. P. O. 67, East Troy, Wisconsin. 13-3

HELP WANTED

Wanted—Two men to work in dairy, must be good milkers. Good wages, married men preferred. Address T. L. KINNEY, Jekyl Island, Brunswick, Georgia. 14-2

Wanted—Competent farm manager who thoroughly understands raising of crops and caring for pigs. State salary, and give references. J. T. SHANAHAN, East Aurora, N. Y.

Wanted at Once—Herdsman and caretaker for up-to-date herd of Holsteins near Pittsburg. Good wages and chance to learn A. R. O. work. House for married man. Apply CHESTNUT HILL FARM, G. A. Burdick, Supt., Gibsonia, Pa.

Wanted—Two dry hand milkers, fifty-five dollars and board. Transportation refunded after six months' service. MAYFIELD FARMS, Denmark, S. C. 14-2

Wanted—Married man to work on farm. Good wages, steady work. Write or call, GEO. J. SCHUSTER, Mukwonago, Wis. 14-2

Married man as manager or foreman of a farm of one hundred twenty-five acres and a dairy of sixty milking cows. Must be man of experience in raising feed products and handling cows. State terms and references. RYALS DAIRY, Savannah, Georgia.

Barn man, single, draft exempt. Good milker, general barn work. State age, experience. Wages $50, bonus. Massachusetts farm. BOX 274, care Hoard's Dairyman.

Wanted—Single herdsman, Jersey herd of 25. Modern equipment. Permanent position to right party. Apply at once, stating salary expected with maintenance. N. D. STATE TUBERCULOSIS SANITORIUM, Dunseith, North Dakota.

Wanted—A competent foreman for grain and dairy farm. Prefer married man with some family. Could use the right kind of single man. Write, giving age, experience and references. J. D. BACON, Prop. Lilac Hedge Farm, Grand Forks, N. D. 14-2

Wanted—Herdsman to work with my Holstein herd. One with experience in fitting and A. R. O. work. Write or call GEO. J. SCHUSTER, Mukwonago, Wis. 14-2

Wanted—Married couple, $75 month; or two single men. Board and room. Steady job. EUGENE BELL, Camp Douglas, Wis.

Wanted—Single dairyman with experience with pure-breds for California Guernsey herd. Must be industrious and practical. College training not essential. Good opportunity. W. S. TAYLOR, 32 Baker St., San Francisco.

General man, single, exempt from draft on farm Massachusetts. Good milker. Feed, care few pigs and general chore work. Wages $50, increase right man. Age, experience. BOX 275, care Hoard's Dairyman.

Wanted—Young, experienced, married man on large Guernsey dairy farm. Start Nov. 1 or later. Good habits, good milker. Prefer wife who can milk. Give reference, age and classification. Furnish wood and milk. Wages $750 per year. HOMER F. RUNDELL, Livingston, Wis. 14-4

Wanted—Man and wife, no family, to run a small farm near Twin Cities. Must know machinery and be thoroughly efficient. Steady place. Prefer farm school graduate. State salary expected. For intelligent man with little or small capital, this place is better than owning a farm. Address BOX 273, care Hoard's Dairyman.

Farm teamster in Massachusetts. A-1 man, single. Full particulars first letter. BOX 276, care Hoard's Dairyman.

Wanted—Single man, exempt from draft, as assistant herdsman, experienced in handling milking machines. $50 per month with board. SWIGARTDALE FARM, Petersburg, Mich.

Wanted—Married man who is experienced farmer for gentleman's country place. Wife to help with housework. References required. DR. ELSAESSER, North Lima, Ohio.

POSITIONS WANTED

Position wanted as manager or herdsman on up-to-date farm by young man, single, exempt from draft. Experience in A. R. O. work, best of references. Address BOX 262, care Hoard's Dairyman. 12-3

Position by agricultural school graduate, four years' experience, A. R. and certified dairy work. Single, draft exempt. State wages and proposition in first letter. BOX 278, care Hoard's Dairyman.

Position wanted—Experienced farm foreman. Farm on shares, good position. Married, references. Address P. O. BOX 45, Lake Villa, Ill.

Wanted—Position as herdsman. Guernseys preferred. Married man. M. A. C. short course. Capable of management. M. McCRACKIN, R. 1, Maple Rapids, Mich.

Farm superintendent thoroughly understands modern farming, dairying, etc. Wide awake hustling man with constructive mind and executive ability to handle a proposition of any size. Married, age 46. References. BOX 264, care Hoard's Dairyman.

Wanted—Management dairy farm, age 39, agricultural education, 12 years' experience with pure-breds. Guernseys preferred. BOX 272, care Hoard's Dairyman. 14-2

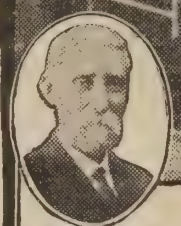
Poultry Man—High grade man, 40, experienced in utility line, conscientious, industrious, absolutely reliable, wants responsible position by January 1st or possibly sooner. E. A. NEUBERT, Box 632, Hurley, Wis.

Farm manager wants position on large pure-bred stock farm. Large experience in modern farming, stock breeding, production of certified milk, gardening, greenhouse management, and general development of modern, up-to-date farm. American, married, successful record. Best references. Will only consider first class proposition. BOX 277, care Hoard's Dairyman. 14-4

Position Wanted—Man and wife. Man as foreman on large first class dairy; good milker; life long experience in dairying. Wife neat; first class cook and housekeeper. Both ambitious. Good recommendations. State requirements and wages for both in first letter. Address BOX 279, care Hoard's Dairyman.

Position Wanted—Working herdsman or foreman, married. Open for position November 1st. WM. ZEMEKE, Burlington, Wis.



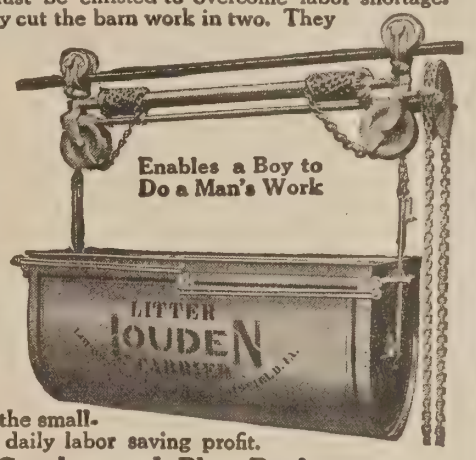


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Bulletins of the Week

Infectious Abortion in Cattle, by L. F. Rettger and G. C. White. Bulletin 93, Storrs Experiment Station, Storrs, Conn.

Growing Pigs in Summer, by W. P. Snyder. Bulletin 165, Nebraska Experiment Station, Lincoln, Nebr.

Concrete Troughs, Tanks, and Cisterns, pamphlet published by Portland Cement Association, Chicago, Ill.

Digestibility of Some Seed Oils, by A. D. Holmes. Bulletin 687, U. S. Dept. of Agr., Washington, D. C.

Common White Grubs, by J. J. Davis. Farmers' Bulletin 940, U. S. Dept. of Agr., Washington, D. C.

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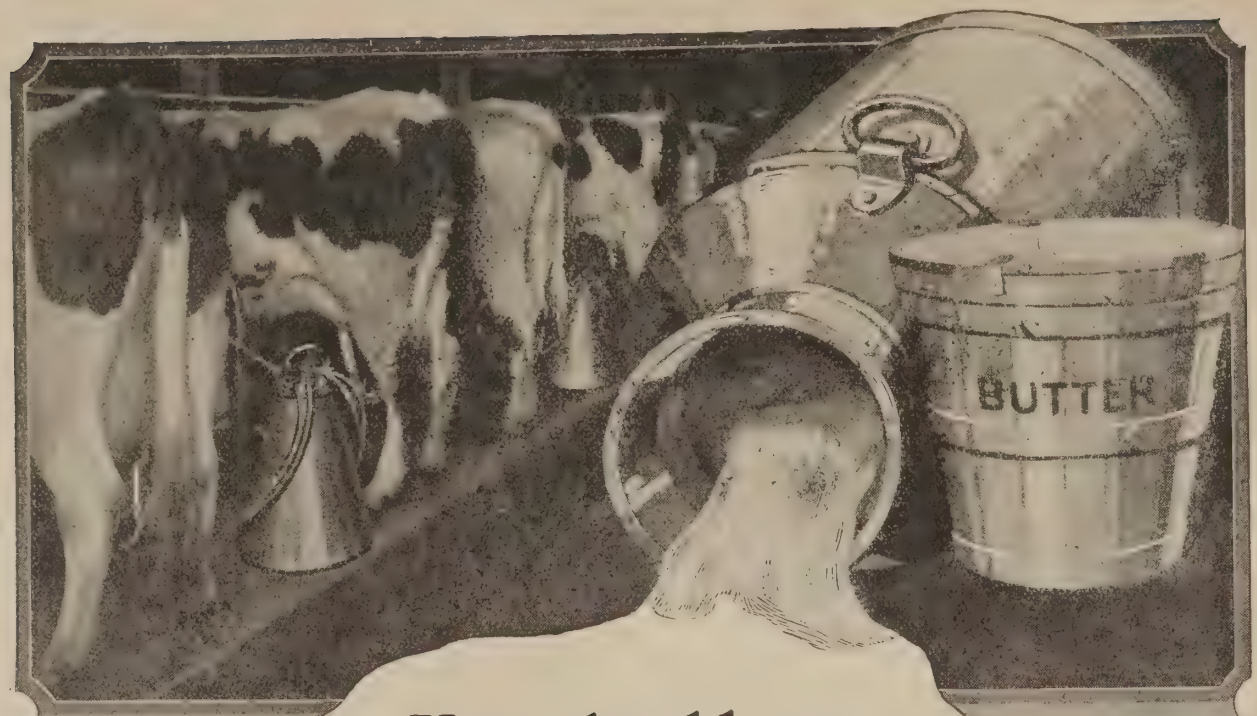
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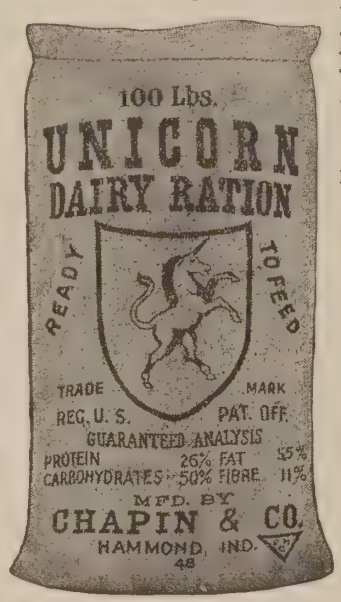
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Seeing your friends and having them join in for a club of subscribers.



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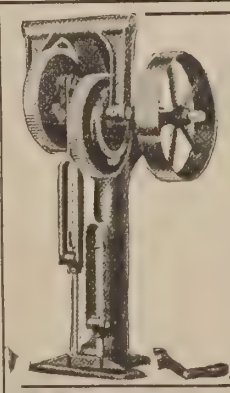
to the eye and taste, is butter colored with Dandelion Brand Butter Color. It sells readily, for women want it. Insist on

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We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.

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Dandelion Brand Butter Color
The color with the golden shade



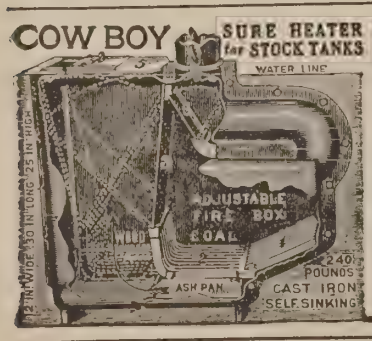
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COW BOY TANK HEATER

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The germs are killed by a chemical in water in the container. Empty once a month as easy as ashes. Closet guaranteed. Thirty days' trial. Ask for catalog and price.

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When Writing to Advertisers, Mention Hoard's Dairyman

When writing advertisers please mention Hoard's Dairyman.

Oregon State Dairy Counci

(Continued from page 440)

sacrificed in Europe and of the s city that would arise here if he tinued killing his dairy animals commenced to see his responsib And many a farmer as he got thought said, "No matter what sacrifice, I shall keep my herd in It will be a patriotic act and one eventually will bring economic ward."

As part of the educational paign the schools in co-operating the children reading lessons and ing essays on milk. "Teacher" "drink milk" and the kiddies home and asked mother to give milk and told her why.

The people's institute and women's committee of the Coun National Defense is assisting i milk crusade by taking the milk sage and pamphlets into the hom all the children who in the wei and measuring tests were found below the standard.

Miss Jessie Millard of the chil department of the public library can tell wonderful and encha stories, is doing her bit by tellin story-hour boys and girls abou value of milk. Of course she ma attractive in the "once-upon-a- fashion. So it goes, everyone is g enthusiastic.

To spread the doctrine for a er use of milk and to encourag dairymen, Dairy Day was held state fair in Salem and a specia gram was presented with bell's band playing a splendid nu of selections and Dr. E. J. Lab the speaker, telling his exper at Evian, on the shores of Geneva, on the French border he established a children's hospit the Red Cross and fed, bathed cared for hundreds of refugee dren from Belgium and France into this talk Dr. Labbe wov message "Milk is an absolute sity. At any price it is cheap keeps the children well and s But the farmers of Oregon mus killing their cows and everyone encourage the greater use of products so that the price can b within the reach of everyone."

This is an outline of the firs weeks' work done through the of the Oregon Dairy Council. other plans to help the situati both producer and consumer. council looks upon milk as som worthy of exploiting, an inspi for all sorts of interesting worl might say of the piano, "The old notes forever, why bother?" the same old notes, but look different tunes they can make arranged by the artist. Mil same old milk that has been creation time, but milk must b sented to the people in a wa will make it seem new.

Oregon. E. K. Hol

Michigan Dairymen's Mee

The annual meeting of the gan Dairymen's Association held at Lansing, December 3r and 5th. This convention wi sist of all of the allied assoc and there will be joint meeti well as individual meetings time. The prospects seem brig a large gathering of dairyme milk distributors, buttermaker cheesemakers.

The object of holding the mee December is to avoid bad snow and extremely cold weather.

There will be no exhibits of m ery as in the past. This chan been made to conserve the use roads but after the war it is in to again hold exhibits of machi heretofore.



JERSEYS



Write to Breeders Who Know

THE Jersey has been called the "rich man's cow," because she helps make the poor man rich. She is the economy cow in "keep"—the profit cow in yield, because she produces more and richer milk from less feed than any other cow. Let us give you some real facts about Jerseys and open your eyes.

THE AMERICAN JERSEY CATTLE CLUB, 351 W. 23d St., New York City

peration and a New Agriculture.

(Continued from page 452)

d a League meeting in New Mil- We received information from resentative of the League about ing branches. The next week we a meeting at my house. Farmers backward, only a few attending, we started a branch League de- discouraging remarks. Today farmer in a two-mile radius and farther away are members and to be. They are enlarging their , raising more grain, putting up milk houses, ice houses, and ng improvements. Those who backward in the beginning are most ardent supporters."

he Dairymen's League has prov- me that the dairymen are able aster a situation when once they together, and the League is the s through which they pull."

he League in our community is a g and vigorous one. The farmers sturdy bunch with confidence in other and ever increasing confi- in the organization which has and means so much to them."

Growth of Confidence and Faith

e greatest result that farmers gained by organization is con- ce in one another. By both hered- nd environment we as farmers ssentially individualists. The na- of our work and our environment es us to work things out alone, pendent of our fellows. As a con- ence we have lacked confidence in neighbor. We used to think that ers could not work together, but e last two years we have abso- y changed our minds. We have and know by gratifying experi- that farmers can stick together, we have learned through the y new business and social meet- called by our organization that neighbor is a pretty good sort of w to tie to, and that he has the hopes, the same ideals, the same rations as we ourselves have. This ing of confidence means that the foundation is laid for unlimited essful co-operative action which mean in America, as co-operation meant in Denmark, that a suc- ful agriculture shall be recognized undamental to the prosperity of land; that its representatives l be heard at the great peace table h shall follow this war, and in legislative and council chambers ur nation; and co-operation will n that our countryside shall be a of fine houses and happy people.

Don't Wear a Truss



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ooks' Appliance, the lern scientific invention, the derful new discovery that eves rupture, will be sent rial. No obnoxious springs pads. Has automatic Air Cushions. Binds and ws the broken parts together as you would roken limb. No salves. No lies. Durable, ap. Sent on trial to prove it. Protected by S. patents. Catalog and measure blanks ed free. Send name and address today. ks Appliance Co., 467 State St., Marshall, Mich.

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For Sale: Five grandsons of Spermfield Owl 57088. Two 1000-lb. cows close up in their pedigrees. Address

AYER & McKINNEY
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Butter Bred Jersey Bull

Dropped April 6th, 1916. Solid color. Black tongue and switch. Sire: Loretta D.'s Champion's Son 77002 entered in Register of Merit. Best day's average milk record of his dam and sire's dam 55.6 lbs. He combines the blood of Loretta D.'s Brown Bessie and Merry Maiden with that of Fancy's Harry and Tormentor. One of the best bred bulls in U. S. Dam: Juanita Pogis King 211353. Entered in Class A. A. Register of Merit with year's authenticated record of 9113 lbs. 4 oz. of milk, 487 lbs. 5 oz. butter as a 4-year-old. Dropped live calf 12 days after test. I am going out of dairying or this bull would not be for sale. Write for price. R. H. CROPPER, NORA, ILLINOIS.

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Offers for sale a grandson of Royal Majesty, 7 mos. old. Also two bull calves 3 mos. old sired by Permithorpe's Knight, a son of Permithorpe's Raleigh, and out of a daughter of Gamboge Knight. Dams of both calves are in Register of Merit.
P. G. WARMINGTON, Honey Creek, Wis.

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We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

Golden Sunset JERSEYS

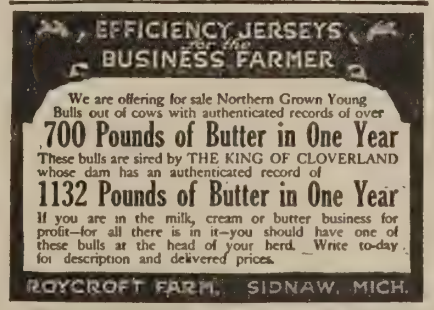
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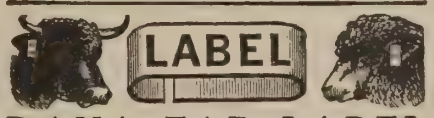
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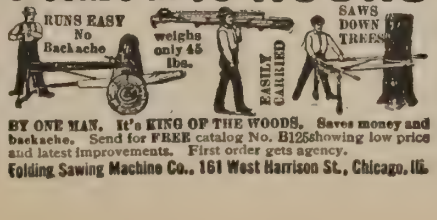




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2nd. Breed Jersey Cattle and make the farm safe for Posterity.

I still have some classy heifer calves and a few bulls at moderate prices. Could furnish a carload of excellent milk cows. All stock registered. D. V. VANDIVER, COLUMBIA, MO.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE H LL FARMS, Spencer, Massachusetts

HEIFER FOR SALE



A daughter of Trials Noble of Oakland who was grand champion at Wisconsin State fair 1918. His dam has a R. of M. record of 563 lbs. butter. The dam of this heifer May of Oak Grove has a R. of M. record of 334.41 lbs. butter as a 2-year-old, advance test 6.2%. Heifer was dropped April 22, 1917, is solid color, black tongue and switch and is bred to a R. of M. son of Eagle's Chief.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

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Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

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Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

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SIRE: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM: Varna 333660, in the R. O. M., Class AA—546.29 lbs. 85% butter in 1 year from 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. A daughter of the famous Hood Farm Torono 35th 99265. FA RVIEW FARMS, Inc.
R. L. Pike, Gen'l Manager, Geneva, Ohio.

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Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohoi.

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Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

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Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

JERSEY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write, G. D. GILBERT, Lake Geneva, Wisconsin.

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Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

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At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

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CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

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THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar. Double Hadley
Herd boars and farm boars, open gilts, or shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell us what you want. We can please you. March pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, Wis.

Real Herd Boar For Sale

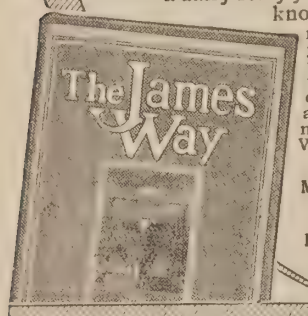
Have decided to sell my great herd boar, BIG BEN H, and will price him right. Also, some good heavy bone, big type Poland China spring boars to offer. All immune. Write at once. F. A. MOREHOUSE
Lancaster, Wisconsin

The Way to Bigger Dairy Profits

IT shows how to select the right location, tells about drainage, light, ventilation and distance from other buildings. How to build best for the small herd so you can properly enlarge later. It shows

JAMES
Sanitary Barn Equipment

which is used in many of the most profitable barns in the country. James equipment keeps the cows comfortable—makes them bigger producers, increases your profits. **The JAMES BOOK** has a dairy story you want to know. Will be mailed if you just tell us when you expect to build or remodel and for how many cows. Write today.



James Manufacturing Company
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This Beats Dehorning

Fleming's Chemical Hornstop, used on very young calves, prevents growth of horns.

A 50 Cent Tube for 25 Calves

Horns never grow if Hornstop is used early enough. Money back if not satisfactory. Our "Veterinary Adviser" Free if asked for.

FLEMING BROS., Chemists
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at World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught. Write today for free catalog.
Jones Nat'l School of Auctioneering, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres.

RED POLLED

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

Our August and September RED POLLED OFFERING

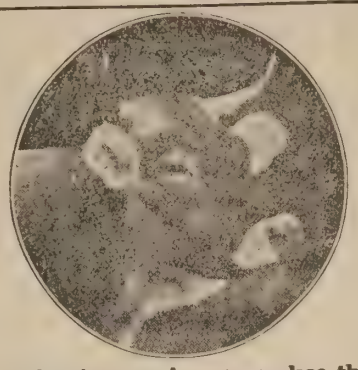
40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.

JEAN DU LUTH FARM NO. 2,
Nickerson, Minn.

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old; four cows and six heifers, all bred; one two-year-old not bred, two heifer calves, one bull calf. Selling to make room for Holsteins.
RICHLAND COUNTY ASYLUM FARM,
Chas. W. Snyder, Supt., Richland Center, Wis.

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms
Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

Pleasant View Herd
Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK, WIS.

AYRSHIRES



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES
AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicohn. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

CRESTMONT FARM AYRSHIRES

Are offered in several choice bull calves. Handsomely marked, nearly all white, from tested cows in Advanced Registry. "Finlayston" and "Baron's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. W. H. Druckemiller, Sunbury, Pa.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Evamere Farm—Ayrshires

Heifer calves, yearlings and bred heifers and some very good milk cows. Some bulls nearly ready for service. Evamere Farm, Hudson, Ohio.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle.

GUERNSEYS

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516 09 lbs. fat.
17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND — A. N. HATHWAY, Herdsman, Floodwood, Minn. — MINN.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.
Taconic, Litchfield Co., Conn. (C.N.E.R.R.

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.
Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Wisconsin Ayrshire Breeders' Association

Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.
Jas. Van Etta, Lima Center, Wis. Adam Seitz, Waukesha, Wis.
Fred Tschudy & Sons, Monroe, Wis. Stephen Bull, Racine, Wis.
Bollig Bros., Black Earth, Wis. John DeMaster, Cedar Grove, Wis.
A. J. McNab, Secretary, Black River Falls, Wis.

THE GUERNSEY

stands for Economical production. More profit from every pound of feed. Do you want cows that will improve your Dairy? Write for free literature.

Guernsey Cattle Club,
Box H. Peterboro, N

Greenway Far Guernseys

WARE, MASS.
Young bulls of May Rose breeding out of cows and cows now on test. Herd tuber tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Far

325 GUERNSEYS 325
Excellent bull calves for sale at exceptionall rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FAR

Shrewsbury, Mass.
Registered Guernsey bull calves for sale. Da Advanced Registry and tuberculin tested. Price and animals guaranteed to suit. W. A. Cloues,

UPLAND FARM

Ipswich, Mass.

Offers for sale a Bull Calf drop February 4, 1918.

Sired by—*Langwater Cavalier* 21012. (A Double Grandson Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia 44538. Record of *10,686.8* lbs. M —*558.62* lbs. fat in Class B.

Price and full particulars on quest. F. P. Frazier & Son, Pr
W. K. Hepburn, Supt.

Indian Bridge Fa

— offers for sale —
ONE YOUNG BUL

dropped June 21, 1917. Well grown and marked. Sired by Langwater Fisherman A. R. Dam, Imp. Neva's Snowflake 44585 4874, 7610.5 lbs. milk, 372.82 lbs. fat, Class C U. S. Govt. Tuberculin Tested. Price of bull $250.00. WAYLAND, M

Harbor Hill Guerns

We Bred and Developed
The Breed's Champion Roll of Honor

Linden Girl of Harbor Hill 3rd A. R. 4651, lbs. milk 785.89 lbs. fat Class CC. We few bull calves carrying similar blood line
C. H. HECHLER, Superintendent, B
Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally goo Reg. breeding for sale. Strong individua just as represented. Dams milking from 55 pounds daily. Could spare a few young Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco
Ensenore, New York.

One of Our Good Co

with a record of 579 lbs. fat dropped a bull calf whose sire's dam 721 lbs. fat. Individually this calf a dam are rather good and indeed a P of the calf shows that his ancestry is the really good kind. Nicely marked a ored. Price here, $150. Pedigree sent on r
W. R. DUNLOP, Fayetteville, New

May King of Columbia No. 3

Our head sire is a double grandson of Barringt King No. 19312, purchased by U. S. Governme average records of his daughters with first calf exceed the average first calf records of daughte grandsire, Imp. May Rose King but also the first calf records of daughters of sons and othe sons of Imp. May Rose King. (See page 4 of G Breeders' Journal July 1, 1918.) For Sale—you in calf to Columbia, also an occasional bull calf Tuberculin tested, abortion free herd.
Kathergay Farms, L. W. Sheldon, Manager, Fulton,

Edgewater Far

Has been the home of such noted Guernseys, a of Edgewater, Miranda of Edgewater, White Edgewater, Imp. Queen Regent 4th, Imp. T Carteret, Miranda of Mapleton, Nellie Tostevin o ton 3rd, The Great Bull Imp. Holden 4th and ma noted animals. We are offering a few cho Calves. F. G. Benham & Son, Canandaigu

Young Cows, Heifers and

from the greatest prize-winning herd of the G breed, at reasonable prices. My catalogue te you want, or come and see. L. V. A
Old Homestead Farm, - - Perr

BETTER THAN EVER—BIGGER THAN EVER

The Thirteenth and Semi-Annual Sale of the Waukesha County Guernsey Breeders' Assn.

WAUKESHA, WISCONSIN

NOVEMBER 6th and 7th, 1918

WEDNESDAY, NOVEMBER 6th, 1918

Pure-bred Male and Female Sale.

NINETY HEAD ARE LISTED. No offering ever placed before the public can compare in quality, quantity, type and breeding with the offering of this sale. It has been the aim of officials in charge to obtain the best in the County, and we believe they have succeeded.

The following is a brief description of some of the offerings:

CHAS. L. HILL, ROSENDALE, WIS.: Five pure-bred males: One son of Itchen May King 25174, and out of Donnington Goldie V, record, 796.52 lbs. fat at 3 yrs.; Langwater Eldorado 39136, grandson of Langwater Hope A. R., record 1,003 lbs. fat at 6 yrs.; one son of Langwater Eldorado; one son of Royal Rose King of Edgemoor, whose dam has a record of 934 lbs. fat.

WM. M. JONES, WAUKESHA, WIS.: 2 A. R. cows, Lilly May Rose 2nd A. R., milk 9,693 lbs., fat 502 lbs.; Imp. Rougette of Les Fontenelles A. R., milk 9,963.1 lbs., fat 498.1 lbs.; 2 daughters of the above mentioned A. R. cows.

GEO. McKERROW & SONS CO., PEWAUKEE, WIS.: 2 daughters of Governor of Myrtle Place 2nd 40985; 1 daughter of Governor Whimsome 26189, and 1 daughter of Cora's Governor of Chilmark 8971.

FRUIT BROTHERS, WAUKESHA, WIS.: Esther of Maple Hill A. R., 9,999.1 lbs. milk 523.3 lbs. fat at 3 yrs.; 3 daughters of May King's Vrangue of Ingleside 15430; and a full sister to Lillian of Maple Hill, record 631 lbs. fat at 2 yrs.

F. E. FOX, WAUKESHA, WIS.: Lily Bates of Highland, now on official test, 205 lbs. in 146 days; a granddaughter of Cora's Governor of Chilmark, out of a 572-lb. cow, that was 1st prize, Wisconsin and Illinois State Fairs, 1918.

JOHN H. WILLIAMS, WAUKESHA, WIS.: 1 daughter and 1 granddaughter of Rhea's King of the May; 1 granddaughter of Cilmaenen's Jeweler, and out of a 599-lb. cow.

H. A. KUHTZ, BURLINGTON, WIS.: 1 son of Itchen May King 25174, and out of a dam whose record in 335 days was 553 lbs. fat; 1 daughter and 1 granddaughter of Governor of Myrtle Place 2nd 40985.

GEO. S. LOVE, WAUKESHA, WIS.: 2 daughters of the great sire, Two Creeks 8648; 3 young heifers of splendid breeding.

ROY BURTON, EAGLE, WIS.: 1 grandson of Langwater Princeling 14906, and out of a cow now on test, making 533 lbs. fat in 340 days, Class DD; 1 daughter of Langwater Princeling 14906, and out of an A. R. cow; 1 daughter of Glenwood's Combination 5th 11354.

NOTICE: SPECIAL OFFERING: Complete dispersal of the herd of J. R. Bent, located at Genesee Depot, Wis. Sixteen head of the very choicest bred animals, practically all of the popular May Rose breeding, including 5 A. R. cows with records of 551 lbs. fat, 307 lbs. at 2 yrs.; 340 lbs. fat at 2 yrs.; 340 lbs. fat at 1 yr., 10 mos.; retest, 212 days, 349 lbs. fat; 477 lbs. fat at 3 yrs., and others on test; 1 daughter of May King of Ingleside 12558, and out of a 507-lb. dam.

THURSDAY, NOVEMBER 7th, 1918

30 Head of Pure-bred Males and 50 Head of Grade Cows and Heifers.

In order to give the public an opportunity of securing some of the very best herd headers in Waukesha, we are again offering a splendid lot of pure-bred males.

Included in the offering are:

1 son of Itchen May King 25174, and out of a cow with a record of 545 lbs.
2 sons of Langwater Eldorado 39136, who is a grandson of Langwater Hope A. R., 1,003 lbs. fat.
2 sons of Royal Rose King of Edgemoor 34361, whose dam, Belladia, has a record of 934 lbs. fat.
1 son and 2 grandsons of Sookey's Walter Sequel of Fritzlyn 19656.
2 sons of Cora's Sequel, 1st prize, Wisconsin State Fair, 1915.

The grades have been selected with the utmost care, and will include only animals that are fresh or due to freshen soon. Special attention has been given to the individuality and type of all of the consignments. You will make no mistake by starting a foundation herd from this offering.

Note: The New Sales Pavilion will be completed, and every assurance is given of comfort, regardless of weather conditions.

Write for illustrated catalogue.

Waukesha County Guernsey Breeders' Association, F. E. Fox, Secretary, Waukesha, Wis.

AUCTIONEERS: LOVE, BAILEY, BENJAMIN.

---

ratt Guernsey Herd

Herd headed by Bob Rilma's Monogram ose dam and grandam have A. R. records raging 887.5 lbs. fat.
Bull calves for sale by him out of cows with d A. R. records.
Write for pedigrees and prices.
ALPH TRATT, WHITEWATER, WIS.

SARNIA

ported and Home Bred Guernseys.
300 Head Imported

1917 are all sold. Several good cows for sale. o young bulls from high class A. R. cows. ce your order early for bred heifers from 8 importations. Send for sale lists.
arles L. Hill & Son, Rosendale, Wis.

Registered Guernsey Bull For Sale

Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A. R. first two daughters to enter A. R. average 58.9 lbs. milk, 408.38 lbs. fat, Class G. His e, Prince Regent of Meadowbrook 15962 A. by Holden IV 12179 (Sire of Cherry of gewater, 732 lbs. fat, Class G) out of Queen gent IV, 889.5 lbs. fat.
Dam:—Walter Maple Marjoria Golden Se- t 52629. Out of a 450-lb. A. R. cow by Gold- King of Arcady, a grandson of Imp. Golden ret 12899.
Price $100. For pedigree and photo write.
LLY FARM, LIBERTYVILLE, ILL.

horn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly ted for tuberculosis. **August Ziesing, Deerfield, Ill.**

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls ose dams are extra good producers. Our stock com- es breeding and individuality. Also a few females sale. Prices exceedingly low. New list ready. m located in Livingston Co. **Sass Bros., Streator, Ill.**

ERAR GUERNSEYS

Production
Reproduction
Quality.....

Special offer until November 1st. Bulls from weeks to one year for $75.00 to $400.00.
uis McL. Merryman, Cockeysville, Md.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in service bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd has been established for 26 years and is one of the oldest in Waukesha County. Write or come and see what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd in the county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted, Mgr.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.

W. G. Jamison & Sons, Appleton, Wis.

ELDERWOOD GUERNSEY FARM

offers for sale a nicely marked bull dropped Nov. 2nd, 1917, whose dam, now on test will make over 300 lbs. fat at 2 years and whose grandam has a record of 424 lbs. fat at 4 years and whose great grandam has a record of 484 lbs. fat at 2 years. **Roy Burton, Eagle, Wis.**

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. **His Dam** is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. **The Bull** himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owa'onna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A. R. O. rcd. of 20 lbs. at 3 yrs.		
No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service. His grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams. For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Young Holstein-Friesian Bulls

From Three Months to One Year Old

Korndyke Ormsby (Irwin) and Colantha Johanna Lad breeding from heavy milking dams. Prices reasonable.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn

Young Bulls From Seven-Day and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are now o yearly semi-official test and will complete records this fall and winter. Nearly every cow ha completed cow testing records for three years and has produced up to 600 pounds of butte These cows are never pushed to the limit. The bulls offered are sired by bulls secured from th E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of butte Bulls are heavy bone, straight, well marked and large for their age. They will and must pleas We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Minn

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ormsby

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d junio herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.



His Six Nearest Dams Average 29.31 Lbs.

A beautiful son of KING KORNDYKE SADIE VALE 24T from 26-lb. dam who is a daughter of Prince Segis Korndyk from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A car will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from world's record dam in yearly division. Breeding, size, individuality and price that will ma your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

FROM A. R. O. COWS

For Sale—Two Registered Holstein Bulls ready for s vice this winter. Dams are persistent milkers with go Cow Testing Association yearly records; and also A. O. records 20.86 lbs. and 26.39 lbs. butter respective They possess a showy appearance, a straight top li color of one is almost white and the other is half and ha Sired by Sir Ormsby Hengerveld Segis, a half brother Sir Ormsby Skylark, who is the only bull having daughter that has produced over 1500 lbs. butter in o year. A son of the great Sir Ormsby Hengerveld DeK who has four 30-lb. daughters, including the form world's champion, Pietertje Maid Ormsby 35.55 lbs. F further information write or see us.

KAPLAN BROTHERS, Owatonna, Minneso

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. **Otto Bradenburg, Mgr.**

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

"NO HORNS"

Naturally Polled Holstein-Friesian bull calv sired by a son of the World's Record senior 4-yr.-o 1294.7 lbs. butter in 365 days, at $100 and up. Descripti catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, P

FOR SALE

A WELL BRED BULL

Canary Paul Fobes Longfield 2

Born July 29th, 1914.
Weight 2200 pounds.
Send for Pedigree.

Marblehead Farms, Manistique, Michiga

Bull Calf, Born Jan. 6, 191

Sire—Colantha Johannn Champion 45674. 39 A. R. daughters. Son of Colantha 4th's Johanna. 3 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 da

Dam—Emblagaard Colantha Mahomet 279872 by C antha Johanna Champion 45674. Record at 2 yea 2 months, 9 days: Butter, 7 days, 14.67; milk, 346. butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. 11 months. The price of this bull is exceedingly lo We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Michig

The Traverse Herd

This is the chance you have been loo ing for. We will s a few, good A. R. O. cows. One with 27.18 in and 110.85 in 30 days. Three others above 24 l Come and see them or write for descriptions a prices, but *hurry* for they will go quickly. A a few bull calves for sale, the kind you will proud to own. Pedigrees and prices on app cation. State age desired.

Traverse City State Hospital, Traverse City, Michi

The Pontiac Her

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pont Korndyke, Hengerveld DeKol, Pontiac Dut land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mi

Bloomingdale Her

...HOLSTEINS...

For twenty-five years have been bred large production and good individuality. Se Fayne Johanna, the first 50-lb. cow, is of breeding and made her first 30-lb. record wh in our herd. Many of the large producers ha been bred here. Foundation stock a specialt

A. A. Courtelyou, Somerville, New Jer

Bulls—Bulls
ALL AGES
Johanna and Ormsby Breeding.

Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY
Sheboygan Falls, Wis.

FOR SALE—Registered Holsteins
Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker Segis. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows*, safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.
Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

CLEVELAND HERD
FOR SALE—One nine months old Holstein bull marked one-half white, good individual, very large for age. Dam, a 29.08-lb. 3-year-old daughter of a 26.10-lb. cow. Sire a 30-lb. grandson of the $50,000 bull. Also a few young cows and large A. R. O. records, bred to freshen in January. They are daughters of King Segis Pietertiac Veeman one of the greatest sires in the world. Prices reasonable.
R. WEISKOPF, CLEVELAND, WIS.

Old Spring Farm
A Young Bull Sired by Cedar Lawn Champion
The best son of Colantha Johanna Champion, 3d, a promising 19-lb. 2-year-old. A splendid individual ready for service.
A. BRACE, LONE ROCK, WISCONSIN.

HIGH GRADE HOLSTEIN
Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure, $25 each, crated and shipped to your station. Express and all charges paid here.
Island View Place, - Whitewater, Wis.

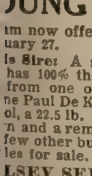
Holstein Pedigrees
For Holstein breeders who appreciate prompt service and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render genuine service.
We make a specialty of *sale catalogs*. Our price is $2.50 a page including pedigree for lots of 100. Write for particulars.
WISCONSIN LIVE STOCK ADV. CO.
13-14-15-16 Pioneer Bldg., Madison, Wis.

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25 Holsteins $25
Five weeks old 15-16 pure, mostly white, $25 each. Two months old, $40. Registered Bulls 2 months old best quality $65. Two-year heifers $125. Cows crated $150. Write us for photos. Buy the best—it pays in the end.
R. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

YOUNG BULL FOR SALE
Am now offering an excellent young bull dropped January 27.
His Sire: A son of King Segis Pontiac Polkadot, has 100% the same breeding as K. S. P. Alcartra, from one of the good daughters of Korndyke Paul De Kol. His Dam: Rosa Queen Herbert Segis, a 22.5 lb. junior, 4 year-old. This calf is well grown and a remarkably fine individual. A few other bulls up to 11 months old, and several heifers for sale. Every animal guaranteed.
WILSEY SEDGWICK, Limeridge, Wis.

BULLS
and For Our Free Bull Calf
Write list with a lot of choicely bred bulls on it at bargain prices or if interested in females ask for our female list.
MEADOWLAWN FARM, STERLING, ILL.

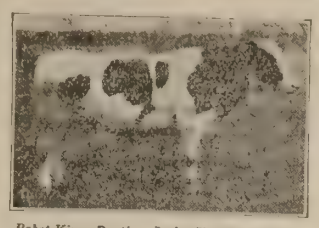


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Reliable Live Stock and General Auctioneer.
Square Dealing and Satisfaction Assured. Reference State Bank of Honey Creek. Terms and dates on application. Let me conduct your next sale. Phone connections. Honey Creek, Wis.

R. O. Holstein
In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to
CONSIN STAR STOCK FARMS,



Cows and Heifers
our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.



Pabst King Pontiac Lad. Sire: King Pontiac Champion—4 daughters above 30 lbs. Dam—Pabst Hengerveld De Freule, 34.03 lbs. butter in 7 days. Owned by Schley Bros., Waukesha, Wisconsin.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls
We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale
Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE
We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET
heads my herd. He is a son of Johanna McKinley Segis, A.R.O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Bonair Farm Foundation Herd For Sale
Owing to feed shortage we will sell any or all of our 30 producing females. Mostly line-bred Ormsbys with A. R. O. records up to 27 lbs. Due to freshen from now to Mar. 1st. Bred to Sir Korndyke Fytje Pietertje 132719 A. R. O. of dam 23.15 lbs. butter in 7 days and 18431 milk and 784 lbs. butter in 1 year at 2 years of age. He will also be sold. O. J. Will, Templeton, Wis.

Ready For Light Service
Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

For Sale—Several Young Bulls
5 to 8 months old. Sired by a 30-lb. son of Rag Apple Korndyke, some are from A. R. O. dams and priced very reasonable. Wm. F. Mielenz, 312 First National Bank Bldg., Milwaukee, Wis.

RIVERVALE FARM
Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old
out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. Aitken Bros., Waukesha, Wis.

SIR PIETERTJE ORMSBY MERCEDES 43rd
heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE
Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull Maplecrest King DeKol 2nd. A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106
from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA
King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept.9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS
Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

KING SUPERBA
Meet his sons and daughters on exhibition in the Waukesha County Live Stock Exhibit, at the Wisconsin State Fair. Combine individuality with production. For Sale—Sons of King out of our best cows. (See Baird Bros. ad.)
W. J. Mann & Sons, R.2, B.16, Waukesha, Wis.

MORE MILK—MORE MONEY
Get a grandson of this great cow, Milanhurst America DeKol, 143441, that produced an 8-gallon can and a ½ of milk per day equal to 13 tons, or more than her own weight each month for a whole year. If her milk was sold at 10c a quart her years production would amount to $1,300. A few choice bulls for sale, some of breeding age. Dr. David Roberts Stock Farm, Waukesha, Wis.

BELLEVIEW STOCK FARM
Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls
4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

HOLSTEINS AT AUCTION

Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*
Address The Purebred Live Stock Sales Company.

---

4 FEMALES 4
We offer four cows due to freshen this fall and early winter. Good individuals, well marked and well bred. One in calf to a 31-pound son of King of the Pontiacs. Herd free from tuberculosis. These are priced to sell.
CEDARDALE STOCK FARMS, O. A. Thomas, RUTLAND, VT.

Holstein Bull Calves
One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

Fairview Stock Farm Holsteins
For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. FAIRVIEW STOCK FARM,
W. G. Marshall, Prop., Whitewater, Wis.

Cedar Lawn Farms
A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
C. A. SCHROEDER & SONS, West Bend, Wis.

Holstein Bull Calves For Sale
Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.
L. K. LUSE, SUPERIOR, WISCONSIN.

You Can't Afford to Overlook This Young Bull



Canary Ormsby Johanna De Kol 256894.

A SON OF THIS THREE-YEAR-OLD FOR SALE.

Canary Ormsby Johanna DeKol produced 28.18 lbs. butter, 503 lbs. milk in 7 days and 111.95 lbs. butter, 2,318.6 lbs. milk in 30 days at the age of 3 years, 1 month, 6 days. Her sire, Canary Fobes Bessie Homestead (20 A. R. O. daughters), is a 31-lb. grandson of Canary Paul and Homestead Jr. DeKol. Her dam is a 17-lb. 2-year-old daughter of Sir Ormsby Johanna DeKol (31 A. R. O. daughters, 2 above 30 lbs.). Every dam in her 4-generation pedigree has a good A. R. O. record.

The Sire of This Young Bull is Mutual Fobes Longfield DeKol 82959, a son of Mooie Mutual DeKol and from a daughter of Homestead Jr. DeKol that, as a Jr. 3-yr.-old, made 30.04 lbs. butter, 630.8 lbs. milk in 7 days and 124.42 lbs. butter, 2,651.6 lbs. milk in 30 days.

This youngster is well marked and as straight as they make them; so are his sire and dam. Moreover, he's a descendant of proven producers from one end of his pedigree to the other. His dam's record as a 3-yr.-old is bound to be increased. There's no question but that he'll prove to be a top notch herd sire. He was born April 10, '18. Write us about him today, for he won't be here long.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

A Few Good Ones For Sale
I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.
J. D. McDONALD, WEST SALEM, WISCONSIN.

GREEN COUNTY HOLSTEIN SALE

MONROE, WIS.

Oct. 30-31, 1918

Superior Individuality

the thing for which Green County Holsteins are especially noted, will characterize the animals consigned to this sale.

The management has accepted only such animals as would reflect credit upon Green County, as a place to buy Holsteins, and serve to give a public demonstration of the high quality of Green County's Black and Whites.

Green County is noted for being one of the greatest dairy counties in the world. It is also known that the quality of her Holsteins has had much to do in establishing this reputation. Likewise it is conceded by well informed Holstein men that the excellence of Green County Holsteins is due to the fact that for years the best bred bulls in the state of Wisconsin have been used in Green County.

In this sale there are sons, grandsons, daughters and granddaughters of such noted bulls as King Alcartra De Kol Pontiac a 36.59-lb. son of King Segis Pontiac Alcartra the great $50,000.00 bull, King Pieter and King Pieter Lyons two of Mr. Moyer's great herd bulls, Colantha Johanna Champion a son of Wisconsin's most famous Holstein cow, Colantha 4th Johanna, and King Agatha Pontiac Lass a 30.67-lb. grandson of K. P. Pontiac Lass 44 lbs.

The young stock in this sale not only possess the blood of such noted animals as have just been mentioned but they come from practical milk producing cows, some of which have records as high as 27.32 lbs. in seven days and good yearly records as well.

A carload of choice high grade springers are to be sold in the morning of Oct. 31th.

Catalogs ready October 21st.

Write to Chris. Tochterman
Sale Manager, Monroe, Wis.

Holstein Breeders' Sale Co.
Nov. 14th-15th, 1918

in their new $35,000 Sale Pavilion, Fond du Lac, Wis.

Dispersion sale of Ried & Dawson herd of 30 head, and Jas. Sales herd of 25 head. 25 head from Andrew Frank, and 11 head from John Puls including a 30-lb. bull. E. G. Race also consigns a 30-lb. bull. For catalogue apply to

S. H. BIRD, Sales Manager, South Byron, Wisconsin.

MAPLE LAWN DAIRY FARM
50 PURE-BRED HOLSTEINS 50

QUACKENBUSH for QUALITY HOLSTEINS

My Herd Sire, RAG APPLE PONTIAC is a bull of high class breeding. He is ha brother to the famous $25,000 sire, *Rag Apple Korndyke 8th*, the sire of the $53,2 bull calf, the World's Champion 42-lb. 3½-year-old and the youngest 30-lb. heife He derives 43¾% of his blood from the noted Century sire, *Pontiac Korndyke*, t sire of the World's Champion 30-day butter producer and who has more 30, 36, and 40-l daughters and 1,000-lb. year-record granddaughters than any other bull. He is a grandson the only double century sire, *King of the Pontiacs*, who has more 40, 30, and 20-lb. daughte than any other bull. He won first prize at the La Crosse, Wis., Fair this year and a daughter his won first at the Wisconsin State Fair.

BOTH MALES AND FEMALES FOR SALE

Females of all ages. Some are springers and some are bred to the above sire. Some of t cows have A. R. O. records up to 27 lbs. in 7 days.

This stock is of the most popular breeding, such as Korndyke, Pontiac, Hengerveld DeK King Segis, Polkadot.

Bull Calves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeK 3rd*, a grandson of *Sarcastic Lad*, the sire that won Championship at the World's Fair—and *King Segis Pontiac Polkadot 8th*, a grandson of *King Segis Pontiac* and *Johanna McKinley Seg*

Write at once or come and see me. **W. W. QUACKENBUSH, West Salem, Wisconsi**

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De K and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johan De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a sh cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 8 months old, backed by short and long time records; Individually he's a dandy, nearly half white, just the kind you've be ooking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

WAYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsi

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. C furnish several car-loads of excellent females due to freshen this fa ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can su ply a carload of cows and heifers due to freshen before winter. All in calf to good sir

PERCHERON HORSES We have several registered fillies and young stallions; also two ag stallions that we will sell for less than their real value if taken at on

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wi

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No. 1—A 32.02-lb. grandson of King Pontiac Champion and Johanna McKinley Segis. This calf's sire is a 38.03-lb. bull that sold for $12,500 and his dam is a most promising young cow, having a Jr. 4-yr.-old record of 32.02 lbs. butter in 7 days.

No. 2—His sire is by King Pontiac Champion and out of Hengerveld Colanthus, the cow that sold for $3,500 at the last National Holstein Sale, and his dam is a 26.07-lb. cow having three very creditable A. R. O. daughters.

Here is a splendid opportunity to line up with the blood of King Pontiac Champion. Write for further particulars.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.



Walcowis Ollie Hartog 240660.

Sire—Iowana Sir Ollie who is sire of Wa cowis Ollie Mooie, state record junior tw year-old for seven and thirty days. He is son of the famous 31-pound cow, Oll Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—2 pounds from 624 pounds milk in seve days. Best day's milk, 101.5 pounds. granddaughter of King of the Pontiacs an first prize winner as a three-year-old the 1913 National Dairy Show.

Calf is well grown, a very good individu and reasonably priced. Have other youn er bulls for sale. Write or come and see u

Walcowis Farms, Lake Geneva, Wi
N. Dickinson & Son.

Holstein Cattle
In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

Two Ormsby Bulls

No. 1. Born Jan. 1, 1918. Sired by a 29-lb. grandson of Sir Ormsby Hengerveld De Kol. Dam, is a 21.07-lb. daughter of Sir Ormsby Hengerveld De Kol. The bull is a grand individual and mostly white. Price $200. Delivered your station. No. 2. Born Feb. 15th, 1918. Same sire as No. 1. Dam has a record of 19.74 lbs. butter as a heifer. Bull is a good individual and mostly white. Price $150 delivered. For further particulars and pedigree address
A. M. ANDERSON, - Whitewater, Wisconsin.

Rock River Valley Far

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FIRST PRIZ
In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produ in one year as a 3-year-old 1,021.72 lbs. ter, (80% fat.) Over 30 yearly record cows herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows s by this bull for sale. (Herd tuberculin test

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100—CHOICE REGISTERED HOLSTEINS—100

The sale includes—
55 good young cows, fresh or due soon.
40 two-year-old and yearling heifers, the majority of them bred.
2 heifer calves and 3 high-class bulls.

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he Michigan Breeders' Consignment Sale Company
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Catalogs ready October 15th, and mailed only on application to

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Grade Holsteins

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Good Investment
Holstein Bull Calf Two Mos. Old

color, straight as a line, extra individual, ne of the best sons of Tidy Abbekerk dam a twenty-four pound daughter of eman DeKol. Price $100 F. O. B. With and transfer. Also a few sons of Tidy rk Prince ready for service.
Lathrop & Sons, Sherburne, N. Y.

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Offer High Class

olstein Bulls

ery dam with an A. R. O. or A. record. Herd tuberculin d. Prices right.

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a 25 miles West Chicago, on C. B. & Q. R. R.

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OFFERS A SON OF

Hengerveld Fayne No. 77461

son of King Fayne Segis. Dam's record , as a 2-year-old and 24 lbs. as a 3-year- h a semi-official record of 13,471 lbs. of d 520 lbs. of butter. Pedigree and price est. Albert R. T. Lillie, Supt., Arlington Heights, Illinois.

LL CALVES

e Have a Few Very Fine LL CALVES FOR SALE

y a 40-pound grandson of King Segis, igh producing, well bred dams. They e kind that will sire producers. For and pedigrees write
LEY FARMS, GLENWOOD, ILL.



Large Size In Cows

Is favorable to economical yielding of milk. The food of port in comparison to size is much in large cows than in small ones, and this reason the Holstein-Friesian returns a greater net profit on the l amount of food consumed.

If interested in

OLSTEIN CATTLE

d for our booklets — they contain h valuable information.

OLSTEIN-FRIESIAN ASSOCIATION OF MERICA, Box 101, Brattleboro, Vt.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. **E. A. POWELL, Syracuse, N. Y.**

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.

Sale Catalogs Printed — **Live Stock Printing Co., La Grange, Illinois**

FIRST ANNUAL PORTER COUNTY HOLSTEIN BREEDERS'

Consignment Sale

50 Pure-bred HOLSTEINS 50

VALPARAISO, IND.

Monday, Nov. 11th, '18

A quality sale from the best pure-bred herds of Lake and Porter Counties, the banner dairy districts of the state.

A. R. O. Cows of good conformation and productive capacity.

Grandsons and Granddaughters of the most famous bulls of the breed. A tested daughter of Homestead Girl De Kol Sarcastic Lad, also a daughter of the famous King Walker.

Every animal over 6 mos. to be tuberculin tested and guaranteed as represented; no blemished animals in the sale.

Sale to be held under cover, rain or shine, at the Porter County Fair Grounds, and to start promptly at 1:00 o'clock.

FOR CATALOG ADDRESS

J. B. Turner, Secy., Valparaiso, Ind.

Auctioneer: Col. J. E. Mack. S. T. Wood in the box.

Dispersal Sale

of entire herd of

64 REGISTERED HOLSTEINS 64

And 30 Grade Holsteins

Thursday, Oct. 31, '18

St. Joseph, Missouri

Our herd consists of 55 head registered females, cows and heifers, 9 registered males, and 30 grade females mostly heifers.

Herd sire, Poplar Butter Boy Clothilde.

The record of his dam and sire's dam in 7-day test average 29.76 lbs. butter, 510.60 lbs. milk, and 4.63% fat.

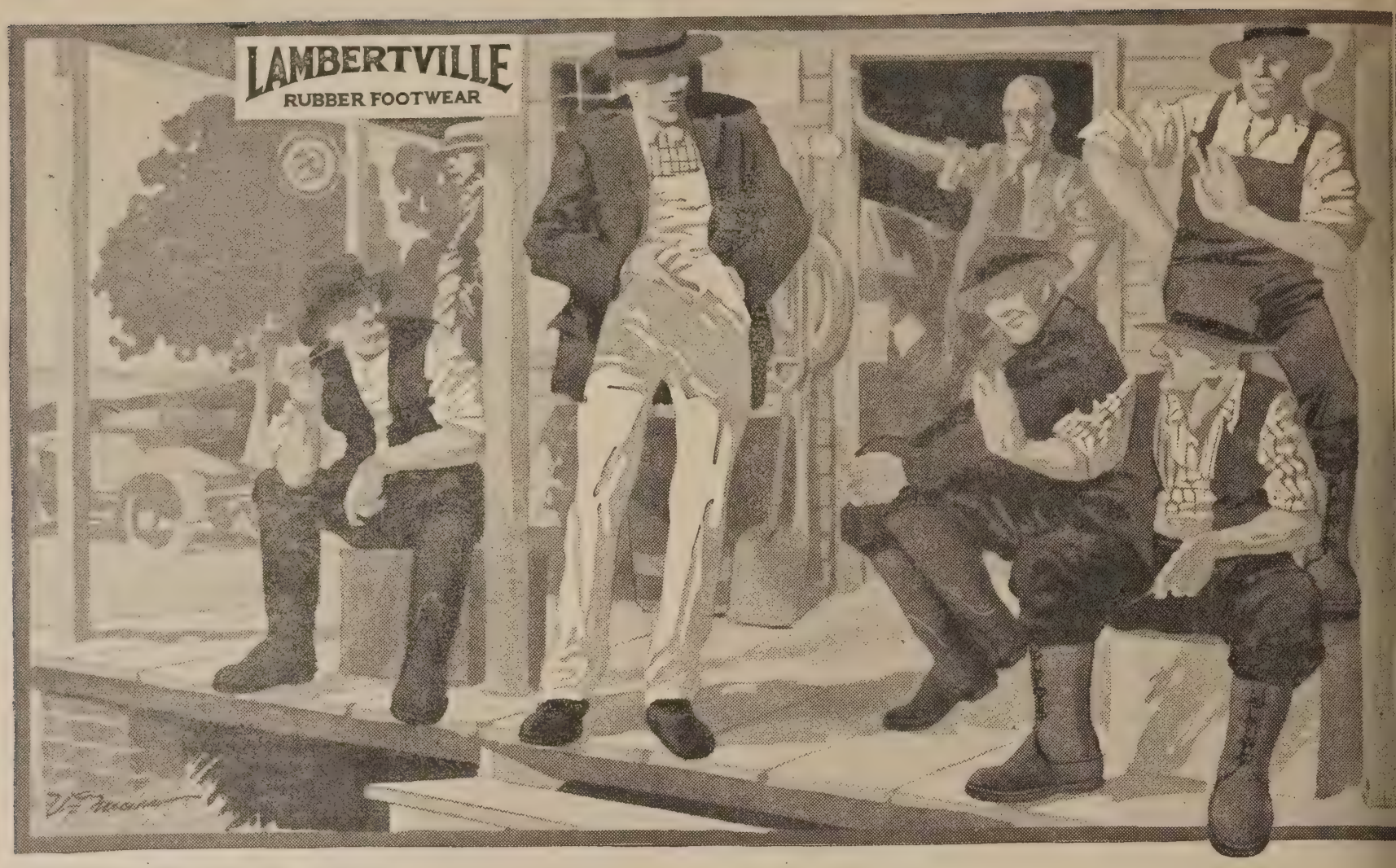
The sire of this young bull is a son of Tweede DeKol Lass, a 34.39-lb. cow, and is therefore a brother of K. P. Pontiac Lass with a 7-day record of 44.18 lbs. He also has 78% the same breeding as the $15,000 bull, Spring Farm Pontiac Cornucopia.

We have a number of this young fellow's heifers and male calves out of good producing dams in this sale.

Sales ground on street car line. Take Union line car going south at Union Depot for Lake Contrary. Sale starts promptly at 10 a. m. Write for Catalogue.

Western Dairy and Ice Cream Co.,

J. R. Fenner. 218 So. 5th St., St. Joseph, Missouri.



"Anybody want to sell his Lambertvilles?"

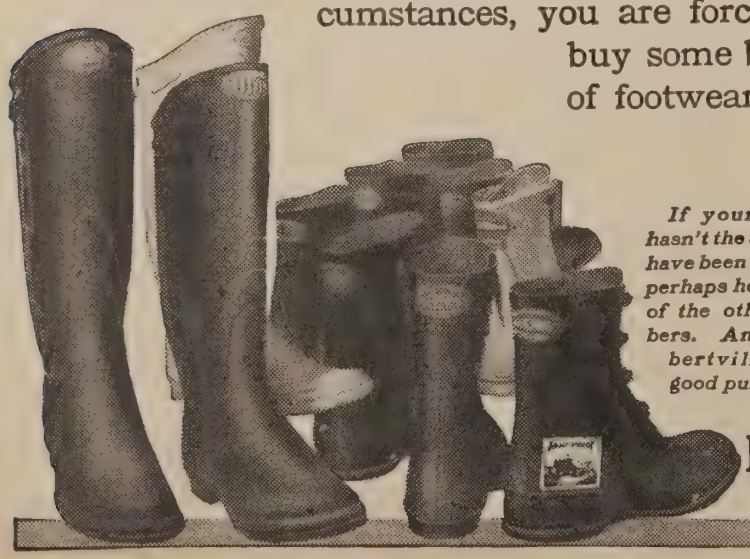
"There's not another pair in the store. John says he sold out and he's got word from the factory that there's not enough Lambertville goods to go around because most of them are going to fill Government orders. I know war's war and we must make sacrifices; but I've got a lot of wet work to do and I can't get along without Lambertville boots. Come on Joe—or you Bill—what'll you take for your Lambertvilles?"

The above is by no means an unusual or overdrawn incident. It will be difficult to buy Lambertville Footwear this season. The Government is getting nearly all we can make. The man who finds a dealer with an odd pair or so of his size in stock is fortunate.

If, through these unusual circumstances, you are forced to buy some brand of footwear that you do not know and that is perhaps of low quality than Lambertville, take them only as temporary substitute. Your dealer will have t old familiar and reliable Lambertville goods just soon as conditions are normal.

If you are disappointed, don't blame the deal It is his loss, and our loss as well, if your nee cannot be met, and we ask that you take the d appointment patriotically as a temporary substitu

We make our promise both to you and to t trade that a full line of Lambertville Footwear w be available as soon as the Government deman are lessened. In the meantime, make your boots and shoes last as long as you can, and if y are lucky enough to find a dealer with Lambe villes, buy them on sight.



If your dealer hasn't the style you have been wearing, perhaps he has one of the other numbers. Any Lambertville is a good purchase.

LAMBERTVILLE RUBBER CO., LAMBERTVIL
NEW JERSEY

W. J. FRASCH
20 JUL 19
COLL OF AGR
URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING





National Dairy Show 1918





Atkinson, Wisconsin Vol. LVI, No. 15 November 1, 1918

Hoard's Dairyman

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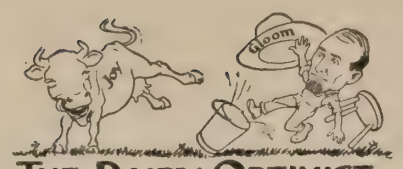
Take Care of Dairy Cows

As pastures begin to wane it is often the custom to permit the cows to get in a run-down condition. This is an expensive practice. Do not permit the flow of milk to decrease. As the pastures give out begin to increase other feeds so as to keep the milk flow constant. Preparations should also be made to shelter the animals from cold rains, sleet, and snow. More energy is consumed in maintaining the body heat of the animal exposed to severe weather than is utilized in the production of milk and butter.

Velvet Beans are Good Feed

The feed question is being solved in many parts of the South by abundant yields of velvet beans which were sown on a large acreage this year. Owing to the increased acreage in Georgia, that state alone could take care of 50,000 to 100,000 head of cattle from states where forage is scarce, according to a report recently received by the Bureau of Crop Estimates. Large quantities of last year's velvet beans also remain on hand and are being used extensively in feeding dairy cattle.

In tests conducted by the United States Department of Agriculture on the Government farms at Beltsville, Md., it was found that velvet beans compare favorably with cottonseed meal, producing profitable gains when the beans are the sole concentrate of the ration; that a combination of corn silage and velvet beans forms a satisfactory ration for fattening steers for market; that it is more profitable to feed soaked beans than it is to grind them; and that more beans will be eaten if soaked before they are fed than if they are fed dry.—U. S. DEPARTMENT OF AGRICULTURE.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Coming Down to Earth

Farmer's daughter: "Dad, I'm so busy I don't know what to do. It's the season for planting lily bulbs, tulips, daffodills, hyacinths, and the crocus. Then I must box my geraniums and heliotropes and study up on new rose specimens for next spring."

The farmer: "I'll give you just six seconds to git in th' house and start knittin' a sweater fer th' soldiers."

"That was a good idea—the Minnesota fair folks modelled a big eagle out of pure butter and the eagle was swooping down on a butter Kaiser."

"Humph, peers like to me they ought to have made the Kaiser out uv oleomargarine."

Saying Goodbye

Oh, th' season's over,
For my world of clover;
  And the fragrant apples trees beside a little stream.
Watch th' herd a-grazing,
When the sun was blazing,
  And the very breath of fields made you want to dream.
Goodbye, Mistress Summer,
You have been a hummer,
  Miles of lush, green meadow put the profit in th' cream.

Oh, the season's ending,
When, with colors blending,
  Buds 'neath every fence and hedge were smiling out at you.
Night comes, sort of coolish,
Straw hats sure look foolish,
  There's a dash of winter in the feelin' of th' dew.
Good-bye, Mistress Summer,
See th' sad New-comer—
  Wood to cut and paths to clear and winter chores to do.

Oh, the herd is knowing,
At fair summer's going,
  Every cow and every calf is sad to see her go.
Wind will soon be whizzing,
And the dear streams frizzing,
  And the meadow where they grazed will burrow deep in snow.
Good-bye, Mistress Summer,
You have been a hummer,
  And the herd and me are sad at partin'-time, you know.

Reflections of a Calf

(After having been fitted out with a patent weaner.)

"The whole world is against me."

"I'd like to fasten this thing on the hired man's face."

"If I look as foolish as I feel with it on, I must be a sight."

"What were milk appetites made for, anyhow."

"Even mother doesn't want me around with it on."

"May the Kaiser wear one for life."

"I hope the fellow who invented this will choke."

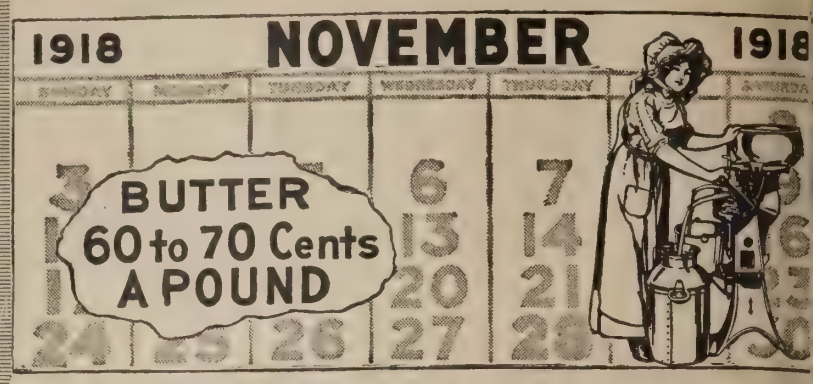
Observations of the Oldest Dairyman

"Men are like cattle—the ribbon winners are apt to have pedigree. If you'll investigate, you'll find that the boys that bring back war medals just nachally have it in th' blood."

"A city friend of mine raised chickens this past summer. He told me what he had to pay for grain to feed 'em, and, while not very good at mathematics, I figure that his eggs cost him about ninety cents apiece, and his hens are worth twenty-two dollars on the hoof."

"I have a small field of buckwheat. There's sentiment mixed up in it. On a cold winter's morning, if you set a big plate of cakes and hot sausage before me, I can't keep from cryin', I'm so happy."

The worst loafing on earth is done by some pieces of farm land.



NOW IS THE TIME
to get your new
DE LAVAL
CREAM SEPARATOR

WITH butter prices soaring no cream producer can afford to go another month without a New De Laval Cream Separator.

This is true whether you have no separator, or an inferior or half-worn-out machine, or even an old style De Laval.

In cold weather your waste of butter-fat is relatively greater, either with gravity skimming or a poor separator; and at present prices for cream a De Laval would very soon pay for itself out of its own savings.

There is no cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, durability, and in freedom from repairs. It's the world's greatest cream saver.



Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Co.

165 Broadway, New York. 29 E. Madison St., Chicago.

50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER.

HE 1918 NATIONAL DAIRY SHOW

IRY Products are Essential" was the red thread of interest was woven in and out through part of the 1918 National Show at Columbus, October . Babies vied with McCollum in the attempt to drive home the tial qualities and value of milk or growth. While the rats en- the attention of many, it must nfessed that the babies drew and the larger audiences that stayed ad and reread the legends over ribs. Many a mother and father have left the show with a keener eciation of a proper diet that include milk, for they had seen sible demonstration of the gain by poor, starved baby bodies milk and a proper diet were lied these little youngsters. They a twelve-month-old baby girl weighed only 10 lbs. and should h twice as much. Under proper and with proper food, which con- cow's milk, the child has now ed on the upward curve and last h increased its weight two ds.

was a splendid show in every de- nent. Owing to unsettled freight itions and scarcity of labor, the ber of cattle were somewhat less in previous years, yet there were ient to make a good show and to rate the show type of animals in favor in the several breeds. exhibit of dairy machinery and lies was most excellent, exceeding umber, variety, and excellence of any previous dairy show. It in itself worth many miles of el, and it did attract milk rs and ice cream manufactur- from coast to coast. The educa- l exhibits were many and varied, despite all these things the show idance was exceedingly small. La- conditions on the farm, war with emands on finances and time, and nfluenza epidemic all conspired to ease attendance and the Show was ppointing only in point of at- ance. It has been decided that the Show will be held in Chicago. A committee has been appointed to determine whether it will be held at the Municipal Pier, Coliseum, or at the stock yards.

The Child Welfare Exhibit occupied a building by itself and it was packed with interest and information for the mothers, and that it was of interest to men was manifest by their critical consideration of the exhibits. While dairy products were given major consideration, there was other information on child welfare topics and health conservation. The following is the menu suggested for the child at the beginning of the second year: 6 a. m., glass of milk; 9 a. m., orange juice; 10 a. m., strained cereal and twice baked bread with a glass of milk; 2 p. m., meat broth or puree of vegetable and twice baked bread with glass of milk; at 5:30 and 10 p. m., a glass of milk. Again and again visitors were urged to feed the growing child a quart of milk a day,—and never less than a pint.

Cottage cheese dishes in all their various forms and disguised as sausage, peanut loaf, etc., were much in evidence. That dairy dishes were popular was shown by the numbers who availed themselves of the dairy luncheons that were served in the building used by the Department of Agriculture. A sample luncheon consisted of three meatless but toothsome sandwiches made with a combined cottage cheese and nut or fruit filling, creamed rice or potatoes, milk or hot milk flavored with coffee, and a dessert such as prunes with whipped cream. It was a clean, satisfying luncheon that left no regrets, and was a splendid advertisement of dairy dishes.

Seldom, if ever, has the Department of Agriculture put on an educational exhibit of so varied and informative nature, particularly when confined entirely to dairy production. It is a matter of regret that conditions were such that comparatively few consumers or producers were in attendance at the Show, but those who were there spent much time with the government exhibit.

The southern states of North Carolina, Virginia, Tennessee, West Virginia, Georgia, and South Carolina were represented by an exhibit of 56 cheese of the "Daisy" variety from the 43 factories located in these states. Claim was made that the "southern mountains are ideal for making fine cheese. High above the sea the days are full of sunshine and the nights are cool. Bluegrass grows in abundance and every farm has a cool spring." The value of southern cheese sold has increased from three million dollars in 1915 to 246 million dollars in 1917,—something of a growth for a new business in a territory hitherto unknown to the industry. This was accomplished most largely through the initiative of the U. S. Dairy Division and its co-operative work with the several states.

That the scourge of tuberculosis provides most expensive fertilizer was shown by charts in the booth set aside for this exhibit. Of the eleven million cattle slaughtered under government inspection during 1917, 222,787 were found to be affected with tuberculosis and 40,792 of these were found unfit for food and were consigned to the fertilizer tanks. Of the 35,449,247 hogs slaughtered, 3,495,188 were afflicted with tuberculosis and 459,740 of these were sent to the tanker. This represents a total loss of nearly 25,875,200 lbs. of dressed meat (431 cars). As only 60% of the nation's meat supply is slaughtered under government inspection and as there are other losses on farms, the estimate of an annual loss of twenty-five million dollars due to animal tuberculosis does not seem extravagant. Lesions of tuberculosis with the characteristic nodules were shown in the various body tissue of the animals and the value of tuberculin testing was here illustrated and explained.

That the U. S. Food Administration has been a mighty factor in establishing and giving publicity to the value of dairy products is recognized, and their exhibit helped to drive home this fact as well as to further the cause of dairying. The Food Administration is not a selfish advocate of dairying as an industry, but rather an advocate of its products to supply the necessity of the consumer and the consumption of dairy products as a conservation measure. Bulletins and posters were displayed that had been distributed in large numbers, such as: "Milk, the Best Food We Have", "Need for a National Dairy Army", "Use Milk in All the Ways You Think Of", "There is Nothing So Good for Growing Children", and "Milk is Meat and Drink". The plea in all these is that milk is cheaper than other animal foods, it is essential for the growth of the child, and there should be: "A quart of milk for every child, and a pint of milk for every adult."

"Ohio, the Switzerland of America," is the claim made by that state's exhibitors of Swiss cheese. It has won the gold medal at the last two shows and the makers of Southern Wisconsin may have to look to their laurels if Ohio makes the advance it promises, and it now claims to have 100 factories and to have made the first Swiss cheese in America. At another booth the United States Dairy Division had on exhibition two Swiss cheese, one that had the special starter used in its making and the other a normally made cheese. The former had the characteristic "holes" that are so important as also a much better flavor.

The ticking of a telegraph key that connects up with 13,000 miles of leased wire drew attention to the exhibit of the Dairy Marketing section of the Bureau of Markets. Over these leased wires the Bureau secures its information as to market conditions which it later compiles and issues in daily and weekly bulletins of storage stocks, with butter and cheese prices at the principal dairy markets. This



PICK THE BEST FIVE COWS

This was asked of every visitor at the exhibit sent to the National again this year by the Barnesville Cow Testing Association of Ohio. Any member of a cow testing association knows what pened. In every case one or more poor producers were placed well toward the top, while good producers were shoved to the bottom. These were all Jersey cows, and so special interest was ised when two somewhat noted Jersey judges placed their awards. The cow standing fourth from the left had every outward appearance of a good producer, deep, long body, good milk veins, rather desirable type. Naturally they placed her among the five best, but imagine their chagrin when the card was turned over and they found her yearly production to be 2,523 lbs. milk taining 149 lbs. fat. To cover their confusion, claim was made that it was due to improper feeding, yet investigation showed she came from a herd having several cows with records over 500 fat and others with excellent production. Her poor production is largely explained by her not being a persistent milker. There were eleven cows exhibited (only eight shown in photo) with following yearly fat records, reading from left to right: 503 lbs., 531 lbs., 544 lbs., 149 lbs., 276 lbs., 179 lbs., 417 lbs., 421 lbs., 275 lbs., 217 lbs., and 240 lbs. The two cows shown at the extreme right (Nos. 7 and 8) have records of 417 and 421 lbs. fat each, yet we know of several who placed them among those to be discarded. It was a worth while exhibit, giving a pointed lesson definitely showing that the only way to be certain in judging cows is to use the milk scale and tester. If you milk cows, join a cow testing association.



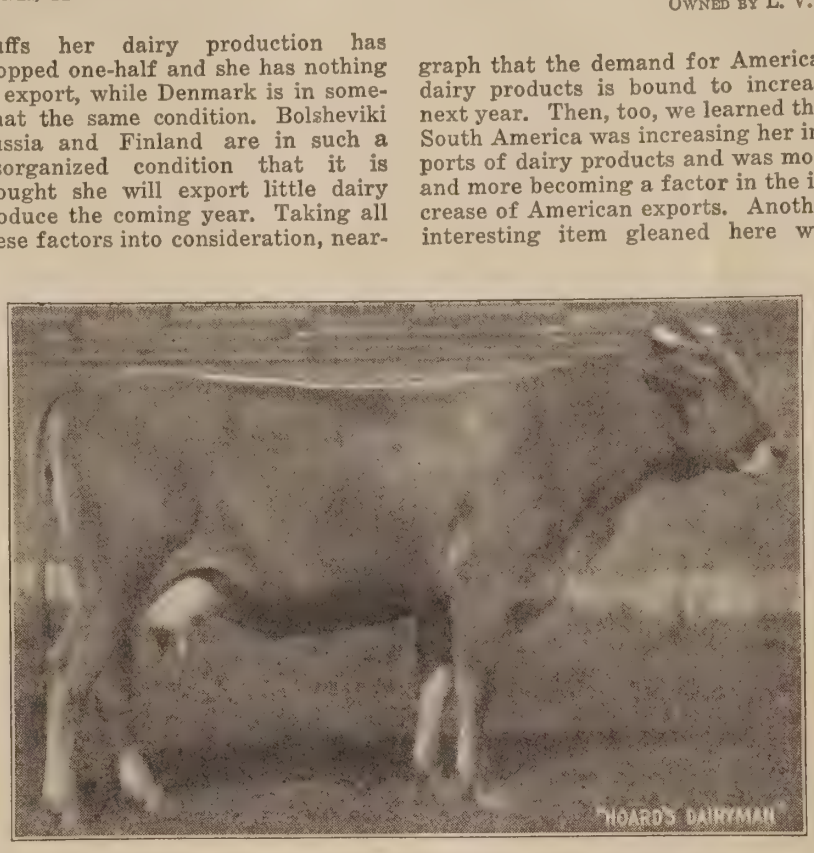
RALEIGH'S OXFORD PRINCE, SENIOR AND GRAND CHAMPION JERSEY BULL AT THE 1918 NATIONAL DAIRY SHOW
Owned by Ed. C. Lasater, Texas



OXFORD MAJESTY'S GIPSY, SENIOR AND GRAND CHAMPION JERSEY COW AT THE 1917 AND 1918 NATIONAL DAIRY SHOWS
Owned by L. V. Walkley, Connecticut

service seeks to inform the manufacturer and producer of market conditions so that the law of supply and demand will work more smoothly and there will be less speculation on markets. According to an analysis of the reports issued during the past few months it would appear that unless some unusual condition arises our surplus of butter and cheese will be exhausted in a few months and only an increased price with resulting decreased consumption will again build up reserves. The market reports make an interesting study and should prove valuable to those who learn how to properly interpret them. These various daily and weekly reports will be supplied free of charge by writing the Bureau of Markets, Washington, D. C.

Statistics may be dry and uninteresting to the general public, but when they concern a special industry in which one is engaged they have a larger meaning and interest. At least, this was demonstrated by the number of men who stopped to discuss the dairy statistics charts with their author, Mr. Pirtle of the Dairy Division. The losses of cattle have been somewhat exaggerated, but it is assumed that the 2,436,000 cows in the occupied portions of northern France and Belgium have been largely lost to the world and that the cow population of Serbia, Roumania, and Poland has possibly been nearly exhausted, but in Great Britain, Denmark, Holland, Sweden, Norway, and Russia the number of cows has increased rather than decreased. However, it is asserted by government reports from Holland that owing to scarcity of foodstuffs her dairy production has dropped one-half and she has nothing to export, while Denmark is in somewhat the same condition. Bolsheviki Russia and Finland are in such a disorganized condition that it is thought she will export little dairy produce the coming year. Taking all these factors into consideration, nearly all the former exporters of dairy products except America and Australia will next year require all their own production, while the demands of the importing countries will equal if not exceed their previous demands. This would seem to reinforce the opinion stated in the previous paragraph that the demand for American dairy products is bound to increase next year. Then, too, we learned that South America was increasing her imports of dairy products and was more and more becoming a factor in the increase of American exports. Another interesting item gleaned here was that a foreign investigator compared the figures for the increase in the price of milk in certain localities over a period of three years and also the infant mortality for the same period and localities, finding that as the price of milk advanced or decreased the infant mortality increased or decreased. This is a further reinforcement of the essentiality of milk in



REUBEN'S RUTH, SENIOR AND GRAND CHAMPION BROWN SWISS COW AT THE 1918 NATIONAL DAIRY SHOW
Owned by Hull Bros., Ohio

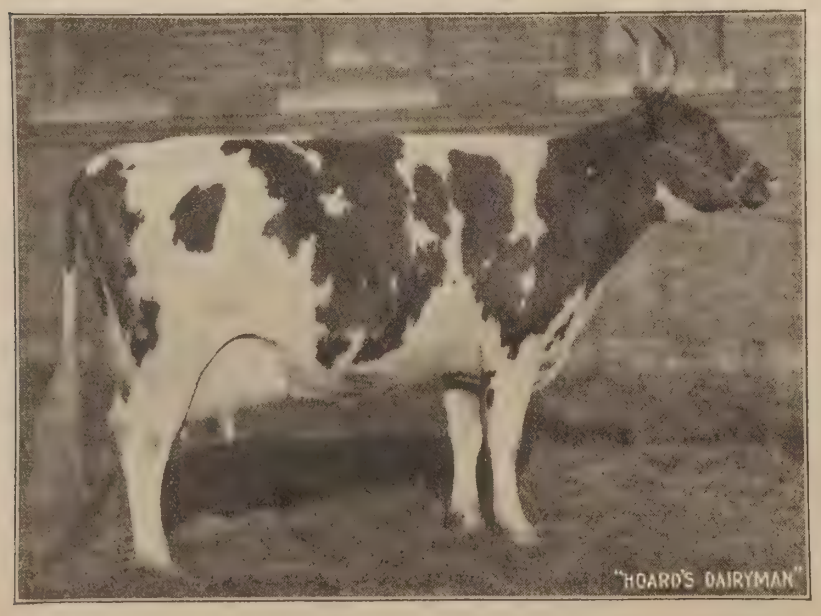
diet of the child.

The great variety of dairy produ and the ramification of the indus were shown under the title, "H Milk is Used". A partial list of dairy products shown were fluid m condensed and evaporated milk, b ter in various packages, and some or more varieties of cheese rang from the big, round Swiss types American Cheddar to the small pa ages of Neufchatel, while ranging between were the Italian and ot foreign cheese, such as the Provol which had the appearance of a hur skull, American Roquefort, Rico Parmesian, etc. Then, too, we fo that milk casein was used in Ameri cigarettes, that aeroplanes req milk glue, that milk furnishes the b of artificial ivory, oil cloth finish, s polish, cold water paint, etc.

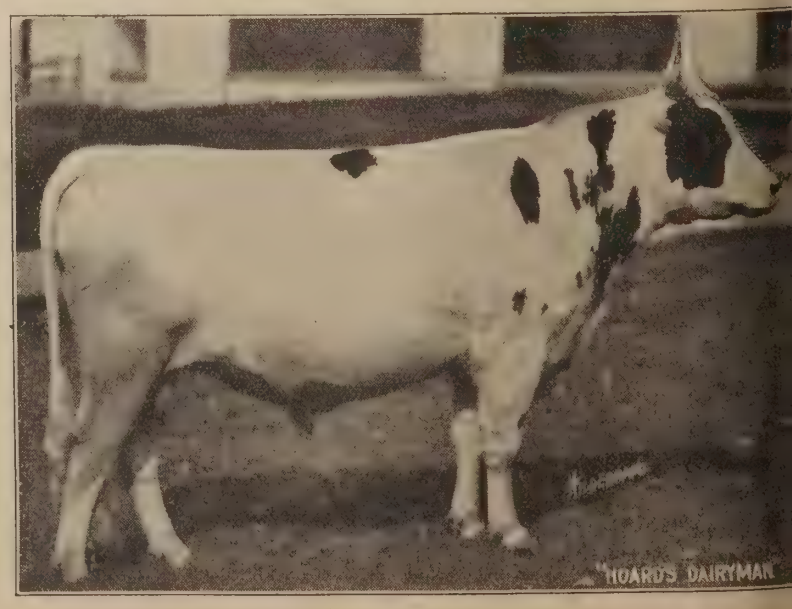
Cattle Exhibits

There was not as large an exh of cattle at the Dairy Show this y as there has been in former ye Under conditions in which the ca industry is placed it was not surp ing to find a light showing. The tle exhibit was, on the whole, a cr to the several breeds and their c ers may be complimented on splendid preparation given t herds. Labor is scarce and feed in price but in spite of these ha caps the cattle were put in fine s condition.

In the Jersey cow class there w a large number of individuals and brought sharp competition in the and a keen interest to those at



IMP. HARLEYHOLM WHITE ROSIE 3RD, SENIOR AND GRAND CHAMPION AYRSHIRE COW AT THE 1918 NATIONAL DAIRY SHOW
Owned by R. R. Ness, Quebec



NANCY'S MINTMASTER, JUNIOR AND GRAND CHAMPION AYRSHIRE BULL AT THE 1918 NATIONAL DAIRY SHOW
Owned by Wendover Farm, New Jersey



MINERVA BEETS, SENIOR AND GRAND CHAMPION HOLSTEIN COW AT THE NATIONAL DAIRY SHOW
OWNED BY R. E. HAEGER, ILLINOIS

side. In all other classes, except nose provided for young animals, e were very light entries. Each s, though small, provided some d animals which kept up the in- st of the breed critics. It takes rge number of prominent animals he mature classes to create and the attention of the spectators. re was a lacking, this year, in the t of rivalry which adds zest to the ving of fine cattle. We are of the ion that this state of mind can- be attributed entirely to the small ber of cattle shown but to the t world's war which is the all rbing business of this nation. It mething none of us can escape.

ne exhibitors did well to put on reditable a showing under the try- circumstances. They not only had neet war conditions but influenza rife among the herdsmen and y of them were taken to the hos- during the last days of the show the barns closed.

ne 1918 Show, like the one of 1, will long be remembered by e who exhibited cattle. The men made the sacrifice to exhibit this should have the everlasting grat- e of their fellow breeders.

Jerseys

xhibitors: H. W. Bonnell, Ohio; A. Brewerton, Illinois; B. H. Bull n, Ontario; J. K. Dering, Illinois; C. C. Folck, Ohio; Hood Farm, achusetts; Ed. C. Lasater, Texas; gview Farm, Missouri; Inderkill ns, New York; Myrtle E. and Earl yle, Ohio; T. P. White, Ohio; and V. Walkley, Connecticut. Total nals shown 202, or two more than year.

dge: Hugh G. VanPelt, Iowa.

ne Jerseys made the largest exhib- any of the breeds and the herds up to their usual standard. Most ne animals exhibited were of the Island type which for the past few years has taken possession of the show ring. It may be said that this type is beautiful and attractive and meets the standard of the show ring.

For the number of animals shown there were unusually few mature bulls. Only three appeared in the ring. Ralph's Oxford Prince, owned by Ed. C. Lasater, won first in this class and Bonnie's Perfection, owned by B. H. Bull and Son, second. The ring-side judges agreed with this decision, but there was a difference in opinion of those on the sidelines regarding what animal should have been awarded senior champion. Raleigh's Oxford Prince was given senior champion, but Longview Farm's Poet's Whiteheart had his following for this place. Grand champion was also won by Raleigh's Oxford Prince.

In the mature cow class there was an unusually good exhibit, one of the best ever made at the Dairy Show. There were 24 cows and they, with few exceptions, were of splendid show type. The famous cow, Lucky Farce, with a record as a yearling of 14,200 lbs. of milk containing 635 lbs. fat, was among these matrons, but she lacks in show type. She has wonderful dairy capacity as her record shows, but her conformation does not reveal her great talent. Beauty Maid, owned by B. H. Bull and Son of Ontario, is a cow of splendid type, large, smooth, deep bodied, straight back, good udder, and very attractive from the standpoint of production, that could not receive attention of the judge, because her conformation was materially different than the rest of the cows showing against her. Beauty Maid was grand champion at the Ontario fair and she holds the four-year-old championship of Canada over all breeds for production of butterfat and second place, any breed any age, of all cows entered in the Record of Performance of Ontario. She is a wonderful cow, for she is of beautiful type and a large producer.

Oxford Majesty's Gipsy won the blue ribbon and finally grand champion. This is not a new honor to her as she was the grand champion at the Dairy Show last year. The illustration which appears in this issue is a very good likeness of this many times champion.

We were particularly impressed with the heifer, Selma of Minerva, owned by Hugh W. Bonnell. She is an animal of strong constitution, deep body, fine udder and shows strong dairy talent. As a two-year-old she made in a year 9,378 lbs. milk containing 530 lbs. fat. She won first in her class, but the judge did not consider her strong enough to win grand champion.

There was keen competition among the Jersey exhibitors, but Longview carried the greatest honors.

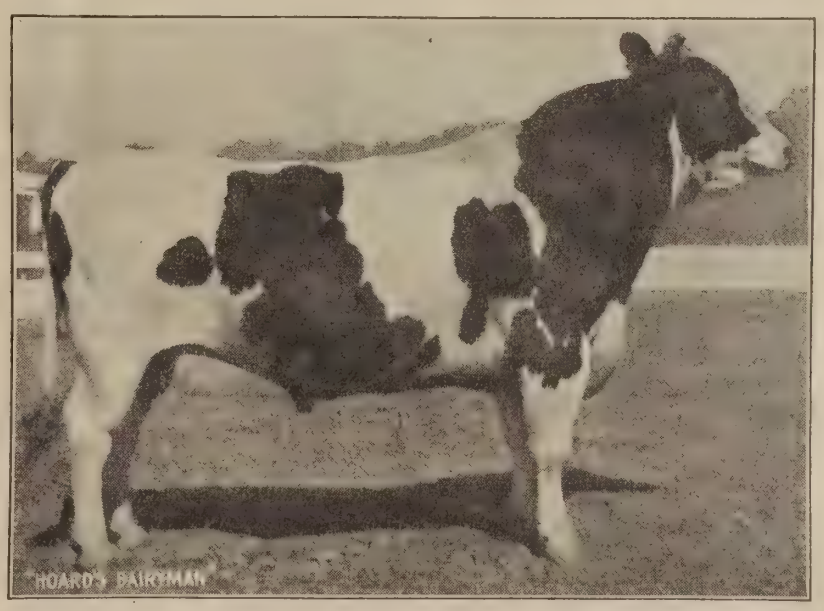
The list of awards follows:

Bull 4 years or over—1, Lasater on Raleigh's Oxford Prince; 2, Bull & Son on Bonnie's Perfection; 3, Folck & Son on Chief Oxford Lad. Bull 3 years and under 4—1, Bull & Son on Brampton Radiator; 2, Longview Farm on Warder's Chieftain; 3, Brewerton on Raleigh's Acland; 4, Pyle on Angelica's King. Bull 2 years and under 3—1, Longview Farm on Poet's Whiteheart; 2, Pyle on Sans Alois Niece's King; 3, Walkley on Gamboge's Royal Majesty; 4, Lasater on Esther's Eminent Noble; 5, Bull & Son on Brampton Beauty Heir; 6, Murphy on Murdale Pioneer. Bull 1 year and under 2—1 and 3, Longview Farm on Dahlia's Noble Fern and Chief Raleigh; 2, Bull & Son on Brampton Bright Lord; 4, Pyle on Financial Richmond; 5, Hood Farm on Pogis 99 of Hood Farm; 6, Lasater on Olive's Calla Aldan. Bull calf 6 mos. and under 12—1 and 2, Longview Farm on Raleigh's Bright Prince and Warder's Oxford Chieftain; 3, Brewerton on Thornbury's Peter the Great; 4, Pyle on King's Rosa's Sans Alois E.; 5, Lasater on Royal Majesty of Falfurrias; 6, Bull & Son on Brampton Bright. Bull calf under 6 mos.—1 and 3, Longview Farms on Noma's Perfect Raleigh and Jolly Oxford Majesty; 2, Lasater on Rosebud's Royal Majesty; 4, Inderkill Farms on Imp. American Volunteer; 5, Pyle on Stockwell's Niece's King; 6, Hood Farm.

Cow 5 years or over—1, 4, and 5, Walkley on Oxford Majesty's Gipsy, Oxford Majesty's Excel, and Oxford Majesty's Gouda; 2, Bull & Son on Brampton Serena; 3, Lasater on Willow's Brightness; 6, Longview on Oxford Majesty Crocus. Cow 3 years and under 4—1, Bonnell on Selma of Minerva; 2 and 5, Longview on Rower's Benedictine Glory and Fontaine's Pretty Maiden; 3, Walkley on Oxford's Dream; 4, Inderkill Farms on Golden Fern's Poulette. Heifer 2 years, under 3—1 and 3, Longview on Fontaine's Nema and Raleigh's Star of Peace; 2, Folck & Son on Fox's Majesty Maid; 4, Bull & Son on Brampton Sonata; 5, Walkley on Imp. Majesty's Gamboge Crocus; 6, White Stock Farm on Viola's Noble Belle; Heifer 18 mos. and under 2 years—1 and 6, Longview on My Rosary and Fairy Feather; 2, Bull & Son on Brampton Bright Rosebud; 3, Dering on Eagle's Chief Eulinda; 4, Lasater on Aldan's Oxford Fontaine; 5, Walkley on You'll Do's Golden Maid. Heifer not in milk, 1 year and under 18 mos.—1, Walkley on You'll Do's Pet 2nd; 2 and 5, Longview on Chieftain's Flora and Raleigh's Valve; 3, Bull & Son on Brampton Princess Agatha; 4 and 6, Dering on Eagle's Yolande Girl and Eagle's Christina. Heifer calf 6 mos. and under 12—1, 4, and 6, Longview on Raleigh's Evening Star, Raleigh's Red Feather, and Majesty's Golden Plymouth; 2, Bull & Son on Brampton Princess Lucy; 3, Lasater on Great Scot's Actress; 5, Dering on Eulinda of Cedar Crest. Heifer calf under 6 mos.—1, Longview on Raleigh's Fairy Finance; 2 and 5, Lasater on Raleigh's May Princess and Knight's Oxford Tulip; 3, Walkley on Oxford Majesty's Beauty 2d; 4, Folck & Son on Oxford Gypsy Cowslip; 6, Bull & Son on Brampton B. P. Red Rose.

Cow having official yearly record begun at 5 years or over—1 and 2, Longview on Fairy Glen's Flora and Oxford Majesty Crocus; 3, Lasater on Willow's Brightness; 4, Bonnell on Queen Esther Fox.

Exhibitor's Herd—1, Bull & Son; 2 and 3, Longview Farm; 4, Lasater; 5, Pyle; 6, Brewerton. Young Herd—1 and 2, Longview Farm; 3, Lasater; 4, Bull & Son; 5, Dering; 6, Pyle. Breeder's Calf Herd—1, Longview Farm; 2, Lasater; 3, Pyle; 4, Dering; 5, Bonnell; 6, Murphy. Get of Sire—1, 2, 3, Longview Farm; 4, Dering; 5, Pyle; 6, Bull &



JOHANNA BONHEUR CHAMPION 2D, SENIOR AND GRAND CHAMPION HOLSTEIN BULL AT THE NATIONAL DAIRY SHOW
OWNED BY J. M. CHESTNUT & SONS, KANSAS

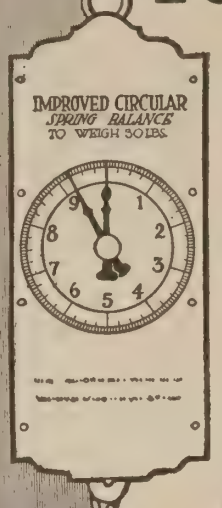


LADYSMITH'S CHERUB, SENIOR AND GRAND CHAMPION GUERNSEY BULL AT THE NATIONAL DAIRY SHOW
OWNED BY D. D. TENNEY, MINNESOTA



IMP. BELLA 2D DU GRAND FORT, SENIOR AND GRAND CHAMPION GUERNSEY COW AT THE NATIONAL DAIRY SHOW
OWNED BY ISLAND FARM, MINNESOTA

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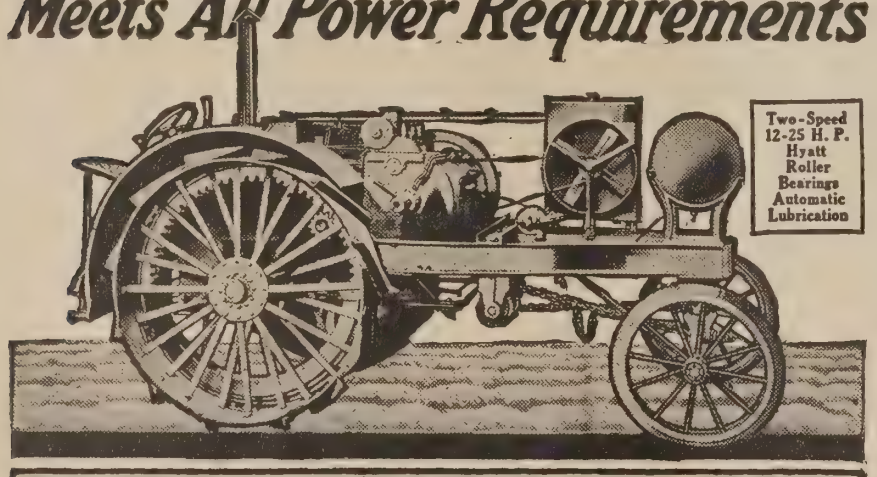
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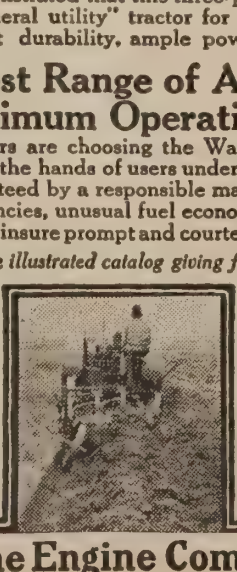
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Son. Produce of Cow—1, 2, 4, Longview Farm; 3, Bull & Son; 5, Bonnell; 6, Dering. Advanced Registry cow with two of her progeny—1, Fairy Glen's Flora; 2, Queen Esther Fox; 3, Majesty's Eminence. Dairy herd, 5 cows in milk—1, Bull & Son; 2, Longview Farm; 3, Lasater; 4, Inderkill Farms; 5, Brewerton.

Senior and Grand Champion Bull—Raleigh's Oxford Prince. Junior Champion Bull—Noma's Perfect Raleigh.

Senior and Grand Champion Cow—Oxford Majesty's Gipsy. Junior Champion Cow—You'll Do's Pet 2nd.

Breeder and Exhibitor Winner of Most Money—Longview Farm.

Ayrshires

The best exhibit in years characterizes the 1918 National Exhibit. Exceeded in numbers only by the Jerseys, five exhibitors put forward 71 animals which for uniformity and quality exceeded that of any other breed shown. The exhibit was international in character, Canada entering two herds exhibited by R. R. Ness and Gilbert McMillan of Quebec, while American breeders were represented by The Newton Farms, Massachusetts; Adam Seitz, Wisconsin; and Wendover Farms, New Jersey.

The bull classes were light in numbers but brought out some real classy individuals. In the aged bull class McMillan's Lessnessock Golden Love, grand champion at Ottawa this year, annexed the blue over the Newton entry, Cavalier's Kilnford Ringmaster. The McMillan entry was shown to a little better advantage. Both bulls scaled about 1900. The Newton entry was a trifle cleaner cut and better on his feet; the McMillan entry showing better in front, a trifle better in head and neck, and carrying his lines to better advantage.

Cavalier's Lord Roseberry owned by Seitz had no competition in the 3-year-old class.

In the two-year-old class last year's grand champion again demonstrated his worth, placing over the Ness entry, Holehouse Hopeful. Lord Stuart has the honor of winning first in his class for three consecutive years. He is by the former grand champion, Gay Cavalier, and out of that great show cow, Carston Lady Mary Stuart.

In the special class for bulls two years and over, Lord Stuart was awarded first place, winning over Lord Roseberry and Lessnessock Golden Love.

The yearling bull class brought out two entries, Nancy's Mintmaster owned by Wendover Farms placing over the Ness entry, Burnside Denty Piece. Nancy's Mintmaster was easily the outstanding entry of the show, a bull of great scale, wonderful quality, and perfect lines, carrying a great middle and wonderful strength of shoulder. He was first prize senior calf last year and has developed exceedingly well.

Admiral Beatty of Wendover, owned by Wendover Farms, a bull of great quality, topped the senior bull calf class with the Seitz entry, Cavalier's Netherhall Chancellor, in second place followed by Wendover's entry, May's Mintmaster of Wendover, McMillan's Springburn Ringmaster, and Newton Farms' Ringmaster's Braeburn Diplomat, five great young bulls. The Admiral is sired by Admiral Beatty, one of the greatest sires which ever left Scotland and which was lost while enroute to South Africa. The dam is last year's 3-year-old winner, Nethercraig Gay Lass, now on test and expected to make a record for the breed.

Newton Farms annexed the blue in the junior class with a youngster of great promise, Brae Burn Rising Tide. He is out of Nancy Whitehall, the cow which recently topped the Brattleboro sale and which promises to break the junior four-year-old record.

Senior champion was awarded the Seitz entry, Cavalier Lord Stuart, junior champion going to Wend entry, Nancy's Mintmaster. Th tle for grand champion brough two American bred animals, b great merit. Last year's grand pion, however, had to take place to the Wendover entry, N. Mintmaster. The Seitz entry h developed in scale as much a younger bull and was excelled in ity and style and depth of flank the second year in successio American bred animal wins th preme male championship.

In the female classes compet was not as keen as in former except in the younger classes. Th nadian entries made a sweep i aged class, Ness winning first an ond on his Imp. Harleyholm Ros and Champanton Henney and M lan placing third with his dry Maple Leaf Jean, Wendover foll in fourth place with the A. R. White Heather of Torr. Harle White Rosie 3rd already had grand champion of Canada. Sh cow of good scale, not just as s in rump but with lots of consti and capacity and a splendid with good sized teats. The McM entry showed to a disadvantage ing dry but is an animal which, condition, would be hard to beat.

The four-year-old and three-old classes were won by Wendov Wylieland's Clementine and Ne Burnside Barbara. These classes not over strong.

In the two-year-old class the j had a problem, finally placin McMillan entry, Auchenbrain E 37th, over the Seitz heifer, Kil Dorothy, scale and udder being preference over quality in this Wendover exhibited two he both dry and a trifle highly ditioned, but the judges gave p ence to the fresh animals.

In the senior and junior yea Wendover won both blues, the c being extremely strong. Seitz back strong in the heifer calves, ning first and second and four the senior and first in the junior.

The calf classes were exceptio strong throughout.

The groups were all in favor Wisconsin exhibit, Seitz wi first in all groups except the a bled herd of 12 animals which to the Canadian exhibit of M Ness and McMillan.

The senior champion cow easily won by the Ness aged cow, leyholm White Rosie 3rd, which ly was awarded grand champi the show over Seitz's junior cham Cavalier's Hillhouse Rosebud. leyholm White Rosie 3rd is thus champion of Canada and the U States. She was sold at the England sale in 1916 and import Hunter & Montgomerie and is c by R. R. Ness of Quebec.

In the A. R. classes Wendove first on Hobsland Miss May i junior class while McMillan's Leaf Jean won the blue in the class.

Professor H. H. Kildee, Iowa Wm. Hunter, Ontario, placed awards.

Bull 4 years or over—1, McMillan o Lessnessock Golden Love; 2, Newton on Cavalier's Kilnford Ringmaster. years and under 4—1, Seitz on lier's Lord Roseberry. Bull 2 years and 3—1, Seitz on Cavalier's Lord Stua Ness on Holehouse Hopeful. Bull 1 ye under 2—1, Wendover Farm on Nancy's master; 2, Ness on Burnside Denty Bull calf 6 months and under 12—1 Wendover Farm on Admiral Beatty of dover and May's Mint Masher of Wendo Seitz on Cavalier's Netherall Chancell McMillan on Springburn Ringmaster; 5, ton Farms on Ringmaster's Brae Burn mat. Bull calf under 6 months—1, N Farm on Brae Burn Rising Tide; 2, S Cavalier's Rising Surprise; 3 and 4, N Burnside Topoman and Burnside Bar N

Cow 5 years or over—1, 2, and 6, N Imp. Harleyholm White Rosie 3rd, Imp. panton Henney, and Violet of Kelso; Millan on Maple Leaf Jean; 4, We Farm on Imp. White Heather of To

S[illegible] on Bargenock Silver Pet. Cow 4 years a[illegible] under 5—1 Wendover Farm on Imp. V[illegible]lieland Clementine 4th; 2 and 4, McMillan o[illegible] Maple Leaf Lilly and Imp. Millerton Cher[illegible] 3, Seitz on Willowmoor Whitehala; 5 Ness on Burnside Maggie Finlayston. Cow 3 [illegible]ears and under 4—1, Ness on Burnside B[illegible]bara; 2, Wendover Farm on Netherton I[illegible]wn Canary; 3, Seitz on Cavalier's Lady [illegible]y Stuart. Heifer 2 years and under 3—1 [illegible]cMillan on Queen Bess; 2 and 6, Seitz on C[illegible]alier's Kilnford Dorothy and Cavalier's L[illegible]y Bountiful; 3 and 5, Ness on Imp. Drum[illegible]s Primrose and Burnside Barbara 2nd; 4, [illegible]ndover Farm on Ryanogue Peggy's Lady. H[illegible]fer 18 mos., under 2 years—1 and 3, Wen[illegible]d[illegible]r Farm on Ryanogue Tumpany and Bar[illegible]c's Pride 2nd; 2 and 4, Seitz on Imp. But[illegible]up's Perfection and Cavalier's Kilnford [illegible]; 5 and 6, Ness on Burnside Randy 2nd a[illegible] Burnside Lady Lucky 4th. Heifer 1 year a[illegible] under 18 months—1, Wendover Farm on [illegible]clay's White Flora 3rd; 2 and 3, Seitz o Cavalier's Kilnford Lily and Cavalier's Sil[illegible]v Dream; 4, Ness on Burnside Queen Mary. [illegible]fer calf 6 months and under 12—1, 2, and 4 [illegible]eitz on Cavalier's Hillhouse Rosebud, Cava[illegible]s Buntie Bell, and Cavalier's Silver Queen; 3 [illegible]Ness on Burnside Randy 3rd; 5, McMillan o Springburn Bell; 6, Wendover Farm on [illegible]ndover Brown Canary. Heifer calf under 6 [illegible]onths—1, 4, and 5, Seitz on Cavalier's Sil[illegible]. Actress, Cavalier's Lillian Walker, and [illegible]alier's Lady Betty; 2 and 3, Ness on Burn[illegible]s Buntie 5th and Burnside Miss Courtney; 6 Newton Farms on Ringmaster's Countess o Braeburn.

[illegible]ow having official yearly record begun at [illegible]ears or over—1, Wendover on Hobsland [illegible]s May; 2, Imp. Lessnessock Dairy Loudoun. [illegible]w having official yearly record begun under [illegible]ears—1, McMillan on Maple Leaf Jean; 2, [illegible]ndover on Imp. White Heather of Torr; 3, [illegible]tz on Willowmoor Whitehala; 4, Ness on [illegible]nside Maggie Finlayston.

[illegible]xhibitor's Herd—1 and 4, Seitz; 2, Ness; 3 McMillan. Young Herd—1, Seitz; 2, Ness. [illegible]eder's Calf Herd—1, Seitz; 2, Ness; 3, [illegible]wton Farms. Get of One Sire—1, 3, 4, [illegible]tz; 2 and 6, Ness; 5, Newton Farms. Pro[illegible]e of One Cow—1, McMillan; 2, 4, and 6, [illegible]tz; 3, Ness; 5, Wendover Farm. Ad[illegible]ced Registry cow with two of her prog[illegible]—Wendover Farm. Dairy Herd—1, Ness.

[illegible]enior Champion Bull—Cavalier's Lord [illegible]art. Junior and Grand Champion Bull—[illegible]ney's Mintmaster.

[illegible]enior and Grand Champion Cow—Imp. [illegible]leyholm White Rosie 3rd. Junior Cham[illegible]n Cow—Cavalier's Hillhouse Rosebud.

[illegible]reeder and Exhibitor Winner of Most [illegible]ney—Seitz.

Holsteins

[illegible]Exhibitors: A. R. Black and Sons, [illegible]chigan; Chestnut and Sons, Kan[illegible]s; Cass Farms, Iowa; Daisy Hill [illegible]rms, Ohio; R. E. Haeger, Illinois; [illegible]yowood Farms, Minnesota; M. R. [illegible]ans, Illinois; and Mrs. Forest C. [illegible]igner, Ohio. Total number of ani[illegible]ls exhibited 72.

Judge: W. S. Moscrip, Minnesota.

[illegible]Three bulls were shown in Class [illegible]e, and Johanna Bonheur Cham[illegible]n 2nd was an easy winner. The [illegible]andam of this bull was Johanna [illegible]nheur, owned and bred by W. J. [illegible]llett, and she was one of the finest [illegible]e cows we have ever seen. She was [illegible]o capable at the pail. Her grand[illegible]n shows the effects of her blood and [illegible]licates that it is not impossible to [illegible]mbine beauty of form and produc[illegible]n in the same animal, and to trans[illegible]t these characteristics to coming [illegible]nerations. Johanna Bonheur [illegible]ampion 2nd was also senior and [illegible]and champion. Since W. S. Moscrip [illegible]ed this animal he asked Peter Small [illegible] Ohio to judge this class.

Johanna Bonheur Champion 2nd [illegible] owned by Chestnut and Sons of [illegible]nsas and he was the only animal [illegible]ibited by them. His winnings are [illegible] compliment to their judgment of [illegible]lstein type.

[illegible]The wonderful show cow, Minerva [illegible]ets, owned by R. E. Haeger, was [illegible]nner in her class and grand cham[illegible]n. She won this honor so many [illegible]es that she can well retire from [illegible]e show ring as being undefeat[illegible] and with the title of cham[illegible]n of champions. Haeger's herd [illegible]ovides severe competition in all [illegible]sses, but he was forced to yield [illegible]st place in several classes to his op[illegible]nents. His 3-year-old heifer, Nancy [illegible]lamo Korndyke, met no competition [illegible]t she is one of the best individuals [illegible]it entered the ring. She is a heifer [illegible] great dairy capacity and a consti[illegible]ion capable of sustaining it. She [illegible]of beautiful conformation. Her ud[illegible]r is a little defective in that it is cut up between the quarters, that is, it is not level on the bottom.

The Holstein exhibit was not large, but there were a number of outstanding animals. The mature classes were not as well filled as usual and consequently there was not the sharp competition which has characterized the Holstein exhibit in former years.

The awards follow:

Bull 4 years or over—1, Chestnut & Sons on Johanna Bonheur Champion 2d; 2, Haeger on Paul Calamo Korndyke; 3, Mayowood Farms on Johanna Ondine Grahamholm Lad. Bull 3 years and under 4—1, Cass Farm Co. on King Aaggie Hengerveld; 2, Haeger on Johanna McKinley Segis; 3, Evans on L. H. C. King Alcartra. Bull 2 years, under 3—1, Cass Farm Co. on Fayne Bessie Homestead; 2, Haeger on Pearl King Segis Pontiac. Bull 1 year, under 2—1, Mayowood Farms on Johanna Glenda Lad; 2, Haeger on Aconeth King Segis Pontiac. Bull calf 6 mos. and under 12—1 and 4, Haeger on Paul Minerva Korndyke and King Segis Pontiac Cassie; 2, Mayowood Farms on Ondine Colantha Hazeltine; 3, Lamb & Moon on King Segis Champion Cleopatro. Bull calf under 6 mos.—1, Mayowood Farms on Ondine Homestead Posie; 2, Cass Farm Co. on Aaggie Almeda Hengerveld; 3, Haeger on King Segis Pontiac Calamo; 4, Daisy Hill Farm on Daisy Hill Korndyke Aaggie; 5, Evans on Sir Kaan Alcartra; 6, Black & Sons on Maple Defender DeKol Butter Boy.

Cow 5 years or over—1, 4, 5, and 6, Haeger on Minerva Beets, Segis Walker Gelsche, Netherland Clothilde Idyl Burke, and Prilly Clothilde DeKol; 2, Cass Farm Co. on Almeda Luecke Hengerveld; 3, Mayowood Farms on Mayowood Fernwood DeKol. Cow 4 years and under 5—1, Haeger on Aconeth Lady Hengerveld. Cow 3 years and under 4—1, Haeger on Nancy Calamo Korndyke. Heifer 2 years, under 3—1 and 5, Haeger on Lady Calamo Hengerveld and Tantalus Calamo Korndyke; 2 and 3, Cass Farm Co. on Almeda Luecke Hengerveld 5th and Mercedes Aaltje Johanna; 4, Mayowood Farms on Johanna Ondine Soo; 6, Daisy Hill Farms on Daisy Hill Pontiac Nina. Heifer 18 mos. and under 2 years—1, Evans on K. S. P. Beets Lillian; 2 and 5, Mayowood Farms on Posie Homestead Ondine and Johanna Tritomia Mercedes; 3, Cass Farm Co. on Alcartra Pink Johanna; 4, Haeger on K. S. P. Evelina. Heifer not in milk, 1 year and under 18 mos.—1 and 2, Haeger on Calamo Nancy Spofford and K. S. P. Bridget Korndyke; 3, Cass Farm Co. on Pietertje Fayne Concordia; 4, Evans on Clifden Spofford Pledge Alcartra. Heifer calf 6 mos. and under 12—1, 4, and 5, Cass Farm Co. on Sadie Fobes Homestead, Aaggie Hengerveld Daisy Homestead and Aaggie Hengerveld Carlotta; 2, Mayowood Farms on Glenda Ondine Doede; 3, Haeger on Prilly Calamo Korndyke; 6, Evans on Alcartra Lady Florence. Heifer calf, under 6 mos.—1 and 5, Haeger on K. S. P. Tantalus Calamo and K. S. P. Lady Calamo; 2 and 4, Cass Farm Co. on Aaggie Hengerveld Canary Segis and Aaggie Mons Clothilde; 3 and 6, Mayowood Farms on Johanna Korndyke Ruth and Avanella Canary Ondine.

Official Record Cows—Senior: 1, Cass Farm on Almeda Luecke Hengerveld; Junior: 1, Evans on Mechthilde Greenwood Ybrua.

Exhibitor's Herd—1 and 3, Haeger; 2, Cass Farm Co.; 4, Mayowood Farms; 5, Evans. Young Herd—1, Haeger; 2, Mayowood; 3, Cass Farm; 4, Evans. Breeder's Calf Herd—1, Haeger; 2, Cass; 3, Mayowood; 4, Daisy Hill Farms; 5, Evans. Get of Sire—1 and 3, Haeger; 2, and 5, Mayowood; 4, Cass; 6, Daisy Hill Farms. Produce of One Cow—1 and 3, Mayowood; 2, 5, and 6, Haeger; 4, Cass Farm. A. R. Cow with two of her progeny—1, Cass on Almeda Luecke Hengerveld; 2, Haeger on Aconeth Lady Hengerveld. Dairy Herd—1, Haeger.

Senior and Grand Champion Bull—Johanna Bonheur Champion 2d. Junior Champion Bull—Johanna Glenda Lad.

Senior and Grand Champion Cow—Minerva Beets. Junior Champion Cow—K. S. P. Tantalus Calamo.

Breeder and Exhibitor Winner of Most Money—Haeger.

Guernseys

Exhibitors: Davis Farms, and Raemelton Farm, Ohio; Island Farm and D. D. Tenney, Minnesota; O. W. Lehmann, Illinois; W. W. Marsh and Mountain Bros., Iowa. Total animals exhibited, 67.

Judge: C. L. Hill, Wisconsin.

The Guernseys did not appear in such large numbers as they have in other years, but the competition was none the less keen. D. D. Tenny's bull, Ladysmith's Cherub, was grand champion. W. W. Marsh's bull, Cherub's Prince, and his heifer, My Figtree of the Prairie, were junior champions. Island Farm's cow, Imp. Bella 2nd du Grand Fort, was grand champion. Ladysmith's Cherub has won grand championship at the Dairy Show for the past three years. He is a remarkably good individual and well

(Continued on page 478)



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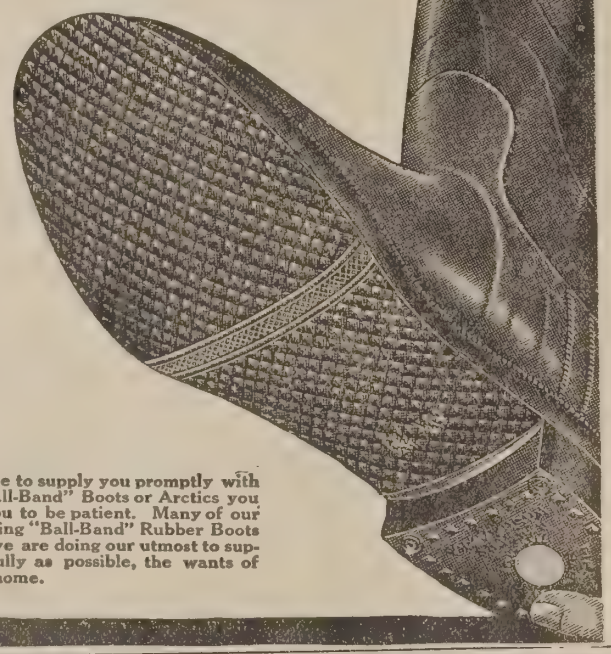
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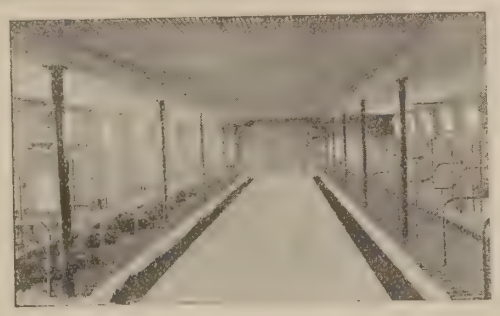
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Why Not Have Warm Floors for Your Cows This Winter?



Stalls in the dairy of Miss Kate Miller, Barrington, Illinois, paved with Circle A Cork Brick.

Stall floors that are warm mean comfort, and comfort means increased production of milk and decreased likelihood of disease. The warmth of

Circle A Cork Brick
For All Stall Floors

is one of their strongest features. "We are more than pleased with Cork Brick, as it is much warmer for the cattle to lie on than a cement floor," says Mr. E. E. Bailey of Racine, Wis. Hence, Cork Brick Floors require little bedding, which, in these days, mean a direct and substantial saving.

While you are thinking of it, send for the book, "Better Stall Floors," and a sample brick.

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Cold Storage of Cottage Cheese

H. B. ELLENBERGER, Vermont Experiment Station

MUCH has been said and written during the past year about the economics of making and eating cottage cheese both to conserve skimmilk and to save meat. Specialists on State Extension Staffs and from the Dairy Division and Bureau of Markets of the United States Department of Agriculture have worked hard during the past few months to encourage the manufacture and consumption of this cheese. Their efforts have met with a large measure of success, for both production and consumption have increased, but they are greatly handicapped by the fact that at this season of the year a shortage of skimmilk often renders a steady supply of cottage cheese impossible.

Such a shortage probably does not exist in all sections but it is very noticeable in the New England States. A like condition existed last winter when there was a ready market for all the milk which these states produced, but beginning with March a surplus appeared and continued to increase in volume until the latter part of June, by which time there were hundreds of thousands of pounds of skimmilk which daily went begging for market. Much of this was disposed of at a ridiculously low price and reports state that considerable quantities were run down the sewer because it could not be profitably marketed. This was no fault of the cottage cheese specialists for they were busy doing all they could to prevent any waste and to find a profitable outlet for this by-product, but they were swamped by the flood of skimmilk on the one hand and the lack of sufficient market on the other.

Of the New England States, Massachusetts, Connecticut, and Rhode Island are considered as the principal consuming districts, and parts of Maine, New Hampshire, and particularly Vermont, as the heavy producing section. Therefore these northern states, especially Vermont, had a great deal of skimmilk which they were ready to sell as cottage cheese to the consumers in Massachusetts and Connecticut. However, when they began to look for this market it was found that these states themselves had surplus milk and were for the most part keeping their local markets supplied with all the cottage cheese they would consume. Thus there was little or no outlet for cottage cheese from Vermont and when it could be sold, offerings were so liberal that the price offered dropped to a point which left no profit for the producer. Sales of cottage cheese were made which returned not more than forty cents gross per 100 pounds of skimmilk. After deducting the cost of making and marketing from this, is it much wonder that some concerns preferred to "market" via the sewe

With returns so low many plan felt that they could not afford to to the expense of pasteurizing a otherwise caring for the milk in manner necessary for the producti of cheese of the best quality. T manufacturing specialist then h not only a glutted market but also oversupply of cheese of poor qual to contend with, and under such c ditions he could do little in the w of improving the quality.

Late in August this surplus m disappeared and very little was av able for cottage cheese even thou the price offered has in some ca doubled.

Cold Storage a Possible Solution

Next year, and for years followi it is probable that this same seaso variation in supply will exist as it l for years past. Not so long ago t same situation applied in a great me ure to butter and eggs, though th products are less perishable than c tage cheese. Cold storage has revo tionized these and many other lines business by making possible the ho ing of stock produced in the fl season for use during the months low production, and it seems to writer that since it is absolutely



THE FIRST CARLOAD OF JERSEYS BROUGHT TO NORTHERN ALABAMA BY THE DECATUR ICE CREAM & CREAMERY CO.

These cows were bought and paid for by this creamery and sold to farmers at actual cost plus expense of buying. The fact that they were sold within 30 minutes shows that farmers in this section are becoming interested in dairying.

possible to profitably market for mediate consumption all the cott cheese which can be produced dur the spring and early summer, t the ultimate solution of this perp ing problem is to put cottage ch in storage during these months, t taken out for consumption in fall and winter when there is no plus skimmilk from which to ma facture such cheese. If this can done it will tend to stabilize market, since the demand will vastly increased during the sto season, which will insure that producer will receive a reason price for his cheese and the consu will then be able to secure cot cheese throughout the whole yea

Trials inaugurated by the write the Vermont Experiment Station dicate that it is practical to hold cheese frozen in cold storage several months. These trials, th only preliminary and not conclu were so satisfactory that results given below. Many trials on a la scale have been started and a siderable quantity of this ch packed for the most part in b tubs, is now stored and it is h that data on these lots will be a able before the flush season spring.

The Cheese Stored

Several lots of skimmed and w milk were made into cottage, N chatel, and cream cheeses which, being sampled and analyzed, placed in cold storage where

re kept frozen. The room temperare where they were held was maintd at 14 degrees to 16 degrees renheit. This of course requires aificially cooled storage. Some of tl cheese was allowed to develop a th acid during the making process al some was made up in as sweet a condition as possible. Other lots we divided, part being made up vy moist and part quite dry. (tage cheese was made by both tl bakers' and pot methods. Seral packages from some lots we placed in storage, and each nth one of these packages was moved and examined for flavor and geral quality, the last package bei held for four months. Most of t lots comprised only one package. Eh were held for the full four nth period.

Effect of Storage on Flavor

The flavor of most of the samples stored cheese when thawed out s only slightly altered, the only areciable difference in most cases bg that after storage its flavor sned to be a little sharper or more t acid. Such cheese as had a poor flor when fresh deteriorated more tln did the better lots, in some cases tl poor or off-flavors seeming to be sewhat accentuated by storage. Te flavor of those samples which ctained a high percentage of rsture was somewhat poorer than tlt of dryer lots made from the se curds. The unsalted samples in mt cases were a little more tart tln those which were salted.

Cottage cheese made by the pot thod retained its flavor a little ber than did that made by the kers' method. Practically all aples of Neufchatel were about s good when removed from storage s when they were stored. The crean se developed some metalic flavor. ese stored in small retail packgs did not keep quite so well as h stored in larger containers.

ome of this storage cheese, after g thawed out, was repacked into ll retail packages. Persons who w nothing of its history prnced it "fine". Several on being afterwards that it was storage se stated that they could not tell rom fresh. Some of these persons e expert in judging dairy prodc.

y Texture and Keeping Quality

he texture of many of the aples was somewhat changed by zing. Cottage cheese made by the method became a little more ny and crumbly as did also very Neufchatel. When very moist age cheese made by the bakers' ess was stored it became a little y and leaked somewhat when it thawed out, but medium or dry se from the same curd showed tically no change. Dry curds r being softened with a little et whole or skimmilk, could hardly detected from fresh curds. This tice may also help the flavor.

he keeping quality of these cheeses r being removed from storage was aps not quite as good as that of h cheese, though several lots e kept at ice-box temperature for ods up to ten days and were pronced as good as fresh cheese kept a similar time. The high moisture ples deteriorated faster than did e which were dryer.

l Development During Storage

ach lot of chesse was tested for just before entering and again r it was thawed out. The acid ent was determined by washing grams of finely divided cheese water at 40 degrees Centigrade, ing up to 105 cc, filtering and ting 25 cc portions of the filtrate. results from several samples vn in the following table indicate the acid increases very little if during storage:

Kind of cheese	Per cent acid when stored	Per cent acid after storage
Cottage (Bakers')	.54	.55
" "	.54	.54
" "	.58	.59
" (Pot)	.47	.47
" "	.44	.40
" (Bakers')	.41	.43
Neufchatel	.38	.36
"	.38	.36
"	.40	.40
"	.40	.40
"	.45	.43
"	.45	.47
Cream	.45	.40
"	.36	.33

General Observations

When storing in this way it is very important that cheese be selected which has been properly made and which possesses a desirable clean, mild, acid flavor. It is advisable to make the cheese from pasteurized milk. The best results cannot be expected when cheese with off-flavors, high moisture, or very high acid is stored.

It is also important that the cheese be placed in storage as promptly as may be, before any deterioration becomes apparent. It is better to put the cheese in storage at or near the place of manufacture rather than to ship it a great distance, especially in hot weather when more or less unfavorable fermentation may set in. The cheese may then be removed from storage and shipped to market in a frozen condition, if desired. It should not be thawed rapidly since high temperatures cause leakage.

The cheese should be over-dry rather than over-moist, for the reason that dry cheese may be moistened by working in sweet milk which also imparts a desirable flavor, whereas the texture of a very soft cheese cannot be readily improved even if the flavor is good. Cheese of a poor quality should not be stored; only the best should be selected for this purpose.

American Names for Holsteins

HOARD'S DAIRYMAN:—In your issue of September 6th, J. F. Bruins, Idaho, writes on "Christening the Holstein Calf". Mr. Bruins takes the position that the Holstein-Friesian cattle are Holland cattle. To be sure, a great many black and white cattle have been imported from the Netherlands in the past, but I believe I am correct in saying that there are comparatively few Holsteins imported at the present time. We have bred and developed them in this country until they are American cattle, not Holland cattle.

With all credit to the Hollander for the origin of the breed, the Holstein-Friesian cattle of this country are American cattle just as truly as American born children from parents of foreign birth *should be* Americans not Germans or Norwegians.

I will agree that we would not call an Irishman Wilhelm O'Brien; neither would we call a girl of Dutch parentage, Katrina, in this country; but we would call her Katherine. So why use the prefixes, "Arouw", "Juffrow", "Held", "Konig", "Mustes", "Mynhur", or any others of foreign origin when the American equivalent is so much more simple. Some of the names already in use are sufficiently hard to pronounce without adding such as "Berendina", "Geezina", "Oueryssel", "Orenthe" and "Oldenbarnveld".

Windsor, Wis. R. E. W.

Jersey Cattle Notes

For week ending Oct. 18, 1918:

Number of animals registered: Bulls, 94; cows, 430; total, 524. Number of transfers recorded: Bulls, 121; cows, 296; total, 417.



THE most convenient and dependable iron to iron with is a self-heated Carbide gas iron. The farmer's wife who lights her house and does her cooking with Carbide gas can do the family ironing with the same gas burned inside the iron.

The farmer was the first to profit by the discovery that by putting a little Union Carbide (like crushed lime) into a generator about once a month with some plain water, he could have all the home-made gas he could use for lighting, cooking, and ironing.

Of course he found out that Carbide gas was far superior to city gas—more powerful light—richer, whiter, softer—and he told his neighbors.

He told his neighbors so effectually that Union Carbide today supplies the light in over 250,000 country homes.

Some of his neighbors were miners. A miner's Carbide lamp was invented to meet their demands. Today, Union Carbide supplies the light in over 700,000 of these miners' lamps.

About the same time metal workers and machinists discovered they could weld and cut metals quicker and more economically with Carbide gas (when combined with oxygen) than by any other method.

And contractors, stevedores, and other night workers were quick to adopt Union Carbide for flare lamps and torches.

Thus by natural stages Union Carbide has become a powerful factor in all branches of industry.

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says that down South the best people won't chew anything but Real Gravely. They know how it's made—*the Gravely way.* It costs nothing extra to chew this class of plug. A small chew of Gravely holds its good taste. That's why it lasts so much longer than a big chew of ordinary plug.

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10¢ a pouch—*and worth it*

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60 lbs. per H.P.

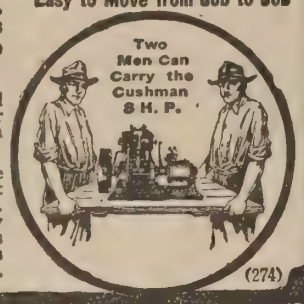
That's Enough for Any Engine to Weigh

Before you consider buying any engine, find out how much it weighs. If it weighs more than 60 pounds per horsepower, it is too heavy for farm work.

No longer is it necessary for you to drag around big bulky engines weighing several hundred pounds per horsepower. They represent a waste of material, a waste of time and energy, and a waste of gasoline.

The Cushman has proved that an engine may be balanced so carefully and governed so accurately that it does not need a large base and heavy moving parts. Cushman Engines run much more steadily and quietly than ordinary farm engines weighing several times as much. No loud explosions—no fast-and-slow speeds—but smooth, steady power like automobile engines.

Easy to Move from Job to Job



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CUSHMAN
LIGHT WEIGHT ALL PURPOSE FARM MOTORS



4 H. P. on Binder

Weigh Only One-Fourth as Much

as ordinary farm engines. Light weight and higher speed mean **more jobs, easier handling, less waste of material and fuel and steadier running.** Cushman Engines are the standard light weight engines of the world.

4 H. P. weighs only 190 lbs., being only 48 lbs. per horsepower. This is the most useful farm engine ever built. Besides doing all ordinary jobs, it may be attached to any grain binder, saving a team, and in a wet harvest saving the crop. Also it may be used on corn binders and potato diggers. Very easy to move around from job to job.

8 H. P. weighs only 320 lbs., being only 40 lbs. per horsepower. For all medium jobs. Also may be attached to hay presses, corn pickers, saw rigs, etc. 8 H. P. and larger Cushman Engines are all double cylinder.

15 H. P. weighs only 780 lbs., being only 52 lbs. per horsepower. For heavier farm jobs, such as 6-hole corn shellers, ensilage cutters, large feed grinders, small threshers, etc.

20 H. P. weighs only 1200 lbs., being only 60 lbs. per horsepower. For heavy duty jobs, such as shredders, shellers, grain separators, heavy sawing, etc.



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Cushman Engines stand up under wear and tear and do not wear unevenly and lose compression. Every running part enclosed free from dust and dirt and properly lubricated. Equipped with Throttling Governor, Carburetor, Friction Clutch Pulley and Water Circulating Pump. Ask for Book on Light Weight Engines.

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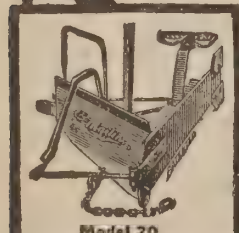


You imperil your next year's crops, your next year's profits, if you let fall and winter rains stand on your land. Give your land a chance to keep breathing. Do the farm ditching and terracing **now.** Do it the quickest way, the cheapest way, the easiest way.

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All-steel—Reversible—Lasts a Lifetime. Cuts a V-shaped open-drain, irrigation or tile ditch down to 4 feet. Cleans old ditches. Builds farm terraces, dikes, levees, and grades roads. Works in any soil — wet or dry. Does work of 100 men the old way. Write for free copy of valuable Drainage, Irrigation and Terracing Book and Special Introductory Offer.



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"Kant-Suk" Calf Weaner

LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but absolutely prevents sucking. Extremely easy to put in place. Endorsed by dairymen everywhere. At dealers. Sent Prepaid: Calf size 45c; Cow size 60c

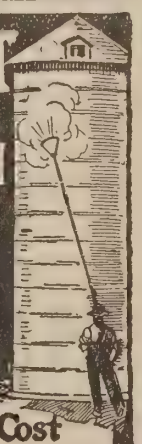


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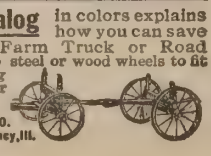
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The 1918 National Dairy Show

(Continued from page 475)

bred. The illustration found in this issue shows him as he appears this year. The grand champion cow, Imp. Bella 2nd du Grand Fort, is a new contender for national honors, but she is worthy of the place given her. She is not only a cow of dairy talent, but she has a refinement and a type that is highly commendable.

Another cow worthy of special mention is Pearl's Dot, owned by D. D. Tenney. She is a splendid type, strong constitution, and a capable producer, holding third place in the Advanced Registry in Class GG.

W. W. Marsh, who may well be considered the veteran showman of the Guernseys at the National, did not bring forth this year a full show herd. He confined his efforts to the younger classes and there his opponents found difficulty in dislodging him. Mr. Marsh has a keen eye for good Guernseys and he seldom shows an animal that does not do credit to him and his breed. It is a compliment to his opponents to be able to give him the competition which he met this year. The quality of the Guernsey exhibit on the whole was very good, but the small number did not make the impression made in other years.

The awards follow:

Bull 4 years or over—1, Tenney on Ladysmith's Cnerub; 2, Lehmann on Pinecrest King France; 3, Island Farm on Gold Lassie's Julian. Bull 2 years and under 3—1, Mountain Bros. on Kitchener's Express; 2, Raemelton Farm on Buttercup's Raemelton Boy; 3, Davis Farm on Densie's Masher. Bull 1 year and under 2—1, Marsh on Cherub's Prince; 2, Island Farm on Maxim of Linda Vista; 3, Raemelton Farm on Raemelton's Golden Noble; 4, Lehmann on Mixter Penrod of Bon Ayre. Bull calf 6 mos. and under 12—1 and 2, Marsh on Marie's Cherub of the Prairie and Lily du Preel Prairie Gold; 3 and 5, Island Farm on Beda's May King of Island Farm and Starlight's May Rose King; 4, Tenney on Cherub's Sergeant of Shorewood; 6, Raemelton Farm on Raemelton May Rose General. Bull calf, under 6 mos.—1, Island Farm on Princess Jewell of Island Farm; 2, Tenney on Cherub's Corporal of Shorewood; 3, Marsh on Alyssum's Cherub.

Cow 5 years or over—1, Island Farm on Imp. Bella 2nd du Grand Fort; 2 and 3, Lehmann on Rag Apple and Imp. Rose of Les Prevosts II. Cow 3 years and under 4—1, Tenney on Pearl's Dot; 2, Island Farm on Starlight May Rose; 3, Lehmann on Raymond Princess. Heifer 2 years, under 3—1, Tenney on Bell Buoy's Golden Lassie of City View; 2, Marsh on Ingleside Pretoria Vrangue; 3 and 4, Island Farm on Bella's Gold Lassie and Bella's Golden Lassie. Heifer 18 mos. and under 2 years—1, Marsh on Felois of the Prairie; 2 and 5, Island Farm on May Rose of Island Farm and Gold Lassie's Beldame; 3 and 4, Davis Farms on Fanny of Lu Alyn and Jewell of Lu Alyn. Heifer not in milk, 1 year, under 18 mos.—1, Tenney on Pearl's Golden Secret Girl; 2 and 5, Marsh on Bopeep Queen 2nd and Golden Cherry of the Prairie; 3, Raemelton Farm on Raemelton's Beshroud; 4, Davis Farms on Goldie of Lu Alyn; 6, Island Farms on Beda's May King's Bella. Heifer calf, 6 mos. and under 12 mos.—1 and 4, Island Farm on Beda Maid of Island Farm and Milvia's Beda of Island Farm; 2 and 5, Raemelton Farm on Raemelton's May Rose Queenie and Raemelton's May Rose Nelly; 3, Lehmann on Top of Chesney Farms; 6, Davis Farms on New Year's Queen of Lu Alyn. Heifer calf under 6 mos.—1, Marsh on My Figtree of the Prairie; 2, 3, and 5, Tenney on Cherub's Miss Mademoiselle of Shorewood, Cherub's Promise of Shorewood, and Cherub's Ultra May Rose of Shorewood; 4, Lehmann on Pride of Chesney Farms.

Exhibitor's Herd—1, Tenney; 2, Island Farm. Young Herd—1, Marsh; 2, Island Farm. Breeder's Calf Herd—1, Marsh; 2, Tenney; 3, Island Farm; 4, Lehmann; 5, Raemelton Farm. Get of Sire—1, Marsh; 2, Tenney; 3 and 5, Island Farm; 4, Lehmann; 6, Raemelton Farm. Produce of Cow—1, Ingham; 2 and 5, Island Farm; 3, Tenney; 4, Raemelton Farm.

Cow having official record begun at 5 years or over—1, Island Farm on Imp. Bella 2nd du Grand Fort; 2, Lehmann on Imp. Rose of Les Prevosts II. Official record begun under age of 5 years—1, Tenney on Pearl's Dot; 2, Lehman on Raymond Princess.

Senior and Grand Champion Bull—Ladysmith's Cherub. Junior Champion Bull—Cherub's Prince.

Senior and Grand Champion Cow—Imp. Bella 2nd du Grand Fort. Junior Champion Cow—My Figtree of the Prairie.

Brown Swiss

Exhibitors: Hull Bros., Ohio; W. O. Bohart, Montana; L. S. Marsha & Sons, Michigan.

Judge: Hugh G. Van Pelt.

Three Brown Swiss breeder brought 53 animals into the rin which beats the last year's entry 30 animals by two exhibitors but di not equal the record of the 191 Springfield show of 101 anima shown by six exhibitors. A new e hibitor, Mr. W. O. Bohart, brough his herd all the way from the sta of Montana despite the fact that could not hope to make his expens with the best possible winnings. Whi he did not win out largely, he mad the experienced and veteran show men from Ohio and Michigan yie the purple in three classes.

The Marsh all aged bull, Stasis Bo of Sedgeley, repeated his last year performance by defeating Hull Bros Dick of Lake View in the aged bu class, later taking grand champio ship. At the Iowa Dairy Cattle Co gress his young stablemate, Edga L, took grand championship from t older bull, but at the National could not even enter the ring f grand championship as he had bee beaten for junior champion by t Hull Bros.' junior calf, Harold Swiss Glenn.

Swiss Valley Girl 7th, grand cham pion at previous shows, is growin old and it is "on with the new and with old". Her deep, long body, we developed milk veins, and large u der still indicate dairy quality, b she had to yield senior championshi to the Hull Bros.' 4-year-old, Re ben's Ruth. The latter cow showed better formed udder, the bloom youth, and the wise ones along t ropes said of her, "there comes a re cow". Indeed, according to the judg she more nearly than any other ent approached the desirable Brown Swi type. Later she gracefully accept the grand championship honors.

The list of awards follows:

Bull 3 years or over—1, Marshall & So on Stasis Boy of Sedgeley; 2, Hull Bros. Dick of Lake View; 3, Bohart on Colle Masher. Bull 2 years and under 3—1, H Bros. on Vogel's College Boy; 2, Marshall Sons on Marcus; 3, Bohart on Nick's Pr Easter. Bull 1 year and under 2—1 and Bohart on Moose and Alice's Master 2nd; Hull Bros. on Supreme of Lake View; Marshall & Sons on Bravura's II Grands Bull calf 6 mos. and under 12—1, Marshall Sons on Edgard L; 2 and 3, Hull Bros. Irene's Reuben and Mamie's Ethel B's Milli Reyno. Bull calf under 6 months—1, H Bros. on Harold of Swiss Glenn; 2 and Bohart on Beauty C's. N. M. and Master's

Cow 5 years or over—1 and 2, Hull Bros. Swiss Valley Girl 7th and Ruth H. 4th; Marshall & Sons on Brownie F. Cow 3 ye and under 5—1 and 3, Hull Bros. on R ben's Ruth and Bessie May 2nd; 2, Marsh & Sons on Betsy Girl. Heifer 2 years a under 3—1, Bohart on Master's Lady D. 2n 2 and 3, Marshall & Sons on Jackson La and Valley Girl M. Heifer 18 months and der 2 years—1 and 2, Marshall & Sons Betsy Girl Bravura and Beaut's Bravura; Hull Bros. on Belle of Lake View. Heife year old and under 18 months—1, Bohart Brownie's Perfection; 2, Hull Bros. on N of Lake View. Heifer calf 6 months old under 12—1, Hull Bros. on Lottie G. D. Lake View; 2 and 3, Marshall & Sons Styx 2nd and Minnie 2nd. Heifer calf un 6 months—1 and 2, Marshall & Sons on Be 2nd and Mollie 2nd; 3, Hull Bros. on Cind ella of Lake View.

Official Record Cows—Senior: 1, Marshall Sons on Brownie F; 2, Hull Bros. on Sw Valley Girl. Junior: Marshall & Sons Betsey May; 2, Hull Bros. on Bessie May; Bohart on Zell's Beauty.

Exhibitor's Herd—1, Marshall & Sons; Hull Bros.; 3, Bohart. Young Herd—1, M shall & Sons; 2, Hull Bros.; 3, Boh Breeder's Calf Herd—1, Marshall & Sons; Bohart; 3, Hull Bros. Get of One Sire and 3, Marshall & Sons; 2, Hull Bros. P duce of One Cow—1, Hull Bros.; 2, Marsh & Sons, 3, Bohart.

Senior and Grand Champion Bull—Sta Boy of Sedgeley. Junior Champion Bu Harold of Swiss Glenn.

Senior and Grand Champion Cow—Reube Ruth. Junior Champion Cow—Beaut 2nd.

Breeder Winner of Most Money—Hull B

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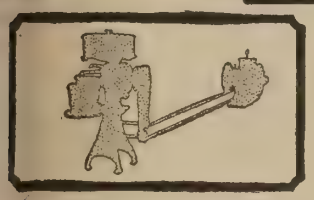
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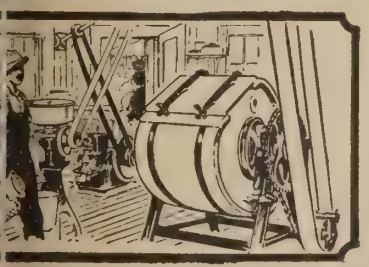
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Students' Judging Contest

The 10th Annual Students' National Contest in judging dairy cattle was held at the National Dairy Show at Columbus, Ohio, October 11, 1918. The contest was open to teams of three men each from all agricultural colleges, but owing to the enrollment of practically all male students in the military forces of the nation only three colleges—Cornell, Ohio, and Nebraska, were able to send full teams of three students each. A fourth college, South Dakota, sent two men to compete as individuals. One of the noteworthy features was that Cornell University entered a woman student. This was the first time in the history of the contest that a woman had contested with the male students for the honors of the judging ring.

Twelve animals of each of four dairy breeds were judged; namely, four bulls, four cows, and four heifers, and the students were required to place these animals in their proper order of excellence. Their placing was then compared with the official contest placing which was determined by a committee consisting of the coaches of the various teams. This committee was composed of Professors H. H. Wing, Cornell; C. T. Conklin, Ohio; Eli Duncombe, Nebraska; and Robert Wylie, South Dakota.

The Iowa Dairy Separator scholarship offered by the Associated Manufacturers' Company of Waterloo, Iowa, was won by the University of Nebraska, whose team stood highest in judging all breeds.

The DeLaval scholarship offered by the DeLaval Separator Company was won by M. N. Lawritson of the University of Nebraska for doing the best work in judging all the breeds.

The Holstein-Friesian scholarship offered by the Holstein-Friesian Association of America to the student standing highest in the judging of Holsteins was won by Elizabeth R. Cook of Cornell University.

Hoard's Dairyman and National Dairy Association cups for the best all-around judging were won by the University of Nebraska; the J. B. Ford cup by the New York State College of Agriculture; the Ayrshire cup by the University of Nebraska; and the Guernsey, Holstein, and Jersey cups by New York State College of Agriculture.

The National Dairy Association awarded gold medals to the five highest or sweepstakes winners in judging all breeds as follows:

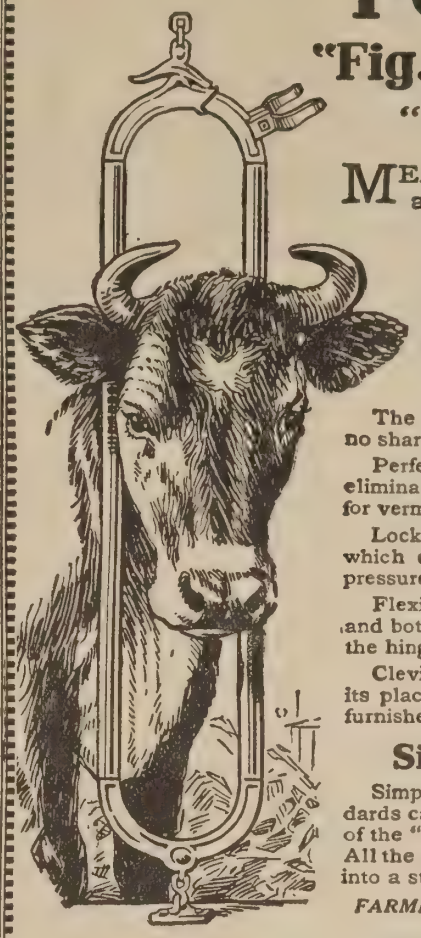
1. M. N. Lawritson, Nebraska; 2. Carl H. Powell, Nebraska; 3. Lowell S. Huntington, New York; 4. Daniel J. Carey, New York; 5. Elizabeth R. Cook, New York. HELMER RABILD,
Superintendent of Contest.

Dairy Cattle for Texas

HOARD'S DAIRYMAN:—It is announced that 350 high bred dairy cattle are to be purchased for the farmers of various counties of Texas by C. M. Evans, animal husbandman and R. L. Pou, dairy husbandman of the extension service of the Agricultural and Mechanical College of that state. They recently left for Columbus, Ohio, to attend the National Dairy Show. From there they will be joined by county agents from several Texas counties who will assist in the purchases for the farmers of their territory. The extension workers hold orders for several individual farmers in counties in different sections of the state and about 100 head of the dairy cattle purchased will be taken to College Station, Texas, and inoculated against the Texas fever at the veterinary hospital.

Texas. W. D. HORNADAY.

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Perfect fit and smoothness at the joints eliminate catching places for dirt and refuge for vermin.

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Flexibility given by chains at both top and bottom. Extra large bearing surface at the hinge insures long life.

Clevis and bolt hold the hinge firmly in its place. A stanchion holder is regularly furnished with each stanchion.

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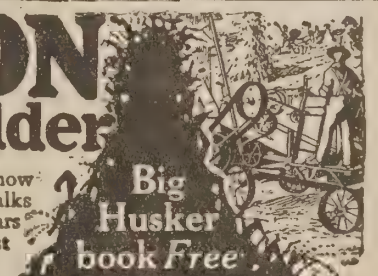
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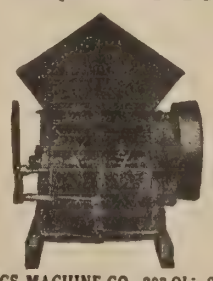
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At the canteens, they buy the little comforts of life at cost. In the war-service huts, they find everything needful to write the letters you receive. They attend a show, see a "movie" or hear good music—all free. Always, they find in the hut secretary a friend. They forget for a little while the grim scenes of war and return to duty refreshed. These are some of the things that keep fighting men at top notch.

YOURS is the task of growing the food these fighting men must have. The toiling millions in the munition factories, arsenals and shipyards also look to you for sustenance. And they do not look in vain.

Your work is vital to winning the war and you are doing it manfully, mindful of Country, forgetful of self. You are working early and late, putting forth your strength unsparingly. You have produced bounteous crops that feed a hungry world. Yet to you are spared the comforts of home and the presence of loved ones. Yours are the privileges of earning and giving.

Give to "keep good men good and brave men strong". Give to bring cheer to those who are daring their all for you and yours. And when the boys come home victorious, you can honestly say, "I have done my part, too. I have backed you to the limit."

Seven allied activities, all endorsed by the Government, are combined in the United War Work Campaign, with, the budgets distributed as follows: Y. M. C. A., $100,000,000; Y. W. C. A., $15,000,000; National Catholic War Council (including work of the Knights of Columbus and special war activities for women), $30,000,000; Jewish Welfare Board, $3,500,000; American Library Association, $3,500,000; War Camp Community Service, $15,000,000; Salvation Army, $3,500,000.

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This space contributed for the Winning of the War by

Hoard's Dairyman

Silage from Soft Corn

HOARD'S DAIRYMAN:—Statements have been frequently made that if corn is hit by frost before it reaches maturity the best way of saving it is to store it in a silo. The experiences of last year proved the truth of this statement to a multitude of farmers, farmers who have put up silage for years but who did so with a good quality of well matured corn in the years before. But from our experience last year, which tallied with that of most other farmers, I think the above statement needs to be qualified: A poor quality of silage may result from inmature frosted corn if it is not put up soon after it is frosted.

A poor, and I believe, unpalatable quality of silage can be made from inmature frosted corn if siloing is delayed and a period of warm weather follows the frost. When the frost strikes the corn the life processes of the plant practically cease, and as the functions of the plant are interrupted prematurely vegetable decay sets in. Still in the growing or developing stage it is full of juices which begin to ferment in the warm days that follow. Last year one could go into the cornfields a few days after the early frosts and smell the odor of this ferment in the air; in some fields it was absolutely sickening.

Immature corn is not the best to put into the silo, though I well remember the time when this was the recommended stage in which to silo it. It made good silage and was excellent feed for dairy cows especially. I am going to give here some extracts from my "Farm Notes" of last year:

"Sept. 14.—Corn is showing effects of the frost of the 11th. Some in low ground was hit heavily, and all the corn shows a browning of the husk and drying of the silk as if the frost were helping to ripen it without its fully maturing. Many grains on tips have turned a bright green. Probably 50 per cent of our corn is in the milk or hard dough stage, the rest being dented."

"Sept. 21.—Corn in about the same stage as it was on 14th, though the warm weather and rain yesterday is helping it to ripen a little. A faint sour odor in the low ground evidences fermentation of the plant juices setting in. Practically all the blades have a dead greenish color."

On the 28th we began to put this corn into the silo, when about one-fifth of it was in the milk stage. I will not quote my farm notes here as they are too lengthy, but they show that "all the leaves and stalks were green and juicy, some of the husks were dry and the silks brown."

This was very good corn and would have made 65 bushels per acre but for the frosts that followed. The cutter was adjusted to cut it into one-half inch lengths. This was small enough as the greenness and juciness of the corn made it pack well so as to exclude the air. To insure it keeping in good condition we hitched a length of three-fourths inch iron pipe onto the pressure system and ran a slow stream of water into the blower, which probably made a good one-half inch stream. It might be thought that this made a rather slushy quality of silage, but such was not the case. It packed evenly and firmly, and water was used throughout the entire filling.

This corn was put in just seventeen days after the first frost, but I believe it would have made better silage if it had been put in the first week after the frost. It made very good silage but the stock did not seem to clean it up in their boxes as well as they did the silage of former years. It had no sour odor when we began feeding it, the ferments of the silo having probably destroyed what little there was in the field.

There is another point I think well

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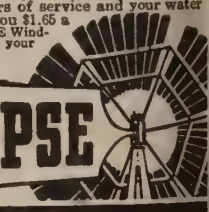
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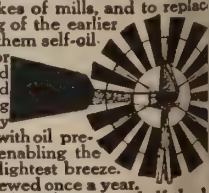


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HARRY D. BAKER.
Box A. St. Croix Falls.

orth mentioning here. In the lower alf of the silo was put one-half of a eld of corn and soy beans, the upper alf being filled with straight corn. 'e have always used this combin- ion of corn and soy beans, finding it akes a superior quality of silage, as carries a higher per cent of protein atter than straight corn and the soy ans have a tendency to neutralize me of the acids of the corn. On aching this lower strata of corn d soy beans the cattle seemed more ger for the silage and usually eaned up their boxes of all feed. hile we could detect very little, if y, difference in the odors of the two nds of silage, it may have been that e soy beans had a tendency to sweet- the silage and improve its pala- bility by counteracting some of the ids formed in the corn.

If this immature frost-bitten corn d stood in the field another ten days two weeks I believe it would have ade a low grade of silage, for the ild weather following caused it to ur considerably where it was ex- ptionally soft. As some farmers are unfortunate as to have soft corn en in normal years, I believe they ll secure a better grade of silage putting the corn in within at the ost two weeks after the first frost. nce the general experience of last ar I have heard a number of others press much the same opinion.

Indiana. J. L. JUSTICE.

Ten Commandments of the French Consumer During the War

The spirit of France is strikingly own in the following ten command- nts which the French people have d given to them by the League of triots. With these as a standard in nerica, ultimate victory is sure:

"1. Do not forget that we are at r. In your smallest expenditures ver lose sight of the interests of the tive land.

"2. Economize on the products nec- sary for the life of the country: al, bread, meat, milk, sugar, butter, ans, cloths, leather, oil. Accept tions. Ration yourself as to food, thing, amusements.

"3. Save the products of French l, lest some day you deprive your ther, your son, your husband, who e shedding their blood to defend u.

"4. Save the products that France st buy from foreign countries. Do t drain reserves of gold which are lispensable to existence.

"5. Waste nothing. All waste is a me which imperils the national de- se—prolongs war.

"6. Buy only according to your eds. Do not hoard provisions; your fishness raises prices and deprives se of smaller means of things lispensable to existence.

"7. Do not travel unnecessarily. flect that our trains are, before all, stined for the transportation of the ops, the feeding of the population, needs of our national production.

"8. Do not remain idle. According your age and your ability work for r country. Do not consume with- t producing. Idleness is desertion.

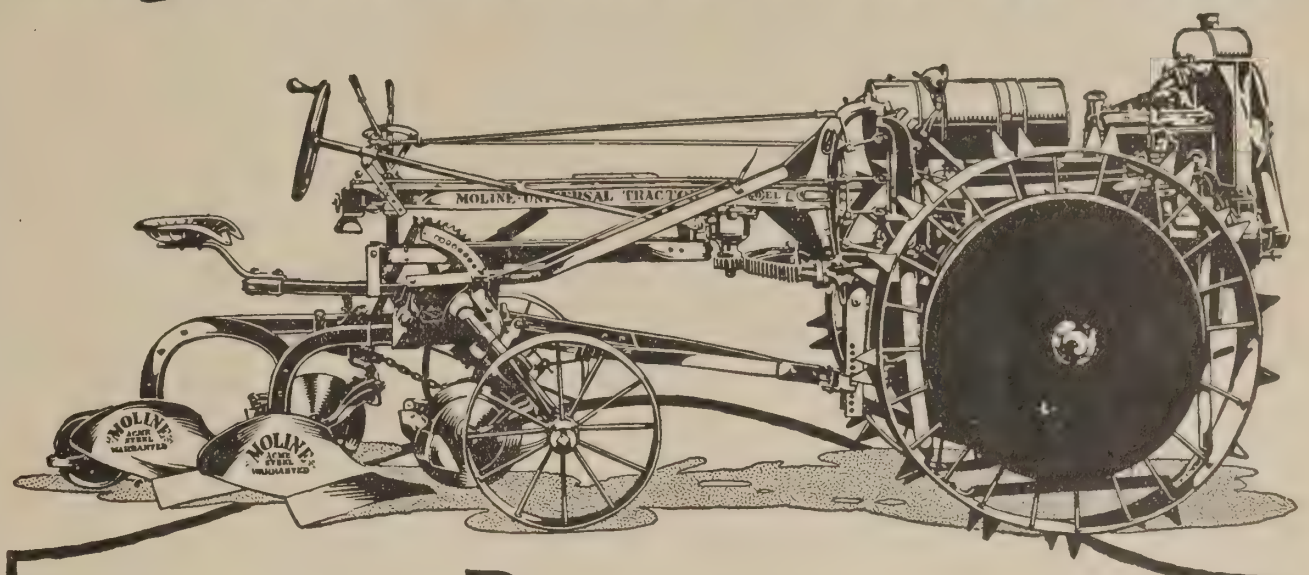
"9. Accept without murmuring the ivations which are imposed upon . Reflect upon the sufferings of se who are fighting for you, upon martyrdom of the population ose hearths have been devastated the enemy.

"10. Remember that victory belongs those who can hold out a quarter an hour the longest.

"That France may live, she must victorious."

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Buy Your Moline Tractor Now



Because:

You may not be able to get a Moline-Universal if you delay ordering.

You will help relieve spring congestion of shipping by buying now.

You will have plenty of time to become familiar with its construction and operation before the spring rush and will be able to work your tractor in on belt work and other light jobs.

It is the only tractor which does all farm work including cultivating.

One man operates both tractor and implement from the seat of the implement where you must sit in order to do the best work.

Tractor and implement form one unit—backs as easily as it goes forward—turns in a 16-ft. circle.

It has plenty of power for your heaviest work, yet light in weight to operate economically on light jobs. All the weight on two big drive wheels—no dead weight—no extra expense.

Substantially constructed for many years of service.

Electric lights for night work and self starter for non-robust labor.

You can practically double your efficiency—you can produce more food with less help. You will need it, order now.

Write today for full information and name of your nearest Moline Dealer. Address Dept. 18.

Moline Plow Co., Moline, Illinois

MOLINE UNIVERSAL TRACTOR



"Get a WITTE" Wood Sawing Outfit

Cash or Terms



Ready to Use — **Arrange At Once** for your WITTE Saw-Rig at Direct From Factory price. Earn Big Money. Made in sizes 4 to 22 H-P. To be sure of delivery, write for my latest, lowest offer today.—E. H. Witte, Pres.

WITTE ENGINE WORKS,
1647 Oakland Avenue, Kansas City, Mo.
1647 Empire Building, Pittsburgh, Pa.

COVER YOUR ROUTES QUICKER

—and handle more customers. Half the time and milk losses come from lack of best equipment.

De Kalb Dairy Wagons

—THIRTY-FIVE plans to select from. Above cut is one of them. Filled trays load from rear—all bottles in easy reach from seat—any capacity wanted. De Kalb Dairy Wagons in Platform, Three-spring or Low-down, Short-turn gear, with or without above equipment. Ask for free catalog.



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GET A BUHR MILL

with genuine French Buhr Stones. Do your own grinding of feed and table cornmeal, buckwheat, rye, Graham and whole wheat flour. Do grinding for others—It is profitable. These mills do the fine class of grinding you would get at a big flour mill. Last a lifetime. A boy can operate and keep one in order.



Send for book on mills and 30-day free trial offer.

FREE TRIAL

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1876 Morris St. Indianapolis, Ind.

This Mill Lasts A Lifetime



Has no buhrs or other parts to wear out. Every part strong and well made. Big capacity—requires small power. Does not heat the feed. Guaranteed to get the wild oats.

HOWELL *Roller Feed Mills*

are the modern, scientific machines for grinding feed and rye or graham flour. Have corrugated steel rolls, same as used in the large flour mills. Add to your profits by grinding feed for your neighbors. *13 sizes—any capacity—a size for any engine.*

FREE—Our complete catalog and the Famous Roller Mill Puzzle. Write for them today.

R.R.HOWELL & CO., 4 Malcolm Ave S.E., Minneapolis, Minn.

World's Yearly Records Broken by Holsteins

Two Remarkable Daughters of King Segis Pontiac Count Emphasize Value of Selection in Choosing Herd Sires

FRANK T. PRICE, NEW YORK

TWO pure-bred heifers in the herd of Senator J. M. Hackney of Minnesota have just broken world's records for the yearly production of both milk and fat. This simultaneous and successful assault upon marks for production that have stood in one or two instances for several years, is of absorbing interest to dairymen throughout the country because of at least two outstanding facts in connection therewith. Both are daughters of the same sire, King Segis Pontiac Count. Both get their inheritance of production from this sire, for while their dams were pure-bred cows of ordinary ability, the sire has inherited through his two nearest dams a rich line of yearly producing ability that he has been able to transmit not only to these two remarkable heifers but in fact to his entire string of daughters.

Jewel Pontiac Segis has broken both the milk and fat records in the senior three-year-old class and the division for yearly production with the following records: milk, 27,068.5 pounds; fat, 936.9 pounds. This record marks the completion of Jewel's second lactation period. Her sister, Beauty Beets Walker Segis, breaks similar records for dual production in the senior two-year-old class yearly division, with these records: milk, 25,343.3 lbs.; fat, 832.5 lbs. She has had but one calf.

For some time back Holstein men have been watching with interest the work of this pair of wonderful producers for they have been breaking records since they began their careers. The yearly records they have been approaching and which both have succeeded in breaking have stood the longest of any among the Holstein records and with the establishment of a new record by Jewel Pontiac Segis, the Holstein completes a 100 per cent conquest of the dairy world's marks for milk and fat production for in her class, the senior three-year-old, a Jersey has hitherto been world's champion, while a Guernsey was second and the Holstein champion third. Thus the breed gains ascendancy over all others in every class for milk and butter production in both short time and yearly tests.

Jewel Pontiac Segis, the new record holder in the senior three-year class, has occupied the limelight as a producer before, for in her first lactation period as a junior two-year-old she repeatedly broke class and world's records for both milk and fat production in the short time and yearly test. At the present time, she has earned the distinction of holding more records in the regular divisions than any other cow of the breed. She has to her credit no less than eight world's records as follows: junior two-year-old, eight months after calving milk and fat, senior three-year-old, seven and thirty days milk, 305 days milk and fat and yearly milk and fat. In addition she holds the following world's records in division not recognized by the Holstein-Friesian Association with prizes: junior two-year-old milk and fat, 60 and 90 days; senior three-year-old milk and fat for 60, 90, and 120 days. She is the only heifer of the breed that has made two records in the eight months after calving division above 16 pounds of fat while under full age. She is the only cow of the breed to complete two yearly records before maturity that passed the 800-pound fat mark and the average of these two records is 892.1 pounds of fat and 25,551.5 pounds of milk, at an average age of only 39 months. She holds more world's and class records than any other cow of the Holstein, or any other breed, regardless of age or number of lactation periods. She shows no ill effects from her wonderful record breaking performances and her picture published in connection with this story shows Jewel as she is, a strong, capacious, efficient milk machine that evidently can stand the strain of continued consistent production and not break down under it. Jewel is rightly named for, to borrow a poetical expression, it may be said of Jewel Pontiac Segis: "Consistency, thou art a jewel."

Of the younger of this remarkable pair it may be said that her performance is even more sensational than that of her older and more famous sister. To produce over 25,000 pounds of milk in one year is in itself a remarkable performance, one that not many mature cows have been able to duplicate. To couple that milk production with steady, persistent fat production makes the record stand out still more prominently. Beauty Beets Walker Segis is a first calf two-year-old but, unlike Jewel, she freshened in the senior while the former dropped her first calf in the junior class. From a study of the table given elsewhere which gives the records made by both these heifers in their two-year-old forms, some interesting comparisons may be drawn of the consistency with which both go about their work. Beauty Beets has carried her work along at a merry clip throughout the year, breaking a world's record for milk production in the 60-day division, and the milk and fat production for 305 days. At the close of her year she flashes to the front again with world's records both milk and fat.



KING SEGIS PONTIAC COUNT, SIRE OF JEWEL PONTIAC SEGIS AND BEAUTY BEETS WALKER SEGIS

His daughters hold world's records in thirteen different classes. No other three bulls of the breed have daughters with an equal number of world's records. He is owned by J. M. Hackney, Minnesota.

Beauty Beets Walker Segis freshen next time as a junior f year-old so that her work cannot compared with that of Jewel w second lactation period was in senior three-year-old class. Bu will be of interest just the sam watch Beauty Beets Walker S when she freshens next April. J Pontiac Segis, on the other hand, possibly freshen as a senior f year-old as she will not be five y old until March, and is due at a the date of her birth.

Minnesota, home of the wo champion yearly producer of fa the aged class, is now the hom three Holsteins that have won ho for combined milk and fat produc in the yearly division. This i tribute to the state that has more than almost any other to p larize the long time test. The wor Mr. Hackney's herd and those of J. B. Irwin and E. C. Schroeder, whose herds these record holders been developed, stands out in som the most absorbing chapters in history of the development of the stein cow and to them is due share, with others, of the rew that shall follow the consistent a cation of the long time test to the stein breed.

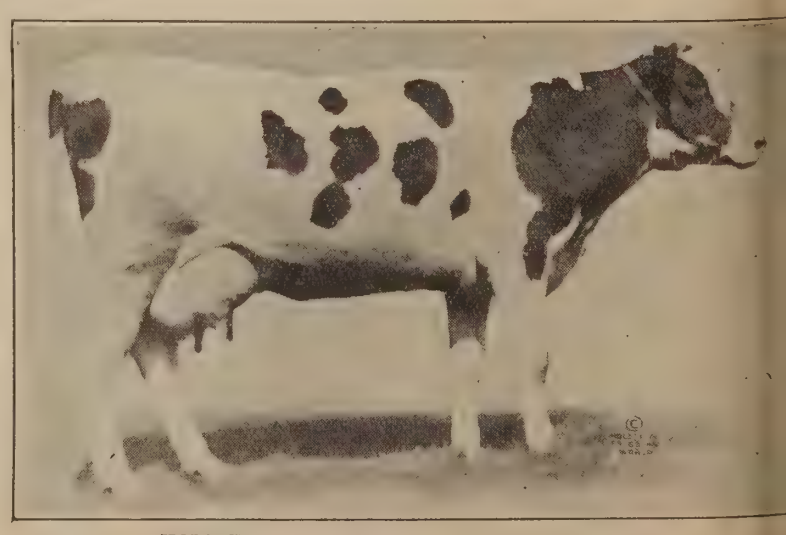
If we consider for a brief spac reason why these two remark heifers have been able to accom such feats of production, we fin application of the principles of s breeding practice. For the sir these heifers, King Segis Po Count, inherits long time produc from both sides of his pedigree. dam was K. P. Lillith Clothilde, highest yearly record daughte King of the Pontiacs, and his s dam none other than Pontiac thilde DeKol 2d, former world's ord yearly producer and first co produce over 1,000 lbs. of fat in year. She was the cow that first passed the yearly record made b famous Wisconsin cow, Colantha' Johanna, it will be remembered. though the two nearest sires, tw the most famous of the breed, are ed for their short time produ among the lists of their daugh and although the second sire on dam's side, Pontiac Korndyke, is ilarly noted, it is of interest to that it is through the combinatio these sires' best yearly produ blood that King Segis Pontiac C has come.

The daughters of King Segis tiac Count are uniformly high ducers, showing a wonderful t mitting power for the bull. The formity in production is all the remarkable because of the fact practically all of his daughters, from good average cows, get thei heritance of production from the

The work of such a sire serv



HOLSTEIN COW, JEWEL PONTIAC SEGIS
Year's record in senior 3-year-old class: Milk, 27,068.5 lbs.; fat, 936.9 lbs.
OWNED BY J. M. HACKNEY, MINNESOTA



HOLSTEIN COW, BEAUTY BEETS WALKER SEGIS
Year's record in senior two-year-old class: Milk, 25,343.3 lbs.; fat, 832.5 lbs.
OWNED BY J. M. HACKNEY, MINNESOTA

ng out the all important lesson of
neritance and its place in mating
better dairy production. King Se-
Pontiac Count represents the best
ssible combination for production
it was considered to exist at the
ne of his birth seven years ago.
at his daughters are making such
ords simply proves that the in-
ited ability is being transmitted in
ure degree to the next generation.
is an outstanding example of pre-
ency and every dairyman who
ds the story of King Segis Pontiac
unt and his daughters may profit
refrom. High production is not an
ident. It must be bred into the
ry herds of this country before it
be marketed on the butter, milk,
cheese markets, and the selection
the right kind of sire is the only
e way to take care of one line of
two that go to make up this high-
desirable result. Good cows are one
ng—they are essential. But a good
d sire backed by an inheritance of
ven production is another essen-
l that must not be overlooked by
dairyman who expects to turn his
rk into account.

Record breaking marks of two
ghters of King Segis Pontiac
unt follow:

	Fat, lbs.	Milk, lbs.
Beauty Beets Walker Segis		
At 2 Yrs. 8 Mos. 10 Days		
days	22.8	592.8
days	93.6	2,515.3
days	176.0	4,791.7
s. after calving	14.7	462.5
days	746.4	22,061.6
days	832.5	25,343.3
Jewel Pontiac Segis		
At 3 Yrs. 10 Mos.		
	Fat, lbs.	Milk, lbs.
days	28.2	768.8
days	113.6	3,154.9
days	221.6	6,159.7
days	320.28	8,790.8
days	409.33	11,405.1
s. after calving	16.08	453.7
days	840.22	24,034.6
days	936.92	27,068.5
At 2 Yrs. 2 Mos. 10 Days		
days	22.43	586.5
days	90.23	2,450.6
s. after calving	18.21	465.4
days	666.96	18,117.4
days	803.4	21,891.8

uttermakers and Cheesemakers Wanted

Never before in the history of Wis-
sin has there been such a demand
trained buttermakers and cheese-
kers as now. Next spring the de-
nd will doubtless be greater than
as been this year. It is therefore
portant that everyone interested in
creameries and cheese factories
uld make an effort to send some-
to attend the winter dairy course
the University of Wisconsin at
dison which begins November 5th.

E. H. FARRINGTON,
Dairy Department,
University of Wisconsin.

Chicago Milk Prices

HOARD'S DAIRYMAN:—Milk pro-
ers in the Chicago district will re-
ve $3.68 per hundred pounds for
ir product during the month of
vember. This price is 36c higher
n the October rate and 76 cents
ve the September price. The ad-
ce in the milk price was in keep-
with the agreement reached last
mer when representatives of pro-
ers, distributors, condensers, and
cream makers met in conference
h food administration officials.
e other months, the price to be paid
s arrived at through the applica-
n of the modified Pearson formula
cost of producing 100 pounds
k. W. E. Lamb, attorney for the
ited States Food Administration,
sided at the hearing when the
ce was made.

Producers figured the new price a
r basis for the month as it was
ut in line with their calculations
l, as promised, shows a sharp ad-
vance over the mid-summer months when production is at the low spot. Although prices now paid for milk, to the producers, stand at a record, the December price is expected to be around the $4 mark.

With the advance allowed to the producers, an advance was authorized to the dealers. The retail price in the cities, effective November 1, will be 14 cents per quart and 8 cents per pint. These prices establish a new record for milk delivered in the city. The latest price rise was the third advance in three months.

Illinois. J. M. CARROLL.

Settlers clearing land in or near national forests should notify forest officials before proceeding to burn brush, and in all districts having a fire warden a permit from him should be obtained before any burning is attempted. In all cases ample precautions should be taken to prevent the spread of fire.

Two bushels of corn, a bushel of wheat—that isn't much on a farm, is it? Think of the joy the money would take to a soldiers' camp!

SUCRENE DAIRY FEED



66 Pounds Milk Making Nutrients In Every Sack

The 66 pounds of actual nutrition which you get in every sack of Sucrene Dairy Feed has greater milk-producing and body-maintaining value than any ordinary ration, at less cost, because it comes from a scientifically correct combination of seven different standard quality feeding materials. Its variety, palatability, easy digestibility completely satisfies the cow—no other concentrates needed to increase milk yield above average yield of cows.

18 Years the Dairyman's Favorite

Sucrene Dairy Feed was the pioneer in the movement to place dairying on a more profitable basis. Its adoption by the U. S. Government experts in charge of cows and other live stock used in connection with the Panama canal work was due to its superior nutritive efficiency and economy, as demonstrated by careful official feeding tests.

Wouldn't Do Without Sucrene Dairy Feed

"It has been so long since I did not feed Sucrene Dairy Feed to cattle on pasture that I can not say what the difference would be without it. My 155 registered Jerseys do so well on it that I would not want to do without Sucrene, either summer or winter."

JACOB E. WHITE,
Spring Grove Jersey Farm, Greenfield, Ohio

Made More Money Than Any Other Feed

"I can honestly say Sucrene Dairy Feed has made me more money than any feed I have ever bought, as it produces large quantities of milk at a low cost, to say nothing of keeping the stock in the best of health, with practically no sickness or calving troubles."

THOMAS Y. HACKETT,
Daretown, New Jersey.

Sucrene Dairy Feed is composed only of the following materials: Cottonseed Meal, Corn Distillers' Dried Grains, Germ Oil Meal, Finely Ground and Bolted Grain Screenings, Cocoanut Meal, Clipped Oat By-product (to provide necessary bulk), Pure Cane Molasses, and small percentages of calcium carbonate and salt (for necessary mineral matter.)

Its high guaranteed analysis of 16 1-2% Protein, 3 1-2% Fat, 46% Carbohydrates and 14% Fibre is always maintained

The great variety of high quality materials, combined with pure cane molasses, makes Sucrene Dairy Feed a complete and highly palatable milk making ration—relished by all cows.

GIVE YOUR COWS A CHANCE to prove that Sucrene Dairy Feed is a more profitable ration than you are now feeding. Order a ton from your dealer. If he can not supply you at once, write us.

To make sure of a supply for this winter, you should place your order at once, as war demands are likely to cause transportation delays.

Fill out and mail us the coupon or write a postal for further information and illustrated literature on care and feeding of live stock and poultry.

American Milling Company
Dept. 4 **Peoria, Ill.**

(Sucrene Feeds for All Live Stock and Poultry—18 Years the Standard)

Please send me illustrated literature on feeds checked below: (4)

- [ ] Sucrene Dairy Feed
- [ ] Sucrene Calf Meal
- [ ] Sucrene Hog Meal
- [ ] Sucrene Poultry Mash with Buttermilk
- [ ] Amco Fat Maker (for steers)
- [ ] Amco Dairy Feed (25% Protein)

My Dealer's Name.....

P.O..... State.....

My Name.....

P.O..... State.....

Solve the Labor Problem

Farm help is scarce. The use of those machines which effectively fill the vacancy made by the war will do much toward relieving this dangerous situation.

The Burrell Milker permits an operator to milk from 24 to 30 cows per hour. One man using two Burrell Milkers can obtain results equal to the endeavors of three men milking by hand. This is the same as saying that one man does three men's work, or that every man with two Burrell Milkers frees two men for other important work.



The manner in which the Burrell Milker draws the milk from the cow prevents any chance of injury to the cow or spoilage to the milk. The simple construction of the Burrell Milker and the ease with which it is kept clean make it desirable in the handling of certified milk. Considering the present high wages demanded by farm workers, the Burrell Milker pays for itself in a very short time.

D. H. BURRELL & CO.
501 Albany St., Little Falls, N. Y.

Manufacturers of "Simplex" Cream Separators and other Simplex Specialties—the Best in the World.

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wis.**

EDITORIAL COMMENT

In 1913 a dairy cow had a beef value of only approximately 50% of her dairy value, while in 1918 it was 80 to 90 per cent. All of which indicates that beef values have increased more than dairy values, despite the fact that the cow is the more economical producer of human food.

For the first six months of their lives 50% of the children in America need cow's milk, and after six months and for several years all of them need it in order to grow properly and become strong, healthy adults.

COW HIDDEN FOUR YEARS

The British Daily Mail reports that when Lille was taken from the Germans and the allied troops entered the city they were received with much rejoicing. An incident of the re-occupation occurred that was at once humorous and pathetic. One family produced a cow that for four years they had kept hidden from the rapacious hands of the enemy and she was accorded sufficient recognition to be given space in the cabled reports. The Germans had been outwitted, but—just one cow left in a city that once boasted a population of 200,000.

CUTTING DOWN HAY

It is quite a chore to cut down a mow or stack of hay in the ordinary way, so Mr. L. G. McIntyre of Kansas invented a new method which has given him complete satisfaction as it is both simple and expeditious. He took 40 rods of barbed wire and with the aid of a small rope he pulled one end of the wire inside the barn from the bottom of the mow up over the top and down the other side, inside the barn through a pulley set about four feet above the ground. He then hitched a horse to this last end and led him in a straight line away from the barn. On the other end of the wire he fastened a small weight and a single tree. When he had walked the horse about thirty rods he unfastened him and hitched him to the other end. Each time he made a cut he lowered the pulley on the side from which he pulled. It took him forty minutes to cut down a mow that was 28 feet high and 30 feet wide.

CO-OPERATION AMONG CREAMERIES

We hear constant complaint from the co-operative creameries against the concentrators, the condenseries, and other lines that are taking their milk and cream. The managers of co-operative creameries have yet one great lesson to learn before they will be fit to meet the outside competition that they complain so much of. That lesson is: *Co-operation among themselves.* They don't seem to be able to work together when that kind of work is all important.

In many instances the old-time, foolish jealousy of each other prevails among them. Such men will try to steal a farmer's milk away from a neighboring creamery and are unwise enough to think that kind of a game is smart. Such a policy is death to all co-operative work for their own preservation and so we see creamery after creamery going out of business. Of course, added to this is the competition of other markets for milk and the lack of understanding of farmers as to the cash value of skimmilk. Such farmers are too ready to sell their skimmilk for half what it is worth as a feed for young stock and pigs. They do not yet understand their business. All they can see is extra price of the milk and away they go like children after it. But a broad spirit of co-operation among creameries will help greatly to counteract this false impression.

NATIONAL DAIRY SHOW

The best Dairy Show ever staged was held at Columbus, Ohio, beginning Thursday evening, October 10th, and ending Saturday night, October 19th. Why was it the best Dairy Show? Because its educational features, its exhibits, and its suggestions were better presented than ever before. The National Dairy Association was organized to stimulate, to encourage, and to guide our great dairy industry. Its purpose is to show how dairying should be conducted; to visualize its opportunities; to point out its pitfalls; to educate the consumer regarding the importance and food value of milk and its products; and to bring together the consumer and producer that greater enlightenment may prevail everywhere concerning the dairy industry.

The National Dairy Show offers a meeting place for those engaged in the various branches of dairying. It provides opportunities for comparisons of animals, machines, dairy products, ideas, and practices. The dairy industry, like all other large enterprises, is made up of units. At the Dairy Show are found the manufacturers of barn equipment, creamery appliances, milk bottling machinery, ice cream machinery, etc. The breeders of the various breeds of dairy cattle, the dairy farmers, the milk buyers and milk distributors, the creamery men and the cheese men, the feed manufacturers, the men of science, the inventors, and the advisors are all there mixing and remixing, vying and arguing, gesturing and exclaiming, criticising and praising that the dairy industry may be moved upward and forward.

The Dairy Show is held that those engaged in dairy farming may learn of better principles and practices. The breeder is benefited by seeing better animals than he has bred and by coming in contact with those engaged in similar undertakings. The dairy farmer finds many of his problems visualized and analyzed. The various methods of presenting information, though it be familiar, brings a new meaning and a new application.

A great national industry cannot grow symmetrically without a national stabilizing force. The National Dairy Association provides opportunity through the Dairy Show for exerting such a force. May its future shows bring forth still larger achievements.

COW TESTING ASSOCIATIONS

Not all members of cow testing associations are making use of the records kept of each one of their cows, and in this respect they fail to get out of the testing work all that they should.

There is little use in going to the expense of determining what each cow in the herd will produce, how much feed she consumes, the feed cost of 100 lbs. of milk and one pound of butterfat, unless the owner takes time to interpret these records so that he may understand what each cow is doing for him.

Mr. Noel Negley of the Dairy Division and Wisconsin Dairymen's Association, and one of the supervisors of Wisconsin cow testing associations, makes the following statements regarding the dairyman who fails to interpret the record of his herd:

"The fellow who bought a $30 suit and left it in the closet for the moths to eat did not know how to 'use' a suit. It's the same way with the dairyman who invests $30 a year in a cow testing association and never looks into his herd record or takes any special interest in the work.

"Of course, before a man can wear a suit he has to buy it, and before a dairyman can get any good out of a cow testing association he has to be a member, and almost every live dairyman who has the opportunity is a member or expects to join as soon as an association can be organized in his community.

"When a man puts $30 a year into an association he does it not to help anyone else, but to help himself. It is neither charity nor expense; it is an investment upon which he expects to get good returns. He is not getting something for nothing but simply joining with 25 other men so that the service he gets cost him less. And what he gets for his money depends very much upon each man and his tester."

"SPIRIT OF THE TRUE FARMER"

Dr. Henry Baird Favill of Chicago, whose untimely death in 1916 was so widely mourned throughout the nation, was one of the foremost breeders of Holstein cattle. Rev. E. G. Updike of Madison, Wis., wrote a beautiful tribute to his life and memory and now Dr. Updike has passed away to join the illustrious dead. In that tribute were these discerning words:

"He had a vocation and an avocation. His avocation had come to be a matter as absorbing as his profession. He had purchased what was originally his grandfather's farm at Lake Mills, Wis. He developed what was coming to be regarded as one of the most wonderful agricultural plants in the state. He had not been reared on the farm but he loved it. He had the spirit of the true farmer. He mast every detail and he knew the name and history every one of the one hundred and seventy- pure-bred cattle on his place. Nothing esca him. No experiment station did its work m carefully or scientifically than he. He told me out of his farm he was getting an intelle stimulus to that of his profession."

In those brief words there is a great les Every farmer owes it to himself and to the cess of his efforts that he cultivate in himself "spirit of the true farmer". Some are born on farm and love it, for they have the vision to what it means. Others are born on the farm hate it. Where hate leads, failure is sure to fol So many men look upon the farm in a sordid —only as a place to make money, a little pre gain. Their vision is narrow and small and t financial returns are the same. When will men that the farm unfolds itself only to those who it with the "true spirit of the farmer".

THE SECRET OF SUCCESSFUL DAIRYING

The Rural New Yorker divides dairy farmer to two classes, those who make a comfortable li hood from their cows and those who do not. note that the first class has but little to They have few if any complaints to make. have seen long ago that it was knowledge, knowledge, that makes the cow go. You will n if you go to their homes that they have prov themselves with the best of dairy reading.

One of these men wrote us not long ago gave his reason for taking a good dairy pa He said:

"I do this because it keeps my mind alive an tive for the problems of the business. My j ment is a good deal better for it. The cost small that I would be ashamed to cheat myself of it."

We notice another thing about these succe dairy farmers. They take constant pains to prove the quality of their cows. They succeed all kinds of breeds. Other men fail with all of breeds. But we never knew a man to fail kept pushing his herd to better and more profi performance. There are lots of half-hearted in all sorts of callings. Dairying has its sha them and sometimes we think it has more tha share.

MAKING STUDENTS OF FARME

Go into school and make note of the sch there. Some will be found who are willing to if it comes handy but are constantly bu against the idea of forcing their minds to do est, daily, hard work. If you investigate these ars you will find that real mental effort, ma earnest students of themselves, is distastef them. They are governed in their attitude tow mental culture by their tastes, their feelings not by the solid conclusions of their reason. students and a much less number are there fo purpose of down right hard study. They know they will never become masters of any lin knowledge without that close mental training.

It is just so in the making of a soldier in a our big camps. Not one man in ten would own self subject himself to the hard tra and effort as well as study necessary to ma good soldier if he were not compelled to by authority. Yet he knows that it is all fo best; that when he becomes a good soldier h be glad of all that made him so.

The making of a masterful, successful farm in the same line. There is no authority ove except the pricking of hard necessity that co him to unshackle his mind and make a stude himself concerning the how and why of wh does as a farmer. There is the great weakn the farming class. The majority trust to luc the learning of what they must know. As a quence they are never sure of themselves any problem that they are called on to face. among their number are resolute men, resolut their minds as well as their bodies. They c depended on to dig down to the root of every tion. It is these few that set the pace for all ing progress. These men do not hesitate to students of themselves. Go where you will in line of human effort, it is only the men who students of themselves who succeed best, an is especially true of farmers.

Let the College of Agriculture, for instance

ool for any special study like that of the study actors, for example. It is right there you will how much farther those advance who have ered their minds and can make ready students emselves. Slowly but surely is the insistent l of events forcing the farmer to be a student, ossess an active, comprehending mind. Of e, he needs a strong body and his daily work exercise give him that if he has good health. still more does he need a strong mind so he s right, sees right, and does right for himself those dependent upon him. This mental gth comes largely through his reading. How what he reads determines very greatly the of a man he is and the kind of a farmer he e.

TRUTH AND THINKING

l you ever stop to think that it was not al- the best balanced article or editorial which ght you the most good? The article which is ys well balanced may cause the nod of approv- at the one which produced thought and action not always temperate and moderate in all of tatements. The paper which is trying to pre- to its readers facts and truths must be guard- every turn. It must keep itself well informed atements of doubtful accuracy will find their into its columns. We take pride in being ac- e in statement; in presenting truth as we see nd in being right, for we know that in the end, ie final analysis, men everywhere and in all s of life believe in truth and right.

our attempt to be accurate in all things we are forced to modify statements which would enge attention and find ready acceptance with who have not thought to the final conclusion. ecognize that plain, cold facts are not always nost interesting reading, that imagination por- ng the ideal add life and zest to an article. But llow the imagination portraying ideals is dan- is unless curbed by the unusual faculty, com- sense.

w then can facts, figures, and truths be made esting and fascinating reading as well as val- ? In many cases it is impossible to give sober accurate statements the touch of imagination ssary to make them delightful reading and ght stimulating, unless the reader is a deep nt of his business and cares for nothing but . In our editorial writing we often make g statements for or against certain theories ractices and omit presenting all sides of the in order to stimulate thought. The chief func- for a paper is to furnish accurate information o lead its readers to think.

nk naught a trifle, though it small appear;
ll sands the mountain, moments make the year
l trifles life."

Freeing Swine of Lice

e are putting in some hogs and would like to a few inquiries regarding the equipment.
nat is the best preventive for lice, and what rns handle it? Are rubbing posts or tanks for ng the best?
nat is the best worm remedy? Who handles it? what age are hogs able to feed from a self- r and what is the best make?
chigan. J. T. B.

e best preventive to use against lice for is to first see that no lice whatever are per- d on the premises either in the house or on ogs. Then when you buy new boars or other see that they are free from lice before you them in your herd or before you put them in arns to which your hogs may have access at later time. And then, in addition, it is neces- to watch your neighbors and see that your hogs do not rub noses with infected hogs on other side of the fence which divides your s from those of your neighbor.

l of this, of course, means eradication of lice your own premises providing you have them. best remedy we know of for this purpose is oil. Crude oil may be secured from a num- f different concerns in the various states. The an now be bought for about $8 to $11 per l of fifty gallons, it costing on this basis t 16c to 21 or 22c per gallon.

nen we treat our hogs here we simply put all in one corner and spray them thoroughly crude oil, which has previously been placed in rdinary spraying can. If the holes are not big enough they can easily be made larger by of some sharp instrument. After you have ved these hogs thoroughly, take a broom and them all over with it. Another scheme is to spray pump. A dipping tank may be used to advantage, although ordinarily it is not used on the swine farm.

Rubbing posts can be used and they help some but they will not completely eradicate the lice. However, a good rubbing post is of much value in keeping lice down to reasonable numbers.

Some practice also spraying the inside of the hog house, particularly in the summer time.

A good hog remedy, very successful for round worms, consists of a mixture of santonin and calomel. The dosages are arbitrary but, generally speaking, a fifty-pound pig can handle from three to five grains of santonin along with an equal amount of calomel, a 100-pound pig should have six to eight grains, and over this ten grains should be given. Mix same thoroughly and give with a little feed. Some recommend that this be given after the hogs have been kept off feed 24 hours, some after 12 hours. We have practised giving it with the regular feeds with fair success. This worm remedy can be bought through most any drug store and is highly effective.

Another remedy for round worms is oil of chenopodium. The dosage of this as ordinarily recommended is from 30 to 50 drops, along with castor oil, say from half an ounce to an ounce or even upwards of an ounce and a half with large hogs.

Hogs may be fed from the self-feeder right from birth and the home-made kind is probably the best. Hoard's Dairyman has heretofore published self-feeder cross sections. There are a large number of self-feeders on the market. I would advise you to get in touch with the firms making self-feeders and use your own judgment as to the ones to buy. Home-made ones, however, are very good if properly made.

Iowa. JOHN M. EVVARD.

Cows Prove Alfalfa Superior to Bran

A feeding trial recently completed with cows in Nebraska gives added proof of the high value of alfalfa. Claims have frequently been made that the legume is equal to bran in the dairy cow's ration. The experimental work at the Nebraska Station not only makes good these claims—it even shows alfalfa superior to the wheat by-product, now so eagerly sought and so difficult to procure. If the data gathered may be generally applied, it means a goodly saving to many dairy farmers. According to the Nebraska statistics, a ton of alfalfa ground or finely chopped will replace a ton of bran in the concrete mixture successfully and, in most sections of the country, at a considerable saving.

The subject matter of a bulletin issued by the Nebraska Experiment Station on the feeding tests completed is here presented:

The problem of reducing the cost of the ration for the dairy cow is of much importance. Where roughage may be substituted for a grain or by-product concentrate, the cost of the ration is likely to be decreased. Throughout a large part of the western half of the United States alfalfa hay is abundant and comparatively cheap when calculated on its protein or energy units. In the form of alfalfa meal it may be shipped into a large part of the country east of the Mississippi river at a cost much less per ton than the cost of a mill product of like feeding value.

The North Platte Substation of the University of Nebraska has conducted an experiment to determine whether chopped alfalfa may be substituted for wheat bran in the dairy cow grain ration of 4 parts corn, 2 parts bran, and 1 part oil meal, and the effect of such substitution on the performance of the cows. The first test extended from December 1, 1916, to January 30, 1917. During this time the cows were fed about 30 pounds silage per head daily and had access to a rack containing alfalfa hay. The second test was begun March 1, 1917, and closed May 30, 1917. The cows were fed silage and alfalfa hay throughout the test and had some grass during the last few weeks. The amount of grain was based on the milk flow—one pound of grain for 3 to 4 pounds of milk.

Six pairs of cows were selected for each test. Each pair was matched as closely as possible in respect to breed, lactation period, previous record, milk flow, percentage of fat, and other factors that would be expected to affect production. One cow from each pair was put into Group A, the other cow into Group B. The six cows of Group A were fed a grain ration consisting of 4 parts ground corn, 2 parts bran, and 1 part oil meal during the first period of 15 days, while the six cows of Group B were fed a grain ration consisting of 4 parts ground corn, 2 parts chopped alfalfa, and 1 part oil meal. During the second 15-day period the A group received the alfalfa ration while the B group received the bran ration. The test was extended through four 15-day periods during two periods of which the cows of Group A were fed the bran ration and two periods the alfalfa ration. The cows of Group B were fed in a similar manner, only that when the cows of Group A were getting the alfalfa ration those of Group B were getting the bran ration, and when the cows of Group A were being fed the bran ration those of Group B were being fed the alfalfa ration.

During the third period of the first test one cow in Group A, being fed the bran mixture, went off feed for a few days and during the fourth period another cow in group A, being fed the alfalfa mixture, dropped in production for a few days. As one cow was off when on bran and the other when on alfalfa, these deficiencies do not influence the final results.

During the second test one cow became sick. She and her mate were taken out of the test, leaving only 5 pairs of cows.

Results of the First Test

The six cows in Group A while on the bran mixture during two 15-day periods gave 3,972 pounds of milk containing 144.3 pounds of butterfat, and lost 32 pounds in weight. The same six cows while on the alfalfa mixture during two 15-day periods gave 3,952 pounds of milk containing 138.7 pounds of butterfat, and gained 233 pounds in weight.

The six cows of Group B while on the bran mixture during two 15-day periods gave 4,244 pounds of milk containing 158.4 pounds of butterfat, and gained 128 pounds in weight. This same group of cows while on the alfalfa mixture during two 15-day periods gave 4,332 pounds of milk containing 163.6 pounds of butterfat and gained 1 pound in weight.

Bringing together the results from both groups we find that the twelve cows while eating the bran mixture during two 15-day periods produced 8,216 pounds of milk containing 303 pounds of butterfat and gained 96 pounds in weight. The same twelve cows while on the alfalfa mixture during similar periods produced 8,284 pounds of milk containing 302.3 pounds of butterfat and gained 224 pounds in weight.

Results of Second Test

The five cows in Group A while on the ration of corn, bran, and oil meal during three 15-day periods gave 7,430 pounds of milk containing 250 pounds of butterfat and lost 3 pounds in weight. The same five cows while on the ration of corn, alfalfa, and oil meal during three 15-day periods gave 7,147 pounds of milk containing 245 pounds of butterfat and lost 52 pounds in weight.

The five cows of Group B, while on the ration of corn, bran, and oil meal during three 15-day periods gave 7,239 pounds of milk containing 241 pounds of butterfat and lost 125 pounds in weight. The same five cows while on a ration of corn, alfalfa, and oil meal during three 15-day periods gave 7,309 pounds of milk containing 239 pounds of butterfat and gained 68 pounds in weight.

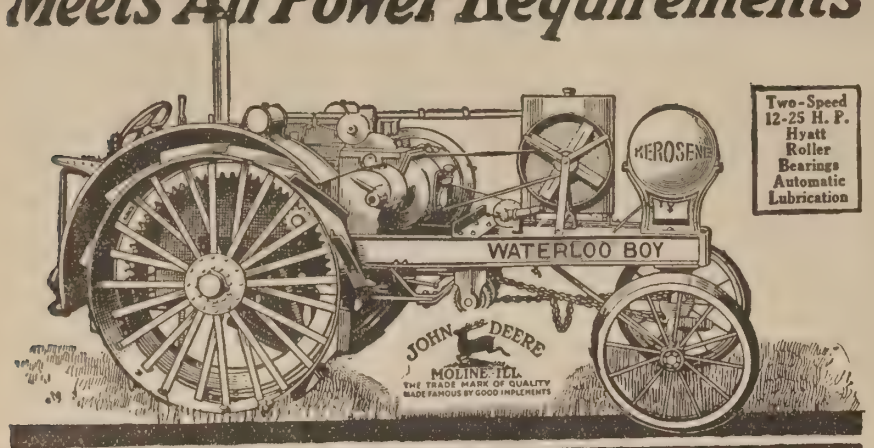
Combining the results from the two groups we find that the ten cows while being fed bran with corn and oil meal during three 15-day periods gave 14,669 pounds of milk containing 491 pounds of butterfat and lost 128 pounds in weight. The same ten cows while being fed alfalfa with corn and oil meal during three 15-day periods gave 14,456 pounds of milk containing 484 pounds of butterfat and gained 16 pounds in weight.

Two Tests Combined

Twenty-two cows while being fed a forage ration of silage and alfalfa hay, and a grain ration of 4 parts ground corn, 2 parts bran, and 1 part oil meal during an average period of 75 days, gave 22,886 pounds of milk containing 794 pounds of butterfat and lost 32 pounds in weight. The same cows during a similar period and under similar conditions, and fed the same ration excepting that chopped alfalfa replaced bran in the grain ration, gave 22,741 pounds of milk containing 786 pounds of butterfat and gained 240 pounds in weight.

During these tests with twelve cows for two months and ten cows for three months, chopped alfalfa was substituted for bran in the standard dairy grain ration of 4 parts ground corn, 2 parts bran, and 1 part oil meal without any appreciable unfavorable effect. The slight decrease of 145 pounds in milk and 7.5 pounds in butterfat production while the alfalfa was being eaten was more than overcome by the gain of 272 pounds in the weight of the cows. It is evident that in these tests alfalfa was fully equal to bran. If these results are the same as are found in general practice, then alfalfa fed in this manner has the same feeding value as bran.

Meets All Power Requirements



Two-Speed 12-25 H. P. Hyatt Roller Bearings Automatic Lubrication

WATERLOO BOY
ORIGINAL KEROSENE TRACTOR

Experience has demonstrated that this three-plow tractor, with 25 H.P. at belt is the ideal "general utility" tractor for any size farm. Its light weight, simplicity, great durability, ample power and economy give it

The Widest Range of Availability At Minimum Operating Cost

Discriminating buyers are choosing the Waterloo Boy because of its demonstrated success in the hands of users under all conditions; because it is built and fully guaranteed by a responsible manufacturer; because of its dependability in emergencies, unusual fuel economy, and because conveniently located distributors insure prompt and courteous service when needed.

Write for free illustrated catalog giving full information.

Geo. W. Brending, Milford, Ill., writes: "Your tractor has given complete satisfaction. I plowed seventy acres in eight days with a three-bottom John Deere Plow; did most of my discing with it using two 18 in. wheel discs at all times. Kept close record of operating cost—$2 per day paid for all fuel and lubricating oil when doing a full day's work."



Chas. W. Carlson, Stromburg, Neb., writes: "Your tractor is O. K. It is cheap to operate—not more than two gallons kerosene to the acre, plowing good depth, with 3-bottom 14 in. John Deere Plow. Plowed old alfalfa, sod pasture, stock and stubble ground without trouble. I use the tractor to pull 28 in. thresher and thresh 33 loads of wheat to a barrel of kerosene."

JOHN DEERE, 4103 W. Third Ave., Moline, Ill.

CHASE
PLUSH MOTOR AND CARRIAGE ROBES
Made by Sanford Mills

They will outwear many times over other woven fabric robes — always ask for "Chase Robes."

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Chase Plush Robes have been famous since 1867—made from the choicest of animal hair, they are so woven that wear comes on *top ends* of fibres, affording long service — no wearing out in spots — weather and cold proof — sanitary and of wondrous beauty.

Chase Plush Robes were the choice of our grandparents, and are a nationally advertised and trademarked product.
Scores of patterns, various weights, sizes and prices.

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Leaders in Manufacturing Since 1847



"Since the Jingle of Sleigh Bells in '67 to the Honk of the Motor Horns Today"

COVER YOUR ROUTES QUICKER

—and handle more customers. Half the time and milk losses come from lack of best equipment.

De Kalb Dairy Wagons

—THIRTY-FIVE plans to select from. Above cut is one of them. Filled trays load from rear—all bottles in easy reach from seat—any capacity wanted. De Kalb Dairy Wagons in Platform, Three-spring or Low-down, Short-turn gear, with or without above equipment. Ask for free catalog.



WITH SANITARY BOTTLED MILK SYSTEMS

DE KALB WAGON COMPANY, P. O. Box E., DE KALB, ILLINOIS.

Milk Show of the Twelfth National Dairy Show

The milk and cream exhibit at Columbus was the largest of its kind ever assembled at a National Dairy Show—there being one hundred and fifty-six entries in the seven milk and cream classes. In addition to this number, there were four other shipments which were sent but failed to arrive.

All dairy sections of the North American continent were represented—there being entries from twenty different states and Canada. Especial interest was taken in this contest by milk producers and officials in the states of Pennsylvania, North Carolina, Ohio, New Jersey, and Massachusetts—the other states each being represented by a few splendid entries.

J. A. Gamble, Professor of Dairy Husbandry Maryland State College of Agriculture, formerly Market Milk Specialist U. S. Dairy Division, and H. E. Ross, Professor of Market Milk New York State College of Agriculture, were the milk and cream judges.

Winners in Market Milk

	Score	Medal
Wild Rose Farm, Ohio	99.4	Gold
F. N. Collier, North Carolina	98.8	Silver

Winners in Market Cream

Benj. Sharpless, Pennsylvania	99.2	Gold
Mrs. Victor J. Humbrecht, Pennsylvania	98.8	Silver

Winners in Certified Milk

International Correspondence school, Pennsylvania	97.8	Gold
Wilco Farms, Illinois	97.4	Silver

Winners in Pasteurized Milk

Harry Jones, Pennsylvania	97.6	Gold
Crescent Creamery Co., California	97.4	Silver

Winners in Pasteurized Cream

Fernwood Dairy, Oregon	97.6	Gold
Morres & Rose, Ohio	95.8	Silver

Winners in Agricultural College

Ohio State University, Ohio	96.35	Gold
University of Nebraska, Nebraska	96.	Silver

Winners in City Health Department

Board of Health, North Carolina	96.3	Banner

Winner in Dealers' Market Milk

Supplee Wills Jones Dairy, Pennsylvania	Banner

Winners of Bronze Medals by States—Market Milk

	Score
Wild Rose Farm, Ohio	99.4
F. M. Collier, North Carolina	98.8
Mrs. Victor J. Humbrecht, Pennsylvania	98.8
Bjerkan & Oss, Minnesota	98.4
J. H. Golden, Maryland	98.1
Howard N. Sneck, New York	96.7
Ezra Evans, New Jersey	96.5
Crescent Creamery Co., California	95.5

Winners of Bronze Medals by States—Market Cream

Benj. Sharpless, Pennsylvania	99.2
Raemelton Farm, Ohio	97.7

Winners of Bronze Medals by States—Certified Milk

International Correspondence Schools	97.8
Wilco Farms, Illinois	97.4
Haddon Farms, New Jersey	97.1
French Bros. & Bauer Co., Ohio	96.8
Hilltop Farm, West Virginia	96.4

Winners of Bronze Medals by States—Pasteurized Milk

Harry Jones, Pennsylvania	97.6
Crescent Creamery Co., California	97.4
Fernwood Dairy, Oregon	96.3
Gridley Dairy Co., Wisconsin	96.2
Home Producers' Milk Co., Ohio	95.6

Winner of Bronze Medals by States—Pasteurized Cream

Fernwood Dairy, Oregon	97.6
Moores & Ross, Ohio	95.8
Supplee Wills Jones Co., Pennsylvania	95.5

Winners of Bronze Medals by States—Agricultural College

Ohio State University	96.3
University of Nebraska	96

Winners of Diplomas in Market Milk

Benj. Sharpless, Pennsylvania	98.8
O. W. Hester, North Carolina	98.7
E. E. Tom, Ohio	98.3
Bergson Bros., Minnesota	97.8
S. E. Thacker, North Carolina	97.7
Georgia Farms, Pennsylvania	97.3
E. C. Grossman, Ohio	97.1
J. F. Williams, North Carolina	96.9
L. M. Smith, North Carolina	96.8
Moose Valley Farm, Minnesota	96.8
Raemelton Farm, Ohio	96.8
Jonathan H. Schenk, Pennsylvania	96.7
Wm. Gable, Pennsylvania	96.6
Eric N. Holmernd, Minnesota	96.3
David Crawshaw, New Jersey	96.1
Reynolda Milk Co., North Carolina	96.1
East End Dairy, North Carolina	96
I. I. Wells, Pennsylvania	95.9
W. B. Thacker, North Carolina	95.8
P. P. Height, North Carolina	95.8
W. E. Hinton, Ohio	95.7
Parker Bros., North Carolina	95.4
F. B. Hawey, New Jersey	95.3
Tom Pemberton, North Carolina	95.1

* Tie broken on bacteria count.

Winners of Diplomas in Market Cream

Georgia Farms, Pennsylvania	98.7
Wm. F. Gable, Pennsylvania	97.1

Winners of Diplomas in Pasteurized Milk

Abbotts' Alderney Dairy, Pennsylvania	97.3
Kimball & Grove, Ohio	95.3



STASIS BOY OF SEDGELEY, SENIOR AND GRAND CHAMPION BROWN SWISS BULL AT THE 1917 AND 1918 NATIONAL DAIRY SHOWS
OWNED BY L. S. MARSHALL & SONS, MICHIGAN

Gousseff to Grand Rapids

W. V. Gousseff, for two years a ricultural agent for Steel Count Minnesota, has accepted the positi of Animal Husbandman at the su station of the Minnesota Experime Station at Grand Rapids.

Mr. Gousseff has been very su cessful as a county agent. Throu his efforts Steel County farmers ha become strongly organized. Of pa ticular importance are the shippi associations through which ma farmers are selling their stock co-o eratively. The pure-bred industry the county has prospered especial through his assistance. His efforts advertising Steel County Holstei have given the breeders much va able publicity. His successor will Mr. Julius Ausen, formerly organiz and supervisor of cow testing associ tions for Northern Wisconsin, which work he has been remarkab successful.

In his new work Mr. Gousseff w have charge of animal husbandry e tension work in a group of counti around Grand Rapids.

One little pig—just one—will s for enough to provide comforts a enjoyment for three soldiers for qu a while. Can't you spare one pig?

What An Expert Says About High Protein Feeds

Algoma, Wis., March 4, 1918.

Chas. A. Krause Milling Co.,
Milwaukee, Wis.

My Dear Sirs:

I believe that the feeds that have the greatest power to stimulate milk production have the least power in nourishing the reproductive organs.

I admit that high protein feeds stimulate milk production. It is true that cows making large records were fed rations containing a large amount of protein, but witness also the large number of such cows that are barren or entirely sterile as a result of such feeding.

I know herds right here, that have been fed largely upon high protein feeds, as recommended in conjunction with leguminous hays (high protein), that are now ruined by abortion. The fact that the cows carried their calves up to six to nine months is a pretty good indication that it is not germ abortion. It cannot be traced to any other source than improper feeding.

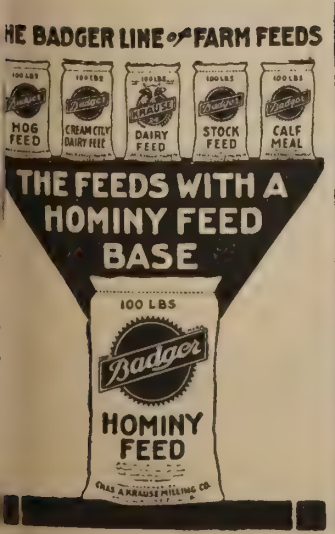
High protein feeds have their place in the economy of feeding, but one thing must be remembered: **They must be fed with other feeds** that counteract their bad effects. Such feeds are corn, hominy, barley, etc., hominy being the cheapest at present.

In carrying out this plan, alfalfa or clover hay, with plenty of good corn silage for roughage, and oats, corn, barley, bran and some one high protein feed, play an important part.

We should not let our thoughts run altogether to the milk pail. We should so feed and care for our cows that their vigor, health and reproductive powers are maintained.

Most sincerely yours,

(Signed) FRED PFUEHLER,
Official Tester of the Wolf River Cow Testing Association.



Why Cows Need a Balanced Ration

THE heavy milk cow of today may be compared to a machine. An experienced and careful operator can drive a machine at high speed day after day with only normal wear and tear. In the hands of an inexperienced operator, however, it is soon pounded to pieces, its working period is reduced, and while heavy production may be maintained for a time, the average is low.

Likewise, by the use of a high protein, but poorly balanced ration, a cow may be forced to show big results for a short time, but at the expense of her other functions. Feeders now realize that a cow's ration must be properly balanced by sufficient fats and carbohydrates.

A properly balanced ration which, while containing sufficient protein, furnishes in addition other necessary food elements, will produce a heavy flow of milk without in any way impairing the cow's general condition.

Three of the most widely used dairy feeds, BADGER STOCK FEED, CREAM CITY DAIRY FEED and KRAUSE DAIRY FEED, differ in protein content, so that the dairyman can select the one which is exactly suited to his requirements and will give him the results he desires.

The base of all of these feeds is BADGER HOMINY FEED, a rich, nutritious, palatable feed, high in digestibility, which stands at the head of every grain and feed stuff available to the American feeder. Fed alone, however, it is too compact and is not properly balanced. In these three feeds it is so combined with other elements as to form a perfectly balanced ration, which insures heavy milk production and, instead of lessening reproductive power, increases it.

BADGER STOCK FEED is designed to meet the need where a comparatively low protein and high carbohydrate feed is desired.

CREAM CITY DAIRY FEED has a good percentage of carbohydrates and fat, which keep the cow in good condition, with just the right amount of protein to produce a good flow of milk.

KRAUSE DAIRY FEED runs higher in protein, to meet the necessity for heavy milk production and for use where feeders wish to use home grown grains in the ration.

You can use no better feeds than these perfectly balanced rations, made up by a manufacturer of high standing and long experience. No feeds you can mix yourself can be as scientifically accurate, as economical, as thoroughly dependable.

Ask your dealer for the feed best suited to your requirements; write for free samples and full information.

Chas. A. Krause Milling Co., *Milwaukee, Wis.*

Manufacturers of the Badger Line of Farm Feeds

WAUKESHA CO
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130 - Pur



31.35-LB. BULL SIRED BY BEAUTY PIETERTJE PRINCE, A 32-LB. BULL



27-LB. DAUGHTER OF A 32-LB. SIRE

It is our aim to raise the quality of our consign

THERE WILL BE—

6 30-lb. bulls and better, of serviceable age. There w 18 other high record bulls, all over 7 months age, from record dams and from 25-lb. to 47-lb. sires.

70 choice well-bred cows, from 2 to 10 years old, br 25-lb., 30-lb., 40-lb. or 47-lb. sires, to freshen this fall.

30 choice heifers, of 30-lb. and 40-lb. breeding. In sele stock, individuality as well as breeding, is considered.

THE OFFERINGS INCLUDE—

A 30.51-lb. cow, excellent individual, sired by a 34-lb. and bred to Rag Apple Korndyke Eighth, to freshen about sale

A 30.73-lb. son of Korndyke Segis Johanna, the $12,500 and out of Pabst Snowball with 30.73 lbs. butter. She is no yearly test. Barring accident, she will finish with over 100 butter. His six nearest dams average 31.07 lbs. butter. 7-8 w an excellent individual.

Three young serviceable sons of Sir Pietertje Ormsby cedes 43rd, a 34.59-lb. bull, whose dam also has a yearly reco 1250 lbs. butter, making her the highest yearly record daug of Sir P. O. M. These bulls are out of record cows as follov

Ashburn Hengerveld Dora, with 30.3 lbs. butter. She is a sister to a 29.4-lb. 4-
Ashburn Segis Pauline, 29.3 lbs. at 5 years, and 26.5 at 3 yrs. Has sister with 3
Ashburn Segis Dean Lass, with 27.1 lbs. butter. A sister to a 33.6 lb. cow. breeding is bound to produce.



SON OF BEAUTY PIETERTJE PRINCE AND OUT OF A 27-LB. DAUGHTER OF JOHANNA MCKINLEY SEGIS. SHE ALSO HAS 753 LBS. BUTTER IN 284 DAYS. STILL ON TEST



A SON OF THE GREAT KING OF THE PONTIACS OUT OF A 30-LB. COW. ONE OF THE BEST INDIVIDUALS IN THE ENTIRE SALE. TO BE SOLD

List of C

Nam

John J. Reid & Son, Oconomou
Carnation Stock Farms, Ocono
Meadow Lane Farms, Waukesh
Adam Graser, Waukesha, Wis
Pabst Stock Farm, Oconomowo
W. H. Latta, Clinton, Wis....
Geo. J. Schuster, Mukwonago,
S. A. Baird & Son, Waukesha,
E. G. & J. W. Muckleston, Wau
H. H. Earle, Eagle, Wis.....
Frank Dechant, Waukesha, Wi
Alex Dechant, Waukesha, Wis
W. J. Wright, Waukesha, Wis.
Geo. Dreyer, Dousman, Wis...
W. O. Briggs, Milwaukee, Wis
Frank Ludwig, Dousman, Wis
Baird Bros., Waukesha, Wis..
John Wilton, Eagle, Wis.....
C. J. Will, Sussex, Wis.....
L. V. Garvens, Waukesha, Wis
A. J. Mitchell & Sons, Waukesh
Gustav Pabst, Oconomowoc, W

CATALOGS NO

Waukesha County Holstein

BOX 222, WAUKESHA, WISCONSIN. A

NTY HOLSTEIN
12th AND 13th
reds - 130

ne sale to the next. We have done it this time.

6.5-lb. Junior 3-yr.-old, bred to Rag Apple Korndyke . Fresh about sale time.

3-lb. 2-yr.-old, bred to the Mighty Monarch, the 47-lb. ling of the Pontiacs. His grandam has a record of 50.68, t grandam a record of 39 lbs.

nths old choice calf sired by Rag Apple Korndyke Eighth and from nior 2-year-old daughter of King of the Pontiacs. Her seven near- verage 29 lbs. butter.

nths old daughter of a 19-lb. dam and sired by a 38-lb. son of Rag ndyke Eighth. 2-year-old daughter of Beauty Pietertje Prince from w. Sons and daughters of King Superba.

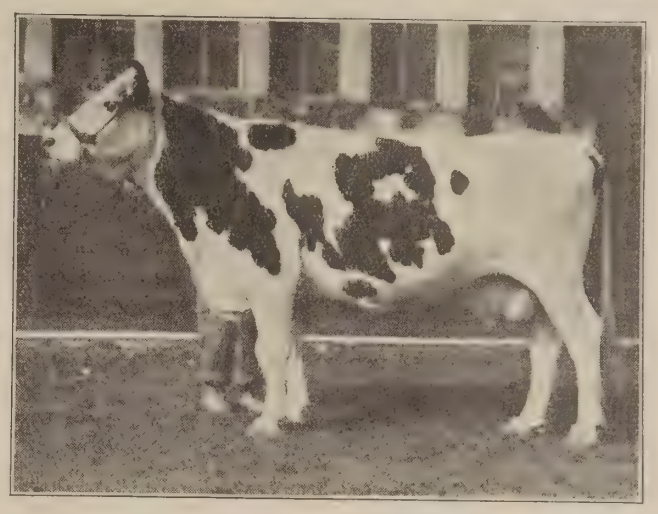
and daughters of Maple Crest King De Kol.

y others of equal breeding. These are only a few of the most at- ferings that have ever been offered at public auction.

MBER—

l. All animals come from tuberculin tested herds. All animals over f age are tuberculin tested under the supervision of the state prior

We have a reputation to maintain for selling clean, healthy cattle.
Animals of breeding age guaranteed to be breeders at time of sale.
Each animal consigned is selected and inspected by a committee of 3.
By-bidding is not allowed. This is a sale.
Waukesha County contains more high record sires in service than county in the United States.
held in the new $35,000 pavilion just completed in Waukesha. Sale s at 10 o'clock each day. We invite you to attend the sale and be of the high quality of the offerings.



23-LB. 5-YEAR-OLD DAUGHTER OF KING PONTIAC HENGERVELD BRED TO A 31-LB. BULL



22.61-LB. DAUGHTER OF BEAUTY PIETERTJE PRINCE HEAVY IN CALF TO A SON OF 40-LB. BULL

No. Head
7
21
2
1
1
5
6
5
7
4
3
1
5
9
7
2
4
5
6
3
3



SIR PIETERTJE ORMSBY MERCEDES 43RD WITH 1,250-LB. DAM.
REFERENCE SIRE
KING PONTIAC ARTIS SADIE VALE, 29-LB. SON OF 41-LB. BULL.
REFERENCE SIRE FOR SEVERAL HEAD



16-LB. 2-YEAR-OLD DAUGHTER OF BEAUTY PIETERTJE PRINCE. HEAVY IN CALF

Y. ADDRESS

sian Breeders' Association

ger, Mack and Love. Wood in the Box.

We will consign 10 bulls from
Edgemoor Farms, Santee, Cal.

Combination Sale

At Waukesha, Wis.

Wed., Nov. 6th, '18

Included in the lot is the bull, Langwater El Dorado 39316, born Aug. 17th, 1915. He is by Langwater Holliston, a bull now in use in the Upland Farms herd, Ipswich, Mass. His dam is a daughter of Langwater Hope, 1,003.7 lbs. fat. This bull has been largely used in the Edgemoor Farm herd. There will be four of his sons in the sale that will show the high class of cattle he is siring. One of these traces 17 times to May Rose 2nd.

Included in the lot is Superb of Edgemoor 49590, born Dec. 15th, 1917, sired by Itchen May King 25174 and out of Donnington Goldie 5th 59866, 796.52 lbs. fat in Class E, and first prize 4-year-old cow and first prize Jr. A. R. cow at the National Dairy Show 1917. This calf is well enough bred and good enough individual to head any herd in America.

Itchen May King now has 4 A. R. daughters with records up to 617.04 in Class F and many more under test. Three of his sons that we consigned to the Waukesha Sale last spring sold for an average of over $1,000 each, and two of these won 1st prizes at Wisconsin State Fair this year.

Three calves in the lot are sired by Royal Rose King, a son of Itchen May King and Beladdia, 934.05 lbs. fat.

The dams of nine of the bulls are either in the A. R. or are now under test. This will be your opportunity to get a new head for your herd. Send to F. E. Fox, Waukesha, Wis., for catalog of the sale.

Charles L. Hill & Son, Rosendale, Wis.

80 HEAD **COMPLETE** 80 HEAD

Dispersal Sale

Fair Grounds, Owensville, Ohio

Wednesday, Nov. 20, '18

CLERMONT HOLSTEIN BREEDERS CO., Inc. Bethel, O., premier show herd of Ohio, West Virginia, Kentucky, and Tennessee, 1918.

R. E. HEAD, Batavia, O. An Ass'n prize winning producing herd.

75 females will be sold, practically every one of which has an A. R. O. record up to 29.76 lbs. or is out of an A. R. O. dam. A number have good semi-official records. 45 cows and heifers of milking age will be sold. All are bred to the following bulls which will be sold.

JOHANNA CLOTHILDE CHAMPION 183393, the *HIGHEST RECORD BULL WISCONSIN EVER PRODUCED*, out of the present Wisconsin State Champion cow, 36.36 lbs. Sire's dam, *COLANTHA 4TH'S JOHANNA*, 35.22 lbs.

LORD SEGIS PONTIAC 200253, a son of *COUNTESS SEGIS*, 31.70 lbs., a *WORLD RECORD* daughter of *KING SEGIS;* sire's dam, *PONTIAC ARTIS*, 31.71 lbs. 3 *WORLD RECORDS.*

GROVELAND PAUL BEETS PONTIAC 139640, GRAND CHAMPION OHIO, W. VA., and *TENN.* State Fairs, 1918.

The premier exhibitor's herd of Ohio, Kentucky, West Virginia, and Tennessee, 1918, will be sold. Every animal in the sale is tuberculin tested, and is sold on a 60-day retest guarantee. Every animal has been selected for individuality and production.

OWENSVILLE is on C. & C. traction, 25 miles east of Cincinnati and four miles from Batavia, O., where all N. & W. R. R. trains will be met by Auto. Sale begins at 10 A. M. under cover.

Write for catalogue to

Clermont Holstein Breeders Co., Inc.

Bethel, Ohio or R. E. Head, Batavia, Ohio.

New York Butter Market

NEW YORK CITY, October 22:—There has been a decline of three cents in price of all grades of butter since one week ago. The bottom for the present, at least, seemed to have been reached on Monday when extras were quoted at 57c. However, predictions are of no avail in these times when retailers, jobbers, and wholesalers are keyed up to the highest nervous condition possible. We may expect extreme fluctuations in prices during the next six months. During the past week consumption of butter has been at the minimum. It is very probable that high prices are largely responsible for that condition but the fact that Greater New York contains hundreds of thousands of people sick with the prevailing epidemic, Spanish influenza, leads one to suspect that that factor has some bearing on the situation. Retail merchants have their stocks practically depleted at present and it is expected that there will be greater activity in the market within the next two or three days.

There has been a great accumulation of butter, especially of lower grades, during the past week. The report of the Bureau of Markets shows that there are on hand about 70,000 packages of fresh stock. Much of that stock came in on higher quotations and handlers are loth to dispose of it until the previous market level has been reached. Today there seems to be a slight feeling of greater strength. All lots of extras offered on the exchange at 57c were quickly taken up. More would have been disposed of had it been offered. Very little under grade butter is moving at present but without doubt when the break comes great quantities will move quickly.

Following are quotations on extras during the past week: Wednesday, 60c; Thursday, 58c; Friday, 58c; Saturday, 57½c; Monday, 57c; and Tuesday (today), 57c. Quotations on other grades today are: Higher scoring than extras (93 score or above), 57½@58c; firsts (88 to 91 score), 55@56½c; and seconds (83 to 87 score), 52½@54½c. Unsalted butter is moving very slowly. No sales are being made except in regular channels. However, the quotation is at the usual differential over corresponding grades of salted butter.

W. B. LIVERANCE.

The dairy cow requires an ounce of salt a day, and while she should be given all she needs, she should not be forced to take more than she wants. It is best, therefore, to give only a small quantity on the feed, and to place rock salt in boxes in the yard.

STOP LOSING CALVES
You can **Stamp Abortion Ou**
OF YOUR HERD and **Keep It Ou**



By the use of
DR. DAVID ROBERTS
"ANTI-ABORTION"
Small Expense.
Easily Applied. Sure Result
Used successfully for 30 year
Consult DR. DAVID ROBERT about all animal ailment Information free. Send f FREE copy of "The Catt Specialist" with full information on Abortion in Cow
DR. DAVID ROBERTS VETERINARY C
638 GRAND AVE., WAUKESHA, WIS.

Second Annual

Public Sale

Washtenaw County Holstein-Friesian Cattle Breeders' Club

At "Stoneacres," Home of Hatch Herd, 3 miles southwest of Ypsilanti, Michigan

Wednesday, Nov. 6th

1 o'clock sharp

Autos Meet All Trains.

About 60 head—mostly A. R. O. Pontiac Korndyke breeding—bred to King Korndyke Artis Vale (2 nearest dams average 37.61; 7 nearest average 31.56) son of King Korndyke Sadie Vale, the 41-lb. sire and Rag Apple Segis Korndyke, a 38-lb son of Rag Apple Korndyke, out of granddaughter of King Segis.

A few choice younger ones of both sexes Liberty Bonds at par acceptable.

All animals old enough are tuberculin tested.

For catalogs or other information, address

WILLIAM B. HATCH, Secretary
Ypsilanti, Michigan.

$200.00

Buys a Grandson of King Korndyke Sadie Va

King Sadie Korndyke Fayne No. 24160 born Dec. 18, 1917. A large well grown fellow, fine individual, in color large white.

Sire:—King Korndyke Sadie Vale 18t one of the best sons of King Korndyl Sadie Vale from a 31-lb. 4-yr.-old daughter of the great Sir Veeman Hengerveld.

Dam:—Crescent Cora Fayne. A. R. record as a senior 3-yr-old: Butter 22.0 milk 488.60; butter 30 days 86.18, milk days 1,876.50. She is in my herd at present and a promising candidate for a lar record in the future. PLEASANT HILL HER

W. D. ROBENS, - POLAND, N.

4 Dandy Holstein Bu Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. S by 32-28-25-19-lb. bulls, and from tested c Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount,

Semi-Annual Consignment Sale

By the Maryland Holstein Sales Co.
Fair Grounds, Frederick, Maryland

THURSDAY, NOV. 14th, 1918

10:30 o'clock A. M.

100 - Pure-bred Registered Holsteins - 100

Consisting of fresh cows, with A. R. O. records; young cows and two-year-olds, bred t some of the best sires in the country, and soon due to freshen. Grand lot of yearling heifer and calves, bred in the purple.

BULLS FIT FOR SERVICE

Whose breeding and individuality fit them to stand at the head of any herd. Among them will be a son of "King of the Sadie Vales" whose three nearest dams average over 40 pound of butter in seven days. The six nearest dams of this young bull average 29.62 pounds o butter in seven days. Yearling son of a 34-pound cow, and sired by "King Concordia Pon tiac." A 31-pound grandson of the 37-pound cow "Diona Konigen." 1 bull ready for ser vice from a 29-lb. dam sired by one of the best bulls of the breed. An individual of unusua promise. Cattle six months old or over will be tested by the B. A. I. or sold subject to re test by said Bureau within sixty days from date of sale.

LIST OF CONSIGNORS : Winterthur Stock Farm, Winterthur, Del.; Ira E. Fitzgerald Chester, N. Y.; Alex N. Smith, Monroe, N. Y.; Allen R. Owen, Goshen, N. Y.; John B. Diamond Jr., Gaithersburg, Md.; Harry H. Swomley, Frederick, Md.; Oliver Z. Coblentz, Middletown Md.; Samuel A. Ensor, New Windsor, Md. *Write for catalog*

WM. P. MORSELL, SALES MANAGER, FREDERICK, MD

Col. Geo. W. Baxter, Auctioneer.

Sale Announcements

N. 6—Holsteins—Washtenaw County Holstein-Friesian Cattle Breeders' Club Consignment Sale at Ypsilanti, Mich. Wm. B. Hatch, Sec.
N. 6-7—Guernseys. Waukesha County Guernsey Breeders' Association Semi-annual Sale at Waukesha, Wis. F. E. Fox, Sec.
N. 7—Holsteins. The Walworth County Holstein Breeders' Sale at Elkhorn, Wis. J. G. Voss, Manager.
N. 8—Holsteins. The Calumet County Holstein Breeders' Ass'n. Sale, Chilton, Wis. Royal Klofanda, Sec'y.
N. 11—Holsteins. Porter County Holstein Breeders. J. B. Turner, Sec'y., Valparaiso, Ind.
N. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
N. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
N. 14—Holsteins. Maryland Holstein Sales Co., Frederick, Md., Wm. P. Morsell, Sales Mgr.
N. 14—Registered Jerseys and Holsteins. Alvin C. Green, Morris, Ill.
N. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
N. 19—Guernseys. Dispersion of W. J. Heid's Guernsey Herd at Ft. Atkinson, Wis.
N. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
N. 26—Holsteins. Tri-county Holsteins breeders' second semi-annual sale at Dixon, Ill. Sales Mgr., E. M. Detweiler, Polo, Ill.
D 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
D 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
F 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Ap il 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

When Writing to Advertisers, Mention Hoard's Dairyman

THE SECOND SALE OF

AYRSHIRE CATTLE

By the Pure-bred Live Stock Sales Company at Brattleboro, Vt., on

TUESDAY, NOVEMBER 12th, 1918

will consist of 75 head of ONLY choice animals from such well known importers and breeders as Wm. Hunter, Burlington, Ontario, who will consign 25 females from his last importation and one extra fine bull.

Adam Seitz & Son, Waukesha, Wis., part of their show herd and record animals and a son of the $3,500 bull.

ALSO CONSIGNMENTS FROM

R. R. Ness, Howick, Quebec
Gilbert McMillan, Huntington, Quebec
Daniel M. Henderson, Hudson, Ohio
Wendover Farms, Bernardsville, N. J.
Weymouth Farms, Weymouth, Mass.
Jos. Saladino, Orford, N. H.
Geo. H. Dunsmore, Swanton, Vt.
E. J. Fletcher, Greenfield, N. H.
Newton Farms, Ashburnham, Mass.
Matthew Hannah, Brownsville, Vt.
Middlesex Meadows Farms, So. Lincoln, Mass.

Come and by your presence show your interest in this great breed of cattle.

Walworth County Holstein Sale

ELKHORN, WISCONSIN

Thursday, November 7th, 1918

(At the new stock judging pavilion on the fair grounds.)

75 Head of Registered Holsteins

A daughter of King Walker Pietertje Segis and bred to Sir Hengerveld Korndyke Ormsby, a son of the famous Pietertje Maid Ormsby and half brother to the great Sir Pietertje Ormsby Mercedes. Here is a sample of the breeding and individuality of the animals to be sold in this sale.

Young Bulls of Serviceable Age

An unusually large number of young bulls of serviceable age will be listed with the many other attractions which can only be briefly mentioned.

Few of the Remarkable Service Sires

The following list is a few of the prominent herd sires to which cows and heifers have been bred that are consigned to the sale: Sir Hengerveld Korndyke Ormsby, son of Pietertje Maid Ormsby and brother to Sir Pietertje Ormsby Mercedes; King Pontiac of Brothertown whose two nearest dams average 38.53 lbs. and whose dam is a twice 32-lb. cow; Sir Johanna Pontiac Segis a grandson of King of the Pontiacs and out of a 28.60-lb. granddaughter of King Segis; a son of Sir Pietertje Ormsby Mercedes 22d whose three nearest dams average over 1,000 lbs. butter; son of the well known Sir Ormsby Johanna DeKol; and Admiral Walker Prilly Sir Johanna, a 25.14-lb. grandson of Admiral Walker Prilly and Sir Johanna Bonheur.

Some of the Special Attractions

A large, straight, well grown daughter of King Segis Pontiac bred to Sir Hengerveld Korndyke Ormsby. An A. R. O. show cow sired by a full brother to the sire of Dutchess Skylark Ormsby and bred to King Pontiac of Brothertown. Son of Wisconsin's great show bull, Iowana Sir Ollie, who is out of the famous old cow, Ollie Watson Prima Donna. Kayewood Dora Johanna, a fine, large, consistent producing A. R. O. cow, also bred to King Pontiac of Brothertown. A good number of fine (milky) cows bred to Sir Johanna Pontiac Segis. Promising young cow coming in with second calf—daughter of Beauty Walker Pietertje King. Some choice granddaughters of King Pieter. Daughter of Beauty Walker Pietertje King and Vivie Belle of Elkhorn, now on semi-official test and about to finish at better than 700 lbs. butter; also some choice females bred to Sir Ormsby Johanna DeKol 37th and Ormsby Bess Kaan DeKol.



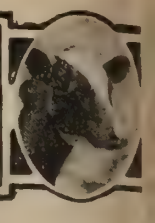
A. W. P. Pearl Perfection 2nd (351601)

Breeding and *Individuality* of the animals consigned cannot be surpassed. This is strictly a breeders' sale. All animals 6 mos. or older tuberculin tested. Catalogs ready Oct. 28.

JOHN G. VOSS, Sale Manager, Elkhorn, Wis.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

Observe Closely

"Gosh, Jimmie, how does he do it? S' far as I can see, they all look alike." Two boys at a recent county fair were watching John Savage, a neighboring breeder of dairy cattle who had been chosen to act as judge, as he lined up a class of heifer calves, carefully selecting the winners and placing them in order. "There, he's finished, let's ask him. Maybe he'd tell us about judging."

"You go ahead, Bill. He knows your dad. Probably, he won't tell us nothing anyhow."

And "go ahead" they did. Like most judges at fairs, the breeder was pleased to answer their questions. He walked along the line of calves, stopping by each to speak of its good or bad points.

"See this calf here? What do you think of her?"

"Well, Mr. Savage," replied Bill after looking at the calf in question so long that Jimmie was about ready to speak up himself, "I can't see why she ain't as good as that there one you put first. She's bigger an' she's fatter."

"Perhaps she is, but size alone isn't enough to put an animal up. What do you think of her?" he said to Jimmie.

"She's longer and she's higher up but she ain't so big middled. Spot's our best cow at home and she is deepest and widest. Pa says he don't like cows to have too much daylight under 'em."

"That's right, young man," the judge returned, "and that's a big advantage in this heifer we've placed first. She has capacity. That's important. When she matures, she'll be like your "Spot". She will have room for a lot of feed and will produce more than a shallow bodied cow. Put your hands on this first heifer. That hide is soft and pliable. It is of good quality and indicates strong, vigorous blood flow. Good cows when in milking condition have that kind of a hide, and heifers with it give promise of developing to high quality animals. Now, feel this other one. Pretty thick, isn't it? Hard, too, and the hair feels harsh. You would hardly expect that in a healthy, growthy heifer that has had the good care this calf must have had in order to get her into this flesh."

Bill, standing beside the calf he favored, stooped to look at the udder development. He then went to the other and back again, examining the two in this particular carefully. "I think I've found another reason why you placed this heifer down, Mr. Savage," he said. "She hasn't as big a bag and her tits are pretty near all growing out of one place. She's liable to grow up an' have a bag like my father calls 'bottle-shaped.'"

"There again it isn't size altogether that you want to look out for," Mr. Savage said and, as the winning heifer backed up, "notice the spread there. The loose skin indicates that the udder will be well developed in the rear attachment. I want you to reach down and feel the fore udder with the loose skin extending forward on the belly."

Both boys did, Jimmie a bit gingerly to be sure, for a black and blue spot a calf had given him a few days before had taught him to respect the heels of calves. "Gee," he said, "she has nearly as much bag now as one of our cows that the hired man tried to get pa to sell the other day 'cause he said she wasn't worth keepin'. I think this'n is better'n that other heifer."

Mr. Savage turned to Jimmie, "Are you agreed, too? If you are, I must go on to the next class. But first I want to give you a lecture on judging live stock. It isn't long—just two words. You picked the wrong animal in this class because you failed to see the calves. You made up your minds before you had really seen them. In judging, get a clear cut picture of each individual animal. You can become efficient judges by following this rule from this time on—"Observe closely. Never slur over an animal —study it."

Mr. Savage hurried away before the boys even had an opportunity to thank him for his kindness. As the calves were being led back to the barn, Bill and Jimmie stood gazing after them. "That was a pretty short lecture, Jim, wasn't it? Wish he'd told us more." And, when Jimmie failed to reply, "But there's a lot in that advice—'Observe closely'. Gee, we never did see them calves until we 'observed' more 'closely' than we did when they all looked alike. I'm goin' t' begin right today to be a judge."

"I wonder if we ever could be judges. I'd like to" was Jimmie's rejoiner. "Wouldn't it be fun to tell other kids how some day? Maybe if we keep at it we'll know as much about it as Mr. Savage."



SHEBOYGAN COUNTY, WIS., CALF RAISING CONTEST, 1918
In this class of pure-bred heifer calves there were 15 contestants. In all, 31 calves, raised by boys and girls in this county, were at the fair. They took away about $235 prize money.

Wood County Cattle Auction

HOARD'S DAIRYMAN JUNIORS:—In March of this year the Wood County Improvement Association in co-operation with the Wood County Jersey Cattle Club brought into this county 27 Jerseys and 26 Holsteins, all heifers. These were sold at the time to the boys who wanted them and distributed mostly by drawing when the heifers came. The boys paid cost prices for them. Of course the fathers of the boys backed the association and club so that there was no chance of a loss anywhere.

All summer the boys cared for the heifers and did everything possible to develop them and get them into condition for showing at the Wood County Fair in the fall. On Friday of the fair the auction was held which was the climax of the months of preparation and it is of this which I am going to tell.

County agents from many other places came in and brought delegations of interested farmers and club members to see the auction and get the plan for such a sale in their own county.

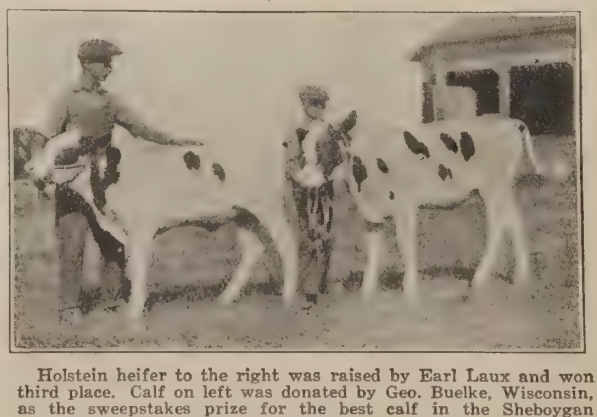
The Jerseys sold first. The auctioneer was Col. Perry of Ohio, well known to stockmen of this and most other states. Col. Perry alone is a drawing card. Personally I have heard of him for years but never happened to be at a sale that he cried. I think it was worth anyone's time just to hear him whether they even looked at the heifers or not.

The average selling price of the Jerseys was $251.00. The lowest bid was $145 and the highest was $495, which is something quite out of the ordinary in this county. The average cost price was $170, which shows a little balance of $81 per head on the average for the boys who wanted to let them go. Most of the Jerseys stayed in the county though the highest priced one went to Michigan.

With the Holsteins the prices ranged from $175 to $610 with an average of $306 for the 26 heifers. Some of these stayed in the county and some were bid in by the boys who took care of them all summer.

The boys had a right to bid these cattle in and settle at the price they paid if they wished. I am unable to tell just how many were kept by the boys but not all of them. But for the boys who sold they had the profit for their bother which in some cases paid them pretty well. One neighbor boy of 10 had $120 in his pocket for the few months that he cared for his heifer. This is just one that I happen to know more about than any of the others.

Ohio. EARL ROGERS.



Holstein heifer to the right was raised by Earl Laux and won third place. Calf on left was donated by Geo. Buelke, Wisconsin, as the sweepstakes prize for the best calf in the Sheboygan County Calf Raising Contest. He was won by Victor Jacobs who sold him for $100.



VICTOR JACOBS
A 16-year-old high school boy from Sheboygan whom the county agent placed on the Holstein farm of R. B. Melvin & Son, Wisconsin. Victor got busy and raised the calf he is holding so well that he won first prize of $8 and sweepstakes at the county fair in the Sheboygan County Calf Raising Contest.

Out of 91 boys who made exhibi at the 1917 Kankakee Inter-Sta Fair in Illinois, 89 are now in th army or navy. This shows how stron ly the call to service has been felt c the farms of America. Also, it ind cates the large part which the farme of the country are doing. Not on are they depended upon to feed th people of the United States and mi lions in the nations of our allies b their boys are doing their full sha of the actual fighting.

Junior Letters

Hoard's Dairyman Juniors:—I thought would be about time I should write again.

We now have eight small calves, which a growing fine. We keep them in the barn wi good bedding, and oats, hay, and sweet clov to eat.

Our school will be opened Sept. 9th. I a 11 years old and will be in the 9th grade.

I have a brother in the Medical Corps Ames, Iowa.

I am now keeping a record of all the m I get. We are milking 29 cows.

I wish some of the juniors would write to n My address is Stuart, Nebr.

Lyman Jillson.

Hoard's Dairyman Juniors:—Well, I w write tonight; it is raining now and has be raining most all day. I started to plow but t rain made me stop. I wrote a couple of l ters last year but I have not seen them yet.

I have been busy this year so far; I ha worked 1½ months for one man. I helped a while and then I worked out 7 weeks, th I have been helping pa since. I have be plowing the last week. Some places it was little hard. I think it will plow better no

We have moved to Nashville now; was at all last winter and some of the spring. I h the chores to do last winter. Pa bought greenhouse last spring. He stayed down to and I had the chores and other things to Well, I looked after them pretty well for t time I was up there. I would have to co to town and get home late and do chores the way from half past seven to half pa twelve at night. But, say, I liked it just t same. We rented our farm but he is not very good renter. Pa wants me to stay the farm this winter and farm it next su mer and I think I will. I would like it bett if it were my farm and running it on my ow account. I have been wanting to get in t navy but I guess I won't just right away. pa did not want me I would have been in long while ago if they would take me.

The Barry County Fair is this week. I thi I will not go.

Say, do you know I have missed your pa a whole lot. If I can get a dollar I am goi to send for the paper. Pa thought becau we moved to town that we did not want

I have a pile about 2 feet high saved up b I don't know if I will use them or not but will save them a while longer. Maybe I w have to go to France. I will have to regist Sept. 12.

Well I will stop for tonight. I am getti mixed up.

Well, I will try and finish now. It is Su day, Sept. 8. Saturday, Sept. 7, I took a lo of household goods to Hastings for a man w started from Nashville. It rained a little abo 10 minutes before I got there. It was abo 13 or 14 miles to Hastings. Everything we

ell; it was eleven o'clock when I got home. This is a very nice day, it is still and the sun shining and not very warm. I think we will resh some time next week.
Michigan. Carter H. Brumm.

Hoard's Dairyman Juniors:—I have just had y supper and feel fine.
In your last letter you asked me if I had ıy chickens. I haven't but my brother has 40. ney are not full blood Leghorns; they are a ixed kind. I wanted to buy a pair of Belan hares but I don't know where to get any. ave any of the juniors got any for sale? c have 7 pigeons. Two have two eggs. They e hatching them now.
We have a player piano.
I would like to have some one to write to me anyone has any rabbits. My address is semont, Minn.
Johanna Witdenbogerd.

Hoard's Dairyman Juniors:—It has been a ng time since I wrote to you for I have been ry busy helping in the harvest. We have reshed and we threshed out 310 bushels of ts and 355 bushels of wheat. We have plowed me and got some harrowed but nothing wed yet. It has been raining down here. e are going to fill silo tomorrow. We have me corn cut for the silo but none cut in ocks yet. Some of our corn almost burnt up that hot weather. We are milking 11 cows w. We have five little heifer calves.
Our herdsman is now in Camp Dodge, Iowa. Our school starts the 16th of this month. ıe township in which I live had a picnic and ction sale at which they cleared over $1,000 ıich they gave to the Red Cross.
Well, as it is bedtime I will close, so goodbye niors for this time.
Illinois. Ralph E. Koch.

Hoard's Dairyman Juniors:—I am keeping lk records, tending to the goats, feeding the gs, and separating. I have been plowing papa. The goats are doing fine. Papa s been at court but is back now. This is my rth letter to the juniors. I read the juniors' ge every week.
You ask me how I earned my colt. I joined Richmond Calf Club. We were to bring the lves back a year from the day that we got m. Then they were sold. If there was any re than the calf cost we got it. I give $30 mine and sold it for $60. Then I bought Jersey calf and sold it and joined the club d got another calf. I got the best calf. ıen I joined the club then I gave the calf papa for the colt. The calves came from sconsin.
We have several kinds of apples. I will me some of them. Transparents, Red Zone, riped Zone, Mathers, crabs, early Harvest. kins, Maiden bush, Rainbows, Jonathan, 3 ıds of sweet apples, Grimes Golden, horse pie, Willer twig, Ben Davis, Rusty Coat, d Winesap. The trees came from Stark os. I will close, wishing the juniors good k.
Missouri. Earl Hillhouse.

Hoard's Dairyman Juniors:—I received the ed, button, and fob and thank you very ch for them.
The Chetek State Bank Pig Club was orıized so the children in the country could se pork for their country. My pig weighs ut 60 lbs. His name is VonHindenburg. I d my pig shorts, potatoes, and water and ver pasture. B. M. Apker got a lot of s from the Rusk farm and distributed them ong children that promised to pay for them s fall.
will close with good luck to the juniors.
Wisconsin. Edwin Hanson.

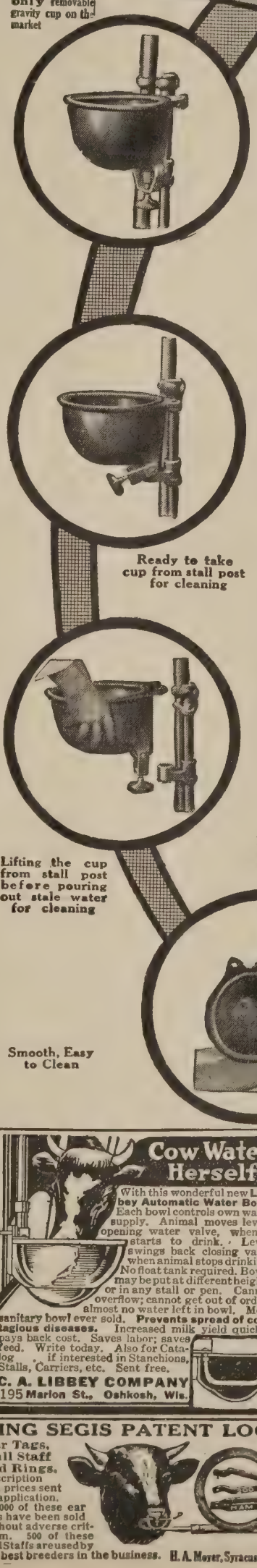
Hoard's Dairyman Juniors:—This is my ond letter to the juniors. I live on a farm seventy-eight acres, three miles from Wot. Daddy has been helping some of the ghbors fill silos. We have one silo. It is id concrete, 12x29 ft. All the space in it above the ground. We have eighteen head Jersey cows and one registered Jersey bull. e had almost enough corn for another silo e we have now. We had thirteen acres. st year we had twelve acres and there was y a little over half enough to fill the silo. have five head of horses. Two are bay, o are brown, and one is grey. The grey got foot cut in the fence early this summer. also have a pony. Well, I will close, wish- the juniors good luck.
Colorado. Victor Allen.

Hoard's Dairyman Juniors:—While I have ie I will write you a letter. I am writing at school. I am in the seventh grade. This my third letter to the juniors. I live on a m of 73 acres and we have 13 cows, 1 bull, rearlings, and some of this spring's calves. ey are all grade Jerseys except 1 cow, which a Holstein. We have about 29 sheep. They all Cotswolds and papa sold 12 of them day.
We have only five hogs and six pigs now. pa sold three of the pigs. He sold four fat s just the other day. They are high now.
We have lots of good corn and are going to our silo.
have three of my Belgian hares yet.
have a mile to go to school but it is all ked now. They were rocking the road in nt of the schoolyard today.
will close for this time, wishing to hear m you soon.
Oregon. Leland McNair.

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Stealthy Thief of Your Dairy Profits



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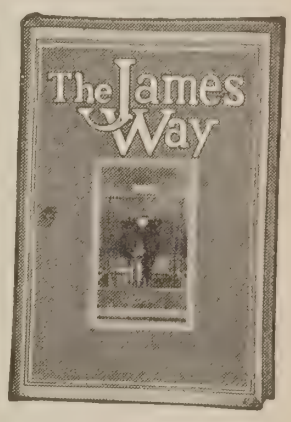
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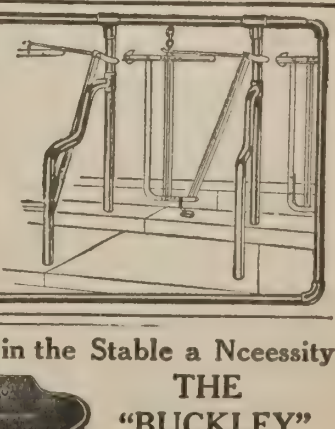
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One carload of high grade Holstein cows and heifers for sale; cows bred to Pabst Maplecrest Champion whose dam has a record of 34.492 lbs. butter in seven days. ELDER LAWN DAIRY FARM, Mike Kieffer, Proprietor, Fredonia, Wis. 13-4

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Pure-bred Holstein bull calf, King Segis breeding; 10 months old; $100. Another 9 months $75. Also cows, heifers and calves. H. AUGUST LOHMANN, R. 4, Duluth, Minn. 14-2

Four extra good registered Guernsey bulls for sale. Age 7 to 9 months, May Rose breeding, being sired by Langwater Frederick 22268, from dams with A. R. records 510 to 740 lbs. fat. Pedigrees and sale list. HOMER F. RUNDELL, Livingston, Wis. 15-tf

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A carload of grade Holstein cows and two-year-old heifers, half of them out of a 36-lb. sire. One show bull, three years old, whose dam has a record of 27.9 lbs. with ¾ udder; weight, 1,800 in thin flesh. Price of bull, $600. PETER NISSEN, St. Onge, Lawrence County, S. D.

High grade Holsteins—Sired by 28-lb. bull, bred to better one. Heavy producing dams. Five young cows and heifers, $500. H. W. CRAWFORD, Rock, Mich. 15-2

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Grandsons of Pontiac Korndyke $40 up. One registered cow and calf $200. STANLEY HOLLIDAY, Pleasantville, Ohio.

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Guernsey bulls of serviceable age. Also bull calves, A. R. dams, noted sires. May Rose, Golden Secret and Strong Anchor breeding. Satisfaction guaranteed. TARBELL FARMS, Smithville Flats, N. Y. 14-4

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High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

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For Sale—One heifer, four months old. Sire, Florham Quality, son of Ne Plus Ultra. Dam, Glenwood heifer. One bull calf. Sire, Florham Quality. Dam, A. R. cow by Glenwood's Combination (8927). H. C. HURLEY, Rockville, Md. 15-3

Two registered Guernsey bulls 18 and 13 months old for sale. May Rose breeding. Price reasonable. Inquire of WM. DILLON, Round Lake, Ill.

Guernsey bull six months. Dam made 443 lbs. A. R. at 3. Pedigree and photo. LA-CROSSE COUNTY AGRICULTURAL SCHOOL, Onalaska, Wisconsin. 15-2

For Sale—A number of very choice registered Ayrshire heifers, also a few choice bull calves. These animals have lots of type, quality and breeding. Write for prices and descriptions. TOMPKINS FARM, Lansdale, Penna. 13-3

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Wanted—Several cars large type pure-bred Holstein springers about three years old, subject federal tuberculin test and retest. Forward cow testing association reports of your cattle, giving yearly record milk and average per cent. Give weight, pedigree, price, full description first letter. Also bull from dam with above, 1,100-pound yearly record, 4% test, Pontiac or Korndyke breeding preferred. MAYFIELD FARMS. Denmark, S. C. 14-2

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Registered big type Poland China spring boars, average weight 230 lbs. Price $74 each. Also fall pigs. L. E. PEASE, Waukesha, Wis. 14-2

Big, growthy, registered Poland China boar pigs ready for service, also gilts and sows with litters. Big type breeding. CHAS. W. O'NEILL, Bridgeport, Wis. 14-2

Registered Berkshires, April pigs, both sexes, good breeding, prices reasonable. THEO. J. KURTZ, Cedarburg, Wis. 14-2

Registered Chester Whites cheap. Large type. ARTHUR ROBERTS, West Bend, Wis.

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Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

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Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

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Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

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Thrifto Feed—Made entirely from cottonseed meal and hulls, mixed in proper proportion, 100-lb. sacks. Cheap, satisfactory, balanced ration. All feed. Dairy cows. Beef cattle. Car lots. Prompt and deferred shipments. F. W. BRODE & CO., Memphis, Tenn. 15-2

FARMS FOR SALE

Hardwood cutover land, silt loam, clay subsoil. Neither sandy nor gravelly. Close to town. Good roads. Good schools. In the heart of the dairy country. You deal direct with the owners. No agents and no commissions. Easy terms. Write for map and booklet 4. NORTH WESTERN LUMBER CO., Land Dept., Stanley, Wis. 1-

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down, forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis, advance money for cow, pig and chicken when you can supply feed; also grubstake you during farming season providing you put your entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis.

If you wish a farm in the best grass section of the south where alfalfa and all the clovers including Red White, Alsike, Sweet, Crimson and Japan grow to perfection, where soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where you have a creamery making fine butter and handling Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to I. GURLER, Macon, Miss. 2

Farm bargains—40 acres, good buildings, fine land, one-third cultivated, close to R. R., 3 cows, horse, machinery, and crop $3,000; 80-acre farm $2,900; 160-acre farm $3,600. Other snaps: 40 acres $300; 80 acres $600. Write for particulars to THE E. L. C. CO., M-C 31, Merrill, Wis. 1

A few of the best buys in West Central Wisconsin, best of markets, ten trains daily, your milk to creameries, cheese factories, milk condensery. Climate same as South Wisconsin. 80-acre heavy clay loam soil nearly level, all under plow, basement barn, modern house, 18 head of cattle, 3 horses, machinery, crop hay, etc.; possession at once, 3 miles to town. $12,000.00. 240 acres heavy clay loam soil, 100 acres under plow, balance timber and pasture, fine set of buildings worth over $6,000.00. 6 miles of one town and 8 miles of another town, near church and school; good neighborhood. 19 head of dairy ham cattle, all machinery, and feed with a silo. $15,500.00. $4,000.00 down, balance time. 160 acres all under plow, a fair set of buildings, level, prairie land. You can't beat it. $8,000.000. Near town. Write, H. C. ENFELDT, Menomonie, Wis.

For Sale or Trade—240 acres of as good as there is in Wisconsin. Everything up to date, new this year. Will take in 80 to 160. Will sell stock and tools, a little down, ten years' time on the rest, or twenty years. Address EUGENE T. BELL, Hustler, Wis.

Farms in the Mississippi Prairie Belt, sand and clovers. Corn, hay and live stock specialties. Ideal climate, good neighbors, schools, churches, good roads. Main line of railroad. Close to large markets. Write now. J. HANSEN, Macon, Miss. 1

Liberty Bonds at face value, accepted in payment for Aitkin County lands. No better loyal district anywhere. You will like our county. There are greater opportunities here than anywhere else for the farmer and business man. Prices low. Terms easy. Write for maps and experiences of people we have located. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

For Sale—875 acres the best alfalfa, stock, clover and hog farm in north Mississippi. 300 acres in alfalfa and corn now; strong, limestone lime soil ten feet deep, good well and running water. Come and see the alfalfa and corn on this farm now. Price $60. For quick sale. Don't wait to write letters. Come and see the crops on this land now. Will make easy terms. Ten years' time, 6 per cent. WISHART, Aberdeen, Miss.

Maryland—117 acres; about 100 tillable; in high state of cultivation; produced 64 bushels of oats to acre this year; ideal dairy farm; two new tile silos of best construction; new cow barn, stanchions for 30 head; concrete hog pen with corn crib attached; one field in alfalfa, grows three crops a year; on road, quarter mile from depot on main Baltimore and Ohio; will rent for one third dollars; school house across the street, church near. Price $12,500; $3,500 cash; easy terms for balance to right man. Address OWNER, 1721 Tribune Building, New York City.

200 acres $3,000, complete with stock, crops; 1½ miles to town, conveniences, churches, etc. Machine-worked fields, clay loamy soil,; cuts 50 tons hay, 20-cow pasture, cream sold at door, estimated 500 cords of wood, 200,000 timber, 200-tree apple orchard. Good 7-room house, barns, stable, etc. Settle affairs quickly, 6 cows, 4 heifers, 3 horses, horse rake, plows, cultivators, harrows, disc, list tools, potatoes, beans, oats, corn, 3 tons hay. 13 cords fitted wood included. $3,000 all. Easy terms. Details page 4 Strout Farm Catalogue of this and other bargains, many with stock, tools, crops included; copy free. E. A. STROUT FARM AGENCY, 3001, 312 Marquette Bldg., Chicago, Ill.

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia.

FARMS WANTED

Would you sell your farm, if you got price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill.

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood for the betterment of dairy farming, that will bring you in cash for the effort you put forth. Write for our "Special Opportunity Getting-together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis.



dvertising in this department is 5c per word. Remit in advance.

HELP WANTED

anted—Married man on my dairy farm . can do general farm work and willing to o erate with my herdsman in caring for my G nseys. Wife must be willing to board two e men. State wages in first letter. H. C. A MS, Algona, Iowa. 7-tf

anted—To employ three dry hand milkers. G wages, board and living quarters. Apply P EHURST DAIRY FARM, E. K. Magee, M ager, Sheboygan Falls, Wis. 3-tf

n to care for herd of registered Jerseys. M be expert milker, fond of Jerseys and his w absolutely clean, over draft age and n good references. Could use married man w out children if wife willing to work in f house. Permanent position and good w es. RIVERVIEW FARM, 1997 Montreal A , St. Paul, Minn. 10-tf

anted—A responsible tenant for a 480 g c farm. Good buildings, silo and water. H must own one-half of the stock and re- e one-half of all proceeds. Located in W worth County, Wisconsin. Good opportuni- y or the right man. Swede preferred. P. O. B . 267, East Troy, Wisconsin. 13-3

anted—Single man for general work with G nsey herd. One interested in good cattle a large records. $55.00 per month and bonus o tart. Good chance for advancement. Ad- d s ISLAND FARM, Floodwood, Minn. 10-spl

oung women with dairy farm experience w ted for cow testing association work. Men i eferred classes also wanted. Expenses paid a good wages. Inquire NOEL NEGLEY, W consin Dairymen's Association, Madison, W consin. 13-spl

anted—Two men to work in dairy, must be r milkers. Good wages, married men pre- f d. Address T. L. KINNEY, Jekyl Island, B swick, Georgia. 14-2

anted—Two dry hand milkers, fifty-five d rs and board. Transportation refunded a r six months' service. MAYFIELD F MS, Denmark, S. C. 14-2

anted—Married man to work on farm. G l wages, steady work. Write or call, GEO. J. CHUSTER, Mukwonago, Wis. 14-2

anted—Herdsman to work with my Hol- t herd. One with experience in fitting and A . O. work. Write or call GEO. J. SCHUS- T , Mukwonago, Wis. 14-2

anted—Young, experienced, married man r arge Guernsey dairy farm. Start Nov. 1 l ater. Good habits, good milker. Prefer w who can milk. Give reference, age and l ification. Furnish wood and milk. Wa- g $750 per year. HOMER F. RUNDELL, L ngston, Wis. 14-4

anted—An experienced man to take charge o y farm of sixty acres, within one mile of c city of Oshkosh. Must be good with stock. A odern house for use of party operating s . State size of family and wages wanted r our first letter. W. G. MAXCY, Oshkosh, W consin. 15-tf

anted—Married man on general farm, both g ive with family, wife to help with house- w . State wages wanted and full particulars r irst letter. Address R. 2, Box 47, Wal- w h, Wis.

erdsman wanted for a Guernsey herd in w ern Wisconsin. He must be experienced n . R. O. work, feeding and breeding of cat- l and preferably hog raising. If married, it w ld be desirable if wife could manage the r ding house. State age, nationality, experi- n , references and expected salary or salary p percentage. Address BOX 284, care H rd's Dairyman. 15-3

anted—Middle aged woman to cook; also n nd poultry. Good home and pay to right p y. GEO. F. SHELTON, Eastville, Va.

anted—Dairyman, single, draft exempt to k on Holstein farm, help milk, and drive s il wagon. Must be sober and industrious. G e salary expected. Address BOX 285, care H rd's Dairyman.

anted to Hire—Married herdsman. Must be i class fast milker and experienced feeder. A er man with one or two boys to help with r ing and chores. Have high class herd of r stered Jerseys. Modern equipment. Lo- c on adjoins city of Lincoln. Only six blocks t best city school and one mile from state U ersity. Write at once giving full particu- l as to experience and wages expected. C. YOUNG, Lincoln, Nebraska.

anted—Farm manager with $5,000 to $ 000 to invest in one-quarter to one-half in- t st. Salary and proportionate share of prof- t Address BOX 856, Binghamton, N. Y.

anted—Man to help care for my herd Hol- s ns and do general farming. Steady work a right man. State wages and experience i letter. H. R. LITTLE, Eldridge, N. D. 15-4

HELP WANTED

Wanted at the Marquette City Dairy, working farm foreman with family. Wages $60 per month. Free rent, wood, water, electric lights, milk, potatoes and garden. Good house, fine location, convenient to schools and churches. Man must understand horses, cattle, hogs, land and farm machinery. F. H. VANDENBOOM, Proprietor, Marquette, Mich. 15-2

Wanted—Two good milkers for a college dairy. House rent free. Good place for man and wife. Give experience and state wages wanted. DEPT. OF ANIMAL HUSBANDRY, Fla. Agrl. Experiment Station, Gainesville, Fla.

Wanted—Good experienced farm hand on Guernsey dairy farm immediately. $55.00 per month and board. GEORGE V. SPIEGEL, Algona, Iowa. 15-2

Wanted—Married or single man who can run Ford truck and do milk house work. Give references and wages expected. SPRING GROVE FARM, Ft. Wayne, Indiana. 15-2

Wanted—Renter on shares. Must be able to handle 30 cows and to buy half interest in machinery, horses, hogs, sheep, etc. Good chance for right man. CHAS. W. O'NEILL, Bridgeport, Wis. 15-2

POSITIONS WANTED

Wanted—Management dairy farm, age 39, agricultural education, 12 years' experience with pure-breds. Guernseys preferred. BOX 272, care Hoard's Dairyman. 14-2

Farm manager wants position on large pure-bred stock farm. Large experience in modern farming, stock breeding, production of certified milk, gardening, greenhouse management, and general development of modern, up-to-date farm. American, married, successful record. Best references. Will only consider first class proposition. BOX 277, care Hoard's Dairyman. 14-4

Position wanted by married man as working herdsman on Holstein farm. Anywhere. Life experience in dairying, also experience in fitting and testing. Age 32, American. Wages $125 per month, house, etc. JOHN H. SMITH, R. 3, Cazenovia, N. Y.

Wanted—Steady work. Good milker, dependable; single, kindly disposition, healthy, American, exempt. BOX 283, care Hoard's Dairyman, Fort Atkinson, Wis.

Situation Wanted—Poultryman and farm superintendent would like to change to mid-west or eastern location. Thirty-day notice required. Know egg production, breeding and feeding thoroughly. Less extensive but quite varied experience as superintendent. Am neither expert herdsman, dairyman, nor milker but know something of each. Will not move for less than $150 per month and house, truck, milk, eggs, etc., but living conditions are most important. Married. No children; draft exempt. Present employer entirely satisfied. Usually give $1.50 worth of mental and physical labor for $1.00 salary. Address correspondence to BOX 282, care Hoard's Dairyman, Fort Atkinson, Wis.

Farm manager or herdsman, experienced in all branches of modern farm methods, stock raising, milk and milk production. Handled large certified dairies and farms. Thoroughly versed in contagious diseases, testing, feeding, and management, accounting, Holsteins, Guernseys and Jerseys. Disengaged Dec. 1st, 1918. Address BOX 280, care Hoard's Dairyman. 15-3

Married man wants position on dairy farm. Swiss, 30, two children; wife to board help. State wages, allowance for board, conveniences in first letter. VICTOR PACHE, R. 65, Utica, Ill.

Position wanted as herdsman or manager on up-to-date dairy and stock farm by a man with college training, experienced, and capable of handling large proposition. BOX 81, Antwerp, N. Y.

Married couple, boy three, girl one. Having sold my farm will superintend any kind dairying or farming. Can do anything in the dairy line. I am no college man that a hat don't fit. Don't write and ask this or that, I said I can do anything, run gas engines, any kind machine. I want to superintend some good place but I will work. Am just the man for some one. Want a steady job. State wages in first letter and all details. No small wages considered. EUGENE BELL, Camp Douglas, Wisconsin.

Reliable stock raiser and dairyman desires position as farm superintendent or manager. Years of successful experience. Married, middle aged, no small children. Excellent references. Prefer Wisconsin or Minnesota. At liberty November 1st. Address BOX 281, care Hoard's Dairyman.

Position as superintendent or manager large stock or grain farm. Had years' practical experience in all branches farming, care of stock, handling help. Married, no small children, best references, can bring some help if necessary. F. W. LEWIS, Supt., Milfer Farm, Unadilla, New York.

Herdsman and dairyman seeks position. Married, no children. Have handled some good herds. Understand all record and A. R. work. No booze or tobacco. Salary or shares. Would consider renting. Wisconsin short course. Excellent references. State particulars. BOX 286, care Hoard's Dairyman.

Position wanted by a good dry hand milker; year around position. 34, married, one child. RUD. PATAKI, Cheever, N. H.

burger, new, 1 lb., 26c; Limburger, new, per lb., 25c.

SPRING GREEN, Wis., Oct. 22—Offerings of cheese on the Spring Green dairy board of trade on Tuesday were 863 boxes of Single Daisies. All sold at 32½c.

APPLETON, Wis., Oct. 22—Five factories offered 171 boxes cheese on the local call board on Tuesday. Sales were 119 Twins at 31c; 52 Double Daisies at 32¼c.

HIGHLAND, Wis., Oct. 22—Offerings on the dairy board were 200 Twins; of these 75 sold at 30½c. Withdrawn, 125.

NEW YORK, Oct. 23—Cheese—Quiet; state milk, common to specials, 25@33c; skims, common to specials, 8@25½c.

Butter—Quiet; receipts, 9,819 lbs.; creamery, extras, 57¼@57½c; state dairy, tubs, 47@56½c; imitation creamery prints, 45@46c.

Eggs—Firm; receipts, 7,923 cases; nearby white fancy, 88@90c; nearby mixed fancy, 50@60c; fresh firsts, 52@59c.

Ce-re-a-lia Sweets

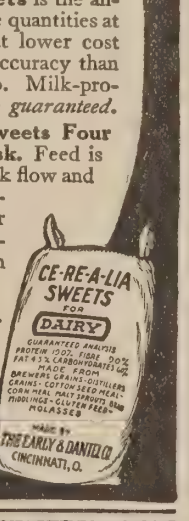
FOR ECONOMY

You know from experience what's *best* for your cows—cottonseed meal, malt sprouts, bran, middlings, gluten feed, etc.—molasses to make the feed tasty.

Your war-time problem is how to have all these materials on hand at all times without paying prohibitive prices.

Ce-re-a-lia Sweets is the answer. We buy large quantities at lower prices, mix at lower cost and with greater accuracy than you can possibly do. Milk-producing results are *guaranteed.*

Try Ce-re-a-lia Sweets Four Weeks At Our Risk. Feed is absolutely free if milk flow and butter fat show no increase. Ask us for particulars. Meantime, order through your dealer.



The Early & Daniel Co.
301 Carew Bldg., Cinn., O.

Invest your feed savings in War Savings Stamps.

LIME Never Fails to Show Profit

MAKES LAND GROW MORE

Fifty per cent better crops follow the use of Waukesha Agricultural Limestone. It never has failed to return its cost and at least 25 per cent more. It will do this on

Your Land—YOURS

This means that Waukesha Quality Limestone will earn fully 25 per cent on your land, no matter what the character of the soil. You can't invest the same amount of money and earn as much in any other way, as by applying Quality Limestone. Our booklet shows how to use limestone and why. It's free.

Waukesha Lime & Stone Co., Dept. 14, Waukesha, Wis.

for Agricultural *and* Horticultural Purposes

QUALITY LIMESTONE

FURS

GET THE HIGHEST PRICE FOR YOUR FURS

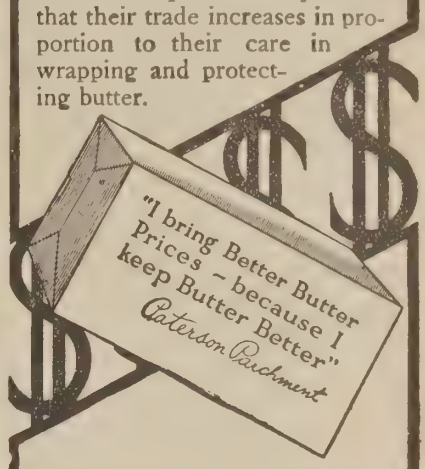
Our prices are always the highest the market affords. We charge no commission, and pay express charges. Liberal assortments and prompt returns.

Send for Free Price List on Furs and Hides.

HENRY STREIFF FUR CO. Dept. 7, Monroe, Wis.

Increase Your Butter Profits

Money-making dairymen everywhere are looking to the *quality* and *cleanliness* of their butter. They know butter brings top market prices when it is clean, sweet and pure. They know that their trade increases in proportion to their care in wrapping and protecting butter.



Paterson Pioneer Parchment Paper

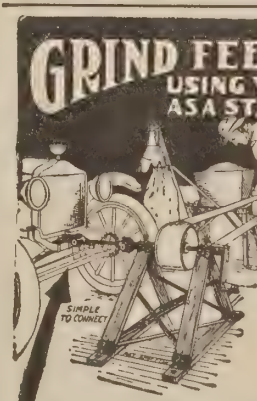
makes butter *taste* better, *keep* longer and *look* more appetizing. And don't forget that *looks* go a long way toward selling butter profitably. The best protection for butter and for good butter prices is Paterson Pioneer Parchment Paper. *Prove* it today.

Write for free samples and booklet "Better Butter". Contains money-making ideas for every dairyman.

THE PATERSON PARCHMENT PAPER COMPANY
37 Eighth St.
Passaic, N. J.

THE PATERSON PARCHMENT PAPER CO. PIONEER PASSAIC N.J. TRADE MARK

GRIND FEED – USING YOUR AUTO AS A STATIONARY ENGINE



YOUR Automobile will furnish cheap and efficient power for grinding feed, sawing wood, filling silo, shredding corn and all other work a 14 H. P. Gas Engine can do.

Our Equipment Fits:
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Studebaker Buick & others

Simple to connect—does not harm your car.
Get one NOW—hundreds in use—$35.00
Satisfaction guaranteed—only . .

LAWRENCE AUTO POWER EQUIPMENT

Write for Circular.

202 Minnesota St. ST. PAUL, MINN.
LAWRENCE AUTO POWER CO.

Bulletins of the Week

Marketing Butter and Cheese by rcel Post, by L. B. Flohr and R. C. ts. Farmers' Bulletin 930, U. S. pt. of Agr., Washington, D. C.

Pedigreeing Poultry, by W. A. Lipcott. Circular 67, Kansas Agr'l lege, Manhattan, Kans.

Some Nutritive Properties of Corn, J. S. Hughes. Technical Bulletin Kansas Experiment Station, Manhan, Kans.

How Bacteria in Milk are Counted, F. H. Hall. Popular Edition of Bulletin 439, New York Experiment Station, Geneva, N. Y.

DAIRY MARKETS

CHICAGO, Oct. 23—Butter—Creamery, extras, 55¼@55½c; standard, 55¼@55½c; dairy, firsts, 53@55c; seconds, 51@52½c.

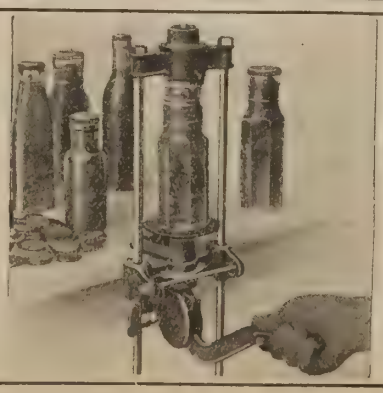
Eggs—Ordinary 48@50c; firsts, 50½@52c.

Cheese—Twins, 31½@32c; Young Americas, 30@33½c.

MILWAUKEE, Oct. 23—Butter—Creamery, tubs, 55c; prints, 55½c; extra firsts, 53c; firsts, 52c; dairy, fancy, 50c; fresh lines, 43@45c.

Eggs—Current; receipts, returned, 48@49c; cases, new included, 47@48c; ordinary current, receipts, 42@45c; dirties, 32@35c; checks, 28@30c; April recandled, 43½@44c.

Cheese—Twins, 31c; Daisies, 32½c; Longhorns, 32¼c; fancy Brick, 33½@34c; Limburger, new, 1 lb., 26c; Limburger, new, per lb., 25c.



A Better Way of Sealing Preserves, etc.

In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

The better and easier way is to use a MIDGET CROWNER and seal your bottles (up to 14 ins. in height and 4 ins. in diameter) with air tight Crowns (3 sizes).

In storing condiments of all kinds for future use you will find this the safest method of sealing.

Write for full particulars.

THE CROWN CORK AND SEAL COMPANY
Baltimore, U. S. A.



How the packers have helped to develop good stockyards

—and how this has benefited you as a producer

WHOSE job is it to provide and maintain stockyards, or markets, for the open buying and selling of cattle?

Who shall see that these markets have good pens where your stock can be properly watered, fed and taken care of until sold?

Stockyards, in early days, were not efficiently managed, and were not financially attractive to investors, except in the largest markets.

As the packers built their big-capacity plants at the various live-stock centers, they naturally became interested in helping to develop adequate stockyards facilities, where stock raisers could ship their animals.

The present high efficiency of most of the principal stockyards is due largely to the time, the effort, and the money the packers have put into them.

All stockyards, including those in which packers are interested, are conducted as *public* market places for the benefit of all.

They are open to all—to producer, commission man, dealer, speculator, the packer's buyer—and with exactly the same rights to each.

Packer-ownership gives no special advantages to the packer and no control over live-stock prices.

These spot-cash markets have been a factor of very great importance in promoting the growth of the live-stock industry.

If stockyards efficiency can be increased by Government ownership and operation, all well and good. Swift & Company is content to stand on its record of having helped the live-stock industry by the part it has played in developing these market places.

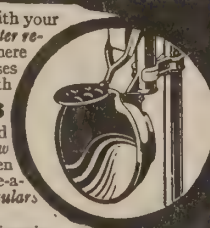
Swift & Company, U. S. A.

A nation-wide organization owned by more than 22,000 stockholders

20 to 25% Bigger Winter Milk Yields



WITH pure, rich milk analyzing 87% water—and with your winter herd *getting only ¼ to ⅓ of their natural water requirement from icy outdoor tanks*, you can see where cold weather cow-thirst is one of the biggest causes of your year-after-year winter milk shortages. With **Simplex Improved Water Bowls** your cows drink "to their hearts' content" day and night. Result—*20 to 25% more milk from every cow all through the housed-in season.* And no more frozen tanks—no tank-heater makeshifts—no more twice-a-day "herding out" periods. *Write for Full Particulars on the Only Drop-Down Water Bowl on the Market.*



F. Rassmann Manufacturing Co., 31 Mill Street, Beaver Dam, Wisconsin.

The Only "Drop Clean" Water Bowl Made



It PAYS to GRIND ALL GRAINS

Look to the Grinders. They do the work! Bowsher's Cone-Shape grinders are the correct principle in Feed Mill construction. They mean larger grinding surface close to center of Shaft; thus More Capacity, Lighter Draft, Longer Life.

"Desire to express my appreciation of the long-lasting, trouble-proof Bowsher. Have used a No. 4 ten years with less than One Dollar per year for repairs." *R. W. Watt, Jacobsburg, O.*

10 sizes; 2 to 25 H. P. Write for free catalogue.

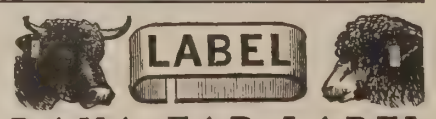
N. P. D. BOWSHER CO., SOUTH BEND, IND.



The "STAY THERE"
Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. **Sample tag**, catalog and prices mailed free. Ask for them.

Address Wilcox & Harvey Mfg. Co., 568 W. Randolph St., Chicago, Ill.



DANA EAR LABEL

Stamped with owner's name or address and serial numbers. Send for free samples.

C. H. DANA, 55 Main St., West Lebanon, N. H.

For An Auctioneer

and one that knows values of both

Pure-bred and Ordinary Live Stock

Write me for dates as I have 95 per cent of all sales in this section of country. Also sell Real Estate at Auction.

F. H. HEMBROOK, - Chetek, Wisconsin.

Efficient Operation of a Pasteurizing Plant

The primary purpose of pasteurization from the sanitary standpoint is the destruction of all pathogenic organisms in order to make milk safe. Where milk is properly pasteurized, the disease producing organisms are destroyed as are approximately 99 per cent of all the bacteria.

In operating pasteurizing plants two main objects are desired, namely: the destruction of all disease producing bacteria and at the same time reduction of the total bacteria in the milk and the economical use of heat, power and labor. Unless the first is accomplished the second is of little account.

In order to properly pasteurize milk, two things are necessary:

1. Heating and holding the milk at the proper temperature with accurate control of the temperature. (The milk should be heated to 142 degrees F. for 30 minutes—a variation of 2 degrees above or below this temperature is allowable.) After heating the milk must be cooled to 50 degrees F. or below.

2. All apparatus which comes in contact with the milk must be thoroughly cleaned and sterilized after each using.

Unless there is an automatic temperature control the steam and water valves must be carefully watched in order to maintain the proper temperatures. If the milk is not heated to, and held accurately at the proper temperatures, good results cannot be expected. All pipes or "pockets" in which milk is held during the pasturizing or holding processes should be insulated as otherwise the holding temperature cannot be maintained. Great care must be exercised to see that none of the valves leading from the heater or holder leak.

The cleansing and sterilizing of the apparatus is absolutely essential to good results. All milk pipes, pumps and filler valves must be taken down after each run, thoroughly cleaned and rinsed and then sterilized with steam. At least 5 minutes of steaming is necessary. The pasteurizer must be thoroughly washed, rinsed and steamed. Some plants get poor results after heating and holding the milk at proper temperature because the pipes and other apparatus are not properly cleansed and sterilized. The bottles and cans must be thoroughly cleansed and sterilized or the value of the pasteurization will be greatly reduced.

Of a considerable number of pasteurizing plants recently visited in southern and middle western cities, only about 10 per cent were getting the best results from the pasteurizer. The principal causes of trouble were:

1. Pipes and pumps not cleaned and sterilized.

2. Filler and valves not cleaned and sterilized.

3. Milk rushed through the apparatus too fast.

4. Milk not heated high enough or held long enough.

5. Recording thermometer not accurate.

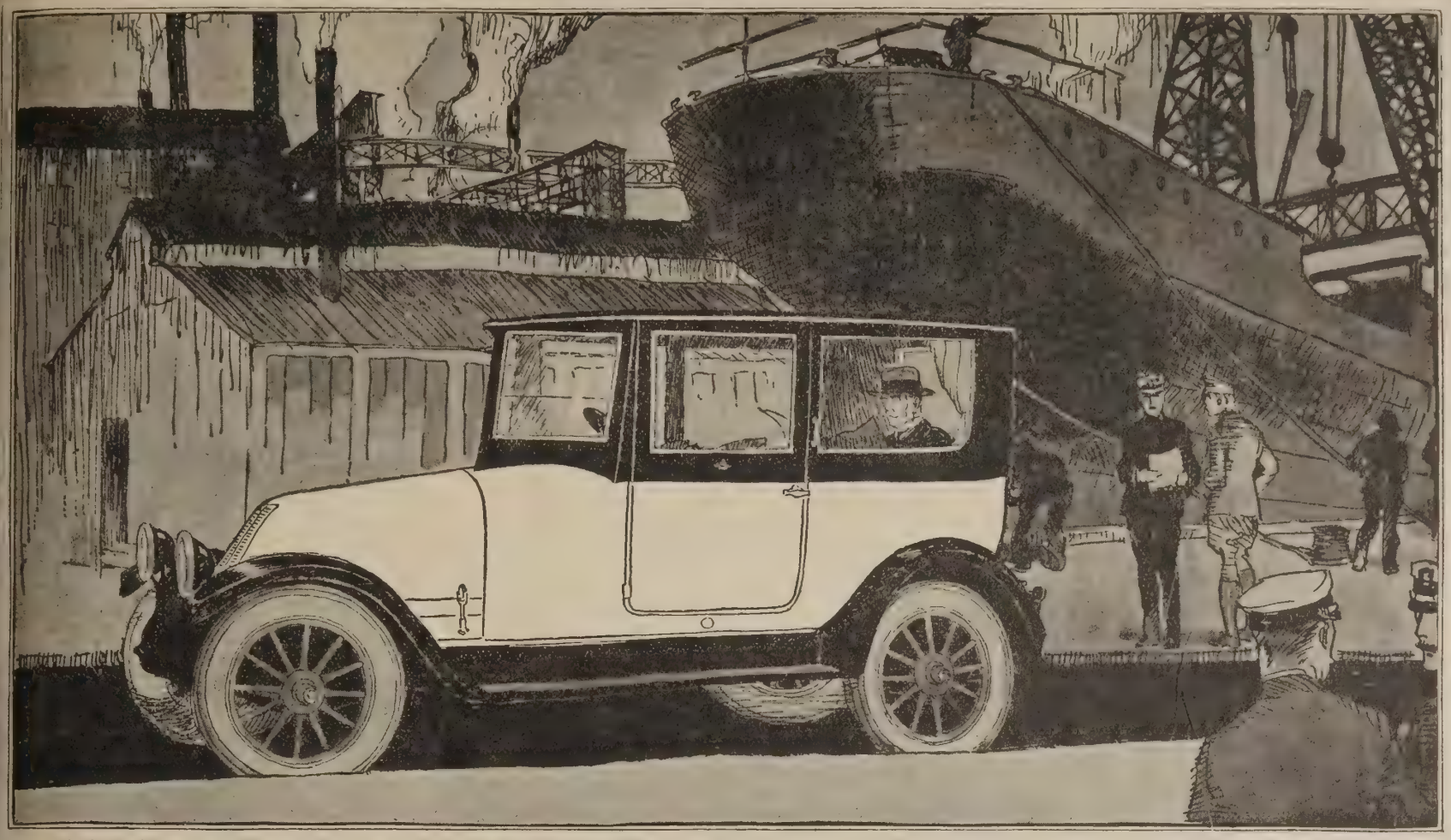
6. Raw milk added to pasteurized milk in vat (vat pasteurizer) before the latter is all drawn out.

7. Pumps and piping not of sanitary construction.

8. Leaky or inaccurate valves which allow some of the milk to get through the apparatus without being held the proper length of time.

9. Formation of foam in the holder.

The proper pasteurization of milk is a very simple operation and there is little excuse for the poor results that are obtained at some plants. Poor results are usually not the fault of the type of pasteurizer used but in the way in which it is handled.—DAIRY DIVISION.



THE FRANKLIN CAR

And the Present-Day Standard of Motor Car Service

Frequently special conditions give new significance to old facts. And *now* is the time when conditions give added importance to the long established economy facts of the Franklin Car—a steady day-by-day delivery of

20 miles to the gallon of gasoline—
instead of the usual 10

10,000 miles to the set of tires—
instead of the usual 5,000

For when the Nation is geared to tremendous effort, the aid of an efficient automobile can do much to bring about the vitally necessary economy of gasoline and tires.

The simple Franklin facts speak for themselves.

If all cars were as efficient as the Franklin, on the basis of its daily performance, the automobile owners of the country would save this year 400,000,000 gallons of gasoline and would cut their tire bills $192,000,000.

For sixteen years the Franklin Car has delivered an economy consistently ahead of the times. Besides this performance in the hands of owners, it has won every prominent official economy test ever held.

Moreover, the Franklin depreciates 50% slower than the average car—an important fact today when conditions demand that motor cars give longer service than ever before.

Its ability to render this remarkable economy and long life is due to engineering principles involving the simplicity of Direct Air Cooling, Light Weight and Resilient Construction, as opposed to water cooling, heavy weight and rigid construction.

The Franklin Car delivers a war-time motoring service simply because the Franklin Company has held true to the principle that the main object in owning an automobile is transportation, with the greatest comfort, safety and reliability—at the least expense.

FRANKLIN AUTOMOBILE COMPANY, SYRACUSE, N. Y.

Orders for Franklin Cars for post-war delivery will be filled in the order of their receipt by our dealers.

"You can tell a real patriot by the way he works—Full-time work by both employers and wage earners will win the war." W. B. Wilson, U. S. Secretary of Labor.



There's Cheer in the

Pictures from Home

To a homesick boy at the front, a picture of Dad waiting at the end of the lane while "Shep" brings up the cows is worth more tnan the Croix de Guerre.

Pictures of mother, how much they mean to him now! And of kid sister—perhaps she is "wearing her hair up" by this time—all the old familiar scenes around the farm, yes, and that little girl with the big blue eyes tiat lives down in the village—these will mean a world of comfort to the boy who is lonesome among a million strangers.

The Y. M. C. A., the Red Cross, the Knights of Columbus and kindred organizations are doing a world of good in ministering to the bodies and minds of our boys. But in their hearts, homes are first. Cheerful letters and cheerful pictures from home—these will keep their hearts light ana their courage high.

EASTMAN KODAK COMPANY

399 State Street ROCHESTER, N. Y., *The Kodak City*

Butter Awards at the Nationa Dairy Show

Gold medal prizes awarded in th various butter classes entered at th National Dairy Show went to th Athens State Hospital of Ohio, whicl scored 94½ in the dairy butter class the Hutchison Co-operative Creamer Co. of Minnesota, 96 in whole mill butter class; and the Fox River But ter Co. of Illinois, score 96 in th hand separator class.

In the whole milk butter class silve medals went to the Thompson Cream ery Co. of Ohio, score 93½; Holto Creamery Co. of Kansas, 95; Brook haven Creamery Co. of Mississippi 93.

In the hand separator butter clas silver medals went to White Moun tain Creamery Co. of Ohio, 93; Fal furrias Jersey Dairy of Texas, 93 the Brookhaven Creamery Co. o Mississippi, 93; New Era Creamer Co. of Michigan, 93½; Elgin Co-op erative Creamery Association o Minnesota, 95½; State Line Cream ery of Iowa, 93½; Schlosser Broth ers of Indiana, 93½; Volga Co-oper ative Creamery of Wisconsin, 93½ In the dairy butter class one silve medal goes to the Animal Husbandr Department at Alabama, score 93.

Bronze medals awarded for en tries in the whole milk butter clas are: Plato Dairy Association of Min nesota, 94; Youghart Products Co. o Ohio, 93½. In the hand separato class they are: Frontenac Creamer of Minnesota, 95¼; Farmers' Co-op erative Creamery Association o Michigan, 93; Kanawha Creamery Co of Iowa, 93; Fox River Butter Co of Indiana, 93; and Luck Co-opera tive Butter and Cheese Co. of Wis consin, 93¼. In the dairy butte class, C. O. Wydman of Ohio, 93.

Cheese Awards At National Dairy Show

In the cheese classes at the Nation al Dairy Show, John Lengacher o Ohio won the gold medal on his Swis cheese entry that scored 96. Th Youghurt Product Company of Ohi won the gold medal for cottage chees with a score of 95. The gold meda for American Cheddar cheese wa won by C. H. Schneider of Wisconsir who scored 97; that for Brick chees was awarded to Jacob Mueller of Wis consin, score being 95; and that fo Limburger cheese went to Augus Martin of Wisconsin, score 96.

Gold medal awards were made t the highest scoring entry in eac class. Silver medals, made to th highest scoring entry from each stat providing score is not under 93, an the bronze medals to the next highes score from each state not under 9 are as follows:

American Cheddar cheese: Youn Harris Cheese Factory, Georgi score 94½, silver medal; Reyman Memorial Farms, West Virgini score 95, silver medal; Hugh Barbe Oregon, score 94, silver medal; Ro coe Center Butter and Cheese Assoc ation, Minnesota, 95, silver meda Virginia Independence Cheese Fa tory, Virginia, 93½, silver meda Cane River Co-operative Dairy Ass ciation, North Carolina, 95, silve medal; H. A. Kalk, Wisconsin, 96½ bronze medal; Leon von Arx, Minn sota, 94½, bronze medal; Spring Va ley Cheese Co., Virginia, 93, bronz medal; and Plumb Tree Co-operativ Cheese Co., North Carolina, 9 bronze medal.

Swiss cheese: Godfrey Muste Ohio, 95, silver medal.

Brick cheese: Oswald Schneide Wisconsin, 94, bronze medal.

Limburger cheese: Fred Bohle Wisconsin, 95, bronze medal.

Cottage cheese: Athens State Ho pital, Ohio, 94, bronze medal.





The Winchester pattern; 320 pellets out of a possible 431, or 74% of the shot charge, evenly distributed. No birds get through.

A quick eye and a good shot pattern

A QUICK eye and a good shot pattern, that's the game-getting combination. Given an old-timer with a reliable gun in his hand and the rest of the story is up to the shot pattern.

Now the secret of good patterns is in the control of the gas blast from the exploding powder. This in turn depends upon the *wadding* in the shell.

The wadding, like the piston head of a gas engine, must give the explosion something solid to work against so that the shot may be *pushed* out evenly.

It must expand and fill the tube of the barrel, completely sealing in the gas behind it. No gas must escape to scatter the shot.

It must offer just the right amount of resistance to the explosion so as to develop uniform pressure and high velocity without danger of jamming the pellets out of shape at the "choke" or muzzle constriction.



The Winchester system of wadding. The wadding expands evenly, sealing in the gas blast all the way to the muzzle, where the wadding is checked by the "choke" or constriction. The shot cluster travels on ahead unbroken. Actual test target 320 pellets out of 431, or 74% of the shot charge (1¼ oz. of 7½ chilled) inside a 30-inch circle at 40 yds.

The Winchester System

Winchester Wadding is the result of repeated experiments to determine the most efficient control of the gas blast.

The special construction of the *Base Wad* gives what is known as *Progressive Combustion* to the powder charge.

Combustion spreads instantly through the powder charge. By the time the top grains of powder become ignited the *full* energy of the burning powder behind is at work. Though the explosion is almost instantaneous, it is none the less *progressive*, the final energy and maximum *velocity* of the completely burned powder being developed at the *muzzle* where it is most needed.

Meanwhile, under the heat and pressure of combustion, the tough, springy *Driving Wad* has expanded to fill the barrel snugly all around. No gas escapes. It is completely sealed in. The wadding *pushes* the shot evenly.

At the muzzle, the shot pellets slip out without jamming, while the wadding is checked for a brief interval by the constriction of the muzzle. *It follows some distance behind the shot pattern.*

The shot cluster travels on unbroken by gas blast or wadding and makes the hard-hitting, uniform pattern for which Winchester shot shells are world famous.

Fish-Tail Flash. All Winchester smokeless shells are made with the new Winchester Primer—the quickest and most powerful shot shell primer made. Its broad *fish-tail* flash gives even and thorough ignition. Every grain of powder is completely burned up before the shot charge leaves the muzzle.

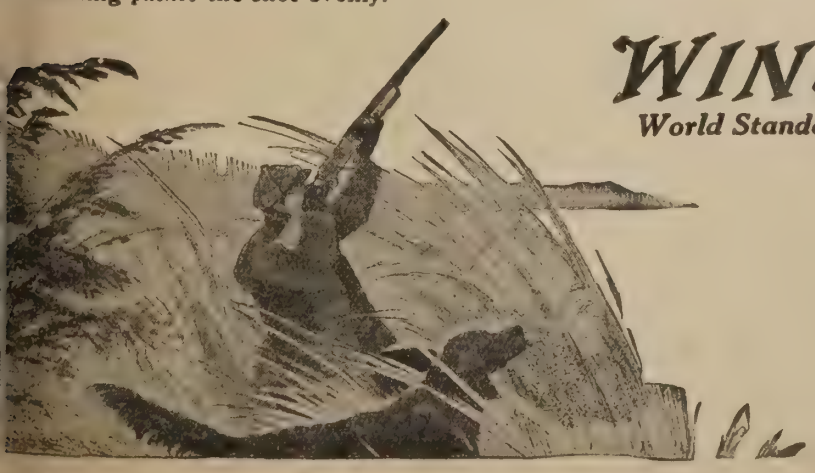
The Crimp. The required degree of pressure necessary in seating the driving wads is worked out in combination with the *hardness* or the *softness* of the *crimping* required for any particular shell.

Waterproofing and Lubrication. In the cold, damp air of the marshes, or under the blazing sun at the traps, Winchester shells will always play true. Winchester waterproofing process prevents them from swelling from dampness. Special lubrication of the paper fibres prevents brittleness and splitting in dry weather.

Uniform Shells. From primer to crimp, Winchester shells are constructed to insure the maximum pattern possible from any load and under all conditions. 25,000,000 rounds of ammunition are fired every year in testing Winchester guns and ammunition. $100,000 is spent annually in the inspection and testing of finished shot shells alone.

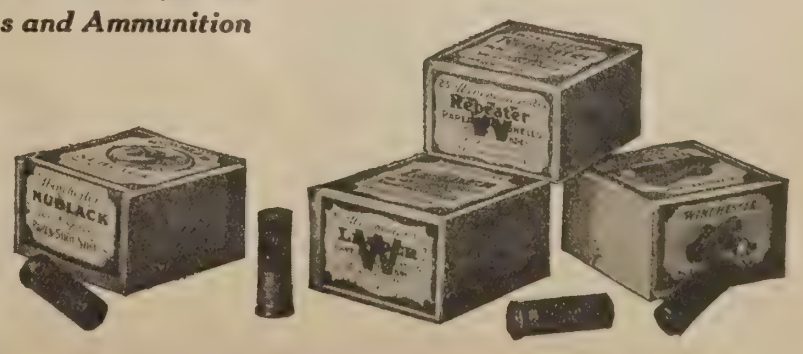
Clean hits and more of them

To insure more hits and cleaner hits in the field or at the traps be sure your shells are Winchester Leader and Repeater for Smokeless; Nublack and New Rival for Black Powder. Write for our Free Booklet on Shells. **Dept. E-51, Winchester Repeating Arms Co., New Haven, Conn., U. S. A.**



WINCHESTER

World Standard Guns and Ammunition



Mammitis

I have had, from time to time, cows whose bags became hard and the milk from one quarter would become very thick and eventually get watery and finally dry up on that quarter. Sometimes two quarters would get affected and eventually I would be compelled to dispose of the cow.

I have had a good deal of trouble within the last few years and at times, I am inclined to blame my farmers. I am free to confess, however, that I do not know what causes the trouble and I would thank you to enlighten me and advise me what should be done to avoid this trouble in the future.

Lemont, Illinois. G. S. W.

Germ infection is the common cause of such destructive attacks of mammitis (garget). The infection is carried from cow to cow by the milker's hands or is contracted from contaminated floors, gutters, or cups of a milking machine. Make it the invariable rule to isolate a cow the moment anything goes wrong with her udder and keep her separate until perfectly recovered. It is rare, however, for a cow perfectly to recover from a severe attack of mammitis no matter how scientific the treatment may be. Under the circumstances, we should advise you to isolate and feed off every cow that has chronic mammitis or a "spoiled quarter" discharging pus or abnormal milk. Then cleanse, disinfect, and whitewash the stable and, if the stall and floor are of cement, cover the rear part of each with cork brick or plank. If a milking machine is used, it will have to be more thoroughly cleansed and sterilized daily. Treatment for mammitis often has been prescribed here, but your veterinarian no doubt has a favorite method of treatment and should follow that. In contagious mammitis, it would be well for him to give hypodermic treatment with serum or a bacterin.

Undeveloped Quarter

I have a 2-year-old heifer that is due to freshen in February and both back quarters and the right front quarters of her udder have started to develop but the left front quarter seems to be on the standstill. Is there anything I could do to that quarter to help it grow with the other?

Illinois. J. F. G.

It may be that the three quarters are abnormally congested and we should advise you to rub it well twice daily with camphorated oil. Do not use this on the unaffected quarter but massage it very thoroughly in every direction three times daily, using a little vaseline or sweet oil on the hands.

Fits

I have lost several calves from one to two months old. I feed them milk and skimmilk about half and half, one-half gallon twice per day. They seem to do well but all of a sudden you will hear one bawl and start running and fall. They rear up and fall backwards. They generally die in from one to two hours after this strikes them.

Weatherford, Texas. J. L. L.

Such cases of fits or convulsions are very common and generally fatal. Often they are induced by too fast drinking of milk when the calf is very hungry. Feed less milk and three times a day, remove separator foam and bring the milk to blood heat by the addition of hot water. Make the calves drink slowly. Keep the bowels active. Indigestion usually is present in such cases and a full dose of castor oil in milk should be given if any symptom of indigestion is noticed.

ABORTION



Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.
Dr. George Hollabush, Fort Atkinson, Wis.

Lump Jaw



The farmer's old reliable treatment for Lump Jaw in cattle.
Fleming's Actinoform
Sold for $2.50 a bottle under a positive guarantee since 1896—*your money refunded if it fails.* Write today for
FLEMING'S VEST-POCKET VETERINARY ADVISER
A book of 197 pages and 67 illustrations. It is FREE.
FLEMING BROS., Chemists, 255 Union Stock Yards, Chicago

Don't Keep and Feed A Barren Cow

But Make Her Breed by a Thorough Treatment with

Hood Farm Breeding Powder

Success is Practically Certain.

Hood Farm Breeding Powder is really

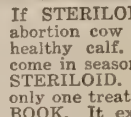
A Marvelous Preparation.

It restores the reproductive functions.
It corrects the irregularity of cows and heifers that do not come in season.
It removes the irritation and restores the organs to normal condition in cows that are constantly in season.
It is antiseptic, soothing and healing.
It does NOT harm a cow or heifer.
It does NOT cause straining.
It is easily procured, easily administered, AND ECONOMICAL.

Order today, mentioning this paper.

Prices, prepaid, $1.15, $2.75 and $5. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75.
C. I. HOOD CO., Lowell, Mass.

ABORTION IN CATTLE
PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT, REGULAR BREEDERS BY
STERILOID



Stop Losing Calves
If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.
GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.
MARTIN REMEDY COMPANY
Dept. A2. 398-408 Columbus Ave., New York City
Reference Colonial Bank.

HEALTH—FREE

Your name and address on a postcard will bring you absolutely free an interesting booklet called "Thirty Feet of Danger," presenting in plain American language the facts every human being should know and act upon in keeping his system clean and healthy. It is sound advice, and it *may be the means of avoiding illness for you and your family.* A clear statement on the best of medical authority. Write today to

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Learn Auctioneering
at World's Original and Greatest School and become dependent with no capital invested. Every branch the business taught. Write today for free catalog.
Jones Nat'l School of Auctioneering, 38 N. Sta mento Blvd., Chicago, Ill. Carey M. Jones, P

Calf Enemies

WHITE SCOURS BLACKLEG

Your Veterinarian can stamp them out with **Cutter's** Anti-Calf Scour Serum and **Cutter's Germ Free** Blackleg Filtrate and Aggressin, or **Cutter's** Blackleg Pills.

Ask him about them. If he hasn't our literature, write to us for information on these products.

The Cutter Laboratory
Berkeley, Cal., or Chicago, Ill.
"The Laboratory That Knows How"

When writing advertisers please mention Hoard's Dairyman.

Nothing Is More Important



Do you think of ***Digestibility*** as being just a big, vague word which has little or nothing to do with anything in particular in your line of business?

Or do you think of ***Digestibility*** as being something which really has some definite connection with the amount of money to be made from the dairy?

There isn't a thing about the dairy business any more important than ***Digestibility.***

BUFFALO
CORN
GLUTEN FEED

When you pay a good price for coal to burn in the heater, and get a lot of clinkers, you don't think you got your money's worth, do you?

You are up against the same thing in feed. Feed that runs 'way down in ***Digestibility*** is just as poor a buy as clinkery coal.

Feed has to break down and get through the cow's digestive tract in order to make milk. Unless a big share gets through, you lose.

1,614 of the 2,000 pounds in a ton of Buffalo Corn Gluten Feed are milk-bucket possibilities. Look over the list and see what runs higher in ***Digestibility.***

CORN PRODUCTS REFINING CO.
CHICAGO NEW YORK

o as much winter and fall plowin as possible. Every acre that is pl ved now means that much saved in ime and labor next spring, when th busy season is on. It also permits th fields to take up the winter rains a gives a good storage supply of m sture for the coming crop.

BROWN SWISS

Valhalla Farms

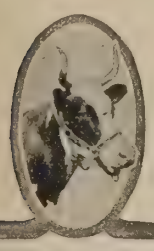
ure-Bred Brown Swiss Cattle

ly high class, well bred animals from a le and healthy herd offered for sale. More ha 100 head to choose from and our 20 years' xp ience is back of every one. Write us now. . EMYER, WALHALLA FARMS, Middleburgh, N. Y.

AYRSHIRES

THE PERFECT COW

For Information write to
AYRSHIRE BREEDERS ASSOCIATION
BRANDON, VERMONT





ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

elweiss Farms—Ayrshires

of all ages for sale. Seven yearling bulls for service.
D TSCHUDY & SONS, MONROE, WIS.

rld's Champion Ayrshires

E xtraordinary Bull Calf out of Imp. Torr's Tropicohn. record 3-year-old, 13055 lbs. milk, 520 lbs. t A. R. record 5-yr.-old, 15584 lbs. milk. 606 s at. Now on test should make big record. s full sister to Lessnessock Buntie, 2-year- 4678 lbs. milk, 3-year-old, 15794 lbs. milk, re, 17612 lbs. milk. Write for pedigree, re and particulars.
SHURST FARM, NARBERTH, PA.

dgewood Farms

WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, rkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
ing Stock For Sale. Personal Inspection Invited.
LAND, MONTGOMERY COUNTY, PA.
hone, Ogontz 575, Arthur H. Walker, Mgr.

RESTMONT FARM AYRSHIRES

ffered in several choice bull calves. Handly marked, nearly all white, from tested in Advanced Registry. "Finlayston" and on's Best of Bargenoch" breeding. Head herd with these splendid animals at reasonprices. W. H. Druckemiller, Sunbury, Pa.

GISTERED AYRSHIRES FOR SALE

fresh cows. Also two choice young bulls.
. McCONNELL, - Wellington, Ohio.

Evamere Farm—Ayrshires

Heifer calves, yearlings and bred heifers and some very good milk cows. Some bulls nearly ready for service. **Evamere Farm, Hudson, Ohio.**

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle.

GUERNSEYS

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. His Dam is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. The Bull himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.
W. A. LAWSON, Rosendale, Wisconsin

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

Registered Guernsey Bull For Sale

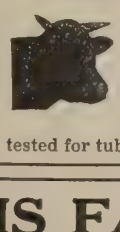
Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golden Secret 52629. Out of a 450-lb. A. R. cow by Golden King of Arcady, a grandson of Imp. Golden Secret 12899.

Price $100. For pedigree and photo write.
FOLLY FARM, LIBERTYVILLE, ILL.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canda and the United States. A few bull Calves for sale.
. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

PERGUE FARM **GUERNSEYS**

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.
17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

619 POUNDS FAT

is the average of our first nine Guernsey Advanced Register Records.

Falcon's Combination, dropped March 27, 1918, carries this kind of blood. His sire's dam made 655 lbs. fat; his dam's dam made 737 lbs. fat; further he is fit to show in any competition and will be a credit to any herd. Price $200. Full particulars from

FALCON'S FLIGHT FARMS, Litchfield, Conn.

N. B. No tuberculosis and not a case of abortion in over five years.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.
Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

GERAR GUERNSEYS

Production
Reproduction
Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.
Louis McL. Merryman, Cockeysville, Md.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.
"McLERAN OF MINN. WRENSHALL"

A GUERNSEY BULL

is a sure way to increase your profits. Grade up your herd by using a pure bred Guernsey Bull and you will be surprised at Results.

Send for free literature.

Guernsey Cattle Club.
Box H, Peterboro, N.H.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

Harbor Hill Guernseys

We Bred and Developed
The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.
C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.

Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.
W. R. DUNLOP, Fayetteville, New York.

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.
Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL.**
Old Homestead Farm, - - Perry, Ohio.

Lovell Hutchen's Registered

Guernsey Dispersion

Fort Atkinson, Wis.

Friday, Nov. 8, '18

As stated in last week's advertisement the dispersion of this entire herd presents unusual opportunities to Guernsey breeders in a position to do A. R. work, because the herd is bred right and has the constitutional vigor to go through an A. R. test.

There are 2 daughters, 5 granddaughters and a number of great granddaughters of *Lord Mar* in the herd. Also granddaughters of *Dairymaid's Glenwood of Pinehurst*, a full brother to the celebrated *Dairymaid of Pinehurst*. Likewise granddaughters of *Miss Luetilius' Hambro*, a grandson of Dolly Dimple's *May King of Langwater*. Then, too, there is much blood of the two noted sires *Glenwood's Boy of Haddon* and *Imp. Raymond of the Preel* in the herd.

One of the greatest females in the herd is a daughter of *Dairymaid's Glenwood of Pinehurst*, a full brother to Dairymaid of Pinehurst leader in Class B with 910.67 lbs. fat. Beside being a daughter of Dairymaid's Glenwood of Pinehurst she is a granddaughter of the great *Imp. Lord Mar*, the sire of so many great cows, including *Imp. Jessie Rose X*, one of the greatest high record show cows ever produced.

Another very fine cow in the herd is a granddaughter of Imp. Lord Mar and Imp. Raymond of the Saints. She is a large, well developed cow of rugged constitution, the kind that can stand pushing. Herd is tuberculin tested.

In addition to the herd all machinery necessary for running an average sized farm will be sold.

The farm is on the Whitewater road mid-way between Ft. Atkinson and Whitewater. Send for catalog.

Lovell Hutchens, Prop.,

Fort Atkinson, Wis.

J. E. Mack, Auctioneer. Herbert Main, Sale Director.

Third and Last Call

For the

13th and Semi-Annual Sale of Waukesha County Guernseys

New Sales Pavilion, Waukesha, Wis.

November 6th and 7th, 1918

REMEMBER there will be 90 head of pure-bred Guernsey males and females sold NOVEMBER 6th, which will include A. R. cows such as:

Esther of Maple Hill, A. R. 523.3 lbs. fat at 3 yrs.
Miss Harvest, A. R. 456.08 lbs. fat at 4 yrs.
Wern's Ora, A. R. 396.6 lbs. fat at 2 yrs.
Lilly May Rose 2d, A. R. 502.28 lbs. fat Class A., and others.
3 daughters of May King's Vrangue of Ingleside No. 15430.
2 daughters of Governor of Myrtle Place 2nd No. 40985.
1 daughter of Rhea's King of the May, A. R., and others.
1 son of Imp. Itchen May King No. 25174, and out of a 796-lb. fat dam.
Langwater El Dorado No. 39136, grandson of Langwater Hope, 1,003 lbs. fat.
2 sons of Langwater El Dorado No. 39136.
1 son of Lady Lishman, A. R. 698 lbs. fat, and others equally as good.

REMEMBER there will be 50 head of grade Guernsey cows and heifers and 30 head of pure-bred Guernsey males sold on NOVEMBER 7th Grades selected are all good individuals, good producers, and are either fresh or due to freshen soon. Pure-bred males include:

1 son of Imp. Itchen May King No. 25174.
2 sons of Royal Rose King of Edgemoor, whose dam has a record of 934 lbs. fat.
2 sons of Langwater El Dorado No. 39136.
Others of equal breeding.

Sale to be Held in New Sales Pavilion Just Completed. Comfort Assured.

Auctioneers: Love, Bailey, Benjamin. Write for catalog of sale

Waukesha County Guernsey Breeders' Assn.

F. E. Fox, Secretary, Waukesha, Wis.

Complete Dispersion

of W. J. Heid's Guernsey Herd

35 REGISTERED GUERNSEYS 35

Fort Atkinson, Wis.

Tuesday, Nov. 19th, '18

Included in the sale are 22 cows and heifers of milking age, 4 of them 2-yr.-olds carrying their first calves.

6 cows with A. R. records will be sold:

Casterilius' Hazel, 612.72 lbs. fat.
Gloria of Lake Bluff, 612 lbs. fat.
Glenwood's Juliette, 506 lbs. fat as a 4-yr.-old.
Treynore's Glenwood, 466.11 lbs. fat as a 2-yr.-old.
Benjamin's Gloria, 492.8 lbs. fat as a 4-yr.-old.
Royaline's Lenorill, 353 lbs. fat as a 2-yr.-old.

In the sale will be 7 daughters and 10 granddaughters of my former herd sire, Glorious 2d, that has 6 A. R. daughters averaging 489.22 lbs. fat, all but 2 records made under full age.

Also 11 daughters and 1 yearling son of Miss Luetilius' Hambro, he a son of Miss Luetilius, 548.98 lbs. fat, and Langwater Hambro who is by Dolly Dimple's May King of Langwater and from Langwater Hayes Rosie.

Tricksey's George of Sunnyside, our present herd sire, will be sold. He is by a grandson of Imp. King of the May and from Lady Tricksey of Waukesha, 662 lbs. fat in Class A, a daughter of Lord Waukesha.

There has never been a reactor in my herd. Every animal over 6 months old guaranteed a breeder and sold on a 60-day retest guarantee against tuberculosis.

W. J. HEID, Fort Atkinson, Wis.

On Two Accredited List

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the he has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidio disease this is an important matter and means more than any single tub culin test can mean. Every animal guaranteed to be free of the dise when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsi

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd h established for 26 years and is one of the oldest in Waukesha County. Write or come what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted

LONE TREE FARM

GREEN LAKE, WIS.

Has in its Herd 15 A. R. Guernseys and 11 R. of M. Jer

And Carries About 16 Cows on Test.

To inquiries for BULL CALVES we give full, honest particulars and stand behind every anima

Jersey Sire—A Son of Pogis 99th. Guernsey Sire, Langwater Islander.

ELDERWOOD GUERNSEY FARM

offers for sale a nicely marked bull dropped Nov. 2nd, 1917, whose dam, now on test will make over 300 lbs. fat at 2 years and whose grandam has a record of 424 lbs. fat at 4 years and whose great grandam has a record of 484 lbs. fat at 2 years. **Roy Burton, Eagle, Wis.**

"Homestead Far "Guernseys"

We are offering five *Grandsons* o *Jay 4th* from two to seven months of from A. R. cows or on test. They choice individuals, sired by the highest bull of the breed.

W. G. Jamison & Sons. Appleto

JERSEYS The PROFIT BREED



The pump has been blamed for much watered milk that really came from poor cows. Why waste feed on cows that skim their own milk when Jerseys will produce the highest percentage of butter fat at the lowest feed cost? **Raise the standard of your herd to the highest degree with Jerseys.** The man who begins with one Jersey is never satisfied until he has a herd. He can see the profit without close figuring. Start now. Write to Breeders for pedigrees and prices. Let us send you the Jersey facts that will open your eyes to the possibilities of this money-making breed.



THE AMERICAN JERSEY CATTLE CLUB, 351 WEST 23rd STREET, NEW YORK CITY

Bulletins of the Week

Using the Miscroscope in Milk Grading, by F. H. Hall. Popular Edition of Bulletin 443, New York Experiment Station, Geneva, N. Y.

Blood-sucking Insects as Transmitters of Anthrax or Charbon, by Perry Morris. Bulletin 163, Louisiana Experiment Station, Baton Rouge, La.

Curing Hay on Trucks, by H. B. McClure. Farmers' Bulletin 956, U. S. Dept. of Agr., Washington, D. C.

The Southern Corn Rootworm and Farm Practices to Control It, by P. Grinbill. Farmers' Bulletin 950, U. S. Dept. of Agr., Washington, D. C.

HOLSTEINS

Holstein Pedigrees

Holstein breeders who appreciate prompt- and accuracy in pedigree work, the *Wis-in Live Stock Advertising Co.* will render nuine service.

e make a specialty of *sale catalogs.* Our r is $2.50 a page including pedigree for lots 0. Write for particulars.

ISCONSIN LIVE STOCK ADV. CO.
1-14-15-16 Pioneer Bldg., Madison, Wis.

Bulls—Bulls
ALL AGES

Johanna and Ormsby Breeding.

lenty of individuality. Unusual alues. Satisfaction guaranteed money refunded. Send for digrees and details.

INEHURST DAIRY
Sheboygan Falls, Wis.

ck River Valley Farm

Awarded

IRST PRIZE
In Wisconsin Dairy Cow Competition

Winner, Queen Juliana Dirkje, produced ne year as a 3-year-old 1,021.72 lbs. but- 80% fat.) Over 30 yearly record cows in headed by Mutual Piebe DeKol.

ew young bull calves from these cows sired is bull for sale. (Herd tuberculin tested.)

N HETTS, FORT ATKINSON, WIS.

25 Holsteins $25

e weeks old 15-16 pure, mostly white, $25 l. Two months old, $40. Registered Bulls months old best quality $65. Two-year gers $125. Cows crated $150. Write us for ts. Buy the best—it pays in the end.

. J. A. ROBERTS STOCK FARMS,
OCONOMOWOC, WISCONSIN.

R SALE—Registered Holsteins
ng Bulls—5 to 10 months old, 2 sired by na King Segis, the 40-lb. bull; 1 by the bull, Beauty Walker Pietertje King; 2 r splendid senior herd sire, Czar Walker We also have 7 beautiful heifers 4 to 15 s old sired by King and Czar above men- l. *Eight well bred cows,* safe in calf to 2d, offered. Must sell because of short- f feed. Breeders, not dealers.
af Stock Farm, Bear Creek, Waupaca County, Wis.
Jas. McKone, Prop. Wm. Lucia, Manager.

Cedar Lawn Farms

nonths old bull sired by Cedar Lawn Champion t of a 19.37 lb. daughter of Sir Johanna De Kol. A ld individual ¾ white. Price right.

SCHROEDER & SONS, West Bend, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. **M. F. Peck & Sons, Marshall, Wis.**

Holstein Cattle
In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

Two Ormsby Bulls

No. 1. Born Jan. 1, 1918. Sired by a 29-lb. grandson of Sir Ormsby Hengerveld De Kol. Dam, is a 21.07-lb. daughter of Sir Ormsby Hengerveld De Kol. The bull is a grand individual and mostly white. Price $200. Delivered your station. No. 2. Born Feb. 15th, 1918. Same sire as No. 1. Dam has a record of 19.74 lbs. butter as a heifer. Bull is a good individual and mostly white. Price $150 delivered. For further particulars and pedigree address
A. M. ANDERSON, - Whitewater, Wisconsin

RED POLLED

Our August and September
RED POLLED OFFERING

40 head of splendid females—
10 head of extra well bred bulls—
Daughters of Proctor Knott IV and Teddy's Best included. Write for sales list just off the press.
JEAN DU LUTH FARM NO. 2, Nickerson, Minn.

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old; four cows and six heifers, all bred; one two-year-old not bred, two heifer calves, one bull calf. Selling to make room for Holsteins.
RICHLAND COUNTY ASYLUM FARM, Chas. W. Snyder, Supt., Richland Center, Wis.

JERSEYS

We Offer An Exceptional BULL CALF
Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

For Sale: Carload Registered Jersey Females

Because we are over stocked we are offering for sale a carload of excellent Jersey cows and heifers, some fresh, the remainder due to freshen from time to time throughout the year. 15 of them daughters of "The Warden", a Tormentor-Eminent bred bull from a R. M. dam and himself with 33 daughters in the Register of Merit. 10 of them sired by "Pogiwarno", he a son of Pogis 75th of Hood Farm and from Lass 49th of Hood Farm with 488 lbs. fat to her credit in Class AA.

A part of these females are now in the Register of Merit. All are bred for production and individuality.

This is an exceptional opportunity. Write us at once or better still come and see what we are offering.
BRONDALE FARM, EAST HARDWICK, VERMONT.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

HEIFER FOR SALE



A daughter of Trials Noble of Oakland who was grand champion at Wisconsin State fair 1918. His dam has a R. of M. record of 563 lbs. butter. The dam of this heifer May of Oak Grove has a R. of M. record of 334.41 lbs. butter as a 2-year-old, advance test 6.2%. Heifer was dropped April 22, 1917, is solid color, black tongue and switch and is bred to a R. of M. son of Eagle's Chief.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

Meadside Farms
Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

Sophie's Tormentor JERSEYS

"Production" our Watchword.

FOR SALE—BULL CALF No. 257, dropped May 22, 1918; solid color, black tongue and switch; an excellent individual.
SIRE: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM: Varna 333660, in the R. O. M., Class AA—546.29 lbs. 85% butter in 1 year from 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. A daughter of the famous Hood Farm Torono 35th 99265.
FAIRVIEW FARMS, Inc.
R. L. Pike, Gen'l Manager, Geneva, Ohio.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.

Registered Jersey Calves

from large milking dams and of the most fashionable breeding, either sex. Prices $50.00, $75.00 and $100.00 each.
ASHLAND FARM DAIRY, Inc.
ALTON PARK, - TENNESSEE.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. ***Dam:—Oxford's Majesty's Chance 357046.*** Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

JERSEY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write,
G. D. GILBERT, Lake Geneva, Wisconsin.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write **Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.**

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over
700 Pounds of Butter in One Year
These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of
1132 Pounds of Butter in One Year
If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.
ROYCROFT FARM, SIDNAW, MICH.

SWINE

Cedar Crest Farm Berkshires
Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

POLAND CHINAS

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Hadley
Herd boars and farm boars, open gilts, or shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell us what you want. We can please you. March pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, Wis.

Real Herd Boar For Sale

Have decided to sell my great herd boar, BIG BEN H, and will price him right. Also, some good heavy bone, big type Poland China spring boars to offer. All immune. Write at once. **F. A. MOREHOUSE Lancaster, Wisconsin**

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Qualit

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, M

Young Bulls From Seven-Da and Yearly Record Dams

Dams of all bulls have official records of from 15 to 25 pounds of butter. All are no yearly semi-official test and will complete records this fall and winter. Nearly every cow completed cow testing records for three years and has produced up to 600 pounds of b These cows are never pushed to the limit. The bulls offered are sired by bulls secured fro E. C. Schroeder and other noted herds. Sires' dams have records up to 950 pounds of b Bulls are heavy bone, straight, well marked and large for their age. They will and must p We guarantee satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, M

The Greatest Bull on Eart

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Orm

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

HOME FARM HOLSTEIN FRIESIANS

His Six Nearest Dams Average 29.31 Lbs.

A beautiful son of KING KORNDYKE SADIE VALE 2 from 26-lb. dam who is a daughter of Prince Segis Korn from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One f world's record dam in yearly division. Breeding, size, individuality and price that wil your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related to King Segis Pontiac Count and Colantha Johanna Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.**

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

FROM A. R. O. COWS

For Sale—Two Registered Holstein Bulls ready vice this winter. Dams are persistent milkers w Cow Testing Association yearly records; and als O. records 20.86 lbs. and 26.39 lbs. butter respe They possess a showy appearance, a straight color of one is almost white and the other is half s Sired by Sir Ormsby Hengerveld Segis, a half br Sir Ormsby Skylark, who is the only bull h daughter that has produced over 1500 lbs. butter year. A son of the great Sir Ormsby Hengervelc who has four 30-lb. daughters, including the world's champion, Pietertje Maid Ormsby 35.55 further information write or see us.

KAPLAN BROTHERS, Owatonna, Min

"NO HORNS"

Naturally Polled Holstein-Friesian bull sired by a son of the **World's Record** senior 1294.7 lbs. butter in 365 days, at $100 and up. Des catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Sum

FOR SAL

A WELL BRED BUL

Canary Paul Fobes Longfiel

Born July 29th, 1914.
Weight 2200 pounds.
Send for Pedigree.

Marblehead Farms, Manistique, Mic

Bull Calf, Born Jan. 6,

Sire—Colantha Johannn Champion 45674. 39 daughters. Son of Colantha 4th's Johan lbs. butter in 7 days, 1,247.82 lbs. butter in **Dam**—Emblagsard Colantha Mahomet 279872 antha Johanna Champion 45674. Record a 2 months, 9 days: Butter, 7 days, 14.67; mil butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 6 11 months. The price of this bull is exceedin We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, M

The Traverse He

This is the chance you have bee ing for. We a few, good A. R. O. cows. One with 27 and 110.85 in 30 days. Three others abov Come and see them or write for descripti prices, but *hurry* for they will go quickl a few bull calves for sale, the kind you proud to own. Pedigrees and prices o cation. State age desired.

Traverse City State Hospital, Traverse City,

The Pontiac H

"Where the Champions come fr

Offer Bull Calves sired by sons of *Korndyke, Hengerveld DeKol, Pontiac land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd

PONTIAC STATE HOSPITAL, Pontia

Bloomingdale H

...HOLSTEINS...

For twenty-five years have been b large production and good individualit Fayne Johanna, the first 50-lb. cow, i breeding and made her first 30-lb. reco in our herd. Many of the large produc been bred here. Foundation stock a sp

A. A. Courtelyou, Somerville, New

HOLSTEINS

.EVELAND HERD

R SALE—One nine months old Holstein narked one-half white, good individual, arge for age. Dam, a 29.08-lb. 3-year-old ıter of a 26.10-lb. cow. Sire a 30-lb. grand- the $50,000 bull. Also a few young cows arge A. R. O. records, bred to freshen in ry. They are daughters of King Segis ıc Veeman one of the greatest sires in the . Prices reasonable.
. WEISKOPF, CLEVELAND, WIS.

UNG BULL FOR SALE

ı now offering an excellent young bull dropped ry 27.
Sire: A son of King Segis Pontiac Polkadot, ıs 100% the same breeding as K. S. P. Alcartra, om one of the good daughters of Korndyke Paul De Kol. His Dam: Rosa Queen Herbert , a 22.5 lb. junior, 4 year-old. This calf is well and a remarkably fine individual.
w other bulls up to 11 months old, and several s for sale. Every animal guaranteed.
SEY SEDGWICK, Limeridge, Wis.

ıffalo Creek Farm

OFFERS A SON OF
:e Hengerveld Fayne No. 77461
). son of King Fayne Segis. Dam's record bs. as a 2-year-old and 24 lbs. as a 3-year- ith a semi-official record of 13,471 lbs. of ınd 520 lbs. of butter. Pedigree and price ıuest. Albert R. T. Lillie, Supt., Arlington Heights, Illinois.

ULL CALVES

Ve Have a Few Very Fine
ULL CALVES FOR SALE
by a 40-pound grandson of King Segis, high producing, well bred dams. They he kind that will sire producers. For and pedigrees write
TLEY FARMS, GLENWOOD, ILL.

YOU

l be interested in our free price list of 100 of choice, pure-bred

olstein Cows and Heifers

nterested in a bull calf send for our bull st. Woodlawn Farm, Sterling, Illinois.



Five Cows Yielded 11.58 lbs.

Butterfat in 24 hours and 25.65 lbs. of solids, not fat.
These were the Hol- ln-Friesians that won the Sweepstakes Prize the Ohio Agricultural Society. The nearest mpetitor made 10.05 lbs. fat and 14.34 lbs. ıds not fat.
The Holsteins always lead in production.
If interested in

IOLSTEIN CATTLE

nd for our booklets—they contain much valu- le information.
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

OLSTEINS AT AUCTION

Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of y other month, Feb. 5-6; Apr. 2-3; June 4-5; .6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brat- ro, the Holstein-Friesian Capitol of America.*
ress The Purebred Live Stock Sales Company.

isle Farms Co.

Offer High Class

lolstein Bulls

very dam with an A. R. O. or T. A. record. Herd tuberculin ed. Prices right.
Send Today for Bull Sale List.
C. Barker, Herd Mgr., Lisle, Illinois.
rm 25 miles West Chicago, on C. B. & Q. R. R.



AUCTIONEER

For pure-bred livestock and general farm sales. Write me before deciding n an auctioneer for your sale. Square ealing and satisfaction assured. Refer- nces, State Bank of Honey Creek. I sell 25 head of pure-bred and grade Hol- steins, including herd bull, at Kenmoor Farms, Oconomowoc, Wis., Saturday, Nov. 2nd. FRANK DRUMMOND, Honey Creek, Wis.

DIGREES

Holstein pedigrees compiled by experts from one of the old- nd most complete systems in the country.
Catalogs rinted Live Stock Printing Co., La Grange, Illinois

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.
50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.
35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.
Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

BULL CALF

Dam's Record (3 yr.) 23.63 lbs.
Sire's Dam's Record 34.56 lbs.
Seven Dams Average 29 lbs.
Calf born April 6th, 1918. Fine individual, beautifully marked. Write for photo and full pedigree. Delivered express prepaid any point in U. S. A. Price $250.00.
HARRY L. BENEDICT,
R. D. No. 1, East Syracuse, New York.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

Hazelhurst Stock Farms

Offer a Yearling Son of King Segis Pontiac Canary who is a 30-lb. son of King Segis Pontiac. Youngster's dam is Hazelhurst Rouble Clothilde with 7-day record of 30.32 lbs. butter and 579.3 lbs. milk. His dam and sire's two dams average butter 7 days, 32.78 lbs. and for 30 days 126.54 lbs. He is nearly white, a fine individual and very straight. Priced for quick sale. Write.
H. H. Wickwire & Son, Hubbardsville, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.
If you want the best at reasonable prices, it will pay you to write.
DR. BLACKBURN, - CUBA, OHIO.

FIRST ANNUAL PORTER COUNTY HOLSTEIN BREEDERS'

Consignment Sale

50 Pure-bred HOLSTEINS 50

VALPARAISO, IND.

Monday, Nov. 11th, '18

A quality sale from the best pure-bred herds of Lake and Porter Counties, the banner dairy districts of the state.

A. R. O. Cows of good conformation and productive capacity.

Grandsons and Granddaughters of the most famous bulls of the breed. A tested daughter of Homestead Girl De Kol Sarcastic Lad, also a daughter of the famous King Walker.

Every animal over 6 mos. to be tuberculin tested and guaranteed as represented; no blemished animals in the sale.

Sale to be held under cover, rain or shine, at the Porter County Fair Grounds, and to start promptly at 1:00 o'clock.

FOR CATALOG ADDRESS

J. B. Turner, Secy., Valparaiso, Ind.

Auctioneer: Col. J. E. Mack. S. T. Wood in the box.

PRESENT labor conditions, and the possibilites of the owner being called to service, make it necessary for the Homestead Farm to materially reduce its fine herd of Holsteins.

PUBLIC SALE

Dover, Delaware

November 20th, '18

Probably 40 head of choice cows and two-year heifers, most of them bred to FINDERNE PRIDE FAYNE, a son of Finderne Pride Johanna Rue, with a seven-day record of 36.87 lbs. and a world's record of 1470 lbs. in 365 days, will be sold at above date. The cows have good A. R. O. Records, and the heifers are of fine breeding. Here will be an opportunity to get high class cattle from a clean herd at your own price. Two or three bull calves of Finderne Pride Fayne will also be sold.

HOMESTEAD FARM, Dover, Del.

Daniel O. Hastings, Owner, Wilmington, Delaware.

You Can't Afford to Overlook This Young Bull



Canary Ormsby Johanna De Kol 256894.

A SON OF THIS THREE-YEAR-OLD FOR SALE.

Canary Ormsby Johanna DeKol produced 28.18 lbs. butter, 503 lbs. milk in 7 days and 111.95 lbs. butter, 2,318.6 lbs. milk in 30 days at the age of 3 years, 1 month, 6 days. Her sire, Canary Fobes Bessie Homestead (20 A. R. O. daughters), is a 31-lb. grandson of Canary Paul and Homestead Jr. DeKol. Her dam is a 17-lb. 2-year-old daughter of Sir Ormsby Johanna DeKol (31 A. R. O. daughters, 2 above 30 lbs.). Every dam in her 4-generation pedigree has a good A. R. O. record.

The Sire of This Young Bull is Mutual Fobes Longfield DeKol 82959, a son of Mooie Mutual DeKol and from a daughter of Homestead Jr. DeKol that, as a Jr. 3-yr.-old, made 30.04 lbs. butter, 630.8 lbs. milk in 7 days and 124.42 lbs. butter, 2,651.6 lbs. milk in 30 days.

This youngster is well marked and as straight as they make them; so are his sire and dam. Moreover, he's a descendant of proven producers from one end of his pedigree to the other. His dam's record as a 3-yr.-old is bound to be increased. There's no question but that he'll prove to be a top notch herd sire. He was born April 10, '18. Write us about him today, for he won't be here long.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

MAPLE LAWN DAIRY FARM
50 PURE-BRED HOLSTEINS 50

QUACKENBUSH for QUALITY HOLSTEINS

My Herd Sire, RAG APPLE PONTIAC is a bull of high class breeding. He is half brother to the famous $25,000 sire, *Rag Apple Korndyke 8th*, the sire of the $53,200 bull calf, the World's Champion 42-lb. 3½-year-old and the youngest 30-lb. heifer. He derives 43¾% of his blood from the noted Century sire, *Pontiac Korndyke*, the sire of the World's Champion 30-day butter producer and who has more 30, 36, and 40-lb. daughters and 1,000-lb. year-record granddaughters than any other bull. He is a grandson of the only double century sire, *King of the Pontiacs*, who has more 40, 30, and 20-lb. daughters than any other bull. He won first prize at the La Crosse, Wis., Fair this year and a daughter of his won first at the Wisconsin State Fair.

BOTH MALES AND FEMALES FOR SALE

Females of all ages. Some are springers and some are bred to the above sire. Some of the cows have A. R. O. records up to 27 lbs. in 7 days.

This stock is of the most popular breeding, such as Korndyke, Pontiac, Hengerveld DeKol, King Segis, Polkadot.

Bull Calves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeKol 3rd*, a grandson of *Sarcastic Lad*, the sire that won Championship at the World's Fair—and by *King Segis Pontiac Polkadot 8th*, a grandson of *King Segis Pontiac* and *Johanna McKinley Segis*.

Write at once or come and see me. **W. W. QUACKENBUSH, West Salem, Wisconsin.**

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall; ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

WAYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

A Few Good Ones For Sale

I am offering yearling and bred two-year old registered heifers for sale. Daughters of King Segis Pontiac Polkadot 8th, he a grandson of King Segis Pontiac and from one of the good daughters of Johanna McKinley Segis. A number of these heifers are bred to Sir Aaltje Pontiac Hengerveld, a 33.68-lb. son of Hengerveld DeKol Beets. Also several good young bulls from A. R. O. dams and a few cows in calf to the 33-lb. bull. Write me or come and see them for yourself.

J. D. McDONALD, WEST SALEM, WISCONSIN.

A. R. O. Holstein Cows and Heifers

In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to

WISCONSIN STAR STOCK FARMS, ED. M. SCHULTZ, Hartford, Wis.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.**

Holstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCONSIN.

Springvale Stock Farm

"Home of the Johannas"

Will sell in the

Fond du Lac Sale

Nov. 14th - 15th, 1918

Two daughters of Colantha Johanna Champion, a son of Colantha 4th's Johanna, the only cow to hold all World's records at one time.

Johanna Ruberta, a 22-lb. 5-yr.-old, full sister of Johanna Rutena, 30-lb. 4-yr.-old, and Johanna Dianna, a 19-lb. 4-yr.-old daughter of a 24-lb. cow.

A son of Johanna Dianna sired by Sir Pietertje Ormsby Mercedes 38th, he a 34-lb. bull, this fellow nearly ready for service.

Johanna Deone 2nd, a 24.74-lb. daughter of Sir Johanna DeKol, half sister to Johanna DeKol Van Beers, 40-lb. cow.

A son of Johanna Deone 2nd sired by Sir Pietertje Ormsby Mercedes 38th, half brother of Bess Burke Ormsby, 42-lb. cow.

Johanna De Mercedes, a 15-lb. two-yr.-old daughter of Johanna Deone 2nd, 24.74-lb. cow and sired by Sir Pietertje Ormsby Mercedes 38th.

W. J. GILLETT & SONS, ROSENDALE, WIS.



Walcowis Ollie Hartog 240660.

Sire—Iowana Sir Ollie who is sire of Walcowis Ollie Mooie, state record junior two-year-old for seven and thirty days. He is a son of the famous 31-pound cow, Ollie Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—27 pounds from 624 pounds milk in seven days. Best day's milk, 101.5 pounds. A granddaughter of King of the Pontiacs and first prize winner as a three-year-old at the 1913 National Dairy Show.

Calf is well grown, a very good individual and reasonably priced. Have other younger bulls for sale. Write or come and see us.

Walcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

Pabst Bargain

No. 1—A 32.02-lb. grandson King Pontiac Champion and hanna McKinley Segis. This ca sire is a 38.03-lb. bull that sold $12,500 and his dam is a m promising young cow, having a 4-yr.-old record of 32.02 lbs. but in 7 days.

No. 2—His sire is by King Pont Champion and out of Hengerv Colanthus, the cow that sold $3,500 at the last National H stein Sale, and his dam is a 26 lb. cow having three very cre able A. R. O. daughters.

Here is a splendid opportunity line up with the blood of K Pontiac Champion. Write for ther particulars.

PABST STOCK FARM
Dept. A, Oconomowoc, W

When Writing to Advertisers, Mention Hoard's Dairyma

Watch For the Big Watertown Sale

Thursday and Friday, Nov. 21st and 22nd, 1918

150 HEAD—Cows Up to 30 lbs.—Yearling Bulls up to 31 lbs.—150 HEAD

WATERTOWN HOLSTEIN SALES COMPANY, - Francis Darcey, Secretary, Watertown, Wisconsin

The Holstein Breeders' Sale Co. Pavilion of Fond du Lac, Wis.

Built at a cost of $35,000. Incorporated and organized by 300 of the largest breeders from 14 counties.



Steam heat, Electric lighted, dining hall and all modern conveniences.

Our new $35,000 Sale Pavilion where the sale will be held.

THE FIRST SALE

November 14th and 15th, 1918

Will Be Practically a Milkers Sale

175 Head. 125 Cows and Heifers Bred. 25 Heifers. 25 Bulls

There will be 125 cows and heifers fresh or to freshen before spring. Most of them bred to 30-lb. sires or better.

There will be 2 25-lb. cows one 24.74 and several cows with good yearly records. Also 25 heifers not bred.

There will be 25 bulls most of them ready for service.

There will be 3 30-lb. bulls including Reid and Dawson's 30-lb. herd sire with a yearly record of over 1000 lbs. butter.

One 28-lb. bull whose 5 nearest dams average over 1000 lbs. butter one year.

One from a 27.25-lb. 4-year-old. 2 from 26-lb. dams.

The leading feature will be the dispersion of the Reid and Dawson herd of 30 head. The cows all have good A. R. O. records including 2 25-lb. cows. There are 12 daughters of Sir Johanna Rag Apple De Kol whose dam's record is 37.09 butter 7 days.

All of the females old enough are bred to Meadowholm Ona Button Hartog, whose dam has a 30-lb. record also a yearly record of over 1000 lbs. butter one year. He will also be sold.

Another feature will be the dispersion of the James Sales herd of 25 head. The cows are all young and most of them will freshen about sale time. Most of the cows have A. R. O. records. There are 7 2-year-old granddaughters of Johanna McKinley Segis. They will sell their herd sire Colantha Sir Aaggie Rag Apple 2nd.

Another feature will be a consignment of 42 head from the Albert Frank herd. It will do your eyes good to look this herd over. There are 25 head bred to Mr. Frank's 35-lb. herd sire that he paid $3000.00 for at the Lake Mills Sale last fall.

There are 17 bred 2-year-olds and 10 bulls.

Catalogues ready Nov. 1st.

Auctioneers: Haeger, Mack, and Pohlman.
S. T. Wood in the box.

S. H. Bird, Sale Manager, South Byron, Wisconsin.

DON'T OVERLOOK THESE

My Consignment to the Fond du Lac Sale Includes:



JOHANNA COLANTHA SARCASTIC LAD

His first 9 semi-officially tested daughters averaged 17,126 lbs. milk, 675 lbs. butter as 3-yr.-olds. Some of his 2 and 3-yr.-old daughters are consigned.

A 30.59-lb. 10 months old son of Cloverlawn Johanna Piebe, he a 31-lb. grandson of Colantha Johanna Champion. He traces direct to Colantha 4th's Johanna, Aaggie Cornucopia Pauline, Lilith Pauline DeKol, Caroline Paul Parthenea and other good ones. His dam has 733.98 lbs. in 1 year as a 3-yr.-old. His 7 nearest dams average 28.82 lbs. His 6 nearest semi-officially tested dams average 1,014 lbs. in 1 yr.

Five 2 and 3-year-old daughters of Johanna Colantha Sarcastic Lad, he with 75% same breeding as Colantha Johanna Lad.

A 16-lb. 2-yr.-old daughter of Aaggie Cornucopia Pauline Count 13th.

Queen of Cloverlawn—700 lbs. butter in 1 yr.

A 10 months old son of a 28-lb. cow that also made 931 lbs. butter in 1 yr.

A yearling son of a 21-lb. 3-yr.-old with 718 lbs. in 1 yr.

All of these young bulls sired by Cloverlawn Johanna Piebe whose 5 nearest dams average 23,809 lbs. milk and 1,070 lbs. butter in 1 year. All females consigned are bred to him.

Look up this consignment in your catalog or write me for further information.

JNO. PULS, HARTFORD, WIS.



LILITH SUSIE INGALLS 2D

30.59 lbs. butter, 516.50 lbs. milk in 7 days as a 4-yr.-old. 733.98 lbs. butter, 16,199.3 lbs. milk in 1 year as a jr. 3-yr. old. Her 10 months old son by Cloverlawn Johanna Piebe is in this consignment.

$1 Per Cow Per Month After Trial PAYS FOR THE PINE TREE MILKER

FREE Trial Demonstration

Not a cent to pay us in advance to TRY this Million Dollar Milker FREE on your farm and then only a small part to pay ***after*** trial, but ***only if satisfied beyond a doubt***—balance only $1 per cow per month. Pay from the ***cash savings*** it starts to earn ***at once.*** We could not make this offer, wholly at our risk, if we did not have the recognized highest-grade successful mechanical milker and the greatest possible proof. Proved by actual use and by every test. It is positively the 100% dependable milker, and we ask YOU to PROVE this for yourself.

World's Standard Mechanical Milker

Don't think of paying out a dollar for ***any*** milking machine until you write for our catalogs and complete facts.



Saving Millions in Wages and Ending the Milking Problem

Get this offer if you are milking twelve or more cows, grades or ***pure breds.***

The Cow's Adopted Child

Prove satisfaction first or "no sale." We install. We demonstrate. We show you how simply and satisfactorily you yourself, or a woman or boy or girl, or ordinary farm hand, can do the work of THREE hand-milkers with the Pine-Tree Milker. No obligation of any sort. If you are not entirely satisfied after trial, we'll promptly take the milker back.

A Year To Pay—3-Year Guarantee

Send no money. Not a dollar. No contract, no order, no agreement of any sort to make for this trial. We accept a small cash payment—***after demonstration trial,*** if purchaser is satisfied—and his notes for balance arranged on easy terms.

Read this! Most important is our iron-clad THREE YEAR GUARANTEE. It is plainly written out—legal binding on us for performance and service. It protects you on the durability, workmanship, high-grade materials and efficiency of the Pine Tree Milker—***for 3 years.*** Strongest, longest, complete guarantee on any milking machine made.

Increase Your Milk Production!

Actual tests made under high authorities have repeatedly proved that herds milked with a mechanical milker produced more milk and butter fats than when milked by hand. The gentle, uniform suction and squeeze—easy, steady, quiet—makes contented cows, month after month and year after year. That's why users call the Pine Tree Milker "THE COW'S ADOPTED CHILD." The cows take to it like they take to their own calves. They give down more milk and do not dry up as early.

The Million Dollar Milker

A million dollars, yes several million dollars the Pine Tree Milker will save in wages alone.

A million dollars, yes and over, will be saved in increased milk and fat.

A million dollars and more backed the inventor in developing the Pine Tree Milker.

A million dollars, yes ***two million dollars,*** worth of Pine Tree Milkers will be sold to the farmers on credit to show them what a wonderful saving the Pine Tree Milker will make for them in both labor and butter fat.

After years of perfecting and simplifying the best ideas of Europe, Australia, New Zealand and America we challenge the world with the Pine Tree Milker—the ***very last word in a perfect, successful, mechanical milker.***

Our exclusive Fool-Proof Pulsator, the heart of any milking machine, is the highest type of positive safety and efficient control. Our Double-Action Teat Cups give the most gentle, lifelike hand-milking action, closest to nature's own way. They "milk" as the calf sucks by gently squeezing and then relieving the pull by swallowing. The Pine Tree Milker is by far easier to handle, to clean, to keep in sanitary condition than any other milker ever made. It produces milk with smallest bacteria count.

Installed on Your Farm at OUR RISK

"The Million Dollar Milker"



Proved 100% Efficent for Years on Our Four Pine Fa

The Pine Tree Milker was perfected by recognized hi
est milking machine authorities at our own model dairy fa
Hinsdale, Ill., through years of most careful testing.

Its inventor and our expert mechanics worked side
side with cow experts. Only results counted. Rigid tests on
pure bred, highly strung registered Guerns
have proved that the cows like the
Tree Milker and that two-thirds
labor is saved in milk
them this way.

ROCK VALLEY STOCK FARM
J. D. HETTS, PROP.
BREEDER OF HOLSTEIN-FRIESIAN CATTLE
FT. ATKINSON, WIS.

July 10, 1918.

Pine Tree Milking Machine Co.
Chicago, Illinois

I noticed your advertisement of a milking machine on "Free Trial on My Farm", and something moved me to answer it. I was surprised to find that you actually wanted to loan me a machine on absolutely free trial.

After your man had installed and showed us how to start it I personally kept watch of my cows. They are producing more than they ever have by hand milking.

My cows on official test are doing better.

I have not had a single case of udder trouble and I know I am producing cleaner milk than ever before. On top of this the saving in labor and the improved spirit of the men in my barn, both getting $50.00 a month which, plus their board, means a great surprise to me. I now use two men less in my barn, saving of not less than $150.00 per month, and I am now milking the entire herd in an hour and fifty minutes, whereas with the two more men it took us three and one-half hours.

Not a single cow has objected to being milked by the Pine Tree Milker. I find your machine so constructed as to be very easily and quickly cleaned.

As this letter would indicate, I am bubbling over with enthusiasm. I have already interested a number in this neighborhood to put in your milker and I only hope The Pine Tree Milker will have the success it is entitled to. I shall be very glad to show any prospective buyers my milking machine in operation at any time on my farm, which is about one-half mile from Ft. Atkinson, which is the center of the dairy industry of the United States.

With best regards, I remain

Yours very truly,

J. D. Hetts



Shows the Pine Tree Milker Doing Its Perfect Work—

This is positively, safely and surely the nearest to Nature's own way of ending all your milking problems. Keeps the cows contented. Keeps help better satisfied. Gets you more milk. Saves untold time and money. Lengthens the lactation period and makes your cows bigger, better milkers than ever before. Prove all this at our risk. Write now.

Ma
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CAUTION—

Buy Before Prices Advance

Writing us is bound to save you a lot of money because we will guarantee you the present price for 30 days. Prices are bound to go much higher. We can't help it. No manufacturer can. Fast increasing war-time costs of expert labor and high-grade materials, over which we have no control, must compel us to advance prices soon. Let us quote you the price ***now*** for the outfit to best fit your needs. Write at once—no obligation—don't delay.

Write for Catalog, Prices, Etc.

Get full facts by return mail. Read our big color-illustrated Pine Tree Milker Catalog. It is chock full of valuable information. It brings you lowest price quotations, our year-to-pay terms, our free trial farm demonstration offer. Write. Send postal or coupon today sure. Pencil writing is all right.

DO IT NOW FOR YOUR OWN BIG PROFIT BEFORE YOU TURN THIS PAGE.

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Banks, Owners, and Leading Dairy Publishers know us and our liberal methods, our dependability and responsibility. Write today.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

olume LVI | FORT ATKINSON, WIS., NOVEMBER 8, 1918. | Number 16



MINNESOTA HOLSTEIN BREEDERS AT THEIR ANNUAL GATHERING

Dairymen Must Co-operate

MILO D. CAMPBELL, President National Milk Producers' Federation

E cow is a part of the family life of the nation. No branch of agriculture s so vital to our national well being as that of dairying. The cow furnishes ıe human race a food that cannot by any known practical economy be lied from other sources.

ıere is no substitute for milk. The United States produces 84,000,000,000 ds of milk annually, an amount sufficient to load to capacity a line of two- rucks, touching each other, two and a half times around the world. In e this production is one-sixth that of the entire agricultural production of Jnited States.

these days when every hour is weighted with possibilities and destinies, ng for every ounce of man, woman, and child power, when more than one a half millions of men have already gone from the ten millions of men normally upon the farms of the country, the milk producers are for the first time in the history of the industry beginning to take an inventory of their business.

Plain facts should be plainly stated. There is no class of men in this nation that will respond to every call of patriotic duty more freely and willingly than the farmer. But he does not conceive that duty calls him to furnish to the civilian population of this country the product of his toil at a loss, under the conditions existing.

Until within the last few months the farmer has not known the cost of milk production. The labor of wife, children, and the labor of himself and hired men before and after ordinary working hours have not been counted of value. Now they must be.

Manufacturers, merchants, tradesmen of all kinds, transportation companies, have ascertained costs and when found losing money have either increased prices to cover losses or gone out of business; but we have gone on selling our milk or milk products at the prices made for us by the fellows in between us

(Continued on page 518)

Hoard's Dairyman

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Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Guernseys Imported to Freeborn County

Forty-seven head of pure-bred Guernsey heifers ranging in age from 13 to 28 months lately were imported direct from the Island of Guernsey and distributed among 20 or more breeders in Freeborn County, Minn. Chas. L. Hill, Wisconsin, was instrumental in obtaining these cattle. W. A. McKerrow of the University Farm assisted Mr. Hill in setting prices on all individuals.

The cattle were drawn by the purchasers under a lottery system, that is, the number of each individual heifer was placed in a sealed envelope and the party ordering heifers drew the number of envelopes to correspond with the number of heifers ordered and paid for the individuals drawn at the appraised value. The price ranged from $180 to $375, and struck an average of $246 per head. Considering the age, breeding, and quality, those present considered the lot exceptionally good for the price and everybody seemed well satisfied with their purchase. The total sales amounted to $11,595. This lot of heifers is going to mean much to the breed in Freeborn County and, with reasonably good luck, the direct benefit of the importation will be noticed within 4 or 5 years. The breeders purchasing these cattle have every reason to consider themselves fortunate in getting a lot of heifers safely across seas at this time, for had they not gotten them it is doubtful if they could get another lot for some time to come.

Minnesota. N. J. WHITNEY.

After the war Europe will continue to look to America for help; there will be no crops raised over night.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Cows—and Folks

If folks were cows, there'd never be
This goin' on a week-end spree.
They would not stay out late at night,
Nor dance 'till dawn wuz gettin' bright.
They would not quarrel, fib, and fuss,
As happens to the likes of us.
No gossip, spreadin' through th' town,
No reaching wildly fer renown.
If folks wuz cows!

If folks wuz cows, they would not eat
Most any kind uv grub they meet
And, with dyspepsia, grunt and growl,
Or raise old indigestion's howl.
Fer cows show wisdom, when it comes
To workin' out these eatin' sums.
They'd stick to homely ways, I guess
And drop this maddened craze fer dress.
If folks wuz cows!

If folks wuz cows, the world would be
A place of cheer and jollity
The thousand little jealous ways
That so much consternation raise
Would not be part of humankind
To stunt and narrow us, and blind
We'd stick to homely paths and fair,
With mother nature takin' care,
If folks wuz cows!

The Hoover Way

"Mr. Hoover figures that we should—and can—lay aside a two-hundred-million-bushel wheat reserve out of our bumper crop. Looks as if there wouldn't be any starvation in this country."

"Yep, and that's no countin' th' thirty-six prime hams I've got in my smoke house and mother's two shelves full of crabapple jelly. Bulgaria sort of figured that she wanted to board with folks that had a good larder."

Ways to Beat the Kaiser

Clear out old stumps and get the woodlot full to brimming.

Let concrete keep all that good manure from wasting.

Stop admiring your neighbor's new cream separator and buy one for yourself.

Learn that cattle raising is as much a science as manufacturing.

Quit knocking tractors—get up and ride on one.

Come to the conclusion that breeding counts as much in cattle as it does in people.

Times Do Change

Time was, not very long ago,
When, after dark, the farmer slid
Into his bunk, with lights turned low
And, underneath the covers hid.

But now, with lighting systems fine,
And tractors doing work at night,
The farmer needs no sun to shine,
His fields at 1 a. m. are bright.

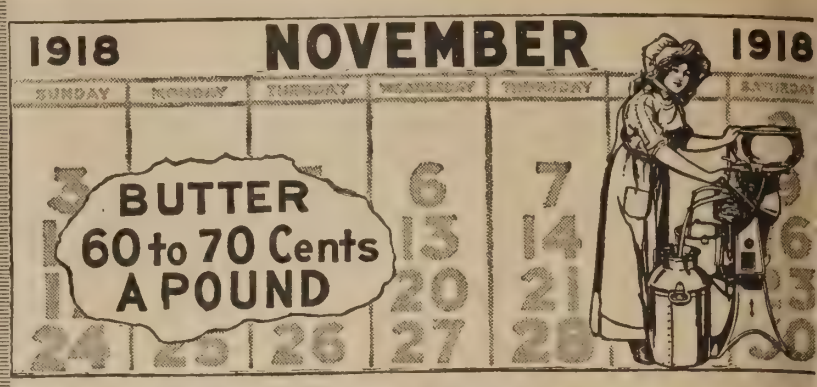
He does his harvesting as well
When most folks settle down to snooze,
We punch a button—ring a bell,
And drive away the midnight blues.

The city folks must stop their brag,
Concerning incandescents gay.
We of the country do not lag;
The farm is now a "Great White Way."

The Feeling of Regret

The wood has all been cut and stored
The logs burn brightly after dark.
It's snug in here, beside the fire,
And home is land of heart's desire,
With happiness in every spark.
But, oh, I miss the meadow way;
I miss the herd beneath the trees,
I miss the warm wind, and the gay
Zoon-zoon of honey bees.

Mail order catalogs are piled
Upon my knee—the lamp is lit.
It's like a nest, hid from the chill
That whines across that top-most hill,
This toddy helps a little bit.
But, oh I miss the happy herd,
Their browsing down the orchard slope,
The quick call of a singing bird,
A calf upon a rope.



NOW IS THE TIME
to get your new
DE LAVAL
CREAM SEPARATOR

WITH butter prices soaring no cream producer can afford to go another month without a New De Laval Cream Separator.

This is true whether you have no separator, or an inferior or half-worn-out machine, or even an old style De Laval.

In cold weather your waste of butter-fat is relatively greater, either with gravity skimming or a poor separator; and at present prices for cream a De Laval would very soon pay for itself out of its own savings.

There is no cream separator that can compare with the De Laval in clean skimming, capacity, ease of operation, durability, and in freedom from repairs. It's the world's greatest cream saver.



Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save it own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Co

165 Broadway, New York. 29 E. Madison St., Chicago.

50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Hairless Pigs—The Cause and Remedy

E. B. HART AND H. STEENBOCK

RY spring on the farms of Wisonsin as well as in other sections ne "hog belt" there are born a derable number of hairless pigs. tically every county where swine ng is developed and from which ave had reports has had cases of nalady. It occurs in the northern ell as in the southern counties, in the western as well as in the rn part of the state.

some other sections of our coun- notably in Montana, the losses hairless pigs have been enor- . It is estimated that from 100,- to 1,000,000 are lost annually in state alone from this cause, and s become a serious menace to the industry in several states and to of the swine breeders in our state.

irless pigs are of normal weight size, perhaps a little above nor- weight; they are generally ed the full gestation period and four to seven days over time. n absolutely hairless and born they may live a few hours after , but always die sooner or later. are characterized by thick, pulpy s, thick skin, no squeal, and no ty. Where perfectly hairless the



FIG. 1. DEAD HAIRLESS PIGS

e the thick necks indicating a goitrous condition. The r of these pigs had been started on a grain ration—high n and no roughage. On this ration she did not thrive well as changed to one consisting of 15 parts of alfalfa, 25 of 25 of oats, 25 of middlings, and 10 of oil meal, and kept strict confinement. She had produced two litters of hairigs on this ration before being changed to the ration of rts of clover, 33 of corn, and 33 of oats on which she again ced hairless pigs. This trouble was corrected in this same y the use of potassium iodide.

is smooth, shiny, and bald, except few hairs around the eyes and The hoofs of hairless pigs are walled and undeveloped. In the litter there may be variations pigs with full haired coats and vigor to pigs with scanty-haired and little vitality. Those with hair may live if given special tion and care.

gs in this condition are more likely to be born from gilts than from old sows. They are more likely to be born in the spring than in the fall.

Goiter is the Cause

The cause of this malady in both sow and young pig is goiter, an enlarged, improperly working thyroid gland. The thyroid gland, at the center and base of the throat, in its enlarged condition accounts for the thick necks of the little pigs. The sow is also suffering from an enlarged thyroid, but this cannot be so readily observed due to the large, fat, fleshy neck. The goiter in the sow does not seriously affect her health and it does not affect her use for meat, but unless corrected it does interfere with her breeding functions. The thyroid gland of a normal new-born pig is about the size of a pea, while that of a hairless pig is the size of a hickory nut. The gland in a normal sow varies in size, but usually is not larger than a walnut, while in a sow producing hairless pigs it is the size of a man's fist.

Studies of goiter in the human race have shown that when the thyroid gland is removed or its function interfered with, as in goiter or in cancer of the thyroid, the hair and nails cease to develop and the skin of the face and neck becomes thick and pulpy. These conditions correspond very closely with those found in hairless pigs.

The immediate cause of goiter in the human race is not clearly established by medical science, but a cure for the simple form has been found in the use of iodine. It is surprising how widely prevalent goiter really is. It is estimated that 85 per cent of the dogs on the streets of Chicago show more or less enlargement of the thyroid; and goiter or "big neck" is being recognized more frequently in calves, lambs, and colts. In the states of Oregon, Washington, and Montana considerable losses by big neck in colts, lambs, and calves have been reported and cases among lambs have been reported in our own state. At one time the sheep raising industry of Michigan was in danger because of goiter in lambs. Before the discovery of salt deposits around the Great Lakes its future seemed hopeless, but with the development of the salt industry and the use of salt by sheep growers goiter rapidly decreased. The salt contained appreciable quantities of iodine. At present the refined rock salts coming from Michigan, as well as from other parts of the United States, do not contain enough iodine to make their use a guarantee of goiter prevention.



FIG. 3. ANOTHER CORRECTION WITH POTASSIUM IODIDE

The same sow as shown in Fig 2 and on the same ration, but to which was added 10 grams of potassium iodide to each 100 lbs. of feed. All the young were born alive and in normal condition.

Use of Iodine Prevents Hairless Condition

The fact that hairless pigs are the product of a mother suffering from goiter suggested the possibility of curing and controlling this malady with iodine. The thyroid gland forms a chemical substance containing iodine which it circulates through the blood stream. This compound is of the greatest importance to the proper development of an animal. When conditions arise requiring more of this compound, and the iodine supply in the food is not increased, the gland enlarges to let more blood pass through it in a given time. It is, therefore, either a failure to absorb the iodine from the feed or a failure of the thyroid gland to absorb the iodine that is in the blood that causes goiter.

The thyroid gland of the hairless pig contains no iodine; a normal thyroid in its dried state contains about .2 per cent of iodine. The iodine supply in our feeding materials is comparatively low and this is true for all feeding materials. However, in most instances there is enough iodine present in our feeds when it is properly assimilated; but under certain conditions of life, the exact analysis of which is not possible in the present state of our knowledge, our farm animals are unable to absorb sufficient amounts of iodine.

How to Use Iodine

We have successfully corrected the hairless pig trouble by giving the sow during her entire gestation period 10 grams (approximately ⅓ of an ounce) of potassium iodide per 100 pounds of feed. This material can be procured from almost any drug store. It should be powdered to a meal as fine as flour, and then mixed with 100 pounds of feed.

There is no way, so far as we know, of telling beforehand whether or not a sow has goiter. But where hairless pigs have occurred on the farm it would be good insurance against their reoccurrence to use potassium iodide. At the present prices for this chemical a sow can be carried through the entire gestation period for about 26 cents. Special quack remedies should be avoided; nothing but iodine will do the work and the products of vendors of special drugs should be avoided. This malady is not abortion, but is due to the poor working of the thyroid gland.

Tests of this treatment at the Montana Experiment Station have shown that about half of the amount of potassium iodide we have used, when fed for 60 days, will prevent hairless pig production. We have not as yet had an opportunity to try the smaller dose, but would recommend that from 5 to 10 grams of potassium iodide (⅛ to 1-6 of an ounce) per 100 pounds of feed be used. Do not use more as it would be unnecessary and a waste of money. It had better be fed the entire gestation period, or at least the last 75 days of gestation, until further experiments have decided whether a shorter period of use would be equally efficient.

Variations in the Malady

This malady is subject to the greatest variations. Four sows in the same pen, fed the same ration and cared for in identically the same way, may give the following results: Two will come through with sound, normal litters; the third will give a mixed litter, that is, some with a good hair coat and some with scanty hair coat, or absolutely hairless; the fourth will give all hairless pigs. We believe these results are probably due to constitutional differences in the animals, inherent factors which always display themselves with any group of animals. A ration that is near the border line of deficiency in iodine and at the same time is slightly out of balance in some other respect may well affect some individuals more than others.

(Continued on page 526)



FIG. 2. A MIXED LITTER OF HAIRED AND HAIRLESS PIGS

A sow may produce a litter in which there are both haired and hairless pigs. The hairless ones are dead, while those with hair will show life and may be raised. This sow grew up on a ration of 30 parts of corn, 30 of oats, 30 of middlings, 8 of oil meal, and 1 of tankage. She was under strictly confined conditions, but appeared normal in every other respect, excepting in reproduction.



FIG. 4. RAISING THE GILT SO AS TO HELP IN THE PREVENTION OF HAIRLESS PIGS

We believe that hairless pig production is often the result of improper feeding of young sows, such as giving them too high protein feeds and too little roughage in the ration. This sow was reared on a ration of 75 parts of corn and 25 of alfalfa. While the sows may grow at a somewhat slower rate than normal, yet the litters have always been haired and strong where sows have been reared on rations containing 15 to 25 per cent of roughage.

THE COST OF PRODUCING MILK

THERE were several exhibits at the National Dairy Show this year that sought to drive home to producer and consumer alike the cost of milk production and the necessity of adequate prices for milk if the supply of this essential product is to be maintained in sufficient quantity. Owing to the various conditions under which the surveys were made and the basis of the resulting computations, the figures are not directly comparable. However, they are of interest and we therefore give a summary of the figures quoted, while the accompanying illustrations show the method of their presentation.

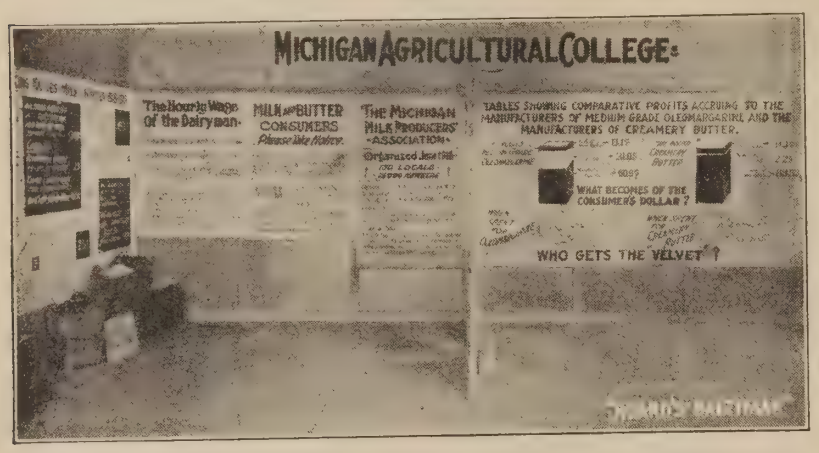
The Indiana Figures

The U. S. Dairy Division exhibit used the figures secured in an investigation in Porter County, Indiana, made in co-operation with the Purdue College of Agriculture. It covers the records of several hundred cows located in some twenty-five or more herds. Table I gives the average yearly amounts of feed and labor, from which those interested may deduce the costs by applying current prices to the various items.

Table II—The Cost of Keeping a Cow a Year as Disclosed by the Michigan Survey

Charges	
Home grown grains, 560 lbs. at $50 per ton	$ 14.00
Commercial concentrates, 1,014 lbs. at $58 per ton	29.41
Hay, 2,338 lbs. at $25 per ton	29.23
Other dry roughage, 1,019 lbs. at $10 per ton	5.09
Silage, 7,056 lbs. at $7 per ton	24.70
Other succulent feed, 340 lbs. at $7 per ton	1.19
Bedding, 823 lbs. at $7 per ton	2.88
Pasture	7.63
Man labor, 141.4 hrs. at 30c	42.42
Horse labor, 7.2 hrs. at 15c	1.08
Hauling milk, 6,706 lbs. at 25c per cwt.	16.77
Taxes, int., ins., and dep. on cattle ($110 at 12%)	13.20
Taxes, int., ins., and dep. on buildings ($115 at 10%)	11.58
Interest and depreciation on equipment ($12.09 at 18.6%)	2.25
Veterinary service and medicines	.68
Losses due to death	2.34
Miscellaneous costs	2.60
Managerial ability, omitted items, and risks (add 10%)	20.70
Total yearly gross cost	$227.75
Manure credit, 7.43 tons at $2	14.86
Net yearly cost for cows producing 6,706 lbs.*	$212.89
Net cost per 100 lbs. milk	3.17

*Value of calf at birth offset by cost of sire service.



The Michigan exhibit at the National showed the results of the college investigations into the costs of milk production, the dairy organization of the state, and various other dairy products comparisons and information. At the right in the above illustration is shown the percentages of the consumer's dollar that enter into the costs of production and profits of the manufacturers of oleomargarine and creamery butter. Presented in tabular form these are as follows:

	Oleomargarine	Butter
Cost of manufacture	8.1%	9.3%
Manufacturer's profit	31.0%	2.2%
Manufacturer's cost of raw material	60.9%	88.5%

Table I—An Indiana Year's Cow Cost

Charges	Summer months	Winter months	Entire year
Grain	660 lbs.	1,337 lbs.	1,997 lbs.
Dry roughage (hay, etc.)	897 lbs.	2,421 lbs.	3,318 lbs.
Silage (or other succulents)	2,060 lbs.	5,188 lbs.	7,248 lbs.
Salt	18 lbs.	18 lbs.	36 lbs.
Bedding		720 lbs.	720 lbs.
Pasture crops	$10.36		$10.36
Man labor	75.8 hrs.	89.8 hrs.	165.6 hrs.
Horse labor	7.7 hrs.	9.1 hrs.	16.7 hrs.
Overhead charges*	$13.78	$13.20	$26.98
Credits			
Milk	3,390 lbs.	3,525 lbs.	6,915 lbs.
Calf			1 calf
Manure and bedding saved	0.74 ton	5.57 tons	6.3 tons

*Included in the items for overhead costs are interest, depreciation, taxes, and insurance on the buildings, cattle, and equipment. There is also included the repairs and renewals on cans, pails, strainers, brooms, and all the various and sundry barn and dairy equipment, the purchases of medicines and supplies, and the other expenses such as cost of bull service, veterinary fees, etc.

Michigan Has Report on 2,015 Cows

The yearly cost of keeping a cow for one year was secured by an investigation by the Michigan College of Agriculture extending over a period of three years and covering 121 farms with records for 2,015 cows. These cows averaged 6,706 lbs. milk annually, and with costs figured at present prices the annual cost of keeping a cow for a year is as shown in Table II, and the cost of producing 100 lbs. of milk during the seven winter months is shown in Table III.

The Pearson or Illinois Formula

The annual herd cost of producing 100 lbs. of milk (the so-called "Pearson Formula") was secured by the Dairy Department of the Illinois College of Agriculture from the records of approximately 1,000 cows in the milk district directly tributary to Chicago. It is as follows: home grown grain, 20 lbs.; purchased grain, 24 lbs.; hay, 50 lbs.; silage, 188 lbs.; other roughage, 39 lbs.; and man labor, 2.42 hrs.

Table III—The Cost of 100 Lbs. of Milk During the Seven Winter Months as Shown by the Michigan Survey is as Follows:

29.2 lbs. grain at $55 per ton	$ .80
46.6 lbs. hay at $25 per ton	.58
21.1 lbs. other dry roughage at $10 per ton	.11
149.1 lbs. silage at $7 per ton	.52
17.6 lbs. bedding at $7 per ton	.06
2.36 hrs. man labor at 30c	.71
Hauling milk	.25
Taxes and other items	.80
Total gross cost	$3.83
Credit 230 lbs. recoverable manure	.23
	$3.60

The other charges for horse labor, interest, building, equipment, and miscellaneous expenses, it is estimated are approximately equal to the returns other than milk, such as calves, manure, increase in stock, and miscellaneous returns. The figures given in this formula apply only to the production of milk for direct consumption and to those regions similar to the market milk producing centers near Chicago. They will not hold good for farmers producing market milk under different conditions and it would be especially fallacious to apply it where the milk is produced for manufacture into dairy products such as butter or cheese.

The Pearson formula was used in the settlement of the Chicago milk controversy, but in order to reduce the number of calculations and simplify the table, Judge Lamb of the U. S. Food Administration has used the following amounts of feed and labor as representing the cost of producing 100 lbs. of milk: home grown grains, 20 lbs.; purchased grain, 24 lbs.; hay, 110 lbs.; and labor, 3 hrs. This is known as the "Modified Pearson Formula", the amount of silage and roughage being expressed in terms of additional hours of labor and pounds of hay.

The amounts of feed and labor in these Pearson formulae are the averages for an entire year, and if applied directly would tend to bring the bulk of production in those summer months when costs are least. Since milk is consumed in approximately equal quantities during the different months of the year, the price of milk should vary from month to month t induce production in high cost month and thus secure a constant suppl without periods of large surpluses fo lowing periods of large shortages. T meet this condition Professor Pearso figured out the Chicago market flu tuations in price, or rather their d viations from the average price a shown in Table IV:

Table IV—Percentage Deviation by Months Chicago Milk Prices

January	119.0	July	8
February	114.3	August	9
March	106.5	September	9
April	94.2	October	10
May	73.2	November	11
June	70.6	December	12

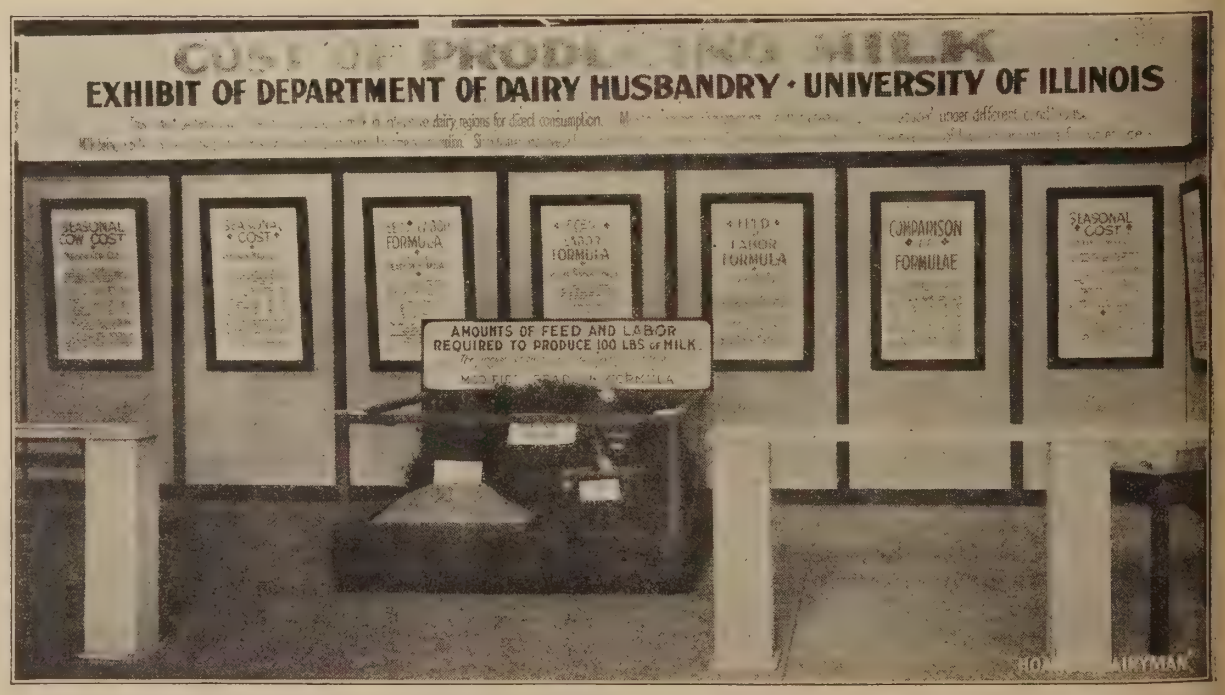
By applying the percentages show in Table IV to the previous tables t prices to be paid for any particul month can be secured; i. e, if the tot average cost for the month of Nove ber should be $3.00 according to t Modified Pearson formula, then mu tiplying this by the percentage dev ation from the average for the mon of November (118.3 per cent) wou give the price to be paid that mont or $3.55 per 100 lbs.

Comparison of Formulae

For the purpose of comparison w give in Table V several formul showing the cost of producing 100 lb of milk, the Indiana and Michig formulae being deduced by the e tors from the figures for yearly cos given previously. The Warren form la was developed by Professor Warr from his investigations in New Yo State, while the Hoover formula based on the investigations of t Milk Committee of the U. S. Food A ministration involving six states, 4 farms, and 9,761 cows.

The Pearson formulae are p sumed to account for the total co including all items not shown, as ta es, depreciation, supplies, etc., whi are offset by the value of manure a calf and otherwise taken up, and that is needed is to compute the c of feed and labor at current prices order to get the total average cost p hundred pounds milk. After applyi the prevailing prices to the Warr formula there are still certain ite unaccounted for, and it is necessa to add 25% to the first total to get t entire cost of 100 lbs. of milk. T is called the "corrective facto which in the Hoover formula is set the investigators at 23.7%. Accordi

(Continued on page 518)



This exhibit of charts showing the development of the Pearson formula for determining the cost of milk production was rendered doubly valuable by the distribution of a bulletin containing a reproduction of each chart. The case in the center illustrated the 44 lbs. grain, 110 lbs. hay, and 3 hours labor required to produce 100 lbs. milk according to the modified Pearson formula.

A RED CROSS DAIRY FARM

E of the finest farm properties in England, Sarisbury Court, near thampton, is now being worked by American Red Cross as a means giving recreation to wounded erican soldiers and also to sup- fresh vegetables and milk to the pital in the Manor House and hboring hospitals. The Red Cross chased this wonderful Manor a its 186 acres of farm land, dows, and woods outright, trans- ned the Manor into a hospital with merable concrete wards, erected a hospital of seventy large double- ed, window tents, and turned the re institution over to the Ameri- army medical authorities as Base pital No. 40.

lthough the hospital has been ed over to the United States gov- nent, the Red Cross will continue perate the estate, which it is be- ed will supply the hospital with y products, ham and bacon, poul- and eggs, and fruits and veg- les. To manage the farm the Red ss has been fortunate in securing voluntary services of Frank Sher- Peer. Mr. Peer operates a fine n in New York and another in Jersey. He also operates a farm on the Island of Guernsey in the English Channel, which is a show place and model for that thrifty home of the Guernsey breed. On his Guernsey farm he makes an acre of ground produce four tons of hay, and twenty-five acres support seventy-five head of cattle.

The estate is to have a mixed herd of at least fifty Guernseys and Holsteins. To establish this herd, Mr. Peer had to induce the authorities to make an exception of a law prohibiting the shipment of cows from Guernsey, and since this permission was granted Mr. Peer and several of the other Guernsey farmers sent several of the Island's prize winners to become a part of the Red Cross herd.

In addition there will be one hundred pigs, one thousand chickens, and many ducks. The dairy, the poultry, and the kitchen garden will be in charge of an English lady, Mrs. Ismay Fownes, sister of General Sir Archibald Murray of Mesopotamia fame, who volunteered to handle this end of the activity for the Red Cross. Her experience in practical farm work was obtained on her estates in the various parts of England.

The gardens of Sarisbury Court are famous all through this region. Here the patients, American soldiers, who are assigned to this hospital, may wander over ten acres of beautiful fields devoted to orchards of fruits, vegetables, and flowers, and have access to many hot-houses where the choicest fruits and vegetables as well as rare flowers are grown under glass. All the products of these gardens are to be used in supplying delicacies for the patients and flowers for beautifying and brightening up the many awards.—(Courtesy American Red Cross.)



At Sarisbury, England, the American Red Cross is building the largest American hospital in Great Britain. The hospital farm produces its own bacon. The pigs and cattle are under the care of an American farmer, F. S. Peer of New York.—(Courtesy of American Red Cross.)

Agricultural Reconstruction After the War

WALTER L. HOUSER, President Wisconsin Live Stock Breeders' Association.

E war will come to an end. It will e finished when our enemies are en out of allied territory and have down their arms in surrender. side of that goal there will be her halting, quitting, nor com- nise. Whatever the cost or sacri- the aims of our nation and our s must be maintained. Hereafter nany cannot tote a gun, that h is certain.

here will be radical economic ges as the war nears a conclu- and during the period of recon- ction—a period necessarily of iderable length. Already we feel can plainly see the signs of ge that is inevitable when the is over. Peace talk finds reaction mmediate slump in the price of , sheep, corn, and other agricul- l products. Things so abnormal, so cally unbalanced, tively speaking, signs of a break he war invites and es certain radical ks in present eco- ic conditions. In r words, we are up on stilts and er or later many of vill take a tumble be mussed up un- we are wise and are a soft place to upon.

is none too early the farmer and man to begin to are for the change. he can do this and e same time patri- lly conform to the rnment program. in doing so he will st himself to the ram of reconstruc- and become a potent factor in rebuilding the world.

The American farmer ought to open his eyes and look ahead a little. Just now his business is prosperous unless he is profligate. If conditions were to remain as they now are, he need not worry. But they will not remain so. He must beat the change or get his fingers pinched when the door slams. He must readjust his affairs when the readjusting is good. How to do it?

Well, first this is a good time to pay debts. Money is cheap. When the change comes money will be dear and it will be more difficult to pay debts. If a farmer owes $1,000 he can pay it with 500 bushels of $2 wheat, or 5,000 pounds of $20 hogs, or thirty tons of $33 hay. If he waits until after the war to pay it, it will cost him at least 1,000 bushels of wheat; 10,000 pounds of hogs; 75 or 100 tons of hay, etc. Either pay debts with big war incomes or buy liberty bonds which will be a safe investment and available offset to debts at any time. If not in debt, buy bonds, thus supporting the government and investing your surplus where it will be safe and available, when after the war conditions will make investments in other lines attractive at normal prices. Get along with the Ford or old car for a time and after the war you will be able to buy a new one at practically half the price now asked. In other words, this is the time to *save*. You will be justified in going to extremes to save in preparation for the transition.

Farmers can well afford to carefully prune their live stock at the present time. They will be justified in reducing their flocks and herds to a paying basis—that is, selling for food all unprofitable animals, having care, of course, to keep sufficient live stock on the farm to conserve fertility and maintain a balanced agriculture. But now is the time to sell scrubs, unprofitable stock, and to begin the program of rebuilding our flocks and herds upon the foundation of profitable animal husbandry. The farmer who is ready to conform to after war conditions—to engage in the sharp competition in his line of business that is inevitable; who has his farm stocked with high class, profitable live stock, fit to meet the demands of the countries that have been depopulated in live stock by the war,—and it must be good stuff that will meet this demand—will be the wise, foresighted farmer-business man. You can not meet this competition and supply this profitable market with scrub live stock. You will be ground into the dust if you try it.

Now is the time for conservative, careful planning and preparation for the sure enough change that is coming.

I believe it is wise to warn farmers not to expect too much of the after the war demand from European countries for our live stock. At least it is wise to advise them that they cannot expect to sell their scrub stock to them. They will insist

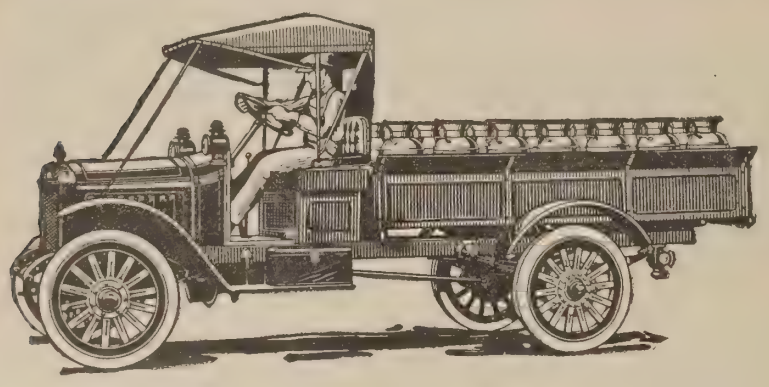
(Continued on Page 527)



A STRIKING COST OF PRODUCTION EXHIBIT

That "a cow has four stomachs and it takes a lot of feed to satisfy them" was strikingly brought home, at the National, in the exhibit based on the Indiana investigations heretofore reported in Hoard's Dairyman. To the left is the large milk bottle representing the average milk production (6,915 lbs.) of the cows on which costs of production were kept. Next comes the hay stack containing 2,632 lbs. hay, and this stack gave a better idea of the quantity of hay a cow requires than mere figures ever tell. Then, we see the grain sacks required to hold the 1,152 lbs. of purchased grain and the piles of ear corn representing the 843 lbs. of home grown feed, making a total of nearly a ton of grain to produce 6,915 lbs. of milk. There are shocks of corn stover to represent the 686 lbs. of other dry feed consumed, bales of straw showing the 720 lbs. of bedding required, a silo that is presumed to hold the 7,248 lbs. silage consumed, and finally a small plot of green grass to indicate the $10.86 cost of pasture. To add to the interest and to indicate the labor costs, we have the cow and her calf. In so far as was practical, the exhibit was an exact reproduction of the feed consumed in a year and it was easy to grasp the lesson it sought to convey.

REPUBLIC
Internal Gear Drive
MOTOR TRUCKS
Built by the Largest Manufacturers of Motor Trucks in the World



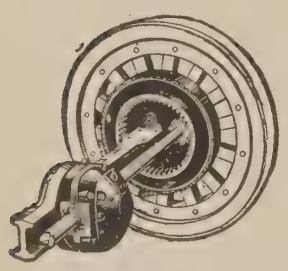
Republic Trucks on the Dairy-Farm

Republic Trucks are particularly adapted to the special requirements of dairy-farm work.

Republic Trucks have an Internal Gear Drive with I-beam load-carrying axle of solid forged steel. The driving mechanism is entirely separate from this axle and has nothing to do but drive the truck.

The power is applied near the rim of the wheel, gaining greater leverage for hard pulls. And this Internal Gear Drive permits 45% greater load clearance, a big advantage for country roads.

There is less unsprung weight which means important savings in tires, gasoline and all upkeep expenses. Every part is simple in construction, easy to get at and easy to adjust when necessary. More than 1300 Republic Service Stations, distributed all over the United States, stand back of Republic Trucks to see that they give continuously satisfactory service.



The Internal Gear Drive gets extra power for pulling over bad roads and up hard grades by applying power near the rim of the wheel.

Dependable—Economical Trouble Proof

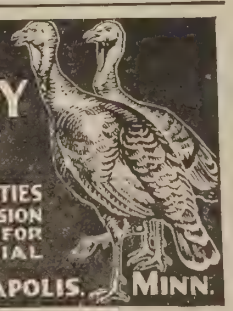
Republics are easy riding and easy to drive. And they have proved so dependable and given such superior service to owners that it has been necessary to build more than twice as many of them as any other motor truck in order to supply the demand.

There are seven different Republic Models —¾ ton to 5 ton. One of these models will exactly fill your requirements.

See the nearest Republic dealer and send for latest booklet.

Republic Motor Truck Co., Inc.
Alma, Michigan

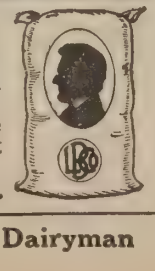
SHIP US LIVE POULTRY DRESSED POULTRY AND CREAM



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PAY HIGHEST MARKET PRICE. NO COMMISSION CHARGED. PROMPT RETURNS. WRITE US FOR SHIPPING TAGS AND GIVE US A TRIAL
OUR MOTTO "A SQUARE DEAL"
DE SOTO CREAMERY & PRODUCE CO. MINNEAPOLIS, MINN.

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We buy all kinds at highest market prices—and pay the freight. Ship us your second hand bags, or at least write us what you have so we can quote you. Satisfaction guaranteed. Our check goes out the day the bags come in.
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When Writing to Advertisers, Mention Hoard's Dairyman

Maryland State Fair

The Maryland State Fair at Timonium was held this year under entirely new management and special effort was made to attract a big showing in both dairy cattle and other live stock and, in fact, all agricultural products.

Seven hundred dollars in prizes were offered in each of the four recognized dairy breeds and, in addition, the National Holstein-Friesian Association added 20 per cent for their breed.

Mr. E. J. Gill of New Jersey judged Guernseys; Dr. Deubler of Penshurst Farm, Ayrshires and Jerseys; and Dr. George Carpenter of Pennsylvania the Holsteins.

Holsteins

There were four exhibitors of Holsteins with a total of 41 head; John W. Dennis, Maryland, 17 head; Davis Brothers, Pennsylvania, 20 head; I. E. Emerson, Maryland, 3 head; and Frank Lupo, Maryland, 1 head.

These men brought out a splendid exhibit and competition was keen in all classes, the single entry of Loveton Farms in the aged bull class was good enough to win the championship, while Brooklandwood Farms with three youngsters were 1st and 3rd in the yearling bull class. Essex Dairy Farm carried off the majority of the prizes in the female classes.

Below is the detail:

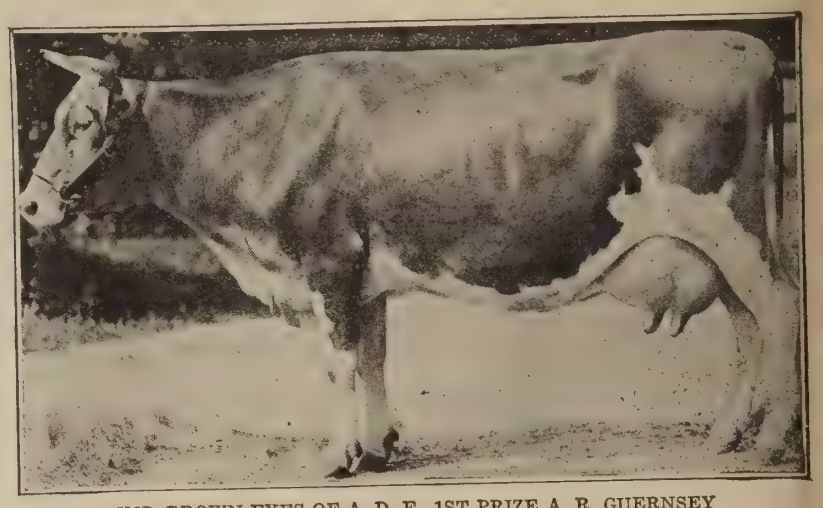
Bull 3 years or over—1, Lupo on King Clarinda Bacon DeKol; 2, Dennis on Arcady Segis Hengerveld Wayne; 3, Davis Bros. on L. H. C. Paul Alcartra. Bull 2 years—1, Davis Bros. on King Pietertje Buttercup 2nd. Yearlings—1, Emerson on Brooklandwood King Pontiac; 2, Dennis on King Pontiac Netherland Pershing; 3, Emerson on Brooklandwood King Segis Alcartra. Bull calf—1, Davis on an unregistered calf; 2, Dennis on S. X. Pontiac Segis Lass.

Cow 4 years—1, 2, and 3, Dennis on Inka Rose DeKol Hartog, Essex Hilda Ina DeKol Lass, and ———. Cow 3 years—1 and 3, Dennis on Essex Segis Hendrick and Matilda Pauline Korndyke 2nd; 2, Davis on Zama's Burke. Cow 2 years—1 and 2, Dennis on Carlisle Lady Artis and Carlisle Bertha DeKol; 3, Davis on Johanna Colantha Aaggie Queen. Yearling—1 and 3, Dennis on S. X. Pontiac Alcartra Lass and S. X. Inka DeKol; 2, Davis on Johanna DeKol Netherland Queen. Senior heifer calf—1 and 2, Dennis on S. X. Segis Hengerveld Maid and S. X. Segis Hendrick; 3, Davis. Junior heifer calf—1 and 3, Davis; 2, Dennis.

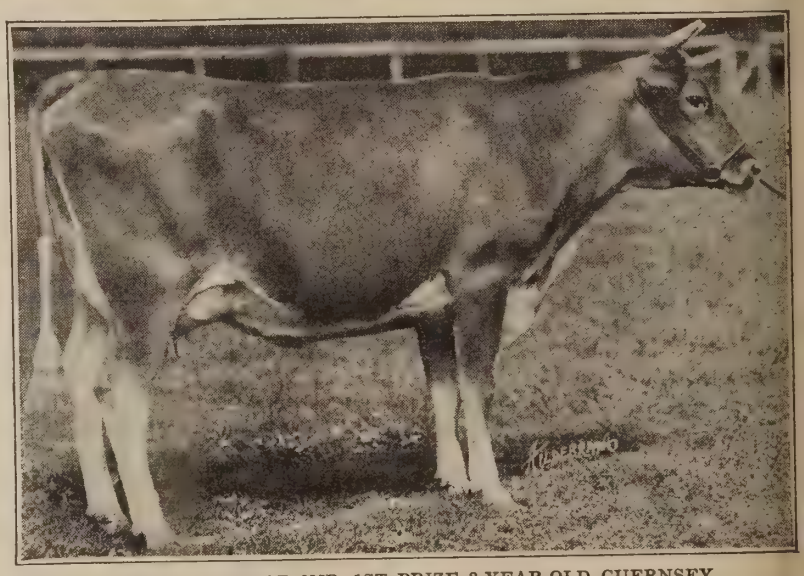
Exhibitor's Herd—1, Dennis; 2, Davis Bros. Breeder's Young Herd—1, Dennis; 2 Davis Bros.; Calf Herd—1, Dennis; 2 and 3 Davis Bros. Get of Sire—1, Dennis; 2 and 3 Davis Bros. Produce of Dam—1 and 2, Dennis; 3, Davis Bros. A. R. Cow—1, Dennis on Carlisle Lady Artis. Champion Bull—Lupo on King Clarinda Bacon DeKol. Champion Cow—Dennis on Inka Rose DeKol Hartog.

Guernseys

Nine Maryland Guernsey breeders brought out a total of 47 head. Louis McL. Merryman, 23; J. E. Griffith, 9; J. Walton Bolgiano, 4; Leonard Ensor, 4; Miss Kate McLane, 2; D. K. Este Fisher, 2; C. E. Mc



IMP. BROWN EYES OF A. D. F., 1ST PRIZE A. R. GUERNSEY COW AT THE MARYLAND STATE FAIR
She has a year's record of 13,908.6 lbs. milk containing 836.48 lbs. fat.
OWNED BY L. McL. MERRYMAN, MARYLAND



CLARE OF GERAR 2ND, 1ST PRIZE 2-YEAR-OLD GUERNSEY COW AT THE MARYLAND STATE FAIR
She has a record of 8,086.7 lbs. milk containing 350 lbs. fat in 236 days, Class G, and is owned by L. McL. Merryman, Maryland.

Lane, 1; I. E. Emerson, 1; and W. Carroll, 1.

Bull 3 years—1, Merryman on Ru Patent King; 2, Merryman on Uncle Bull 2 years—1, Griffith on Jarden Prince. Bull 1 year—1, Emerson on B landwood Warrior; 2, Merryman on Anchor; 3, Griffith on Charmante's Ultra Bull calf—1, 2, and 3, Merryman on C Patient King, Rutila's Patient King 3rd, Rutila's Patient King 4th.

Cow 4 years and over—1 and 3, Merr on Justina of Locust Lane and Moll Gerar; 2, Griffith on Edith of Pleasant Cow 3 years—1, Carroll on Milford An Lassie of Donemore; 2, Merryman on seeker's Jehanna of Anna Dean Farm. C years—1, Merryman on Clare of Gerar 2, Griffith on Eleanor of Fox Hall; 3, McLane on Prue of Bohemia 2nd. C year—1 and 3, Merryman on Gerar Ju and Jessie of Locust Lane; 2, Ensor on of Dunmore. Senior heifer calf—1, G on Daughter of Anton's May King; 2 s Merryman on Gerar Loulie and Gerar Queen. Junior heifer calf—1, 2, and 3, M man on Gerar Adventures, Clare of Gera and Gerar Rosie.

Exhibitor's Herd—1 and 2, Merryma Griffith. Breeder's Young Herd—1, Merr Calf Herd—1 and 3, Merryman; 2, G

Get of Sire—1, Merryman. Produce of Dam—1, 2, and 3, Merryman. Four cows in milk—1, Merryman. A. R. Cow—1 Merryman on Imp. Brown Eyes of A. D. F.

Champion Bull—Emerson on Brooklandwood Warrior.

Champion Cow—Merryman on Justina of Locust Lane.

Jerseys

Two Maryland breeders, C. E. Rieman and Wm. Carroll, showed Jerseys with winnings as follows:

Aged bull, 1st prize Golden Oxford Owl, who won 1st prize and championship 1912, 1913, 1914, and 1918; 1912 also won gold medal shown as yearling winning 1st over four senior bulls—a grandson of Stockwell & Golden Fernshad. Aged cows, 1st prize, Combination Jessie, imported January, 1917. Won 1st St. John's Parish prize, Island of Jersey, daughter of Register Merit cow, granddaughter and great granddaughter of winner of certificates of merit, public butter test on the Island of Jersey. Bull 2 years, 1st prize, Secret Owl, son of Golden Oxford Owl and Viola's Golden Secret, daughter of Viola's Golden Jolly, who sold twice at public auction, 1st for $12,000 and second at $13,000. Bull under 1 year, 1st prize, Me Emment Owl, son of Golden Oxford Owl.

Cow 3 years, 1st prize, Maid Mabel Oxford, granddaughter of Oxford You'll Do, a great granddaughter of Gamboge Knight, Golden Maid's Prince Emment 2nd and Golden Fern Lad. 2nd prize, Rose and Or, a daughter of a son of Emment 2nd out of Golden Fern Lad out of a daughter of Oxford Lad. 3rd Carroll on Daisy O'Kim of Kenilworth. Cows 1 year, Maid Daisy Oxford, full sister of Maid Mabel Oxford above. Junior heifer calf, Mystic Viola, tracing twice to the celebrated Lady Viola, and to the great bull "The Owl" and Emment 2nd. Cow 2 years, Marie de Rozel d Or, a handsome fawn, granddaughter of Emnent 2nd and Stockwell, in addition to the above individual prizes—won first.

Exhibitor's herd, Produce of Dam, with Maid Mabel Oxford and Maid Daisy Oxford, full sisters, daughters of Mabel d Or. Combinations Versie, Marie de Rozel d Or, Maid Mabel Oxford, and Maid Daisy Oxford.

Ayrshires

Dr. Dickinson Gorsuch of Maryland was the only exhibitor of Ayrshires.

Maryland. LOUIS MCL. MERRYMAN.

After the War is Over

It doesn't take long to turn an army into a mob. Put two million men into camps with nothing to do, no fighting and mighty little drill—if any—and you'll have a mob spirit before you know it. This is one reason that Dr. John R. Mott, director-general of the United War Work Campaign, emphasizes the importance of continuing, long after the war ends, the service given by the Young Men's Christian Association, the Young Women's Christian Association, the Knights of Columbus, the Jewish Welfare Board, the War Camp Community Service, the American Library Association, and the Salvation Army, in America and overseas. Doctor Mott knows that the American army cannot be demobilized in a week. He knows it will take months to bring our soldiers home. He knows that most of the force will be in France or Belgium or Germany a long time after formal declaration of peace. The boys will need care and entertainment for many months after the Kaiser has ceased to worry them. That's why every American man, woman, and child should do something, give something to the United War Work Campaign fund of $170,500,000 in the week of November 11-18. Seven great organizations are combined in that campaign upon the president's suggestion. They do the work the government cannot do for the boys in the war zone. Give all you can when the man comes 'round. Don't let it be said that farmers wouldn't give to this fund. I've been denying that kind of talk for more than a year. Help me to make good on it. Of course no one who knows anything about American farmers can prove a word of this criticism, but it rankles just the same. Ordinarily I do not believe in repeating gossip. I am doing it here because I want my farmer friends to know just what has been said. I want the rural division to show up big and powerful in the November drive.—CHARLES DILLON, Director Rural Publicity, U. S. War Work Campaign.



"AND A WOMAN DID"

Miss Hawn traveled from Wisconsin to Columbus, Ohio, to tell the visitors at the National Dairy Show that women not only are able and competent to act as testers in cow testing associations, but that they are and have for some time been doing the work in a most satisfactory manner. The women are the reserve army, and without their assistance many a cow testing association would have to discontinue. Miss Hawn's story and demonstration convinced many a doubting Thomas and encouraged women to take up this work. After talking with her, men and women felt that what has been done can be done again. The woman tester has been tried out and those who know say she is quite as satisfactory as men, and her work in many respects is superior.

It Means Milk

"We are losing every year 300,000 children under five years old, a third of whom die from preventable causes." Thus speaks Mrs. Ira Couch Wood, chairman of the Child Welfare Committee for the Illinois Council of Defense. Continuing Mrs. Wood says:

"One of three things is the matter—either they are not getting enough food or they are not getting the right kind of food, or they have physical defects which could be remedied to make for proper growth. We have a very small percentage of people who cannot secure enough food. It is not a matter of poverty but of ignorance. Parents need education and re-education to bring home the fact that there are standards in child development and that the proper food in the majority of cases will bring the child up to the standard.

"Our children should be one hundred per cent perfect in this great free country where we have boasted that every man has his chance. Of course, some will be handicapped by heredity, but if our children are fed properly, we should be the foremost nation in the world. It means milk and butterfat and plenty of green vegetables, very little meat, and you get a sound diet for children."

In the past eight years South Dakota has nearly trebled the value of her manufacture of butter and cheese. In 1910 it was $8,185,890, and in 1918 it had increased to $23,454,825. Her annual butter production is 35 million pounds, an increase of 75 per cent over that produced eight years ago.

Beware of Cheaply-Built Separators

—They Cost More in the End

So-called "bargain machines" are usually made from poor, cheap material by unskilled workmen. They do not skim clean. They cannot stand hard, continuous service. Broken parts mean long delays and expense for repairs—and while the separator is standing idle, butterfat is being wasted.

With saving of fats so essential and butter values so great, no farmer should take chances with a wasteful, unreliable separator.

When you buy a Sharples, you are sure of its service. The great Sharples institution is behind it—as well as a nearby dealer. Sharples Suction-feed Separator is the only one that *skims clean at any speed.* No discs or blades in the bowl.

SHARPLES
SUCTION-FEED
CREAM SEPARATOR

The Pioneer American Separator

Write for catalog, addressing Dept. 10

THE SHARPLES SEPARATOR CO., West Chester, Pa.

Branches: Chicago San Francisco Toronto

DC-74



Victrola

The messenger of cheer

In homes throughout the land where the boys are absent in the service of Uncle Sam, the Victrola with its corps of noted artists is cheering the home-folks with its superb music and entertainment.

In the camps where our soldiers and sailors are gathered, the Victrola is also in active service doing its musical duty. Its cheering music and wholesome entertainment afford a welcome diversion to pleasantly while away the spare moments.

The Victrola is the messenger of cheer whose inspiring music is so necessary in these stirring war times. During the coming holiday season, it will find its way into many additional homes. And many new Victrolas and Victor Records will be among the Christmas gifts to bring joy to the hearts of the soldier and sailor boys in camp.

Victors and Victrolas $12 to $950.

There are Victor dealers everywhere and they will gladly demonstrate the Victrola and play any music you wish to hear. Write to us today for the handsome illustrated Victor catalogs and name and address of nearest Victor dealer.

Victor Talking Machine Co., Camden, N. J.

Important Notice. Victor Records and Victor Machines are scientifically coordinated and synchronized in the processes of manufacture, and their use, one with the other, is absolutely essential to a perfect reproduction.

New Victor Records demonstrated at all dealers on the 1st of each month

"Victrola" is the Registered Trademark of the Victor Talking Machine Company designating the products of this Company only.



To insure Victor quality, always look for the famous trademark, "His Master's Voice." It is on all products of the Victor Talking Machine Company.



YOU KNOW! If you're an experienced grocer **you know** that the housewife demands butter with the rich golden shade—**you know** that **DANDELION BRAND**—the old reliable butter color—gives just the right shade.

BUT DO YOUR DAIRY CUSTOMERS KNOW IT?

Sell them **DANDELION BRAND BUTTER COLOR.** It means higher butter prices for both of you.





We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.

WELLS & RICHARDSON COMPANY, Burlington, Vermont.

Manufacturers of Dandelion Brand Butter Color

Dandelion Brand Butter Color

The color with the golden shade

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Mich.	St. Joseph Co.	E. G. Barrett	Sept.	260	2	45	W. Friesner
N. H.	Claremont	N. E. Cross	"	264	10	71	L. P. Cross
Tenn.	Rutherford Co.	E. M. Prewitt	"	325	14	45	W. E. Carter
Wash.	Whitman-Spokane	R. C. Johnson	"	271	42	79	J. P. Graves
Penn.	Lawsville	W. A. Warters	"	375	14	51	E. Tiffany
Minn.	Winona Co. A	H. A. Dierking	"	327	21	80	H. Selvig
"	Winona Co. B	Roy Green	"	290	12	53	Feiten Bros.
"	Eagle Valley	R. Sheppard	"			56	I. L. Anderson
"	No. Milaca	O. Lundholm	"		15	48	I. Olness
"	Oak Center	R. E. Poehler	"		6	60	C. Sandberg
"	Ellendale-New Richland	H. A. Link	"			49	Sloan Bros.
"	No. Hennepin	T. O. Evans	"	366		77	C. Priebe
"	Dover	G. J. Spangler	"	298	6	49	J. A. Henry
Wis.	Sheboygan Falls	E. P. Lindow	"	397	2	46	H. J. Breher
"	Greenville	T. A. Schmit	"	357	8	51	F. Reimer

Association Notes

St. Joseph Co., Michigan—The co-operative feed stores and creameries are doing much to help solve the problems of the farmers of this county. Most of the farmers have one or more silos and are putting up more silage and of a better quality than for several years. Most of the members have their own pure-bred sires and will use nothing else. A large percentage are drying up their cows as fall freshening is the method followed. In September market milk sold for $3.30 per 100 lbs., the creamery paying 50 to 62 cents per pound fat. Milk retails for 12 cents per quart and butter 60 cents per pound. Alfalfa costs $40 a ton; oats, $45; bran, $38; oil meal, $60; cottonseed meal, $50; silage, $5 to $9. Pasture is very poor. A great number fed silage or hay all summer and maintained a fair flow of milk. The tester says: "The milking machine, the corn binder and husker, and the silo are the farmer's guns that will throw shells against the Huns with such force that nothing can resist them."

Claremont, New Hampshire:—One fine pure-bred bull has been bought. Farmers are buying nearly all their grain through the Farmers' Exchange. Milk sold for $3.33 per hundred in September, the average test required being 3.5%. The creamery paid 60 cents per pound for fat. Milk sells for 12 cents per quart and butter 55 cents per pound.

Rutherford Co., Tennessee:—J. Butler saved $50 in one month on his feed bill; W. R. Clark, $11; E. Carlson, $21; and R. L. Smith, $15. Three new silos were erected. B. B. Taylor purchased a pure-bred bull and Register of Merit work was started on 5 cows owned by Geo. Calhoun. Three unprofitable cows were sold. Milk sold for 30 cents per gallon in September. The creamery paid 56 cents per pound fat and butter sold for 40 cents a pound. September feed prices were about the same as for August, with exception of a decrease of $1.50 on pasture bills.

Whitman—Spokane, Washington:—In September market milk sold for $3.55 per hundred, the average test required being 3.6% and for each point above 5 cents were paid. Milk retails for 15 cents per quart and butter 60 cents per pound. Corn sells for $80 per ton; bran, $35; oats, $65; barley, $60; oil meal, $100; cocoanut meal, $70; alfalfa, $30; corn silage, $10; oat and pea silage, $10.

Lawsville, Pennsylvania:—In September 3% milk sold for $2.88 per hundred and 4 cents for each point above. The creamery paid 81 cents per pound for fat the last half of September. Prices for roughage in this association are: Silage without ears, $6.50 per ton; silage with ears, $8; corn stover, $12; clover and timothy hay, mixed, $25.

Sheboygan Falls, Wisconsin:—Four poor producers were sold during the month. Some members have been buying their winter's supply feed at the Equity to which all association members belong. In September market milk sold for $2.15 $2.30 per cwt. and retailed for cents per quart. Butter sold for to 67 cents per pound and cheese f 37c. Oats sold for $2.25 per cwt barley, $.98 per bushel; oil meal, $ to $63 per ton.

Greenville, Wisconsin—One registered cow was bought to replace unprofitable one that was sold. O member sold a registered sire to a other breeder after he had no mo use for him, thereby saving a prov bull. The condensery paid $.71¼ p pound fat and the creamery paid $. in September. Butter sold for 60c. pound and cheese for 37 cents. Fee cost as follows: Gluten, $56 per to bran, $34; oats, $50; barley, $5 corn silage, $5; corn stover, $7.

Pioneer, Idaho:—This report co ers the first 9 months of the thi year's work and compares favorabl with the corresponding periods for t two previous years. As heretofo some members have failed to profit the greatest extent because of failu to grasp the facts about different co in their herds as proven by the mon ly records left by the tester. The m progressive of the members—a n jority—have "doped out" the reas for this difference and the future is ing to see better herds as a result. is the consensus of opinion that weakest thing about fully nine-ten of the members is that their standa of herd sires is too low. If more them realized that an increase in production of their herds of from to 50 per cent could be realized just one generation they wo raise their standard. "A bull is o half of the herd", but how many as much for the bull as they do for rest of the herd? Some pay only o half as much for their bull as they for a single individual in their h The proper selection of the herd and proper rearing of the you heifer calves is of equal importanc the individual records of cows in n and the greatest improvement can be made until this fact is appreci

It is interesting to note, howe the achievements of our best da men who have made a large 50 per cow butterfat list each mo Over 40 cows were sold during th 9 months for beef and about 40 be cows purchased in their stead incl ing a great many registered fem from high producing ancestry. On average of about 1 pure-bred bull month has been purchased makin bought during the 9 months.

While feed has been high an great many have given this as an

Cut Out *ALL* Cream Waste

Get $20 More Butter-Fat Profit Per Cow

STOP losing cream through out-of-date and inefficient separation methods. Take a lesson from the Swedish farmers. Their farming conditions have compelled them to put out *all* cream waste. Their demand for *perfect* cream separation has produced the most efficient cream separator in the world—the VIKING. Get ALL the cream—ALL the profit that it is possible to make from each cow. Use a

VIKING CREAM SEPARATOR

Lower in Price—Greater in Capacity

You save money when you buy a VIKING. You add to your butter-fat profits every day you use a VIKING. Expert's tests prove that the VIKING actually has 100 pounds of milk greater capacity per hour than many separators costing more than the VIKING. World-wide demand for VIKINGS has built up the largest separator factory in existence: 180,000 VIKINGS are sold every year.

More Than ONE MILLION in Use

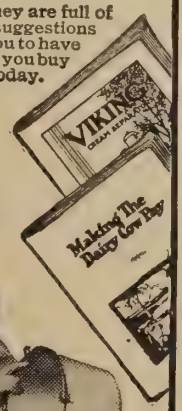
It is the simplest separator made today. Easiest running. Operation starts **at once** with the turn of the handle. Whole bowl can be cleansed in 3 minutes. Nothing but the highest grade steel enters its construction.

It is Guaranteed For a Lifetime

Everywhere it is used it proves itself a profit maker for the farmer. It will pay you to investigate. Drop in on your local dealer and see the VIKING in operation.

Get These 2 Books FREE

Send for these books. They are full of practical, profit-making suggestions for the farmer. We want you to have the profit by them whether you buy VIKING or not. Write today.



Swedish Separator Company
Dept. N 507 So. Wells St.
Chicago, Illinois



cuse for selling out, the only real excuse should be the inability to secure competent labor, as a comparison of cost of production shows that last year's average returns for $1.00 expended for feed was $2.60 while this year it is $2.86. Last year's cost of producing 1 lb. fat was 18 cents while this year it is only 21 cents with butterfat selling for 52 cents. Last year it was only 47 cents.

R. M. SHARP, Tester.

Sweet Cream Rule Explained

By a new rule specifying that cream sold for direct consumption shall contain no more than 20 per cent butterfat, the U. S. Food Administration seeks to limit the luxury use of this important fatty nutrient. The 20 per cent maximum restricts the sale of so called "double" and "whipped cream" and other kinds prepared chiefly for special purposes not permissible in the face of present shortages of fats abroad. The rule applies directly to licensed dealers and through them restricts ultimate consumers, including housewives, hotels, restaurants, and institutions.

To prevent misunderstanding of this regulation by dairymen the Food Administration states very clearly that it does not affect or in any way apply to cream used for buttermaking, ice cream making, or other manufacturing purposes. In fact, a richer cream—one testing between 30 and 40 per cent butterfat—is more desirable for most manufacturing operations, especially buttermaking, where a high butterfat content means a minimum of labor and a generally lower cost of operation.

The full text of the cream rule which is now in effect follows:

"No licensee shall sell sweet cream which contains more than twenty per cent butterfat to consumers or retail distributors of cream, provided that this rule shall not prevent the licensee from selling sweet cream containing more than twenty per cent butterfat to manufacturers for manufacturing purposes."

Amongst other benefits that should result from this rule is a somewhat greater supply of market milk for larger cities. The luxury cream trade is most highly developed in large centers of population and a considerable quantity of milk must be skimmed to secure the extra richness now prohibited by the need to conserve fats.—U. S. FOOD ADMINISTRATION.

A New Zealand Milk Man

A perfect milkman appeared before the Second Military Service Board of New Zealand at Wellington last month. The Wellington Times reports that he said his milk went straight from the cows to the consumer's belly. He sold his milk only to families where there were babies crying for pure milk. He had numerous testimonials from grown-ups as to the purity of his milk. His coolers did not leak, and he sold his milk a penny cheaper per pint than other milkmen. Letters produced to the board showed that the curate of the district spoke of appellant's "glorious milk". A communication from a milk inspector testified to the fact that it was waste of time to examine appellant's milk. Another letter spoke of the grave concern of the mothers of the district if their milkmen had to go into camp. Finally there was a letter from a proud mother stating that after giving her baby the wonderful milk of this wonderful milkman the infant put on 10 lbs. in less than three months. The board did not hesitate a moment but granted the appeal.—Leader (Australia.)

Five dollars will provide a lot of good things for your boy at the front.



Rubber Footwear in "No Man's Land"

"Over there" our boys are fighting knee-deep in mud. Keeping fit under these conditions is difficult. Rubber footwear has therefore become almost indispensable for men in the trenches.

To keep America's troops supplied with rubber footwear is all-important. Men who are fighting must have first choice. This limits home supplies but saves valuable lives overseas.

Our outdoor-working customers, we are sure, will cheerfully meet this situation. We regret our inability to take care of every demand for "U. S. Protected" rubber footwear. We thank our patrons and look forward to serving them again. Until then, look for the "U. S. Seal" on every pair and remember the name.

United States Rubber Company
New York

U. S. Rubber Footwear

EXTRA DOLLARS From Surplus Milk

Capitalize on meatless days by converting your surplus milk into cultured buttermilk and delicious cottage cheese. Meatless days offer you the opportunity to build up a profitable business for your milk by-products. Market these products to your trade in that ideal container

KLEEN KUP

The Package of Quality for Foods of Quality

Nearly a hundred experts under the direction of the U. S. Department of Agriculture are busy demonstrating new and palatable forms in which to serve cottage cheese. They are also educating housewives in its food value—more than equal to meat, pound for pound. They are building business for *you*.

Get our plan for making extra dollars from surplus milk. We'll send you samples and the Kleen Kup story—*free*. Write today.

THE MONO-SERVICE CO.,
Newark, N. J.



Only $2 DOWN ONE YEAR TO PAY



$38 Buys the New Butterfly Junior No. 2½. Light running, easy cleaning, close skimming, durable. **Guaranteed a lifetime** against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here.

30 DAYS' FREE TRIAL Earns its own cost and more by what it saves in cream. Postal brings Free catalog-folder and "direct-from-factory" offer. Buy from the manufacturer and save money.

125,000 now in use

ALBAUGH-DOVER CO., 2161 Marshall Blvd., CHICAGO

Was $100 Now $49



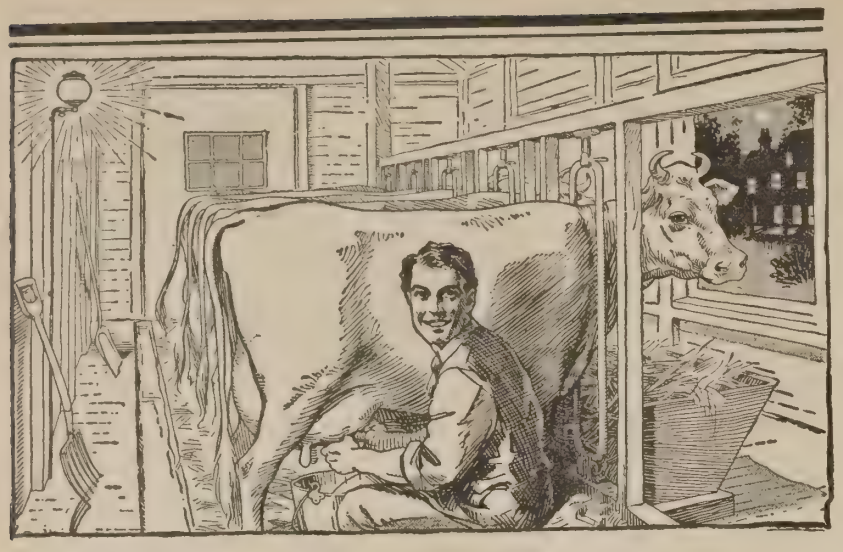
NOT A CENT DOWN

The Oliver was the biggest value on the market at $100. We reduced the price to $49 by cutting out wasteful sales methods, sending it straight from the factory on free trial. You pay at the rate of $3 a month. This means a brand new machine—never used—not a rebuilt or second hand. Write today for booklet "The Oliver on the Farm" and full particulars.

The Oliver Typewriter Co., 3088 Oliver Typewriter Bldg., Chicago, Ill.

After January 1st—Price $57

When writing advertisers please mention Hoard's Dairyman.



"Yep! I like milking, now I've got a light to see by!"

"WITH that big globe of Carbide Light shining down on everything it seems as though I could almost find a needle in the hay. When Winter comes on and the days are short it makes a powerful sight of difference, now we've got a Colt Lighting Plant. Seems like living!

"I got another light fixed outside the barn. When we come in at night from visiting, I can unhitch, as you might say, in broad daylight.

"The Lord was good to us last year. The crops paid fine. The one thing we'd been longing for was modern, up-to-date lighting. So we got a Colt Plant. Now we're happy. Yep! *real* happy.

"Why a Colt Plant?

"Where is there a plant can touch it? Look at the light! Beats the others all to pieces! Makes them look like lightning bugs!

"Listen! Once a month I drop a little of this carbide — it's like crushed stone—into the generator that stands in the corner of the cellar—and add a little water. For the rest of the time we don't even know the Colt Plant is in the house.

"Couple of years ago, when I was down the river, I saw miners going down into the coal mines, each with a little carbide lamp on the front of his cap. They've got the whole town lighted up with Carbide Light down there.

"Thinks I, if it's good enough for them, it's good enough for me! Later, I found a number of our neighbors have them. Judge Foster has a Colt Plant.

"Here comes the wife to tell me supper's ready. She cooks it on the Colt Gas Stove, you know—'bout ten or fifteen minutes over the same gas that lights the house and barns. So long."

Carbide Lighting COLT and Cooking Plant

TRADE MARK

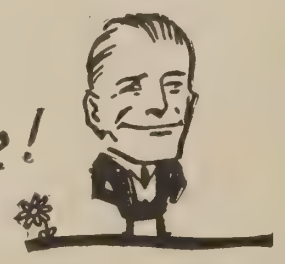
There is no other system so economical as the Colt Carbide Lighting and Cooking Plant. There is nothing to get out of order, nothing to wear out. It is practically indestructible. Silently, automatically, it gives the most powerful, soft white light known to scientists. After 18 years of competition it still outsells all rival lighting systems for country homes.

Write today for the names and addresses of neighbors, who are enthusiastic in its praise. Over 250,000 families light their homes and do their cooking in this way.

J. B. COLT COMPANY, 42nd Street Building, New York

902

That good Gravely taste!



Real Gravely is the common-sense chew for men. It is economical. A man gets his tobacco satisfaction out of a smaller chew and fewer of them. The good Gravely taste lasts a long while. Two or three small squares of Real Gravely stays with you longer than a big hunk of ordinary plug. Each piece is packed in a pouch. These are the plain facts about Gravely Plug Tobacco.

• • • •

It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND

Real Gravely Chewing Plug

10¢ a pouch—*and worth it*

P. B. GRAVELY TOBACCO CO., DANVILLE, VA.

The Cost of Producing Milk

(Continued from page 512)

to our computations the corrective factor for the Michigan formula would be 45.8%, but owing to the lack of complete data we are unable to give it for the Indiana formula.

To illustrate the comparative approximate cost of producing 100 lbs. of milk according to the various formulae, the following prices may be assumed: Grain, $50 per ton; hay, $20 per ton; silage, $6 per ton; labor, 25 cents per hour. Applying these arbitrary prices and using the corrective factors previously described we procure the results shown in Table VI.

Table V—Comparison of Several Surveys Showing the Items Entering Into the Cost of Produ 100 Lbs. Milk

Factors in Formula	Pearson	Modified Pearson	Warren	Hoover	Indiana	Mich
Grain, lbs.	44.00	44.00	33.80	33.50	28.9	28.
Hay, lbs.	50.00	110.00	43.30	45.30	38.1	34.
Silage, lbs.	188.00		100.50	102.60	104.8	110.
Roughage, lbs.	39.00		10.80	11.50	9.9	15.
Labor, hrs.	2.42	3.00	3.02	2.88	2.4	2.
Corrective factor	0	0	25%	23.7%		45.

Table VI—Cost of Producing 100 Lbs. Milk According to Certain Fixed Prices as Applie Different Formulae

Factors in Formula	Pearson	Modified Pearson	Warren	Hoover	Indiana	Mich
Grain	$1.100	$1.100	$.845	$.838	$.723	$.
Hay	.500	1.100	.433	.453	.381	.
Silage	.564		.301	.308	.314	.
Roughage	.078		.023	.023	.020	.
Labor	.605	.750	.755	.720	.600	.
Total feed and labor	$2.847	$2.950	$2.357	$2.342	$2.038	$1.
Correction	0	0	.589	.555	?	.
Total cost	$2.847	$2.950	$2.946	$2.887	?	$2.

Dairymen Must Co-operate

(Continued from first page.)

and the consumers.

Farmers must organize or be lost in the onward movement. Milk producers have understood this and have federated their organizations, and their federation has united with the greater federation of all other farm organizations that is here convening.

The National Milk Producers' Federation now covers the greater portion of the dairying territory of the nation from the Pacific to the Atlantic. Not yet does it take in all producers, but does incorporate most of the larger organizations.

It is growing rapidly, notwithstanding the obstacles placed in its way during the first few months of its life. Dead and sleeping laws are dug up and used by prosecuting officials in some of our cities to indict our officers. All kinds of propaganda were used against us. The government did not understand our business, our trials, our profits, and our losses any better than we did ourselves; and why should it?

We were fought by great interests and we are yet; we were preyed upon by adroit and well financed concerns wearing the garb of innocence, but sapping our life with low prices perfectly agreed upon; by some feed companies selling us ground weed seed, oat hulls, and dirt at great prices, in fact we were the easiest marks in this great republic.

We have gained much in the time since we organized, and we have only started.

1. We have gained the respect of an honest press, because we have convinced them that our cause is just. I consider this the most important gain of all.

II. We have secured the co-operation of the general government in our cause. The Food Administration and The Department of Agriculture have rendered valuable service to the producers and as valuable to the consumers.

(a) A natural prejudice against the industry created by the interests (oleo dealers and manufacturers) has been changed to one of friendship.

(b) Investigations have been conducted into the cost of producing milk, and many profiteering, unfair agents of the middlemen in the dairy business have found other fields for their activities than in these departments.

(c) The government, both food and agricultural, have through scientific investigation ascertained the absolute necessity of milk and milk products to the perpetuity of the race, and have so advised the people.

(d) They have taught the people the cheapness of milk and milk products as a food as compared with other foods even at the advanced costs.

III. We have secured the respect and we trust the continued friendship of state and city officials over the country. Indictments and prosecutions have all been dismissed or practically abandoned; public sentiment has been changed. The justice of our cause has been established, for no other industry has so completely offered itself to the country as ours. We have dedicated it for the war at cost of production plus such reasonable profit as the government may be willing to fix.

We have shown the powers that milk products for food value, for lesser shipping space, in cost to the government and consumers, was many times more economical than canned meat, and that the demand was as great as the consumers were to be consulted.

We are denied equal opportunity in the feeding of the army and navy. Our products are no part of the army rations, while the great packing industry and others are given attention that is only explained by telling that the buying boards do not call for our products.

If this be true, then why is it that when the people of the allied nations are without them, and paying inordinate prices for them as food?

We are satisfied so long as patriotism demands our acquiescence, but not when profiteering interests are at the base.

We do not ask the government for protection, for its active support or insurance against loss, except as the government destroys our law of supply and demand either by regulation in the home market or denies us the foreign market.

We have been promised that better prices would prevail generally, and are assured by the government that the cow population of Europe is greatly decimated that milk and milk products are practically unknown, that our industry must replenish the allied nations after the war, and that we have held on to our cows, though knowing that we are doing so at a positive loss.

But there are at least two remedies. One of them is to sell the cows and get for them the best meat prices that have ever prevailed. This seems a pity, with the world suffering for milk and milk products. It would

reat sacrifice to the farmer who
a at least two billions of dollars
n sted in his preparation for pro-
du ng milk. If he quits it will take
re s to return.

ne other course is through or-
ga zation and co-operation.

his government is spending tens
of billions of dollars for war pur-
po s. Untold billions are being spent
fo munitions, for cantonments, for
cl ing, for manufacturers of all
ki s and no dollar of it all, except
h dollars paid to the farmer, is used
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hen condensed milk, butter, and
h se, evaporated milk, etc., is pur-
h ed for war or civilian purposes
y he government, care is taken to
a the manufacturer cost plus a
pr it, but no attention is paid to the
co of the farmers' milk from which
h product is made.

the preservation of the dairy in-
du ry is one of the vital necessities
fr the war and now, would it not
be vell for the government to insist
h the manufacturer who sells to
h government should certify that
h product he offers has been made
fr a milk at a price to the farmer
co ring cost plus a reasonable
pr it?

hese manufacturers are licensees
f he government. The law provides:
Whenever the President shall find
a any storage charge, commission,
pr it, or practice of any licensee is
un ust, or unreasonable, or discrim-
in ory or unfair, etc.", the license
m be revoked, penalties inflicted, or
th President may order the course of
be ing to correct the same.

his, of course, related to the Food
ad inistration and other appointive
of ers of the President.

would seem to the layman that
ad le power is given to protect the
in producers from the oppressive
ac ics that are being used against
in by the conspirators from whom
th government is buying.

ntil every remedy is exhausted,
fr l every petition has failed, we
sh l hope for such relief as will per-
in the farmer to continue in the
da y business.

he consuming public would not be
di ult to convince about the justice
of ur cause. The American people
ar fair when given the facts, but the
ma ipulators of our business and of
ou markets are unfortunately the
pr ers and manufacturers. They
ar presumed to know the ropes and
ca use them.

Herbert Hoover, Food Adminis-
tor, could personally give the time
to he details of our cause, he would
ex t the wrongs under which we suf-
fe at once, but he cannot. He is hon-
es and never hesitates to hew to the
li when he sees it.

is duties are so multitudinous, so
ld-wide, that others must be sub-
sti ted for detail work and for exec-
ti e action.

ut there is hard work ahead and
we are going to do it.

We will go over the top in every
pa l and patriotic duty, we will sup-
po the government and follow our
le ers, we will cheerfully aid our
sa iers and sailors and give our sons
fo he cause for which they are fight-
in but we will not remain silent
wh le the greed of inordinate prof-
its rs rifle our pockets and destroy
ou business.

ur sure relief is in organization
an if necessary in legislation. We do
no believe that the country will re-
ma n deaf to our appeals.

he above are extracts from the
re ess given at the Farmers' Con-
en nce in Washington, August 27th
an 9th.

When the boys are home and back
in civilian garb we can cease work-
ing for them. But not before.



Good Roads Will Triple Truck Value to Nation!

Trucks—more trucks—hundreds of thousands of motor trucks are working day and night to help the nation in this great struggle.

Every train that moves—every ship that sails—every factory that works depends on trucks for hurry-up haulage. 585,000 trucks will be in service this year—capacity to handle 5,585,000 tons daily.

An invaluable service—almost incomputable—yet seemingly impossible, when you consider the horrible roads over which these trucks are many times compelled to travel.

No one can help but realize the terrible economic waste! The inefficiency! The awful handicap of this weak link in America's haulage system. The value of motor trucks to the nation—to American Industry—could easily be doubled, probably tripled, if good highways were provided.

Federal made a test. A truck, heavily loaded, going over various types of roads. The results are startling! Here are the mileages recorded:

Dirt Roads - - 4.6 miles per hour
Gravel Roads - 9.5 miles per hour
Concrete Roads - 16.4 miles per hour

The answer must be better highways! And they should be built immediately! You and I must be interested; therefore every citizen should lend his voice to the cause, now!

Federal Motor Truck Co.

Detroit, U. S. A.

One to Seven Ton Capacities

Return Loads Will Cut Your Costs

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COW BOY SURE HEATER for STOCK TANKS



HELP FEED THE WORLD

Don't Waste Grain; but Save it and Produce more **Meat, Butter and Milk** by warming the drinking water for your stock with coal, wood or cobs with a

COW BOY TANK HEATER

Quickest to heat; strongest draft; adjustable grates; ashes removed without disturbing fire; keeps fire 24 hours.

Absolutely Safe; pays for itself in 2 months with 4 cows; **Self-Sinking;** can be used in Wood, Steel or Concrete Tanks of any size. Most reliable, practical, efficient and durable Tank Heater manufactured.

"Purchased 8 of your Tank Heaters last Winter, worked very satisfactorily and are well worth their cost. Every Stockman should use one." W. H. Pew, Prof. of Animal Husbandry, Iowa State College, Ames, Ia.

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1647 Empire Building, Pittsburgh, Pa.

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Coming Events

Farmers' National Congress meets in Jacksonville, Florida, December 3-6, 1918. President, J. H. Kimble, Port Deposit, Md.

Wisconsin Cheesemakers' Association meets Jan. 8—10, 1919, at Milwaukee. Secretary, J. L. Sammis, Madison, Wis.

Wisconsin Dairymen's Association meets at Menomonie, December 5 and 6. Secretary, P. C. Burchard, Ft. Atkinson, Wis.

Hoover Telegraphs Cooper

The United States Food Administration has made public the following telegram to Mr. R. D. Cooper, President of the Dairymen's League of New York City:

"I understand from various parts of the country, that while negotiations are proceeding in New York with a view to arriving at a fair voluntary arrangement of milk prices between producers, in which your association is represented, together with consumers and distributors, you have been telegraphing over the country asking milk producers' associations to make demands in Congress for congressional investigation of Food Administration's efforts to secure agreements in milk disputes.

"I wish to state plainly that the Food Administration is not intimated by such tactics, and I do not believe they are supported by the responsible dairymen of the country, whose proper interests we have at all times endeavored to protect.

"We have not the slightest objection to any investigation, but it is desirable for you and the people of New York to consider that while every district in the country east of the Mississippi has been able to arrive at agreements satisfactory to all sides, your association is demanding more than any other section of the country, even after consideration of every fundamental difference in your economic situation.

"The patient, painstaking negotiations in New York have extended for weeks under the guidance of Messrs. John Mitchell and Arthur Williams, assisted by Doctor King and Judge Lamb, all fair minded men of no interest but justice to both sides. The two latter have assisted in settling satisfactorily disputes all over the country, and I have the fullest confidence in the knowledge of all these gentlemen of intrinsic conditions in the industry, and their desire to maintain milk production and give a square deal to the consumer.

"The price proposed by them for the New York district of $3.81 for three per cent milk is based upon a profitable return to the producer, as evidenced by all other agreements in the country and differences in your local situation, and takes full account of increased wages and other expenses. With some sacrifice by the distributors, it will result in sixteen cent milk to the New York consumer, the highest price ever paid for milk.

"Your demands, which result in seventeen cent milk, I consider are based upon an attempt to profiteer, and will react upon the dairymen by decreased consumption. This decrease in consumption will come from the poor children of the city to whom milk is vital.

"The Food Administration has no authority or wish to impose prices upon producers. We entered these negotiations at the instance of all interests, lending ourselves as mediators, to arrive at collective bargains, with the Administration giving effect by agreement to such fair conclusions as may be adopted by all interests.

"If, in failure to secure agreement among parties as in this case, you are not prepared to accept our impartial views, and play the game fairly, we can do no more and will leave the matter in the hands of the citizens and authorities of New York to take such measures as they may see fit.—HERBERT HOOVER."

[EDITORS' NOTE:—Mr. Hoover speaks of $3.81 as the price proposed by representatives of the Food Administration. We take it, this must be the November price, as the price for October was set at $3.57].

New York Butter Market

NEW YORK CITY, Oct. 29—Houses are literally full of under-grade butter; buyers are extremely critical; demand is limited; and handlers are very nervous. As those conditions have been prevalent for better than ten days the conditions of the market cannot be said to be very satisfactory. There has been, as usual even under the most trying of conditions, a good demand for butter of high quality, which again supports the old contention that the creamery that makes quality its watchword need have no worry about a constant and desirable outlet for its butter. At this time jobbers and retailers are especially hard to satisfy. If they can not find extras or better at the source of their regular supply they do not hesitate to pass from one store to another until their desires have been satisfied. As a consequence there is a great accumulation of under-grade butter and a corresponding scarcity of higher scoring butter. Creameries which have been shipping butter that would score extras or better seem to be having considerable trouble with their quality at present. For some unknown reason a high percentage of butter being received has a strong oily flavor which is very unpopular among butter handlers. At this time with buyers extremely critical that feature stands out more markedly than it would otherwise.

Even with conditions as they have been for several days the market quotations have had a tendency to rise. That is due entirely to the fact that there is a strong demand for high quality butter. It is very noticeable, however, that under-grade butter has not risen in price in proportion to the advance of high quality butter. There is an extreme effort being exerted on the part of buyers to purchase under-grades at an extremely low price which has a tendency to hurt their sale. Handlers will not sell much of their holdings of low scoring butter for the prices that are being offered at present.

On Wednesday of last week quota-

Sale Announcements

Nov. 11—Holsteins. Porter County Holstein Breeders. J. B. Turner, Sec'y., Valparaiso, Ind.
Nov. 12-13—Holsteins. Waukesha County Holstein Breeders' Semi-annual Sale. Waukesha, Wis. W. L. Baird, Sec.
Nov. 14—Jerseys. Texas Jersey Cattle Club Sale at Waco, Texas. Mrs. J. Riley Green, Mgr., Wolfe City, Tex.
Nov. 14—Holsteins. Maryland Holstein Sales Co., Frederick, Md., Wm. P. Morsell, Sales Mgr.
Nov. 14—Registered Jerseys and Holsteins. Alvin C. Green, Morris, Ill.
Nov. 14-15—Holsteins. The Holstein Breeders' Sale Co's. Consignment Sale at Fond du Lac, Wis. S. H. Bird, So. Byron, Wis., Mgr.
Nov. 19—Guernseys. Dispersion of W. J. Heid's Guernsey Herd at Ft. Atkinson, Wis.
Nov. 20—Jerseys. J. H. Reichert, Reading, Pa.
Nov. 20—Guernseys. Parker & Coggshall, Moravia, N. Y.
Nov. 20—Guernseys. Dispersion of Rush Chapman's herd of Registered Guernseys at Fort Atkinson, Wis.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Nov. 26—Holsteins. Tri-county Holsteins breeders' second semi-annual sale at Dixon, Ill. Sales Mgr., E. M. Detweiler, Polo, Ill.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 6—Holsteins. Elliott Bros., Woodward, Iowa.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Bigger Money In Butter

"BUTTER prices are to soar," say the men who know.

"ARMY and Navy needs must be supplied!"

"PRICES are likely to reach levels never before heard of in the history of the trade!"


BUTTER PRICES ARE TO SOAR
Consumer Need Not Fear Cold Storage Supply; Lucky to Get Any.
The butter consumer need not fear storage butter being forced upon him this winter. In fact, he will be fortunate if he is able to buy butter at all. Army and navy needs must be supplied and most of the butter in cold storage has already been shipped or is in the process of being transported to camps and cantonments in the United States or across the ocean. As a result the domestic consumer will have to rely chiefly on the fresh receipts.
The winter months are those of lean production and prices are likely to reach levels never before heard of in the history of the trade. An ineffectual effort was made to have the food administration fix a maximum price.
TRIED FREE; TIME: 1 HOUR

Clipping from Chicago Daily News, Oct. 22

MAN ALIVE, there's the chance of a lifetime, this winter, to turn your cream into money by turning it into butter. If you're not making every pound of butter you can—if you're not making it the easiest, quickest, most profitable way—if you're not using a modern, labor-saving, money-making butter machine—get in shape right now to take advantage of this unusual opportunity!

Now's the Time to "Cash In" On This!

The MINNETONNA BUTTER MACHINE is built to meet the present demand for quick, profitable butter making—to overcome labor shortage.

It churns, rinses, salts and works the butter in 25 minutes—does it better than it can be done by hand—does it while you go about your other work.

It turns every ounce of butterfat into rich, fine flavored creamery butter that brings creamery butter prices, or better.

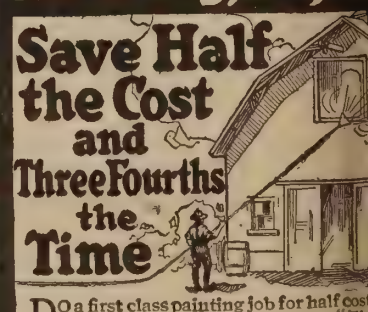
The illustrated Minnetonna Book is packed with money-making butter secrets. Have you seen it? If not, don't wait until someone else has "cornered" the MINNETONNA butter market in your community—*write for it now!*

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Factories in Five Cities

ons on extras advanced one-fourth one-half cent, establishing a price 57¼@57½c. On Thursday the iotation became established at 57½c hich held on Friday and Saturday. n Monday there was an advance of half cent and there is no further ange today which leaves the estab-shed quotations as follows: Extras 92 score), 58c; higher scoring than tras (93 score or higher) 58½@ c; firsts (88 to 91 score), 56@ ½c; and seconds (83 to 87 score), @55½c. Unsalted butter is mov-g very slowly and is selling for nat it will bring.

W. B. LIVERANCE.

iscussion of Milk Situation in Greater New York

Mr. John D. Miller, representing e Dairymen's League, has prepared brief on the milk price controversy New York which has been forward-to Herbert Hoover, U. S. Food Ad-inistrator. The representatives and embers of the Dairymen's League el that the U. S. Food Administra-on has not comprehended fully the eatment which has been accorded to em and they have set forth in pam-let form the reasons why the milk oducers for the city of New York e dissatisfied. The following is a eral extract from the brief.

"Declared Purpose of the Food Ad-inistration: It was orally stated by r. Hoover to representatives of this ganization, in October, 1917, that e purpose of the Food Administra-on was that the producer should ve cost of production plus a fair ofit.

"In the light of these declarations rmit us to review subsequent ents.

"Summer Prices to Producers: For e months of April to September, in-sive, the prices to dairy farmers re were below those paid in ad-ning districts; below the average tion-wide prices, and far below sts of production.

"These low prices to farmers were t voluntary on their part but were e result of market conditions, one which was the obstructed foreign rkets. In other words, the law of pply and demand determined these ces, which without exaggeration y be termed cruelly low.

"During these months no depart-nt of the government interfered protect the farmers, or to give m their costs of production, much s a profit. Apparently the Food lministration sat by, content if only ices to consumers were low. This s a wide departure from your as-rances of costs plus a profit.

"Autumn Prices: Market condi-ns have now materially changed. e law of supply and demand now stifies and requires a price that will e the farmers their costs plus a ofit. When they attempted, how-er, to adjust their prices in accord-ce with such market condition, the od Administration immediately in-fered to prevent the operation of e law of supply and demand, and quired the farmer to sell for a price ver than that determined by such v.

"In other words, the effect of the in-ence of the Food Administration on the entire industry during the ar has been that the law of supply d demand is permitted to operate en it results in a low price to farm-, but it is not permitted to operate en it results in a high price to m. Such a course will destroy any lustry. This again is a departure from your announced policy of costs plus a profit.

"October Price: To maintain any industry, price and confidence are both important. After repeated conferences with the dealers and with your representative, no price for October was agreed upon. Your representative neither adjusted the differences nor determined the price. The time was growing short. The farmers were compelled to act. They found that the cost of production of October milk was $3.65 per hundred pounds. The dealers, several hundred in number, agreed to accept this production cost as the price, and contracts were made accordingly.

"After all this was done, and after the farmers had accordingly contracted for their October feeds and labor, your representative, over our solemn protest, insisted upon the abrogation of all these contracts and named a lower price, closing his eyes to the danger and confusion that would result and has resulted in so doing.

"Consumers are more able to pay a fair price than are farmers to sell at less than cost. Milk at 17c a quart is the cheapest form of animal fat food on the market, and if consumers cannot afford to buy it, it follows that they are unable to buy such food in any form. This means that the farmers are asked to reduce their prices not as a business proposition, but as a charitable one. We do not believe that the people of the city want charity. They want, and should have justice. Convince them that the prices charged them are reasonable based on costs of production and distribution, and they will pay such prices.

"Effect on Consumption of Giving Farmers Their Costs: It is suggested that to give farmers their present costs will decrease consumption and thereby react on producers. We answer that this is not necessarily so. Much depends on the Food Administration. If such Administration announces to the public in clear and concise terms that the prices are reasonable, based on costs of production and distribution, consumption will very soon return to normal. We repeat that the consuming public is willing to pay a fair price if they know it to be fair.

"We recognize that the producers and consumers are bound together by economic laws which they did not make, and which they cannot repeal. It is to the interest of the consumers to pay the farmer a fair price, thus insuring adequate production.

"Comparative Prices: It is fair to state that it costs as much to produce milk in this territory as throughout the country. A comparison of prices received by the farmers in this territory with nation-wide prices is of interest. In the following table we state in the left hand column the average nation-wide prices paid to producers for milk at wholesale, and in the right-hand column the price received by producers here for the month, stated, to-wit:

	Cents per quart	Cents per quart
April	5.5	6
May	7.5	5.6
June	7.5	4.5
July	7.4	5.4
August	7.7	6.4

"The nation-wide prices are taken from the Government Crop Report. Can the industry here survive if this disparity in price continues?"

Regulations to Save Tin

Canners of evaporated and condensed milk, at a conference on September 27, with officials of the Food Administration, agreed to lend their influence in the conservation of tin plate. Evaporated and condensed milk, which heretofore has been put up in four sizes, namely, 6, 12, 14 and 15 ounce cans, will, when the supply of tin plate now on hand is exhausted, market their product in only 14 and 15 ounce cans.

The elimination of the 6 and 12 ounce cans, commonly termed "baby" and "family" sizes by the trade, will effect a saving of 10 per cent in the amount of tin plate used in this industry, exclusive of that which is needed by the army and navy.

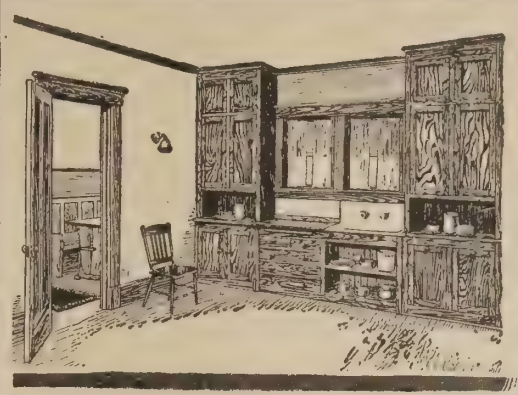
Those in attendance at the conference were: L. R. Hardinbergh, Carnation Products Milk Company; Walter Page, Libby, McNeill, and Libby; Charles S. Parson, Borden's Condensed Milk Company; John Harris, Wisconsin Butter and Cheese Company; Taylor Wilson, Indiana Condensed Milk Company; and H. C. Hooks, Hire's Condensed Milk Company.—FOOD ADMINISTRATION.

The U. S. Public Health Service reports that the southern disease, pellagra, is largely, if not entirely, due to a faulty diet. When meat and milk are supplied in adequate quantity there is a practical security against this disease which last year caused 3,700 deaths.

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EDITORIAL COMMENT

FEEDING CULL BEANS

We purchased the other day two tons of cull beans from a Michigan firm as an experiment in feeding dairy cows. Beans are rich in protein, and serve well to balance up against ground barley and corn. They are said to be a very profitable feed for young hogs, taking the place to a certain extent of tankage and oil meal. They should be clean, well dried, and cured and ground before being fed. As to the proportion with other feed we will know more after experimenting with them. They are sold for $42 a ton, bags included, to which freight should be added.

SILAGE SETTLING AWAY FROM THE WALL

In the issue of Oct. 18 this question was discussed but the real reason was very lightly touched upon. When silage settles toward the center and away from the wall it is because of a fault in filling. The outside should be constantly kept at least two feet higher than the center. The silage drops mainly in the center unless handled with a flexible distributor at the end of the blow pipe. All silos filled from a carrier drop the silage in the center or nearly so. This makes the center hard. If forked out to the wall and well tread the center as it rises wedges out and holds the outside silage snug to the wall, thus preventing the air from getting in and molding the contents.

Silos should never be kept level when filling. Rather the outside should be high enough to resemble a large saucer. Hoard's Dairyman Farm adopted this rule twenty years ago and has never been troubled with the silage settling away from the wall. In this way we can make good silage of rather uncertain corn because the heat and settling expels the air and the contents hug the wall snugly.

MILK FOR WOUNDED SOLDIERS

The Dairy Division is laying plans with the American Red Cross for the purpose of establishing a 1,000-cow dairy at Bordeaux, France. The principal base hospital is located at Bordeaux and it has a capacity of about 40,000 beds. The Division has been informed that a certain number of men, particularly those who have been gassed, require fresh milk and that the milk supply in Bordeaux is very short and a great many children are suffering for the need of it.

It seems out of the question for the War Department, according to Mr. Rawl, Chief of the Dairy Division, to secure anything like a sufficient amount of milk for the patients who need it. Many patients do not require fresh milk, so milk powder, condensed milk, etc., are fairly satisfactory.

Mr. Rawl informs us that the Red Cross has secured the services of Mr. W. H. Jeffers to go to France as chairman of the committee to organize this 1,000-cow dairy. It is quite possible that some one from the Division will also take part in this undertaking. It is not an easy affair, under existing conditions in France, to operate a large dairy but if the wounded soldiers need the milk, as no doubt they do, the Dairy Division is only too glad to put forth every effort possible to secure it for them. The matter has not been finally decided but it is hoped it will be definitely determined at an early date.

THE COST OF PRODUCING MILK

It would be interesting, if it were practical, to bring together all the milk cost accounting data that has been developed in various sections of the country during the past few years, but the discussion elsewhere in this issue is restricted to what was shown at the National Dairy Show this year. It is to be remembered that the data given are concerned with the average costs of production in various market milk producing sections, and are presented with the purpose of driving home the thought that adequate prices must be paid for milk that the average producer will be induced to continue its production.

At a later date, it will be interesting and instructive to study the data somewhat more thoroughly in order to learn what made the costs of production lower on one farm than another. More intelligent feeding, with a larger use of legume hay and silage, would doubtless be found to be one of the large factors, as would also the breeding and feeding of higher producing cows. Then, too, in all this cost accounting work it must be remembered that, on most dairy farms, the cows and the general farm work are closely interwoven and they work together harmoniously for most economical production. Again, there is the large psychological factor (or economic factor, if one prefers) to be considered, dairy farming offers the man most concerned the opportunity of making the best use of labor and feed that would otherwise be wasted.

For their particular purpose the figures quoted in the discussion referred to are excellent and necessary, but considering the future of the industry they should and must be supplemented with constructive information as to how these costs may be reduced. We have traveled this road for many years and some men have grown weary with the repetition, but the fact remains that any industry must ever seek to adopt the most economical methods of production if it is to succeed in the competition to which it is subjected. In our fight for adequate milk prices, let not the other factors of success be overlooked or neglected.

TIGHTEN UP OUR BELTS

"America must this year send to the armies and the allies 50 per cent more food than last year—three times the normal exports. When the war ends, she must supply with food 180 million people who are facing starvation unless help comes quickly."

These are the opening words of a circular recently issued by the United States Food Administration in its appeal to save food. It is directed primarily at the consumer, but to the producer it is at once a challenge and an assurance. It challenges him to continue his productive efforts, to tighten up his belt, as it were, and dig into the job of making his acres and his live stock produce as much or more than when labor was more plentiful. It is an assurance in that it indicates something of the demand there will be for food after the war is over.

"When the war ends in democracy's triumph," continues the appeal, "new obligations will fall upon us. We shall be called upon to send not less food, but more.

"The allies will by no means produce a new harvest overnight. Eighty millions of men can not be taken out of production for four years without lasting losses of yield. It will be years before their fields recuperate, farms are restored, and herds are restocked.

"But another demand even more insistent will come to us—the cry of the hungering victims of Germany and the war. Every country in Europe has suffered shortage of food, lessened yield, weakened production, most of all the great tracts overrun and pillaged by Germany, tortured and sacked by Germany's partners, wrecked by the Russian madness.

"Their woes are increasing; they are facing now a terrible winter. Many will starve. As yet we can not help them except where the Belgian Relief Commission extends its succor. We can not prevent starvation behind the war barrier or beyond the limits of shipping, where every cubic foot and every second's time is needed in the effort for victory.

"After the war the needs of 180,000,000 hungering people will press on America. We could not choose but help them. As we believe in the kindred of all humanity, America will save food to rescue and restore them."

ACCREDITED HERDS

The Bureau of Animal Industry, co-operating with several state live stock sanitary boards, is attempting to control and eradicate tuberculosis in cattle. About a year ago the United States Live Stock Sanitary Association, representatives of pure-bred cattle breeders' associations, and the United States Bureau of Animal Industry adopted rules which provide a uniform method for securing tuberculosis-free accredited herds. The purpose of this work is to eventually eradicate tuberculosis in cattle by systematic efforts of federal and state authorities co-operating with the cattle breeders' associations and herd owners.

An accredited herd is one that has successfully passed two annual or three semi-annual tuberculin tests applied by regularly employed veterinary inspectors of the Bureau of Animal Industry or of the state where co-operative work is conducted, and its owner has otherwise complied with the regulations governing the work.

The work has been in progress long enough to justify publication of the results. We gather from the pamphlet issued by the Bureau of Animal Industry that a total of 854 dairy herds are on the accredited list, which means they have been found free from tuberculosis for the required length of time. Of the number, 3 are Brown Swiss herds, 157 Guernsey herds, 423 Holstein-Friesian herds, 250 Jersey herds, and 21 Ayrshire herds.

We are highly in favor of this systematic work of eradicating tuberculosis, for we have felt for some time that with promiscuous testing, as it has been done in the past, very little headway was being made in the eradication of bovine tuberculosis.

The rules and regulations as they are laid down by those in charge of this work make it obligatory for those whose herds are being tested to follow systematic rules, which we believe will reduce the chances of a herd contracting tuberculosis to the minimum. So very few people realize that tuberculosis is an insidious disease and that it is easily introduced into a healthy herd. It is not enough for an animal to pass the tuberculin test, but a certain length of time must be required after it has been exposed to tuberculosis germs before it is safe to take into a healthy herd. The rules and regulations promulgated by those interested in the establishment of tuberculosis-free herds provide that no animal shall enter a clean herd until placed in quarantine for a period long enough to establish beyond reasonable doubt that the animal is free from tuberculosis. Further, there is necessity of determining the strength of the tuberculin. Many tuberculous animals have passed as clean because of the low strength of the tuberculin used for testing. Too much care can not be exercised in the application of the tuberculin test or in admitting animals into a clean herd. The rules provided in the establishment of accredited herds assist the breeder in all these essential matters.

DAIRYMEN MUST ORGANIZE

Elsewhere in this issue we publish an extract from an address delivered by Milo D. Campbell in Washington before the Federation of Farmers Organizations. The statements in Mr. Campbell's address show the necessity of farmers organizing for the purpose of protecting their own rights.

For years Hoard's Dairyman has challenged the producers of dairy products to co-operate for the purpose of controlling their own business. We have set forth the best we knew how, every successful co-operative enterprise in the country and pointed out the many advantages which come to the producer when he controls his products until they are ready to be delivered to the consumer. We have not urged that the producer attempt to market his own product in the large cities for we believe the first step which must be taken is to co-operate in the establishment of creameries, cheese factories and such other institutions that will prepare his products for market. When the producer learns how to prepare his product for market, then it will be time enough to take upon himself the duty of marketing his products.

We have little faith in bringing about satisfaction to the producer by the arbitrary fixing of prices. We believe that supply and demand when not interfered with will regulate the prices and that the farmer will govern his production according to the prices which he is paid for his product. If the prices of butter, cheese, and condensed milk are not sufficient to yield him a reasonable profit for his milk, the average producer will quit producing milk and engage in some other farm enterprise. It also seems to us that the prices of butter, cheese and condensed milk will form the basis for determining the prices of market milk. If co-operative enterprises are established by the farmer to manufacture his product into butter, cheese, or condensed milk, it will then be possible to divert his milk into these various products according to the relative profitableness of their several markets. If it is found more profitable to make butter and feed the skimmilk, that will be followed until the prices for market milk will give him larger compensation for his product. At the present time cheese selling for 32c a pound brings a larger return than butter selling at 55c a pound. It must be taken into consideration that the feeding value of whey is not equal to that of skimmilk, but even allowing the difference in favor of skimmilk cheesemaking at 32c a pound is more profitable than buttermaking at 55c a pound.

The solution of the producers' problems in their various forms, as we see it, is through organization and co-operation. We appreciate that the dairy farmer is passing through a rather critical period, but we trust that the experience will teach a valuable lesson and lead the producers to see the necessity of co-operative enterprises.

ould be nothing short of a calamity for the dairy- en at this time to dispose of their good producing ws, for the future holds splendid opportunities r them. Further, the dairyman is not looking en- rely for the dollar. He realizes that he owes an bligation to his country and that it is his patri- ic duty to produce dairy products at this time.

Sheep May Eat Larkspur

Please tell me if sheep are poisoned by eating rkspur.

Denver, Colo. C. R.

Farmers' Bulletin 988 reports that "careful and tended experiments upon the tall and low larks- rs, growing about the Mount Carbou Experiment ation in Colorado, showed conclusively that sheep n graze upon the plants without any harm. Cor- l feeding experiments showed that sheep can eat ry large quantities of larkspur not only without rm but with apparent benefit. The experimental ork at the Greycliff Station in Montana corrob- ated that in Colorado, and there is every reason believe that sheep are not injured by feeding on larkspur."

Ration With Velvet Bean Meal

I have a herd of 30 grade Guernsey and Jersey ws and sell bottled milk. Please give me a bal- ced ration from the following feeds: Cotton- ed meal, velvet bean meal, wheat middlings, and ts. I can sometimes get cocoanut meal and could e some corn. My hay is sorghum and peas mixed d shredded corn fodder. I am not giving you ices as I have to use what I can get, but want a ed that will give a good flow of milk.

Fredericksburg, Va. J. L. P.

We suggest a mixture consisting of 200 lbs. ound corn, 200 lbs. wheat middlings, 200 lbs. vel- t bean meal, and 100 lbs. of cottonseed meal. is mixture will supplement roughage very well. r moderate milk flows, feed one pound of this xture for every 3½ lbs. of milk produced. Let ch cow have daily a liberal allowance of sor- um and pea hay and then give each one some of e corn stover to pick over, not forcing them to t the coarser parts.

We would prefer wheat bran to wheat middlings it could be obtained at about the same price.

Day's Work for Corn Binder

What do you consider a good day's work for a rn binder and how many horses do you advise ng?

Rockford, Ill. R. T.

Under normal conditions a corn binder drawn by ee horses should cover about 7 acres in a 10- ur day. If the corn is planted in rows 42 inches art it takes 2½ miles of travel to cover an acre d about 18 miles to cover 7 acres. This is at the e of a little less than 2 miles per hour for 10 urs and should not be difficult of accomplishment less the corn is very heavy or conditions other- se unfavorable. If the machine is working well, corn all standing upright, and if the team walks t, the accomplishment may easily exceed this ure by an acre or two. On the other hand, it y happen that heavy or tangled corn and a little chinery trouble will reduce the acreage for a rticular day considerably below 7 acres. Some mers use only two horses on the corn binder, t it is a heavy load for two horses and such an fit does not generally cover as much ground as en three horses are used. Other farmers find t the use of four horses in heavy corn or on hilly d results in an increased acreage. In cutting n for fodder two men will ordinarily be able to p up with the binder in shocking if a bundle rier is used to reduce to a minimum the amount carrying which the men must do. This makes 7 es a normal day's work for three men when aid- by a binder in cutting and shocking corn.—mers' Bulletin 992.

Sweet Clover for Silage

am having good success pasturing sweet clover; et fully twice as much milk per acre as I did m blue grass. And I now have twenty acres that would like to silo next spring if I thought it uld make good feed. Have you any records of ing it?

Decatur, Ill. F. C. B.

Sweet clover has been used for silage and it is imed that for this purpose it is superior to either alfa or clover. Sweet clover is a high protein d and does not cure out in the silo as well as a en material which contains a higher proportion carbohydrates. Silage from legumes is very lia- ble to be strong smelling and, in some cases, may even spoil in the silo.

Some time ago an Iowa correspondent sent us the following information concerning the use of sweet clover for silage in that state:

"Sweet clover has proved to be a valuable plant for pasture and hay. It is now coming into prominence as a splendid silage plant. A number of growers use it for this purpose, and all report very satisfactory results. One of these sweet clover growers who has used the plant for silage states: 'We had no trouble in getting stock to eat sweet clover silage. However, they were used to pasturing it. I put in loads of sweet clover alternate with corn, and it was sweet and smelled the same as corn silage.'

"Another farmer reports that the great amount of leaching that occurred was the only drawback he found in using sweet clover for silage. He states that the liquid material would flow off in a stream at the bottom of the silo. In this case the sweet clover had been siloed when very succulent. On the other hand, a farmer who siloed sweet clover and did not cut the plants until they were in full bloom experienced no loss of this kind. 'We have used it for silage purposes,' he says, 'and had excellent results from feeding it. We fed it to cattle, hogs, and colts, and after a few feeds they ate it readily. It seemed to come out in just about the same condition that corn silage does. It heated considerably, but there was no mold. There was quite a clover odor to the silage, and of course it was somewhat different from corn silage, yet it had a similar pungent odor.'

"Some of the evidence shows that it is better to cut sweet clover for silage when it is in full bloom rather than when the plants are extremely succulent. It is safe to say that sweet clover will be used more and more for silage in the future. Indications are that in some localities it is likely to become a very important crop for this purpose. Those farmers who have used sweet clover for silage regard it of such great value that they intend to continue using it for this purpose."

Garlic in Pasture—A Ration

There is garlic in our pasture and the milk is flavored with it. What is the best way to get rid of this?

Our cows are mostly Holsteins, grade cattle, and they give an average of 9 lbs. at a milking. Now we have no clover or alfalfa but we have corn and corn fodder, and can buy a mixture molasses feed. We can get bran only 100 lbs. at a time. What would be the best ration with these feeds?

Rosedale, Pa. E. R. D.

There are two important steps to be taken by the dairyman in protecting himself from this trouble. The first is to prevent the cows, so far as possible, from obtaining garlic; the second is to manage the herd on garlic pasture in such a way as to have it suffer the least harmful results.

Garlic makes a growth much earlier in the spring than pasture grasses, and therefore is usually most troublesome when cows are first turned to pasture and when grass is not plentiful. In many cases garlic is localized in the pasture and these places should be fenced off and used for pasturing stock other than milk producing cows. When the garlic is scattered about the fields it is impossible to do so, and the dairyman who would not have the flavor of the milk of his cows impaired must so manage his herd as to overcome the difficulty. The unpleasant odor and flavor are strongest in milk from cows that have just eaten the garlic. If, three or four hours before milking, the cows are placed in a garlic free field, the trouble will be reduced to a minimum. If such a field is not available, they may be brought to the stable yard and fed on silage or hay and allowed to remain out of doors until the regular milking time. This practice the dairyman can usually follow without serious inconveniences.

The trouble caused by garlic is not liable to last long, as the weed is usually cropped off by the cows within a few days after they are turned to pasture, and as soon as the grass becomes plentiful they will eat that in preference.

The complete eradication of the garlic plant is the most satisfactory method of avoiding trouble and is practicable on the ordinary dairy farm. Those interested in such eradication should write to the Department of Agriculture, Washington, D. C., for Farmers' Bulletin 610, entitled, "Wild Onion; Methods of Eradication", and Farmers' Bulletin 608, which gives directions for removing the garlic flavor from milk.

The most economical basis for a dairy ration is a liberal supply of nutritious roughages. At the present price of roughages, we believe our inquirer can very well afford to purchase a legume hay, such as clover or alfalfa, and feed it in as large amounts as the cows will clean up. The prices of these hays seem high, but under most markets they will supply nutrients much more economically than they can be purchased in concentrates. In addition to such a hay, we would feed corn fodder in as large amounts as the cows care to consume it.

In addition to this, feed a concentrate mixture to the heavier producers if they are to make their best production. A mixture of 300 lbs. corn, 200 lbs. of a light protein feed, such as ground oats or bran, and 100 lbs. of a high protein concentrate, such as oil meal, cottonseed meal, cocoanut meal, or peanut meal should be satisfactory. Such a grain mixture should be fed to the cows, in addition to the roughages of hay and fodder, at the rate of 1 lb. for each 3½ to 4 lbs. of milk produced.

Danish Cattle and Butter Figures

Due chiefly to shortage of feed, the number of cows in Denmark is expected to decrease by about 100,000 within the next six months. The present estimated number of cows in that country is 950,000, which is about 200,000 less than in the summer of 1917. According to reliable reports received by the United States Food Administration the reduction in Denmark's butter supply will exceed 2,000,000 lbs. during the coming year.

Facts like these should remind United States dairymen of the growing dependence of foreign populations on American dairy products. In prewar years Denmark exported butter to the British Isles which now must look to other sources of supply.

Continued shortage of feeding stuffs in Denmark has resulted in the use of ground heather as a fodder substitute. The heather is reduced to a coarse flour and when mixed with blood from slaughter houses is used to replace peanut meal, copra meal, and other fodder which can no longer be obtained in Denmark. A mill recently erected for the manufacture of this feed now has a daily output of about 200 bags.

This development in the foreign fodder situation is mentioned by the United States Food Administration as showing the ability of other nations to meet difficult conditions imposed by the war. With the greater and more varied natural resources of the United States, our dairymen have the opportunity to exercise equal ingenuity in maintaining production when customary feeds cannot be secured in normal quantities. Farmers are asked to prevent all waste of feed as well as of food. This can be accomplished in large measure by storing fodder and other coarse feeds carefully to prevent loss of nutritive value through weathering.—United States Food Administration.

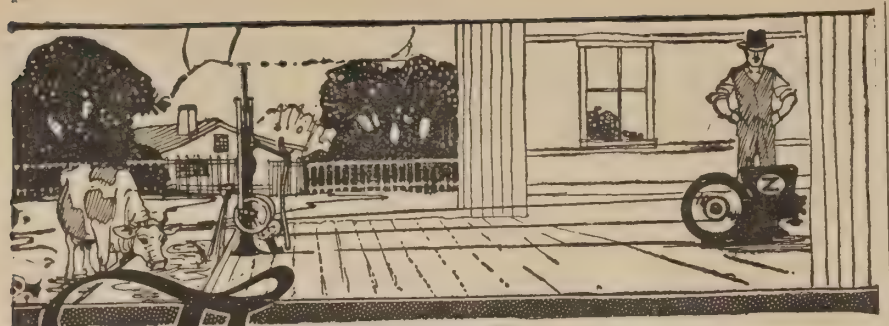
New York Dairy News

HOARD'S DAIRYMAN:—More calves are being raised than in previous years according to the reports that we get. It is not likely that these will sell for as much as it costs to raise them in a majority of cases. It is by no means certain that there is a serious shortage of stock in the world at present, and in the warring countries when the war is over there will be none too much money to buy with. It is all right to raise calves if one wants them. Beyond that it may be something of a question.

Cows are being offered for sale to quite an extent, but the buyers are in fair supply. One difficulty is the fact that the farmers and the buyers both want the same cows. It is a good sign when dairymen want to sell the poorer cows and keep the best ones. Not long ago the farmer wanted money so badly that he sold the best and kept the poorer ones. In my locality I have heard of no sales above $150 for grade cows, and the common price is nearer a hundred. Inferior cows are rather slow sale, but they can be sold if the price is cut close enough. Shippers of dairy cows to other localities do not want to look at these and the shipper of the poorer sort pays much less for his stock. They must be sound and four-teated if to be shipped for dairy purposes. Buying under such circumstances takes a lot of travel. In the days before the auto it would be more than the job is worth. I am glad dairymen have a better idea of the difference in cows.

Corn Being Displaced for Silage

Silos have been filled quite well this season but I think that less corn has been raised than for many years. Clover and the grasses were used to fill the silo partly; in some cases second crop clover has been added and sometimes millet is used. In most cases there has been some corn, although I have heard of a few who raised no corn at all but filled the silo in haying time. Practically all agree that



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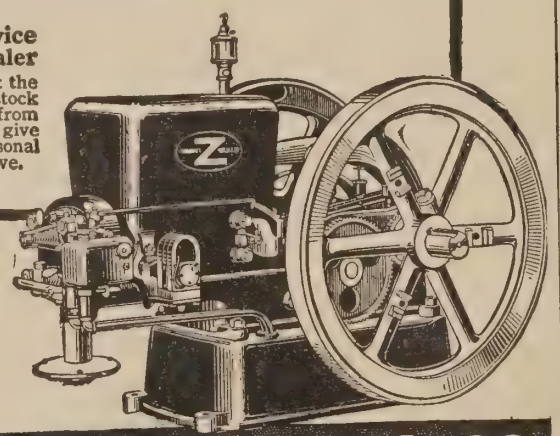
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I and my hired man laid a feeding floor for my hogs, 24x14, in one day; also put floor in my cow barn. My neighbor liked it so well I am not able to keep it at home—ANDREW CHRISTENSEN, Hancock, Minn., Rt. 1.

We have used the mixer during past year for putting in cement foundations for a complete set of farm buildings, including silo, and like it very much—DANA WRIGHT, Jamestown, N. D.

Last year I bought a cement mixer from you with which I am well satisfied. It did not take long for it to pay for itself and I surely can recommend it to anyone needing a *big mixer at a small price*—WM. PARKS, Martinton, Ill.

I am more than busy with my Sheldon Concrete Mixer. Have more work than I can do. *I get $10 a day when I work out*—JESSE L. WITTER, Wellsville, N. Y.

The machine works fine. Have already *got the job* of mixing concrete for the bridges in this township—JOHN ROSE, Spartansburg, Pennsylvania.

Last spring we purchased of you a set of castings to make a concrete mixer. It was constructed per the plans furnished and it *surely worked great*—D. M. BEDBAKER, Freeport, Ill.

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hay makes good silage. Sometimes this is without clover at all, although usually there is more or less clover in the mixture. A few new silos have gone up the past season, but such would not have been the case except for the use of hay for filling. Of course I do not mean dry hay, but grasses that would make dry hay if the weather and time permitted. It is labor saving that causes the change from corn and that put clover and the grasses into the silo. Bad weather makes but little difference in doing the work.

The labor question has been a really serious one in my locality the past season and the seriousness is not over yet. Another season it looks to be the most bothersome ever, and the hardest problem of the dairy farmer. The trouble is seriously aggravated by the fact that manufacturing and business are so profitable that they can outbid us in point of wages. So long as we cannot compete with business in securing help we must go without it for the most part. We hear of localities where business men volunteer to go out and help farmers in the busy season. Some are said to go and carry men from the factories and elsewhere after three o'clock, for example. This sounds like a good thing and really right from whatever angle we look at it. As far as I have been able to search out those reports, they are almost groundless.

A Question of Wages

A question comes up as to how much we better pay next year for help. I know of a case where a man was hired for the year at forty dollars a month and board. He was a good man but rather slow. It was this man who got under the influence of the slacker and then would not work after five o'clock, but who did somewhat better after the trouble-maker had gone. A short time ago the factory offered him three dollars a day and he left the farm and went to town. He is to get 45 cents an hour for overtime, and if he gets his work done at five he goes without loss of pay. Of course he should have done as he agreed, and had the farmer been informed, as he should have been when negotiations with the factory commenced, he might have made it possible for the man to stay. However, the man is gone and it is doubtful if a dairy farmer can compete with such wages, although when board is considered rightly he might be. How much should a dairy farmer pay next year?

Forty or fifty dollars a month besides board is more than he can get from the work that the man can really do. There are two other points to consider. One is the necessity of producing foods and the other is keeping the farm from running down. Taking these two into account it may be better to pay out all one can get and keep the farm going. I do not believe that the farmer is the only one who should sacrifice. That hired man ought to do his share, but who is going to blame him if he does not, except in cases where he breaks his word in leaving?

One writer has a plan for the dairyman which is good in its way. Add to the dairy business that of pure-bred cattle. That is not dairying; it is another line. Many dairymen cannot follow it, but a few can. A few less cows and some pure-bred calves may help somebody out a little. It might lessen the labor and if there are not too many payments to make and too much interest to meet it may put one in position for a little profit a year or two or three hence.

Speculating About Rain

Ever since the European war commenced there has been some excess of rain in many sections of the country, and this is true of my own locality. Other sections have been too dr at least a part of the time. That th excess of rainfall is due to the wa is believed by many, but the weath department says that such is not th truth.

It is often claimed that the sudde jar as of thunder or possibly th from a monster gun causes rain. Fo lowing a sharp clap of thunder the is usually heavier rainfall, and it not strange that people ascribe this the jar. Many have seen the little e periment of a very fine spray of w ter brought together by the influen of electricity, however. The old sto experiment of inducing static ele tricity by rubbing a rod of glass hard rubber and then holding the ele trically excited rod near the fine spr brings the tiny drops closer togeth and forms larger drops. This c be readily observed if the spray fa on some tin object so that it makes slight noise. When the drops a larger they strike harder and ma more noise. No more water falls a the same is possibly true when t rainfall seems harder after the ele tric discharge causing thunder. No then does not necessarily make ra fall.

There is another view held by so scientists and which is also dis proved by the weather departme It has been observed by many th following an eruption of a volca with much attending dust there more rainfall. It is also said by so that drops of water are alwa formed on dust particles. If th were no dust there would be no m and no less moisture but it would fall as rain but cover the trees, bu ings, and the earth and other obje as a blanket. The air would be sa rated all the time with moisture never knew how the scientists pro their contention. They always some fascination for me, althoug never tried to defend the notion. weather bureau does not explain their bulletin any of these matt but simply says that they are not able. We cannot make it rain shooting cannon unless there is m ture in the air, and possibly not th Presumably one cannot make it by throwing dust in the air either.

New York. H. H. LYON

Importations of Cream Separa

In accordance with a new ruling the War Trade Board, no licenses be issued for the importation cream separators of types which not permitted to be manufacture the United States.

Before the issuance of any lic for the importation of cream s rators the applicant must state firmatively that the separators so to be imported are one of the t permitted to be manufactured in United States. This ruling has adopted by the War Trade Board the protection of American manu turers of cream separators who, ruling of the War Industries Bo are limited to the manufacture of tain specified types of cream sep tors. It was felt that it would be fair to permit foreign manufa ers to sell in the United States ant types which could not be manu tured in American factories.

Bulletins of the Week

Vegetable Storage by F. E. Mo Extension Circular 9, South Da College of Agriculture, Brook S. D.

Use of Machinery in Cutting by H. R. Tolley. Farmers' Bu 992, U. S. Dept. of Agr., Washin D. C.

Systems of Hog Farming in Southeastern States by E. S. Ha Farmers' Bulletin 985, U. S. De Agr., Washington, D. C.

Lake Mills Holstein Sale

Holsteins at the semi-annual Lake ills (Wis.) Consignment Sale, Oct. and 23, did not aver age quite as gh as at previous sales but it was vertheless a fairly successful sale. ie factor that held down prices was at quite a large number of cattle re not in sale condition. The avage buyer at a public sale pays the st prices for animals that please e eye, other things being equal, and ny of the animals led into the ring re thin and out of condition.

There were, however, some excelt animals, in real sale shape, ofred and these brought good prices. ost of them were from the herds of e regular consignors to the Lake ills sale and in the main commandprices satisfactory to the men who tered them.

Lady Oak Bessie Homestead, a autiful yearling heifer consigned by nj. Berg, topped the sale, going to drew Frank, Wisconsin, for $1,675. ie is from a 34.14-lb. daughter of omestead Jr. DeKol and sired by nary Fobes Bessie Homestead, a 31- grandson of Homestead Jr. DeKol d Canary Paul.

Pabst Korndyke Arnold, a 31-lb., ne-month-old grandson of King Ponc Champion and Johanna McKinley gis, was the highest priced bull sold. e was consigned by the Pabst Stock rm, Wisconsin, and purchased by ank Shadewold, Wisconsin, for ,000.

The entire 184 animals sold avered $202.

F. H. Everson managed the sale. aeger, Kelley, and Mack did the lling, with S. T. Wood in the box.

A detailed list of animals sold and rchasers follows:

P. Linde, Wisconsin
Laura of Deerfield $140
wn & Keller, Wisconsin
Sallie Agatha Korndyke $150
S. Kutchen, Wisconsin
Tomah Bertie Burke DeKol $145
ank Shadewold, Wisconsin
Pabst Korndyke Arnold $1,000
land Benson, Wisconsin
Lucile Ormsby Bawn $440
le Davis, Wisconsin
The Queen Wayne 3d Beryl $175
A. Davis, Wisconsin
No. 111 $220
Myrtle Netherland DeKol 3d 215
ibrant Bros., Wisconsin
Canary DeKol Longfield 2d $285
Clothilde Acme Woodside 150
Lady Clothilde Acme Johanna 170
Joseph Tritomia Netherland 155
Lady Augustine Johanna 160
Augustine Johanna Chimes 210
Miss Colantha Veeman Korndyke 125
n D. Hetts, Wisconsin
Molly Pietertje Longfield $400
red Puls, Illinois
Cresent Beauty Pontiac DeKol $165
l Killoy, Wisconsin
Canary Fobes DeKol $270
Colantha Fobes Tritomia 275
Milford Vashti Canary Fobes 265
G. Lehman, Wisconsin
Valdiva Fan Ormsby $235
Barbetta Terzool 320
M. Longley, Wisconsin
Canary Oak Longfield $200
Hopkins, Wisconsin
Milford Agnes Cornucopia Oak $360
C. Leitsch, Ohio
Fereno Segis Champion $840
C. Hildeman, Wisconsin
No. 178 $100
B. Rutherford, Wisconsin
Augustine Johanna Lady Korndyke $255
Pasch, Wisconsin
Lilith Grinoetta DeKol Friend $515
Wheelan, Wisconsin
Lottie Aaggie of Pine Lodge 2d $195
o. Knight, Wisconsin
Pioneer Oaks Sir Sadie Mantel $165
lker Bros., Wisconsin
Hazel Aaltje DeKol $180
Daisy DeKol Ormsby 4th 270
Parthenea Inka DeKol 4th 400
Miss Korndyke Canary Mechthilde 2d 120
Korndyke Hengerveld Piebe 3d 300
Daisy DeKol Ormsby 5th 370
Augustine Johanna DeKol Ormsby 330
No. 173 100
Marie Josephine of Norton Farms 145
mling Bros., Wisconsin
Sadie Homestead Ormsby $200
Ruth Aaggie Acme Homestead 250
T. Hapke, Wisconsin
Veronica Queen Colantha $250
rge Sayre, Wisconsin
Sir Ormsby Minita $430
Lyons Lady Korndyke 2d 150
S. Wilbur, Wisconsin
Fame Lady of Rock $125



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Delco-Light is a complete electric light and power plant for farm or country home.

It is self-cranking.

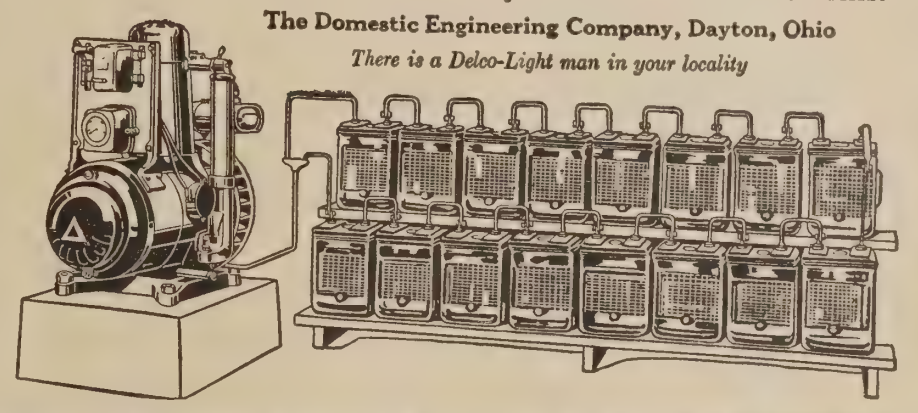
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Olie T. Peterson, Wisconsin
Rebecca Ormsby DeKol $100
Alice Piebe Inka 135
Harley Williams, Wisconsin
Lady Zur of Rock $135
Maid Aaggie Burke 115
Piebe Hengerveld DeKol Ormsby 110
Miss Augustine DeKol Ormsby 105
Frank R. Mullen, Wisconsin
Flora Canary Homestead $175
Parthenea Colantha Johanna 190
Milford June Fobes Longfield 175
Milford Vale Segis Pontiac 120
No. 97 400
Milford Piebe Ormsby Homestead 375
Fred Alt, Wisconsin
Pietertje Kate Spofford 3d $205
Richard Kiel, Wisconsin
No. 93½ $100
O. H. Sylvester, Wisconsin
Aaggie Belle Phyllis 4th $175
R. E. Werner, Wisconsin
Edith Mutual Fobes $140
C. E. Brenner, Indiana
Pauline Agatha Pontiac $120
Dossie Agatha Pontiac 130
Zola Korndyke Creamelle 100
Pansy Pietertje Ormsby 110
Abbie Jewel Korndyke DeKol $120
Tomah Johanna Sarcastic DeKol 115
No. 112 105
No. 114 135
No. 117 130
No. 119 100
Hazel Aaltje DeKol 2d 110
S. J. Craig, Indiana
Ashburn Sir Pietertje Segis $645
Piebe De Nijlander 205
Piebe De Nijlander 2d 170
Mercedes Foxey Korndyke 250
Wisconsin Star Colantha 130
George Hetts, Wisconsin
Crescent Beauty Segis DeKol Bess $110
Henry C. Johns, Wisconsin
Joe DeKol Polkadot $100
Arthur P. Linde, Wisconsin
Maid Burke Mercedes $130
Frei Bros., Wisconsin
Hill Pine Veeman Irene $210
Alfa Valley Mutual Homestead 2d 120
Mr. Walsh, Wisconsin
Maple Grove Annia Polkadot $245
Plainview Johanna Bettina 285
Genevra Homestead Ormsby 300
Stellaris Burke Pontiac 3d 150
Aaggie Barbetta Ormsby DeKol 110
Chas. Hessel, Wisconsin
Ellen of Glen Rose Echo 2d $305
Sir Pietertje Paul Oak Homestead 190
Countess Beauty Hengerveld 115
M. J. Berge, Wisconsin
No. 60 $200
Andrew Frank, Wisconsin
Lady Oak Bessie Homestead $1,675
C. W. Harrison, Illinois
No. 189 $375
Ben Berg, Wisconsin
Almuth Alcartra DeColantha $210
Tritomia Bergsma 150
Fairlawn Stock Farm, Wisconsin
Salma Sir Pietertje Bess $150
F. B. Green, Wisconsin
Genevieve Korndyke Homestead $265
King Segis Pontiac DeKol Pledge 110
Tyranena Ivy DeKol 305
Pride Maid Aaggie Mercedes 200
Windfield Midnight Starlight 195
Polkadot DeKol Paul 2d 200
Segis Pontiac Ykemas Queen 355
Lady Belle De Vries 2d 225
Blackie DeKol 135
Queen Parthenea DeKol Pontiac 165
Milky Pietertje DeKol 205
Piebe Bess 3d 325
H. W. Faville, Wisconsin
Glen Rose Homestead $290
Myrtle Netherland Fayne 155
Winfield Midnight Hengerveld 2d 115
R. P. Ames, Wisconsin
Longfield Piebe Vale Homestead $290
Queen Echo Homestead 265
Inka Cornucopia DeKol Homestead 350
Paul Albrecht, Wisconsin
DeKol Hartog Alma 2d $185
Lady Korndyke Lilith 2d 105
Ed. Graper, Wisconsin
May Segis Laura of Deerfield $185

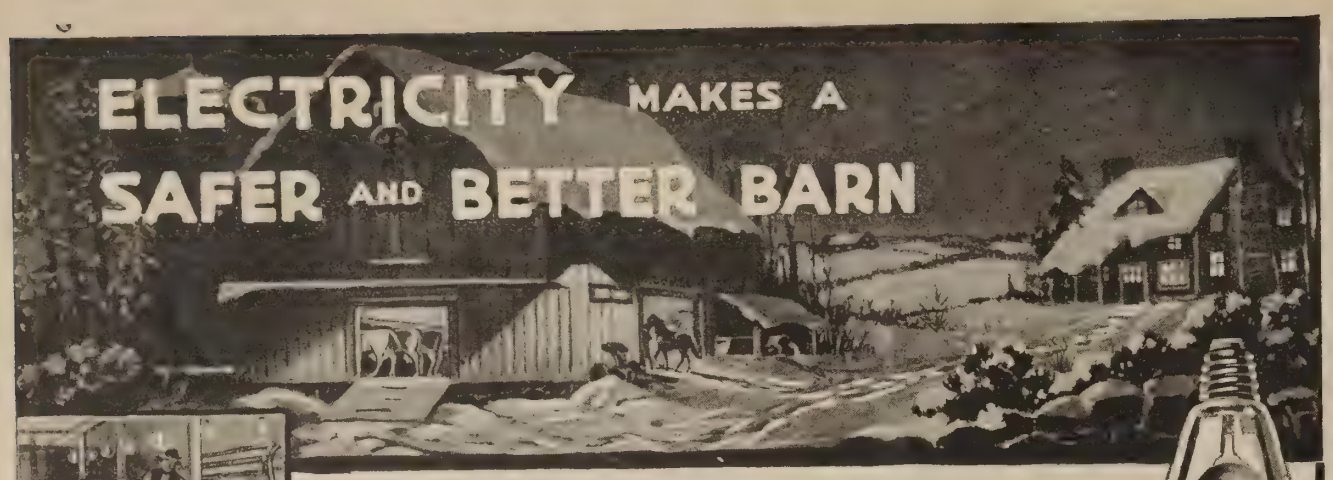
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Amy Korndyke Pontiac 140
Lady Wickfield Ormsby 160
Lady Maid of Rock 120
Lady Gerda Chimes 3d 265
Piebe Hengerveld Mechthilde 325
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Flora Whetstone Piebe $280
Lady Rock Jane 175
Segis Bess of Rock 425
Segis Grace of Rock 425
Pauline Scholton DeKol 230
Colantha Griselda Pauline 210
Netherland Hamilton Colantha 240
Fobes Genevra Colanthus 280
Roy Hetts, Wisconsin
Maple Grove Annie DeKol $350
Netherland Contest DeKol Elliston 305
Lady Gerda Chimes 400
Lady Gerda Chimes 4th 500

A maxim: "If you would love mankind, you must not expect too much from them."



The great Chicago fire was caused by an upset kerosene lantern in a barn. It was spectacular and everyone knew about it. But every year similar accidents cause the loss of millions of dollars in buildings and live stock of which you hear little because the fires are scattered throughout the country.

Protect yourself by installing electric light. Make your barn safe—make your home cheerful. Enjoy the advantage of electrically-operated milking machines, separators, churns. Let the women folk know the comfort of electric fans, sewing machines, irons, washing machines, vacuum cleaners.

When you come to select your lighting and power plant remember that

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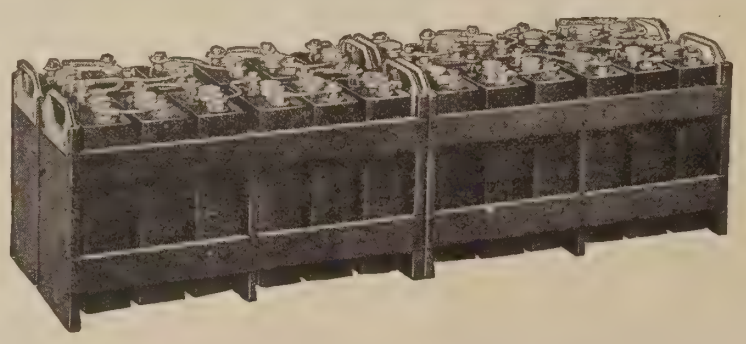
EDISON STORAGE BATTERY

WITH *ANY* RELIABLE POWER AND LIGHT PLANT

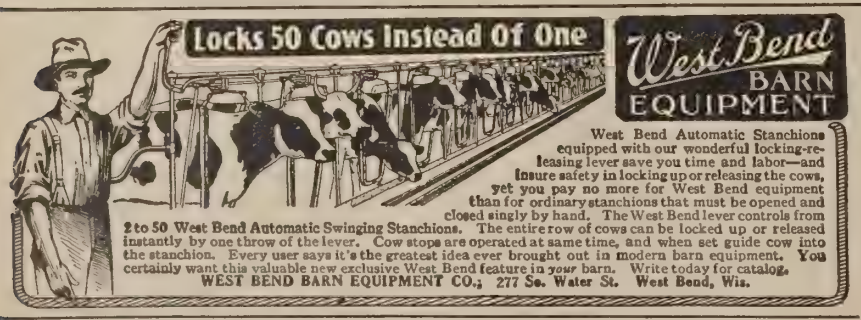
No matter what make of plant you select, ***insist*** that it be equipped with the Edison Storage Battery. The battery is the vital part of the plant; it must be right or you cannot get good service and economical light and power.

The Edison Storage Battery is the one different battery, the only one made of steel—rugged, durable, good for years of service without repairs or replacements, with no attention other than the occasional addition of a little distilled water.

There are still some dealers who do not know that the plants they sell can be equipped with the Edison Storage Battery. If your dealer is doubtful, write us at once and we will see that you are supplied.



EDISON STORAGE BATTERY CO., 263 Lakeside Avenue, Orange, New Jersey



West Bend Automatic Stanchions equipped with our wonderful locking-releasing lever save you time and labor—and insure safety in locking up or releasing the cows, yet you pay no more for West Bend equipment than for ordinary stanchions that must be opened and closed singly by hand. The West Bend lever controls from 2 to 50 West Bend Automatic Swinging Stanchions. The entire row of cows can be locked up or released instantly by one throw of the lever. Cow stops are operated at same time, and when set guide cow into the stanchion. Every user says it's the greatest idea ever brought out in modern barn equipment. You certainly want this valuable new exclusive West Bend feature in *your* barn. Write today for catalog.
WEST BEND BARN EQUIPMENT CO., 277 So. Water St. West Bend, Wis.



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Will Produce More Water with less Power than any other Pump. For Farms, Ranches, Pressure Systems and all other purposes.
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Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.

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Hairless Pigs---The Cause and Remedy

(Continued from page 511)

Again, a farmer may lose 90 per cent of his spring pigs by this malady and yet that same breeding stock may produce under summer conditions, such as pasture and exercise, good litters in the fall. It is such conditions as summer pasture and exercise that are important factors in preventing this malady without the use of potassium iodide.

Proper Rearing May Prevent Hairless Pigs

We have reared a considerable number of sows on rations made partly of grains, but with 25 per cent of alfalfa in the ration and under these conditions have never had a case of hairless pigs. They were even confined in pens while on these rations. But when our young stock was started at weaning time on concentrates such as grains and skimmilk, and little or no roughage was used in the ration, hairless pigs often resulted; and there was just as much iodine in the ration as in the other.

Alfalfa or clover hay should form 25 per cent of the ration. If choice leafy hay is fed in a rack, sows will (usually) eat this proportion of hay. However, if they do not eat enough of the uncut hay to make about 25 per cent of the ration, the hay may be cut and mixed with the other feed.

An extraordinary outbreak of hairless pigs occurred in the spring of 1917 in areas in Montana not previously affected. There had been a cold, long winter, roughage was scarce, and the animals were wintered mainly on grains. In the spring of 1918, after a mild winter, with practically no snow and plenty of hay, there were almost no cases of hairless pigs in the "unaffected" areas.

In Wisconsin, the spring of 1918 saw some of our breeders experiencing this malady for the first time. The winter had been extremely severe and roughages were scarce among those suffering most. Our experience indicates that the liberal use of roughage and the feeding of rations not excessively high in protein are by far the safest rules to follow in the rearing of gilts for breeding purposes, if the common occurrence of hairless pigs is to be prevented. Farmers should not rely wholly on grains and skimmilk for their breeding gilts. Introduce 25 per cent of the ration as cut alfalfa or clover. This gives bulk to the ration and insures proper elimination of waste through the intestines. It keeps the intestines in a healthy condition and will allow the absorption of sufficient amounts of iodine naturally present in the feed to meet the sow's needs without the use of potassium iodide. Keep the animals out and provide exercise. Goiter is most prevalent in northern, mountainous districts with cold, long, damp winters and little sunshine, than in the warmer climates with plenty of sunshine and opportunity for exercise.

The suggested method of rearing breeding swine may not always prevent goiter—some cases will need the potassium iodide treatment—but we believe proper rearing will go a long way toward solving a growing difficulty in this state. However, if you had hairless pigs in the spring of 1918 it will be advisable to use the potassium iodide treatment this winter.

Summary

Goiter, or an enlarged thyroid gland the function of which is disturbed, is the cause of hairless pigs. Both old and young are afflicted with enlarged glands.

The enlarged glands are deficient in iodine, which is essential to the proper action of this gland and the production of normal young.

Iodine, supplied the female breeding

it stock during the gestation period, wi prevent this trouble. One-third to one-sixth of an ounce of potassium iodide to each 100 pounds of feed will pvent hairless pigs. Do not use mre.

Nearing the breeding sows with plenty (25 per cent) of good roughage, such as alfalfa or clover hay, in the ration and not an excessive amount of protein may do much toward preventing this trouble and thus avoid the necessity for using the potassium iodide treatment later.—Wisconsin Bulletin 297.

Agricultural Reconstruction After the War

(Continued from page 513)

upon good live stock with which to begin over again.

Meat is high and is badly needed for war purposes and this is the time to sell the scrub. Send it to the shambles, get it off the farm and replace it with better bred, more profitable stock that can be produced by intelligent breeding and handling.

These suggestions are not intended to influence farmers to let up in their activities or to reduce their flocks and herds below a workable basis. On the contrary, now is the time to work harder and longer, plan more wisely, and save more scrupulously than ever before. A man's time is worth more now than ever before, if he only takes advantage of the situation. Therefore, he should use it to the limit. *Save;* I repeat again. The first way to save is to pay debts, and second, to buy government securities. You should buy bonds anyway if you cannot do both because that is investing cheap money in a security that will represent dear money after the war.

Anticipate the change. Don't be caught with a lot of scrub, unprofitable live stock on your hands that is now needed for food for our soldiers and that will bring good prices.

Buy only real necessities, wait for absolutely certain lower prices, and take the profit yourselves.

Market Reports on Dairy Products

The Bureau of Markets of the United States Department of Agriculture has established a market news service on dairy products, and daily bulletins are issued from the Washington office and the branch offices in Boston, New York City, Philadelphia, Chicago, Minneapolis, and San Francisco.

The Daily Butter Bulletin gives a daily summary of the receipts, shipments, supplies on local dealers' floors, cold storage movement, prices, and a brief comment on the market conditions at each of the large markets.

The Daily Egg Bulletin gives statistical information of the principal markets, as arrangements for reports of prices and market conditions are now pending.

Each week a summary of the cheese supplies, holdings, and storage movement is issued in addition to a daily cheese bulletin.

Monthly reports of production and cold storage holdings of various dairy products are issued, including fluid milk prices in the larger centers and prices paid to market milk producers and supplying condenseries.

Persons interested in these bulletins may secure same upon request to the Bureau of Markets, Washington, D. C.

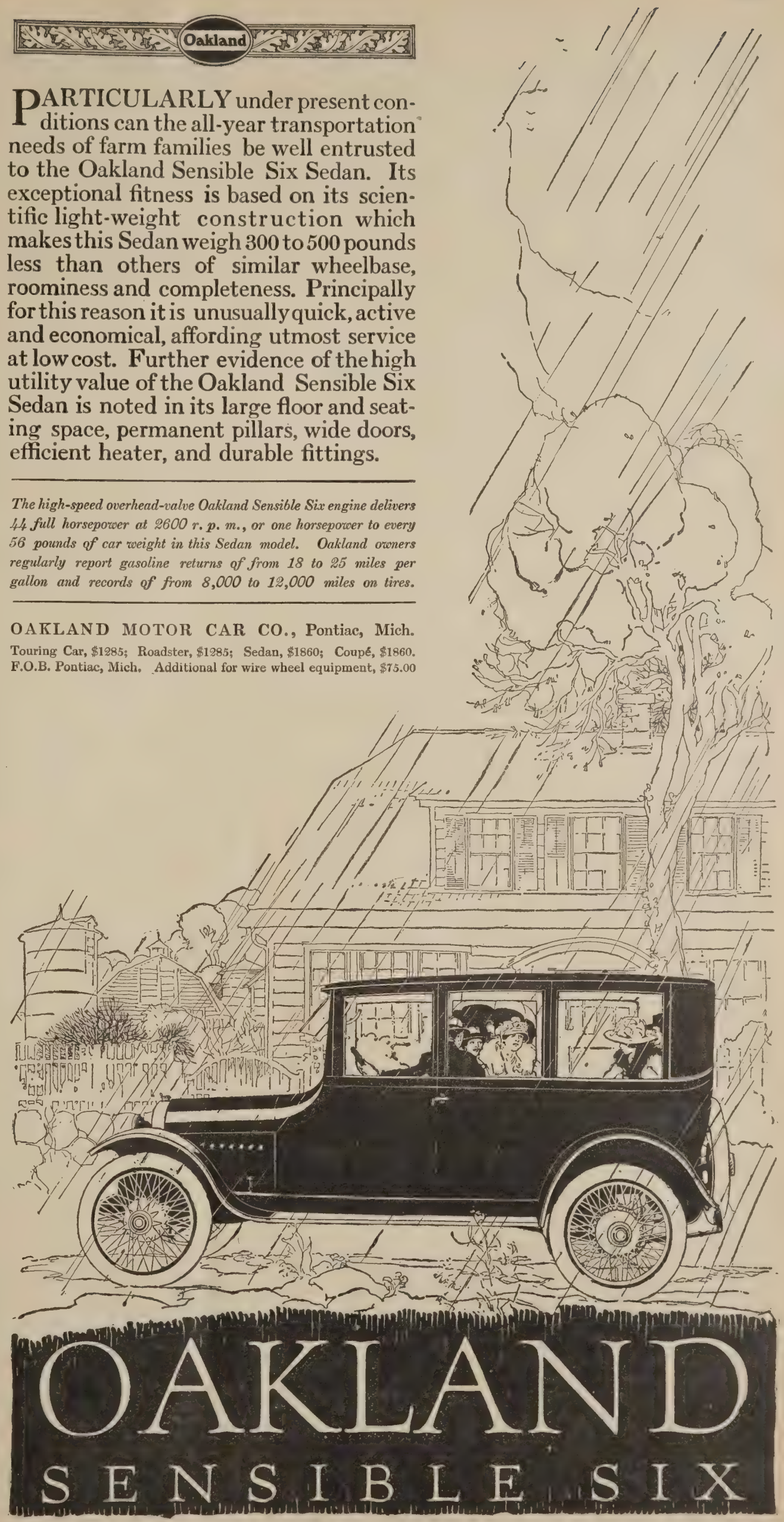
Boys can't go to war now with their fathers as they did in the wars of old. But they can give a fine service just the same by earning and giving to the funds to make the soldiers' lives easier. Victory boys and Victory girls are unselfish.

Oakland

PARTICULARLY under present conditions can the all-year transportation needs of farm families be well entrusted to the Oakland Sensible Six Sedan. Its exceptional fitness is based on its scientific light-weight construction which makes this Sedan weigh 300 to 500 pounds less than others of similar wheelbase, roominess and completeness. Principally for this reason it is unusually quick, active and economical, affording utmost service at low cost. Further evidence of the high utility value of the Oakland Sensible Six Sedan is noted in its large floor and seating space, permanent pillars, wide doors, efficient heater, and durable fittings.

The high-speed overhead-valve Oakland Sensible Six engine delivers 44 full horsepower at 2600 r. p. m., or one horsepower to every 56 pounds of car weight in this Sedan model. Oakland owners regularly report gasoline returns of from 18 to 25 miles per gallon and records of from 8,000 to 12,000 miles on tires.

OAKLAND MOTOR CAR CO., Pontiac, Mich.
Touring Car, $1285; Roadster, $1285; Sedan, $1860; Coupé, $1860.
F.O.B. Pontiac, Mich. Additional for wire wheel equipment, $75.00



OAKLAND
SENSIBLE SIX

Public Sale

150 HOLSTEINS

Tri-County Holstein Breeders' Assn.,
Dixon, Illinois

November 26 - 27, 1918

One hundred twenty-five females of choice breeding representing the most popular blood lines. Many of them recently fresh or close to calving to the service of some of the greatest bulls in Illinois.

Twenty-five bulls by great sires out of high record cows.

Cows with good records, heifers out of record dams.

Production—Breeding—Individuality

Fifteen of the leading breeders in northern Illinois have consigned some of their best cattle to this sale.

Choice Foundation Stock.

Heavy milking, profit making cows. This is strictly a breeders' sale, all the consignors are actively engaged in breeding and milking Holstein cows.

These cattle are all pure-bred registered Holsteins and tuberculin tested by an approved Assistant State Veterinarian.

For catalog address

E. M. DETWEILER, Polo, Illinois.

Perry & Haeger, Auctioneers. S. T. Wood, in box.

Second Semi-Annual Sale
OF GUERNSEYS

50 PURE-BREDS AT AUCTION 50

Wednesday, Nov. 20th, 1918

At W. P. Parker's Sale Stables, Moravia, N. Y.

A sale of selected pure-bred young cows and heifers from the best herd districts in Pennsylvania and New York

An opportunity to select a foundation herd from May Rose and Governor of the Chene breeding.

Every animal over 6 mos. to be tuberculin tested. Write for catalogues.

Parker & Coggshall, Moravia, New York.

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For Sale: Carload Registered Jersey Females

Because we are over stocked we are offering for sale a carload of excellent Jersey cows and heifers, some fresh, the remainder due to freshen from time to time throughout the year. 15 of them daughters of "The Warden", a Tormentor-Eminent bred bull from a R. M. dam and himself with 33 daughters in the Register of Merit. 10 of them sired by "Pogiwarno", he a son of Pogis 75th of Hood Farm and from Lass 49th of Hood Farm with 488 lbs. fat to her credit in Class AA.

A part of these females are now in the Register of Merit. All are bred for production and individuality.

This is an exceptional opportunity. Write us at once or better still come and see what we are offering.

BRONDALE FARM, EAST HARDWICK, VERMONT.

Carnation Stock Farms

Consignment

Waukesha County Sale

includes

31-lb. Son
27-lb. Daughter } of

Beauty Pietertje Prince 56435

Oconomowoc, Wis., Box Q, Seattle, Wash.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. G. G. BURLINGAME, Cazenovia, N. Y.

FOR SALE
27 HEAD

Pure-bred and 15-16 Pure-bred Holstein Heifers

2 and 3 years old. Well marked. head to be fresh soon. Sired by 30-lb. bull and in calf to a 30-lb. bu A very choice lot—all my own raisi

A. H. BOSWORTH, DIXON, I

A SON OF
KING OF THE PONTIA

The World's Greatest Proven Sire

For $350

This is half his value—but his colo against him, as he is nearly all black. was born in August, is a splendid indi ual, and is out of a 19-lb. 3-yr.-old. D miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N

Big Jersey Dispersal Sale

On account of the destruction of my barn and feeds by fire the herd of Willow Glen Farm Jerseys consisting of:

50 Pure-bred and Registered Cows
30 Heifers, and 2 Bulls will be sold on

Wednesday, Nov. 20, 1918

At the Reading Fair Grounds, Reading, Penn.

Sale commencing at 11 A. M. This is an unusual herd of cattle. Forfarshire, Owl an Exile blood most of them bred to one of the best of Golden Ferns grandsons—A grea milking herd. If you want vigor, udder and teats get some of this Forfarshire blood Those who know about it require no argument. Being obliged to sell quickly I am un able to get out a catalogue.

J. H. REICHERT, - Womelsdorf, Pennsylvania

DON'T FORGET

Waukesha County Holstein Association Sale

Nov. 12th and 13th, 1918

At Waukesha, Wis.

Waukesha County has always held sales of quality Holsteins. Thi year they have an even better offering than usual, including:

6 30-lb. bulls and better, of serviceable age, and 18 other hig record bulls over 7 months of age.

70 choice cows, 2 to 10 years old, bred to the very best of sire and due to freshen this fall.

30 choice heifers—30-lb. and 40-lb. breeding.

A Sale of Well Bred, healthy animals of good individuality.

W. L. BAIRD, Secretary, Waukesha, Wisconsi



Who Wants This Bull at $1

Born December, 1917. Sire, Canary Aaggie Homestead, a 22.79-lb. three-year-old, she a daughter of Cloverdale P Posch, he a large list of A. R. O. daughters.

Dam, Rose Diamond Johanna Queen. Butter at 38 mos. 21.30; milk, 476.1. She will be tested again this winter and a 30-lb. prospect.

First check or draft of $150 takes him.

YOHN'S STOCK FARM, - WATERTOWN

Big Type Poland China Boa
SIRED BY WONDER

a champion boar at Wisconsin Fair. No better breeding. Splendid individuals, wonderf good enough to ship any place. Considering breeding and quality priced very reasonable.

BROOKSIDE JERSEY FARM, - ARTHUR ZENZ, LANCASTER, WISC

Better Butter Prices

Customers willingly pay *more* for butter they know is *perfect*, just as first churned.

Pioneer Parchment Paper keeps it clean and sweet. Makes butter *worth* more, and *sell* for more. The cost of Parchment Paper is small. The extra profit more than justifies it.

Our free booklet, "Better Butter" is your money-maker. Send for it.



THE PATERSON PARCHMENT PAPER COMPANY, 37 8th St., Passaic, N. J.



What Will You Build?

u doubtless need some new farm building this son. Perhaps, it will be a dairy barn, dwell-, garage, silo, hog house, or other outbuild-. Whatever it may be, you will get some hty helpful ideas from our new book,

"Natco on the Farm"

ells you how to have buildings that are dry, clean, sanitary—warm in winter yet cool in summer. It ws you how to save on repairs, insurance and coal . It illustrates scores of fire-safe farm buildings that "stand for generations." It's true economy to build Natco Hollow Tile—makes every building a per-ent investment. Write for your copy *now*. Ask also plans—free if you intend to build.

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HOLSTEIN BULL CALF

orn October 24, 1918, nearly all white and ne individual. Dam at 4 years, 2 months, days, produced butter 18.11, milk 480.20, in n days. Sire, Son of King Lyons of erdale, who is sired by Colantha Johanna mpion, a son of the world's record cow, ntha 4th's Johanna, who held the world's rd for 7 days, 30 days, 60 days, and one ; all at one time. Price $100, registered transferred.

th Side Farm, Frederick M. Hartranft, Mgr. Montgomery, Lycoming Co., Penna.

GUERNSEYS

If you want to increase your dairy profits you need to know about the cows whose average production, under tests supervised by State Agricultural Colleges, is three times as great as the average of all dairy cows in the United States. Ask for the "Story of the Guernsey".

The American Guernsey Cattle Club
Box H Peterboro. N. H.

Ibamont Guernseys

Headed by

n Diavolo of Linda Vista the Great $10,000 Bull

hoicest young bulls and several heifers for at reasonable prices.
. S. Bureau Animal Industry Health certi-te with all animals over 6 mos. old.
C. HAARTZ, 10 High St., Boston, Mass.

Registered Holstein Cows

me to freshen soon. Also heifers and heifer calves bulls. Very fine strain of good breeding. Non-ed dams. Prices right.
NRY EICHACKER, - - AKRON, IOWA.

Boys Get 100 Bushels from Acre Corn Plots

The reports of the Acre-of-Corn Club boys are proof that neither high price nor scarcity of seed corn last spring kept the club members from getting good yields from their Wisconsin pure-bred strains. Yields of more than 100 bushels to the acre have already been reported, and the record is, thus far, 110 bushels.

T. L. Bewick, state leader of boys' clubs of Wisconsin, urges that the young corn growers select and cure their seed corn carefully this year, and continue the practice, so that the state may never again suffer such a dearth of seed as it did last year. He announces that a plan is now under way to list the names of the young growers who have for sale pure-bred seed from fields planted at least 40 rods from any other variety. Those who wish to sell the seed can obtain names of buyers by writing J. L. Bewick, College of Agriculture, Madison, Wis.

Willowmoor Farms Still Breed Ayrshire Cattle

A report has been made to the effect that J. W. Clise, owner of Willowmoor Farms and prominent breeder of Ayrshire cattle, Washington, sold his herd to Mr. Gossard of Indiana. Many have assumed from this report the entire Willowmoor herd had been sold, whereas Mr. Clise still owns over eighty head after selling ninety-nine well bred animals to Mr. Gossard. Mr. Clise retained his herd bull and will continue the breeding of fine Ayrshire cattle as in the past.

Bulletins of the Week

Directions for Making Cottage Cheese on the Farm. Extension Circular 55, published by the Massachusetts Agricultural College Extension Service, Amherst, Mass.

Incubation, Brooding, and Feeding of Chicks, by R. V. Mitchell. Extension Bulletin 3, Delaware College Division of Agricultural Extension, Newark, Del.

Relation of Size of Dairy to Economy of Milk Production, by John A. Hopkins, Jr. Bulletin 118, Delaware Experiment Station, Newark, Del.

DAIRY MARKETS

CHICAGO, Ill., Oct. 31—Butter—Creamery, extras, 57½@58c; standards, 57¼@57½c; dairy firsts, 54½@57¼c; seconds, 52½@54c.
Eggs—Ordinary, 52@52½c; firsts, 54½@55c.
Cheese—Twins, 31½@32c; Young Americas, 33½@34c.

MILWAUKEE, Oct. 31—Butter—Creamery, tubs, 56½c; prints, 57c; extra firsts, 55c; firsts, 54c; dairy, fancy, 50c.
Eggs—Current receipts, returned, 49@50c; cases, new included, 48@49c; ordinary current, receipts, 42@45c; dirties, 32@35c; checks, 28@30c; April recandled, 43½@44c.
Cheese—Twins, 31¾c; Daisies, 33c; Longhorns, 32¼c; fancy Brick, 33c; Limburger, new, 1 lb., 28c; Limburger, new, 2 lbs., 27c.

NEW YORK, Oct. 31—Cheese—Quiet; state milk, common to specials, 25@32½c; skims, common to specials, 8@25½c.
Butter—Firm; receipts, 6,304; creamery extras, 58½c; state dairy, tubs, 47@58c; imitation creamery, prints, 45@46c.
Eggs—Firmer; receipts, 7,309; nearby white fancy, 90@94c; nearby mixed fancy, 52@62c; fresh firsts, 55@62c.

LIBERTY SALE

Having enlisted in aviation I will sell at auction on Greenwood Dairy Farm, Morris, Ill.

Thursday, Nov. 14th, 1918

17 Jerseys Tuberculin Tested **17 Holsteins**

15 Registered Jerseys—cows and heifers fresh or nearby springers. 2 bulls and calves.
17 Holsteins—cows and heifers, majority to freshen soon. Bred to, or sired by a son of Admiral Walker Pietertje-Walker Hijlaard, herd sire. Also necessary equipment for 200-acre farm. **A Rare Chance for Bargains.**
ALVIN C. GREENE, MORRIS, ILLINOIS.

AN INTERESTING SHORT STORY

We cannot prepare any better advertisement for

GOMBAULT'S CAUSTIC BALSAM

than the following voluntary testimonial from a man who stands very high in all business and social circles where he is known:



No. 2131 Wyoming Avenue, Washington, D. C., November 26, 1917.

The Lawrence-Williams Co.,

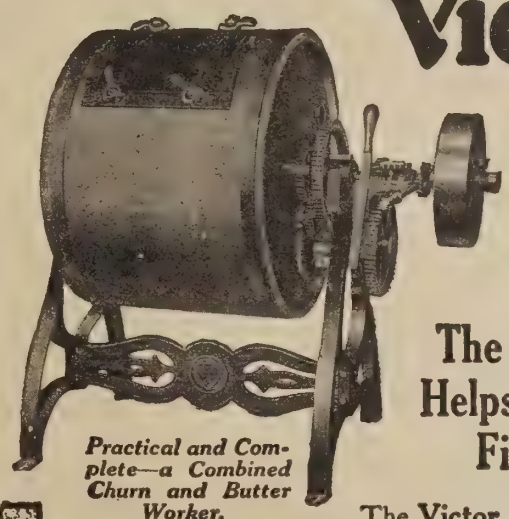
Dear Sirs:—I have had GOMBAULT'S CAUSTIC BALSAM constantly in my home for thirty-three years and have used it for a large number of animal and human ailments. It is by far the most effective, reliable and economical medical preparation that I have ever known. Its persistent use for chronic rheumatism, lumbago, neuritis and kindred troubles bring sure relief. For sore throat, pains in chest and acute cramps it penetrates and relieves pain. For mosquito bites, bee stings and bites of all other vermin it instantly stops all irritation. For itching between the toes and on limbs, it is an instantaneous cure. For fresh cuts, wounds and old sores, it eliminates all danger from blood poisoning and hastens a cure. A few drops of CAUSTIC BALSAM is more effective than half a bottle of any other application that I know of.

Truly yours, M. J. LAWRENCE.

GOMBAULT'S CAUSTIC BALSAM has had a steady, reliable sale in France, where it is made, for forty-five years. In the United States and Canada, with only moderate advertising, it has had an increasing sale for thirty-five years. The demand is produced strictly by its merits. Price $1.75 per bottle. Sold by druggists, or sent by Parcel Post on receipt of price. Guaranteed to give satisfaction. For further particulars and unlimited testimonials, address

The Lawrence-Williams Co., Cleveland, Ohio
Sole Proprietors and Distributors for the U. S and Canada

Victor Jr. Churn



Practical and Complete—a Combined Churn and Butter Worker.

The Churn That Helps You to Make Firm Butter

The **Victor Junior** Churn puts butter making on the farm on a level with creamery butter making. It keeps the temperature down much better than the ordinary churn both during the churning and the butter working.

The mechanism of the churn is such that it will not only churn quickly but will get all of the butter. It also preserves the butter from dust and flies because when the churning is done, the butter can be salted and worked right in the churn. It does not have to be removed until finished.

To get the best butter, the temperature of cream for churning should be from 50° to 60° F. according to the density of the cream. A rich or dense cream requires a lower temperature than a thin cream. Having the cream at the right temperature to start with counts much in producing firm butter of good appearance.

The **Victor Jr.** will do the rest. The drum of the churn is built of heavy, well seasoned lumber. Under average conditions the temperature in the churn should not rise more than a few degrees during the churning and working process. The rolls work the butter thoroughly. It comes out with a good grain and firm.



We make and sell more churns for creamery use than all the other concerns combined so you can depend on our recommendation of the Victor Jr. as the ideal farm churn. It is covered with our iron clad Guarantee.

Full information in our Dairy Supply Catalogue.
THE CREAMERY PACKAGE MFG. COMPANY
68 W. Kinzie Street Chicago, Illinois

When Writing to Advertisers, Mention Hoard's Dairyman

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Portage County Calf Club

The Portage County, Wis., Calf Club is developing into a strong county organization. The Club consists of twenty-four wide awake members, representing eight towns of the county; new applications for membership are already coming in for next year. An exhibit of twenty-two calves was shown at the Stevens Point Fair the latter part of August. It would be difficult to get together an exhibit of young dairy cattle, so uniform in size, age, and of such high quality and finish as the Portage County Calf Club exhibit at the Central Wisconsin District fair, held at Stevens Point, August 20-23.

The club sent an exhibit of six calves to the Wisconsin State Fair at Milwaukee, where they were entered in the State Junior Club contest. It was an inspiring sight to see the boys and girls there from all parts of the state, putting on the finishing touches and leading their beautiful calves into the show ring. The amphitheatre was packed with spectators, there to see the best things in the world, bright eyed boys and girls, and handsome, well bred, domestic animals; there they stood, a long line of pure gold. Five individual places in the classes were won by the Portage County Calf Club; Ray Halverson, first prize Guernsey; Clarence Gordon, second prize Guernsey; Esther Newby, first prize Holstein; Marion Cate, fourth prize Holstein; Leonard O'Keefe, second prize Jersey. The Portage County Calf Club was awarded the champion calf club prize.

These young people from Portage County are going into the stock business in a businesslike way; they have kept records of the cost of production since they began their feeding projects. They are well impressed with the following important facts relative to the dairy industry: It costs more than is commonly supposed to produce a dairy cow. There is a big difference between a calf that is properly developed and one that is not. It costs as much to raise an inferior bred animal as it does to raise one that is better bred. A well bred animal properly developed is a great source of satisfaction as well as a profitable business enterprise. Many people know these fundamental principles, but few realize the truth of them from actual practice. The Portage County Calf Club knows the value of these facts. Portage County is becoming more and more of a dairy county. Practically every one of these club calves means the beginning of a good herd of dairy cattle. The leading dairymen and dairy interests of the county are interested in promoting this kind of work.

J. M. COYNER,
Portage Co. Agr'l. Agent.



EARL O'KEEFE AND HIS PRIZE WINNING JERSEY CALF. EARL IS A MEMBER OF THE PORTAGE COUNTY CALF CLUB

Boys and Girls to Help Win the War

America's boys and girls are to have a chance this fall to help win the war. Seven great organizations engaged in providing for the comfort and happiness of our soldiers and sailors the whole world over have joined to give the young generation this opportunity to do its share.

The Young Men's Christian Association, the Young Women's Christian Association, the National Catholic War Council (Knights of Columbus), the Jewish Welfare Board, the War Camp Community Service, the American Library Association, and the Salvation Army, in their United War Work Campaign to raise $170,500,000 for the continuance of their war activities, will challenge every boy and girl in the country to serve and to sacrifice in the "great cause". A separate division of the campaign, that of the Victory Boys, will have for its goal the lining up of "a million boys behind a million fighters". The girls too will have a separate division to be known as the Victory Girls.

Those enrolling in either division must pledge to earn and give an amount to be individually determined for welfare work among our soldiers and sailors, and this means that no boy or girl can give any money he or she has not earned.

The war has called half our workers away from their ordinary peace-time occupations, leaving much work undone in the homes and in the home communities. As the boys and girls will find their tasks in these now neglected fields their united effort will go a long way toward helping us keep our affairs in order over here, while the giving of money earned will make for the comfort and morale of our fighters. — NATIONAL PUBLICITY DEPT.



ESTHER NEWBY OF PORTAGE COUNTY, WISCONSIN, AND HER HEIFER CALF THAT WAS GRAND CHAMPION AT THE COUNTY FAIR AND FIRST PRIZE HOLSTEIN HEIFER IN THE JUNIOR EXHIBIT AT THE WISCONSIN STATE FAIR.

My Experience with Flemish Giants

HOARD'S DAIRYMAN JUNIORS:—I have not written in a long time, having been away from home since the first of May. I bought a seven-eighths Jersey cow before I left that gave 42 pounds of milk daily.

My Flemish Giants have been doing fine. I have twenty-four now and one doe is working on her nest and will have young in two or three days. Nearly all my young ones are does. I have four does four months old and two six months old the 18th of Oct., that weigh eight pounds. I sold the mother of these two rabbits to a Hoard's Dairyman Junior, Gordon Ball of West Virginia, after breeding her and she had eleven young. I read a letter from a junior who said he couldn't have any success with his Belgian Hares. Lack of attention, I suppose. Rabbits and hares are like a cow in many ways. If a cow does not have proper care and feed she will not do good work. The same with hares and rabbits. If this or any other junior will write me I will try to help him out.

Another junior wanted to know how to build hutches. I have built an addition to our barn 12 ft. by 16 ft. and am now working on the hutches. They are built three tiers high and each pen is 5 ft. long, 30 inches wide, and 28 inches high. There are two sliding doors to each pen, the frames being made from ¾ inch by 3 inch dressed poplar. The floor is of 6 inch tongued and grooved flooring. The material cost me $80. Father and I did the building of the house and I am making the hutches myself.

I have over 1500 lbs. of soy beans, also some pure clover hay to feed this winter. The soy beans were nearly 5 feet high. In feeding alfalfa hay care must be taken not to feed too much as it will cause kidney trouble. The hutches must be kept clean. With cleanliness, good feed, but not too much, and plenty of cool, fresh water I don't see why anyone can't succeed.

The picture I am enclosing is of 3 dark steel gray does four months old, that I am keeping to breed from. Pure-bred Flemish Giants is all the kind I have. My address is Johnson Tenn., R. No. 1.

Tennessee. GARRIE H. DINSMO



THREE FLEMISH GIANT DOES, 4 MONTHS OLD, BY GARRIE DINSMORE, A TENNESSEE JUNI

Junior Letters

Hoard's Dairyman Juniors:—Have no writing to the juniors for such a long tim maybe the juniors have forgotten me but still a junior.

My calf is growing pretty good now don't think that I will get any more th teen dollars for him. If I get that I lucky. Now as we have our grain c taken in, the calves can go wherever they

Our school started Monday, Septembe so I can not stay at home and take c my calf.

The grain in this section did quite we year for not having very much rain. were so many cutworms around here th garden stuff did not have much cha growing. The potatoes came pretty g though they could have done a little bet least our potatoes.

I wish that some of the juniors would to me. My address is Box 341, Two H Minn. Arthur Car

Hoard's Dairyman Juniors:—It is time since I wrote you so I thought I write again.

The crops were pretty good this year the hay. That was about a half cro cucumbers were frozen in a recent fros had quite a few apples this summe raspberries are good, too. We are havi ful cold weather and it has been rainin often. Two of our sows had young on

We built a hay box this summer an very handy for the short hay.

We have been chopping trees all th time we get. We are going to sell so winter.

My heifer is about a year and nine old now and she is looking fine.

We expect a good crop of mangels th

Well, I guess it is time to close. Wis the juniors good luck.

Michigan. Adrell Zu

Hoard's Dairyman Juniors:—It is time since I wrote to the juniors. I busy with the fall work I did not get write. We filled our silo and 6 more. as I was oiling the machine my fin caught in the cog wheel and tore off n finger on the left hand. I could not thing for a month so I thought I woul

I bought a calf from my father and for it. I fed it milk a few days and t it calf meal and water. I could get n around here so I bought a calf.

I have not started school yet but a pretty soon. We have a new school town now but it is not finished yet.

I think this is all for this time s close, wishing the juniors good luck.

Minnesota. Louis H.

Hoard's Dairyman Juniors:—My brother and I have been juniors and Hoard's Dairyman very much.

My father takes Hoard's Dairyma night he pointed out the story "Bull W page 225, by M. O. O. I certainly something because I take care of our I am only 18 years old, besides I am junior.

Well, my letter is long enough so I off.

Yours for the downfall of the Kaiser

Montana. Archie R. Ra

Hoard's Dairyman Juniors:—I rece fob, creed, and button the first of which I thank you very much. I busy this summer with plowing whea and cultivating the corn which my fa

Today we are filling the silo, 10 ft. by
from 4 acres of corn.
n going to school now again. My teach-
ame is John Etterbeek.
have about 10 acres of corn. We have
abbits. We have our threshing all fin-
We have two little heifer calves. One
weeks old and the other is 3 weeks old.
oth are grade Holsteins. Both cows are
ilkers. We have 6 heifer calves in all.
d three heifer calves in the pasture all
r and we have three in the barn. We
our cows and we milk them all.
think it is time to close, wishing good
all the juniors in school. My address is
1, Zeeland, Michigan.

John Meppelink.

d's Dairyman Juniors:—This is my first
o the juniors. I received my fob, but-
d creed a long time ago, and thank you
m.
a freshman in high school. Our agri-
l class has a tractor.
ve fourteen rabbits now. I had about
st spring, but we ate a good many and
ight dollars' worth. I have a calf about
nths old. I bought her from my father
dollars. I have an acre of beans. If we
et rain again I will probably get a
good crop. We are cutting some of our
eans today.
ing the juniors good luck I will close.
rnia. Merrill Worthington.

d's Dairyman Juniors:—I thought I
write you a letter tonight.
were filling silo today. I had the job
g in the silo. They had some of the
pipes for a smokestack and when we
of the silo for dinner we looked like
.
ke our milking machine very well. We
threshing done a month ago.
e been going to school for a week. I
he 6th grade. There are only 11 children
chool; 6th grade is the highest we have.
alf is getting big and fat. I feed her
d corn and hay. I am cooking a feed
full of barley. The pigs like it better
ything else.
re having some rain around here now.
I think I will close wishing good luck
he juniors.
nsin. Gordon Hengestler.

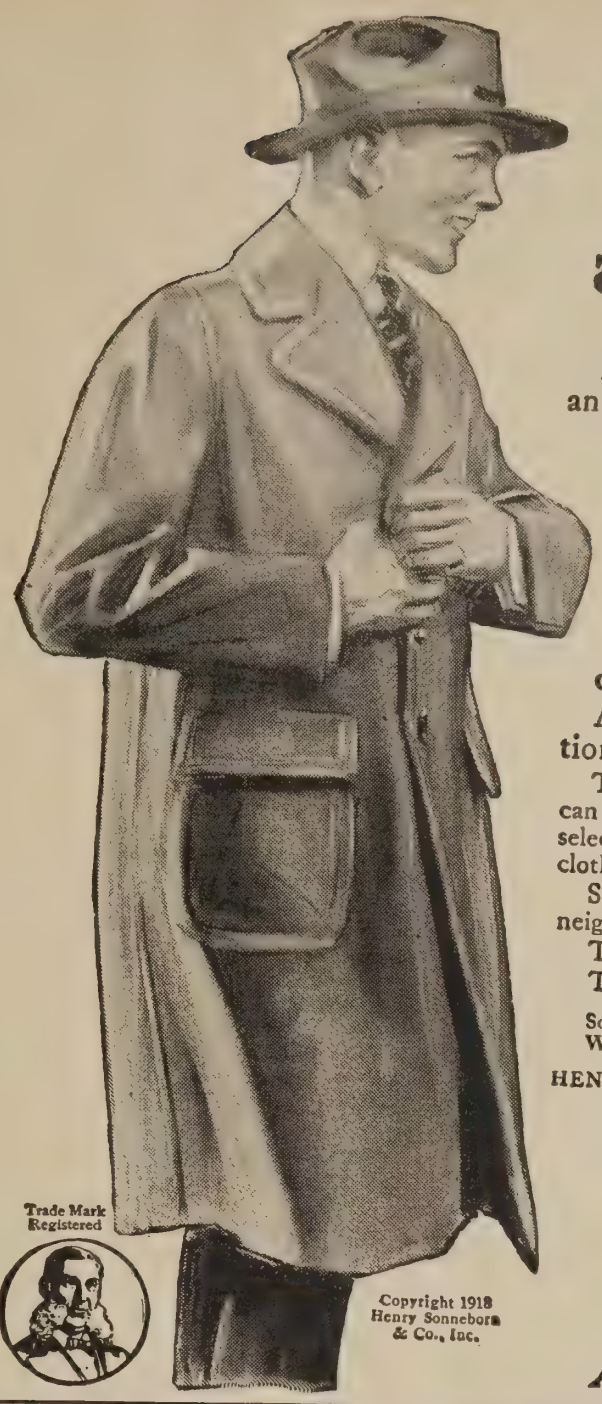
's Dairyman Juniors:—Hello juniors!
w are you all? This is my first letter.
d my fob, creed, and button some time
have been so busy I could not write.
e a sow and a pair of gray Durham
orn this spring. We have 14 head of
horses, and 3 pigs and a few hens.
ther gave my older brother and me a
land which is kind of rocky and has
old apple trees which we intend to

two younger brothers and one older.
a big sister who is a schoolma'am. I
ears old.
some of the juniors would write me
apping.
letter is getting long I will close,
the juniors good luck. My address is
1, Bristol, New Hampshire.

Herbert Hall.

s Dairyman Juniors:—My father re-
ur letter Tuesday. He said you won-
nere Van Ray was and I thought I
t you know that I was still alive and
.
ve fifteen milk cows and are milking
them. I like to live on a farm and
here as long as I can.
b I got from you is a lasting one and
is also in good shape. I have it in a
d I keep it in my room.
going to school at the present time
ce it very much.
ose the rest of the club boys live on
have a very intimate friend that
chool who also belongs to the club.
will close for this time. I was glad
rom you.
sin. VanRay Pearson.

Dairyman Juniors:—I received your
ew days ago and you wanted to know
s for coming along with my chickens.
m having good luck with them. The
uble with most of the juniors is that
't take good enough care of their
They don't spend enough time with
y hens have layed good the whole
ugh. I am going to make over three
dollars off of ninety hens for this year.
record of everything. Last week I
forty-one dollars' worth of spring
I have two dry mash feeders in the
e where the hens can get feed any
want it. I mix one part cracked
part bran, and a third shorts; put
the dry mash hopper and let the
have all they want of that all of the
the winter I feed them a little corn,
some wheat, if I have it, morning
I feed them what few scraps there
ff of the table at noon and boil up the
elings and feed that to the chickens
nter with plenty of grit and skimmilk
water and they will have to lay.
ed my pig this morning and he
28 lbs. He is five months old today.
th he gained 46 lbs. It has always
o feed our pigs well. I raised this
a bottle ever since he was born.
guess I have written enough for this
will close.
ta. Percy R. Boorman.



Reasons why Styleplus Clothes are worn everywhere

Because they are stylish in appearance—designed and tailored by experts.

Because they are built for service—carefully constructed of good materials that can be depended on to wear well.

Because they are moderate in price—enable you to dress well and practice thrift.

Styleplus are manufactured on the standardized plan—a few grades in big volume, with costs reduced and clothing values increased.

At the price, each grade is always an exceptional value.

There is a big advantage in buying clothes at a store. You can *see* the different styles, try them on, and make the best selection. You can be certain of the fit *before* you order the clothes.

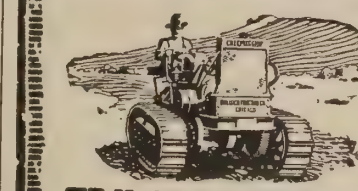
So make your pick today at the Styleplus Store in your neighborhood.

Two grades in Styleplus suits: $25 and $30.
Three grades in Styleplus overcoats: $25, $30 and $35.

Sold by one leading clothing merchant in most cities and towns. Write us (Dept. AG) for Styleplus booklet and name of local dealer.

HENRY SONNEBORN & CO., INC. Founded 1849 Baltimore, Md.

Styleplus Clothes $25-$30-$35
TRADE MARK REGISTERED
"Each grade one price the nation over"
America's only known-priced clothes



IT IS the necessity of cutting labor costs and releasing men for the front that makes the tractor a present necessity.

BULLOCK CREEPING-GRIP TRACTOR
Protected by U. S. Patents

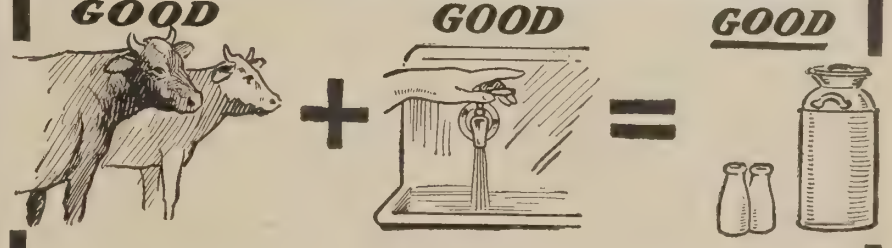
is an old acquaintance of war-time conditions As sire of a worthy son, the British Battle Tank, it knows the grudging warrant of rough ground; but lumbers on—majestic, resolute

The BULLOCK CREEPING GRIP TRACTOR promises to do more and better work than three men and six horses on any farm. We only ask that you encourage it to make this promise good.

A three or four bottom tractor, depending on soil conditions. Write for catalog TODAY.

BULLOCK TRACTOR COMPANY
1809 Diversey Parkway
Chicago, U. S. A.

GOOD + GOOD = GOOD



and good milk means good Profits—for YOU! You have the good Cows. We can supply you with the

BETHALTO Water System

which will furnish abundant pure water, on tap, in your Dairy, Bathroom, Kitchen, Stables, Barnyard, Pastures, Garden — anywhere you want it—any time you want it—fresh from the very bottom of your Well or Cistern. Positively eliminates freezing troubles. Extremely simple, and stays in order. No trouble at all to install. You can install it, or we will.

Write to our Department H for free booklet.

SOUTHERN AUTO & MACHINERY CO., 116 Robert Avenue, St. Louis, Mo.

For An Auctioneer

and one that knows values of both

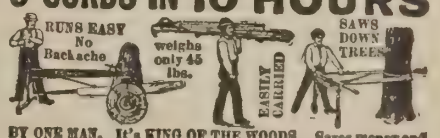
Pure-bred and Ordinary Live Stock

Write me for dates as I have 95 per cent of all sales in this section of country. Also sell Real Estate at Auction.
F. H. HEMBROOK, - Chetek, Wisconsin.

GUERNSEY BREEDER'S JOURNAL

Indespensable toall interested in Guernseys or improving their herds of dairy stock. Well gotten up. Full of pertinent facts. Giving latest records of production. With Hoard's Dairyman 1 year, $2.75.
Send for sample copy.
GUERNSEY BREEDER'S JOURNAL,
Peterboro, New Hampshire.

9 CORDS IN 10 HOURS



BY ONE MAN. It's KING OF THE WOODS. Saves money and backache. Send for FREE catalog No. B126showing low price and latest improvements. First order gets agency.
Folding Sawing Machine Co., 161 West Harrison St., Chicago, Ill.

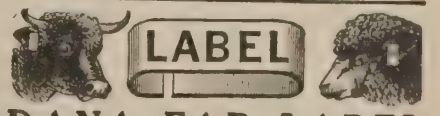
Ear Tags FOR STOCK



Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 156 W. Huron St. Chicago

THE VERY LATEST
The 1916 Improved
STANCHION

Is giving thorough satisfaction, write to "HUMANE STANCHION WORKS," BARABOO, WISCONSIN, for Literature.



DANA EAR LABEL

Stamped with owner's name or address and serial numbers. Send for free samples.
C. H. DANA, 55 Main St., West Lebanon, N. H



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

For Sale or Trade—Six Holstein cows, five heifers, two heifer calves, one bull. This stock is pure-bred and registered. Cows heavy milkers. The sire of the heifers is owned by O. C. Barbour, the match manufacturer of Akron, Ohio, who bought him at the sale where I bought these cows. Will sell cheap or trade for beef cattle. Prefer Herefords, but want something don't have to milk. Two of these cows give seventeen gallons of milk per day. Would like to trade for pure-bred Herefords or Shorthorns. J. A. HUGHES, Huntington, W. Va.

Pure-bred Holstein sale at Mulvane, the Holstein center of Kansas, Thursday, Nov. 14th. 45 head of registered cows and young stock. 22 cows in milk, 12 heifers, 10 fine young males, some old enough for service. Semi-official records of the Arkansas Valley Cow Testing Association. Terms, six months' time without interest. A. N. HOWARD, Breeder and Owner.

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% pure-bred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

One carload of high grade Holstein cows and heifers for sale; cows bred to Pabst Maplecrest Champion whose dam has a record of 34.492 lbs. butter in seven days. ELDER LAWN DAIRY FARM, Mike Kieffer, Proprietor, Fredonia, Wis. 13-4

Four extra good registered Guernsey bulls for sale. Age 7 to 9 months, May Rose breeding, being sired by Langwater Frederick 22268, from dams with A. R. records 510 to 740 lbs. fat. Pedigrees and sale list. HOMER F. RUNDELL, Livingston, Wis. 15-tf

For Sale—High grade Holsteins, all ages. Choice springers a specialty. FRICK & HOESLY, New Glarus, Wis. 15-5

High grade Holsteins—Sired by 28-lb. bull, bred to better one. Heavy producing dams. Five young cows and heifers, $500. H. W. CRAWFORD, Rock, Mich. 15-2

Farview Farm now offers a registered Holstein-Friesian baby bull, $125 in check or Liberty Bond. Choice breeding and nicely marked. Write. W. A. TAYLOR, Roberts, Wis. 15-tf

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

For Quick Sale—50 head of high grade short yearling Holstein heifers, selected out the best cows in the county; mostly white, no black legs, in thrifty condition, must sell; first check of $1,250 takes the lot F. O. B. Libertyville, THOMPSON FARM, Libertyville, Ill. 15-2

Holstein springers—7 high grade heifers, coming three years old, to freshen soon. Send for photo. Price $100 each. Heifers at Lake Mills, Wis. Write ALBERT C. WOLLIN, Grove City, Pa. 16-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 16-tf

For Sale—Holsteins, three bulls ready for service, also calves. Must go to make room. A. R. O. backing. Mail, Waukesha, Wisconsin, Route 9, farm one mile northeast of Genesee Depot. J. W. HOWARD.

On account of shortage of help, will sell 40 springing two-year-olds, for $90 per head. CHAS. THAYER, Palmyra, Wis. 16-2

Four registered Holstein cows, springers, two ten-month-old bulls. C. F. DINEEN, Cedarburg, Wis. 16-3

For Sale—Two pure-bred yearling Holstein bulls, dark. One a grandson of Johanna Bonheur Champion, two nearest dams average 1,069 lbs. butter, and out of a 15.46-lb. two-year-old. Good individual. The other is a son of Johanna Bonheur Champion and out of an 18-lb. 4-year-old whose dam was a 26-lb. show cow. First check for $150 takes the choice of this pair. CLOVERCREST FARM, Amboy, Minn.

For Sale—Holstein bull born January, 1917; dam 17-lb. two-year-old, grandam 31-lb. cow, sire son of King Korndyke Pontiac Lass. Price $300. OSCAR SYLVESTER, Fort Atkinson, Wis.

STOCK FOR SALE

Holstein grades—Sixty for sale. The best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minnesota. 16-4

150 high grade Holstein cows and heifers for sale. 35 well marked heifers, close up springers, ready now. 50 head to freshen in December. Also a number of young cows due to freshen in next three weeks. Don't wait to write. Come and see them. Special inducements on car lots. Will meet you by appointment at Libertyville, Highland Park, or Prairie View. EVERGREEN FARM, Prairie View, Ill. 16-3

Grade Holsteins—36 head, 2 years old, bred to 30-lb. bull, due to freshen in 30 days. Large and well marked. Write for particulars. H. P. CLEVENGER, Cuba, Ohio. 15-4

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernsey bulls, Advanced Registry breeding. GLENN CLARK, Eau Claire, Mich. 13-5

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernsey bulls of serviceable age. Also bull calves, A. R. dams, noted sires. May Rose, Golden Secret and Strong Anchor breeding. Satisfaction guaranteed. TARBELL FARMS, Smithville Flats, N. Y. 14-4

Hoard's Dairyman Farm offers six splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Excellent registered Guernsey bull calf, 3 months old. $50. B. McADAM, Mosinee, Wis. 15-3

Guernseys for Sale—Three excellent heifers, granddaughters of Governor of the Chene and bred to Clara's Sequel. Can also spare two cows and two bulls serviceable age. B. L. RUNDELL, Hammond, Wis. 15-3

For Sale—One heifer, four months old. Sire, Florham Quality, son of Ne Plus Ultra. Dam, Glenwood heifer. One bull calf. Sire, Florham Quality. Dam, A. R. cow by Glenwood's Combination (8927). H. C. HURLEY, Rockville, Md. 15-3

Guernsey bull six months. Dam made 443 lbs. A. R. at 3. Pedigree and photo. LA-CROSSE COUNTY AGRICULTURAL SCHOOL, Onalaska, Wisconsin. 15-2

For Sale—A proven bull, registered Guernsey, five years old, cannot use longer, sorry I cannot. For picture, pedigree, full description, etc. write. F. N. FISH, Strongsville, Ohio. 16-2

Registered Guernseys for sale. Bulls 10 months old and bred aged cows from the O. T. Remington herd. Overstocked. J. R. TIFFT, Elk Mound, Wis.

For Sale—Yearling, registered Guernsey bull, Glenwood breeding. Dam in Advanced Registry. Tuberculin tested. Good individual. Price $90. Alvin Handrich, Manager. HENRY F. ORA, 173 W. Lincoln Ave., Oshkosh, Wis. 16-2

Registered Guernseys for sale. Males $85, females $200 and up. FRED CLOW, New Lisbon, Wis.

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, six weeks old, 95 per cent pure-bred, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 16-tf

Two Guernsey bull calves from imported 2-year-old heifers milking 28 pounds each daily, and from excellent sires of Sequel breeding. Price $65 each at six weeks old. HUGH FERGUS, Slippery Rock, Pa.

Registered Guernsey bull calves by May Rose sire. Two about four weeks old out of Advanced Registered dams and one three months old. Price $65 each. SHORELAND FARM, Hartland, Wis.

One carload high grade Guernsey heifers. Due to freshen in spring. Price $60 each. MEL. SCHWARZ, Norwalk, Wis.

Jerseys—Only three bulls left. Pure St. Lamberts; Melia Ann strain. Enough said. Farmer's prices. CLYDE S. MACKENZIE, Houghton, Michigan.

STOCK FOR SALE

Jerseys—Choice bulls, service age, excellent blood lines. Will sell at reduced prices to make room. CLOVER VALLEY FARM, Medford, Wis. 16-3

For Sale—Jersey bull, dropped Aug. 25, 1916; sire "Fairy Prince Raleigh" of Longview herd, whose dam produced 538 lbs. butter in one year; dam, Mon Plaisir's Countess, 527 lbs. butter in one year; price $125 f. o. b. Lowry City, Mo. D. Bruce, Osceola, Mo.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

STOCK WANTED

Wanted—Several good, young, registered, Guernsey cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 13-6

Wanted—A few head of registered Holstein cows or heifers. Must be good stuff, A. R. O. preferred. What have you? Owners only. WALTER E. COOK, Unity, Wis. 15-2

Wanted—30 high grade Holstein yearling heifers. LOUIS BENSON, Randolph, Mo. 15-2

Wanted to Buy—A few pure-bred Holstein cows, fresh or springers. LEVI CONE, Route 2, Athens, Ohio.

Wanted—Several cars large type pure-bred Holstein springers about three years old, subject federal tuberculin test and retest. Forward cow testing association reports of your cattle, giving yearly record milk and average per cent. Give weight, pedigree, price, full description first letter. Also bull from dam with above, 1,100-pound yearly record, 4% test, Pontiac or Korndyke breeding preferred. MAYFIELD FARMS, Denmark, S. C. 14-3

Wanted—Several good registered Holstein heifers coming fresh this fall. ANDREW HASELTON, Alexandria, Minn.

Wanted—To buy for cash. Registered Holsteins, young cows and bred heifers in lots of ten or more or will buy entire herds of females if priced right. Address LOCK BOX 97, Sterling, Ill. 16-2

SWINE

For Sale—400 stock pigs eight weeks old for $7 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 16-tf

Duroc Jersey bred sows: boars, and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

Duroc Boars, sired by the 1,000-lb. Grand Champion King Defender and by Pathfinder and Orion Cherry King boars. High quality fellows only. Come and see them or write. GANT'S FARM, Delavan, Wis. 9-8

For Sale—Registered Poland-China boars. Reasonable prices. CHAS. W. O'NEILL, Bridgeport, Wis. 16-5

SHEEP

For Sale—2,000 selected Rambouilet breeding ewes; 1 to 4 years old, price $14.50 to $18 per head as per quality. Can make immediate shipment. Will sell in any size lots from twenty-five up. Can furnish a few good rams with them. C. A. SOLIDAY, Phillips, Wis. 14-3

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

Giant Strain—Bronze turkeys, both sex; females $5.00 to $7.00; males $7.00 to $10.00; any number. Write. Satisfaction guaranteed. MRS. GEO. CONNELL, Box 14, Bancroft, Wis. 15-3

Large, pure-bred White Rock cockerels from National Show winners, $3.50 to $5.00 each. URBAN STEIL, Fort Atkinson, Wis.

Choice—Single comb Rhode Island Red Cockerels. Laying strain. $3.00 to $5.00. C. E. COPELAND, Jefferson, Wis. 16-2

For Sale—Gray Toulouse geese; trio $10; gander, $3.50. Also some Buff geese. MRS. JOHN VANDRE, R. 2, Mendota, Ill.

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 16-4

FOR RENT

For Rent—Fine 500-acre farm on shares. Modern improvements. Located in the village one-half mile from milk plant. Present renter crippled hand filling silos this fall. Funds required to buy the renter's equity. Address D. C. COOLIDGE, Downing, Wisconsin. 13-tf

Wanted—Renter on shares. Must be able to handle 30 cows and to buy half interest in machinery, horses, hogs, sheep, etc. Good chance for right man. CHAS. W. O'NEILL, Bridgeport, Wis. 15-2

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Danish Cabbage Seed—Look up Danish cabbage seed situation then send order immediately to us. Pedigreed strain. Cut 20 tons per acre for last 10 years. Reference Department of Plant Breeding, College of Agriculture, Ithaca, N. Y. Price $20.00 lb. REED BROS., Cortland, N. Y.

A Splendid Spring Wheat for Sale—We offer for sale a limited quantity of the Blue Ribbon variety of spring wheat, only 70 bushels. Our record with this wheat is as follows: Last spring we sowed two bushels on two acres of land. The return, threshers' measures, was 76 bushels which grades uncleaned, 61 lbs. per bushel. We will sell this wheat well cleaned for seed for $3.00 per bushel. Thirty cents per bushel extra if bags are furnished. W. D. HOARD, Prop., Fort Atkinson, Wis. 16-tf

WANT TO RENT

Wanted—To rent, dairy farm furnished. Experienced dairyman and farmer. J. F. KLIMAN, 907 Mason St., Elkhart, Ind.

FARMS FOR SALE

Booklet on request presenting facts by State Commissioner of Agriculture describing Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down, forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis, advance money for cow, pig and chicken when you can supply feed; also grubstake you during farming season providing you put your entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, 7

If you wish a farm in the best grass section of the south where alfalfa and all the clovers including Red White, Alsike, Sweet, Crimson and Japan grow to perfection, where soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley where you have a creamery making fine butter and shipping Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. GURLER, Macon, Miss. 25

Farm bargains—40 acres, good buildings, fine land, one-third cultivated, close to R. R., for cows, horse, machinery, and crop $3,000. 80 acre farm $2,900; 160-acre farm $3,600. Special snaps: 40 acres $300; 80 acres $600. Write for particulars to THE E. L. C. CO., M-C 31, Merrill, Wis. 13

A few of the best buys in West Central Wisconsin, best of markets, ten trains daily, ship your milk to creameries, cheese factories or milk condensery. Climate same as Southern Wisconsin. 80-acre heavy clay loam soil, nearly level, all under plow, basement barn, fine modern house, 18 head of cattle, 3 horses, all machinery, crop hay, etc.; possession at once, 3 miles to town. $12,000.00. 240 acres, fine heavy clay loam soil, 100 acres under plow, balance timber and pasture, fine set of buildings worth over $6,000.00. 6 miles of one town and 8 miles of another town, near church and school; good neighborhood. 19 head of cattle, all machinery, and feed with it, ham silo. $15,500.00. $4,000.00 down, balance to suit time. 160 acres all under plow, a fair set of buildings, level, prairie land. You can't lose on it. $8,000.000. Near town. Write, H. C. ENFELDT, Menomonie, Wis.

For Sale or Trade—240 acres of as good land as there is in Wisconsin. Everything up to date, new this year. Will take in 80 to 160 of it. Will sell stock and tools, a little down, ten years' time on the rest, or twenty. Address EUGENE T. BELL, Hustler,

Farms in the Mississippi Prairie Belt, all grass and clovers. Corn, hay and live stock proposition. Ideal climate, good neighbors, schools churches, good roads. Main line of railroad. Close to large markets. Write now. HANSEN, Macon, Miss.

For Sale—875 acres the best alfalfa, clover and hog farm in north Mississippi, 400 acres in alfalfa and corn now; strong, limy, lime soil ten feet deep, good well and running water. Come and see the alfalfa and corn on this farm now. Price $60. For quick sale. Don't wait to write letters. Come and see the crops on this land now. Will make easy terms. Ten years' time, 6 per cent. WISHART, Aberdeen, Miss.

Maryland—117 acres; about 100 tillable; in high state of cultivation; produced 64 bushels of oats to acre this year; ideal dairy farm; two new tile silos of best construction; new cow barn, stanchions for 30 head; corn and hog pen with corn crib attached; one field in alfalfa, grows three crops a year; on good road, quarter mile from depot on main Baltimore and Ohio; will rent for one third dollars; school house across the street, church near. Price $12,500; $3,500 cash; easy terms for balance to right man. Address OWNER, 1721 Tribune Building, New York City.

Only one lifetime chance to buy such a fine farm. Owner became wealthy and selling. About 6,000 acres, perhaps few acres more or less. Will survey it for purchaser. Steamboat landing on farm, daily mail, telephone. General Store doing $25,000 annually. Fine residence. Electric lights, all modern conveniences, 12 good tenant houses. $30,000 for standing timber. Finest climate for raising. Fully equipped shingle mill $17,000, now operating. Can also make terms. 700 acres very fertile land cleared. Come and see this year's crops. 5,000 can be raised annually. Just sold carload 17c. Owner retiring. Will sell all for a hundred ten thousand dollars. Half cash, balance long time. Plenty business for half a dozen men to buy together. Good title. HANSON, Conway, S. C.

Dairy and Grain Farm, 320 acres, close to ¾ mile loading station. Splendid improvements, equipped for dairy purposes. Price only $90 per acre. Write for full description. MANSFIELD LAND & LOAN CO., Coffeyville, Kansas.

Wanted—Your name, if you are interested in bettering yourself, for we can help you. We show you choicer lands, at less money than you can find anywhere else. Aitkin county is noted as a dairy district. Everything is right, and, as yet, prices are very low, but our company will give you long time, if you want it, to pay. Don't select a farm anywhere till you have read our literature. ARTHUR, Land Agent, Rock Island Railway, 154 Manhattan Building, Duluth, Minn.

For Sale—Dairy farm central Wisconsin, near Grand Rapids, population 8,000. 80 acres, 90 cleared, balance hardwood, some sugar bush. Near schools and churches. Fine red granite and stucco 8-room house. Barn 36-100, addition 25x36 containing two silos. Full equipment machinery. James barn equipment. Two good span horses, 22 Guernsey cows and pure-bred Guernsey bull, other stock. Water under pressure system, house and barn. This rare opportunity. Investigate. BOX 295, care Hoard's Dairyman. Fort Atkinson, Wisconsin.

FARMS FOR SALE

1 234-acre dairy farm with 110 acres asture, good 9-room house, milk house, n for 30 cows, horse barn 28x32, im- shed, silo 14x36, wind mill and wells, fruit for family use. Well located irable home at $60 per acre. JOHN- OCTOR REALTY CO., Oswego, Kans.

down gets 105 acres; buildings alone ore than whole price asked. On im- oad, mile to R. R. town, stores, school, etc. 70 acres smooth, level loam river-watered, wire-fenced pasture, t wood, timber, fruit. Good 8-room verandas, 50-ft. barn, painted, good , other buildings. Immediate sale de- to settle. $1,900 gets all, $800 down, ms. Details page 25 Strout's Fall atalogue of this and other bargains, th stock, tools, crops, fitted wood; copy A. STROUT FARM AGENCY, Dept. 2 Marquette Bldg., Chicago, Ill.

Practical Farmer with means to equip it, and ambition to make his perma- ne amid the most desirable surround- ere his children can live at home and e best educational advantages, and e can spend his old age with greatest ent and satisfaction, an opportunity is offered, first to lease, and possibly to exceptionally desirable farm of 230 dmirably located for dairy and pure- tle farming and well adapted to grain; of farm buildings, one of which is a ipped down-to-date dairy plant, which ot be duplicated even in normal times than $10,000. Two good dwellings tenant house. This farm has been for many years by one of the best in the township, who on account of easing ill health of his wife has with- ut month decided that he must give up , and dispose of his stock, including 65 registered Holsteins, at the best price ainable, even though reasonably certain orth more next year. Location of un- d attractiveness, within two miles of of Ithaca and Cornell University. Ad- T. NEWMAN, Ithaca, N. Y. 16-2

FARMS WANTED

you sell your farm, if you got your Sell direct, no commissions. Particu- e. CHARLES RENICH, Woodstock, 14-tf

SALESMEN WANTED

ien—Many of our salesmen have gone and we are filling their places with mpt from draft. Lack of competition at prosperity of our customers makes best we have ever known. Selling ex- desirable but not necessary. McCON- COMPANY, Dept. 67, Winona, Minn. 14-4

ish to secure the services of a reliable act as our representative in farm sec- ere farms can be bought under $100 . The capital, business methods and n of the Largest Farm Selling Agency orld will be back of you to assure suc- nless successful in previous work and the confidence of your townsmen do y. Experience not necessary, but must automobile or good team. Our work g capable men $2.500 to $5,000 and arly. State all particulars first letter g your age, business experience and if a property owner. All communica- nfidential. E. A. STROUT FARM Y, 312 Marquette Bldg., Chicago, or t Bldg., Minneapolis, Minn.

MACHINERY

ale—Reasonable, almost new, No. 15 separator. MEYER SALOMON, Ste-

ale—Waterloo Boy Milker. Two double Double cylinder vacuum pump. 24 n cocks, etc. Used only a short time. class condition. First check for $150 . Address KENNETH BEBB, Moore- rm, Mentor, Ohio.

DOGS

le Collies and Old English Shepherds. ained dogs and brood matrons. Large ive list 5c. W. R. WATSON, Box 520, , Iowa. 5-tf

pups five months old. Males $6.00 ILLY DAWE, Troy Center, Wis.

PRINTING

's Dairyman Art Dept. designs your ead free. Just tell us your breeds of Book of 5,000 Farm, Ranch and Cottage 5 cts. Ask for samples of letter heads, s, shipping tags, cards, milk tickets, or stationery is more of a damage help. Address HOARD'S DAIRYMAN, t., Fort Atkinson, Wis. 8-tf

HAY

a hay for sale. Write or wire us for l prices. ALBERT MILLER & COM- 192 North Clark Street, Chicago, Ill. 26-tf

EXCHANGE

d to Exchange—160 or 320 acres of ll improved, all tillable land, in the er Valley of Minnesota for registered er-one grade Holstein milk cows and Address WM. OHLHAVER, Aurora, 14-4

Exchange—160-acre farm in Muskogee Oklahoma, for herd registered or high ernseys. Farm is A-1, 80 acres under on, rest pasture and hay. Could all be d. Fenced and cross fenced. New x57, good 5-room house. Within one producing oil wells, 1½ miles of good n, 18 miles from Muskogee, the sec- est city in the state. Address BOX Hoard's Dairyman. 16-4

FEEDS

Feed—Made entirely from cottonseed d hulls, mixed in proper proportion, acks. Cheap, satisfactory, balanced ra- feed. Dairy cows. Beef cattle. Car mpt and deferred shipments. F. W. & CO., Memphis, Tenn. 15-2

FOXES

ale—Silver, black and Patch foxes. G LYONS, Waterville, Nova Scotia. 14-10

PARTNER WANTED

Partner Wanted—300-acre farm in Eastern Massachusetts, wants manager on 50-50 basis. No investment required. Guernsey cattle. Write fully. JOHN A. DAVIS, Salem, Mass.

MISCELLANEOUS

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Married man on my dairy farm who can do general farm work and willing to co-operate with my herdsman in caring for my Guernseys. Wife must be willing to board two extra men. State wages in first letter. H. C. ADAMS, Algona, Iowa. 7-tf

Wanted—Young, experienced, married man on large Guernsey dairy farm. Start Nov. 1 or later. Good habits, good milker. Prefer wife who can milk. Give reference, age and classification. Furnish wood and milk. Wages $750 per year. HOMER F. RUNDELL, Livingston, Wis. 14-4

Herdsman wanted for a Guernsey herd in western Wisconsin. He must be experienced in A. R. O. work, feeding and breeding of cattle and preferably hog raising. If married, it would be desirable if wife could manage the boarding house. State age, nationality, experience, references and expected salary or salary and percentage. Address BOX 284, care Hoard's Dairyman. 15-3

Wanted—Man to help care for my herd Holsteins and do general farming. Steady work for right man. State wages and experience first letter. H. R. LITTLE, Eldridge, N. D. 15-4

Wanted at the Marquette City Dairy, working farm foreman with family. Wages $60 per month. Free rent, wood, water, electric lights, milk, potatoes and garden. Good house, fine location, convenient to schools and churches. Man must understand horses, cattle, hogs, land and farm machinery. F. H. VANDENBOOM, Proprietor, Marquette, Mich. 15-2

Wanted—Married or single man who can run Ford truck and do milk house work. Give references and wages expected. SPRING GROVE FARM, Ft. Wayne, Indiana. 15-2

Wanted—Man for general farm and barn work Holstein dairy. Mail Waukesha, Wisconsin, Route 9, farm one mile northeast of Genesee Depot. J. W. HOWARD.

Wanted—A good chore man on a ranch in California. Good pay. Address BOX 290, care Hoard's Dairyman. 16-6

Herdsman Wanted—March 1st, 1919, to care for pure-bred Holsteins, and Poland-China hogs. Prefer wife who can milk. Modern equipment. Farm 1½ miles west of Dixon, Illinois, on Lincoln Highway. Will give share of net profit to good man. Give age, experience, references, and wages expected. Address H. W. HEY, Polo, Illinois.

Wanted—A good, clean, Protestant young man, either exempt from draft or under draft age, to work on farm; pure-bred Jerseys. Good milker essential. State age, experience and wages expected. JERSEY CREST FARMS, Oconto Falls, Wis.

Wanted—Two dry hand milkers, fifty-five dollars and board. Transportation refunded after six months' service. MAYFIELD FARMS, Denmark, S. C. 14-3

Shepherd at the University. Salary $75 and room. Address WISCONSIN CIVIL SERVICE COMMISSION, Madison.

Wanted—Correspondence from an experienced dairyman with his own help for a 30-cow dairy on a share basis. $6.00 per 100 lbs. for 3½ per cent milk. N. A. WATSON, Erie, Pa. 16-4

Wanted—Boy sixteen or seventeen to learn dairy farming. For a sober, industrious lad interested in dairy cattle I can offer a fine opportunity to rise as fast as he can grasp details of business. Modern plant, electric lights, running water, etc. Good home. ECHO BAY FARMS, Elcho, Wis.

Wanted—Single herdsman, Holsteins. Must be good caretaker and able to get results in A. R. O. work. Milking about 20 cows, will test about 12 this winter. State age, experience and wages. CORWIN FARMS, Rock Valley, Ia. 16-2

Wanted—Married man with one or two children old enough to help with the general farm work on 200-acre farm, close to city. Man must be capable of taking active charge of proposition which includes herd of 25 Guernsey cows, besides young stock and large herd of pure-bred hogs. Prefer wife who will help with milking and board extra help at going rate. Extra help furnished in busy seasons. Man must understand feeding and keeping of records. Up-to-date equipment and modern conveniences; steady employment and good future if you are the right man. Would also consider renting the farm on shares if you have $3,000 capital to put in the business. Boozers and floaters need not apply. Address BOX 178, Albert Lea, Minnesota. 16-tf

Wanted at Once—Man, married or single, handy with machinery and with stock for dairy work on up-to-date farm, milking machine, electrical equipment and regular hours. State full particulars first letter. CLOVERCREST FARM, Amboy, Minn.

Wanted—Married couple. No children. Man to take charge of stock. Wife to do ward work. No experience necessary in ward work. $70 per month, board, room, washing. Two days off a month. Two weeks off every year. A good steady job for the right kind of people. SELMER NEPRUD, Supt. Vernon Co. Asylum, Viroqua, Wisconsin. 16-3

POSITIONS WANTED

Wanted—Position by good dry hand milker by December 1st. Thoroughly experienced in breeding, feeding, taking care of Holsteins and Jerseys. Experienced with all modern equipment. Prefer western New York or middle and western Pennsylvania. Good references if wanted. Address BOX 293, care Hoard's Dairyman.

Wanted—Position as working manager on small modern farm. Competent and experienced, agricultural education. Age 35, small family. References. CLARENCE EICHINGER, Waukesha, Wis.

Farm manager wants position on large pure-bred stock farm. Large experience in modern farming, stock breeding, production of certified milk, gardening, greenhouse management, and general development of modern, up-to-date farm. American, married, successful record. Best references. Will only consider first class proposition. BOX 277, care Hoard's Dairyman. 14-4

Farm manager or herdsman, experienced in all branches of modern farm methods, stock raising, milk and milk production. Handled large certified dairies and farms. Thoroughly versed in contagious diseases, testing, feeding, and management, accounting, Holsteins, Guernseys and Jerseys. Disengaged Dec. 1st, 1918. Address BOX 280, care Hoard's Dairyman. 15-3

Position wanted—Am an experienced dairyman, 31 years old, sober and industrious. Can operate any kind of milking machine. Not a cigarette user. Also can furnish good stripper. JOHN S. WEBER, Glencoe, Mo.

Wanted—Position as assistant herdsman in modern dairy, doing A. R. O. work, with good chance for advancement. Life time experience with stock. Former position seven years. A-1 references. Good wages expected. American, married, 1 child. E. L. HUNTOON, R. 4, Waupaca, Wis.

POSITIONS WANTED

Experienced herdsman, married, desires position on up-to-date farm, Guernseys or Ayrshires preferred. A. R. O. or show work. Can operate milking machines, gas and steam engines. Would undertake management of farm if not over 150 acres. References present employer. Address BOX 287, care Hoard's Dairyman.

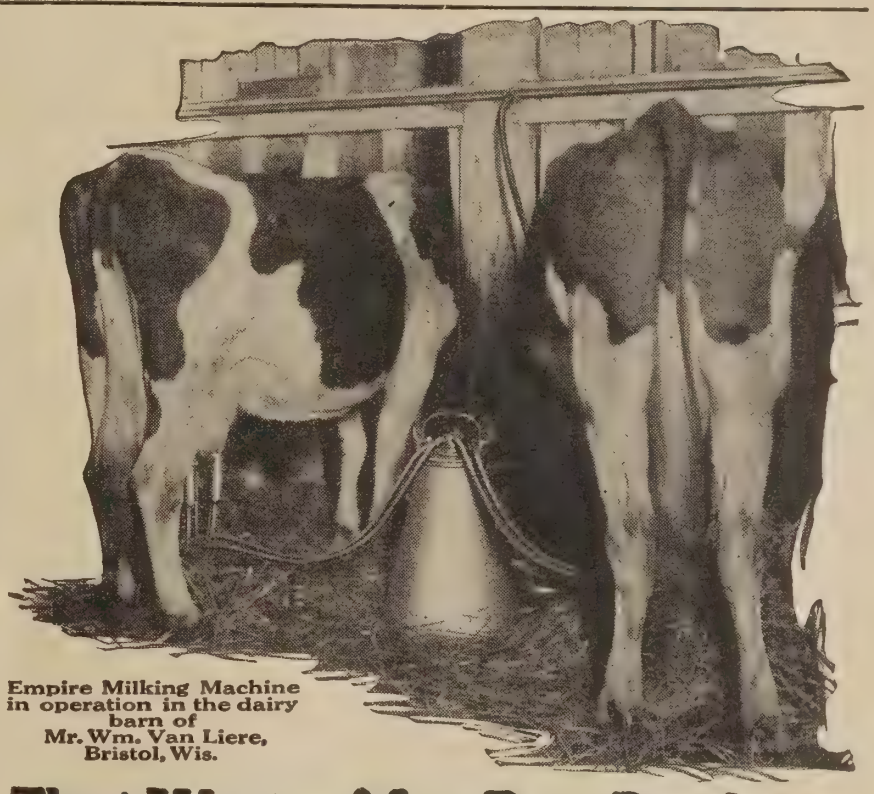
Farm manager, thoroughly experienced, progressive, good executive. A. R. O. testing, fitting, care registered Holsteins. Machinery, gas engines, crops, etc. Can get results. First class proposition. Eastern states only. Age 29, college graduate, class 4C in draft. Married, no children. References exchanged. BOX 288, care Hoard's Dairyman. 16-3

Position as manager up-to-date dairy farm, agricultural college training and 25 years' practical experience. Expert in official testing, calf and pig raising. Swedish. Married. BOX 289, care Hoard's Dairyman.

I am a hustling manager and want a live proposition. I will superintend a large farm on salary or salary and percentage basis. I can make money for you. Twelve years' experience managing farms. Reference furnished. Write me. Address BOX 292, care Hoard's Dairyman.

Farm manager wants position on up-to-date farm, thoroughly understands modern farming and dairying, age 24, class 3, J. 10 years' experience. Prefer Jerseys. Address ELMER E. DAVIS, Liberty, Mo.

Wanted—Management of good up-to-date farm by married couple aged 48, practical farmers. Both capable and energetic and able to make a farm pay. Thoroughly experienced with all classes of stock, especially dairying and poultry. At present employed on a large poultry plant. Can give references from business men who have known us for years. Address BOX 296, care Hoard's Dairyman.



Empire Milking Machine in operation in the dairy barn of Mr. Wm. Van Liere, Bristol, Wis.

That Waster May Be a Producer

PERHAPS that cow you've been intending to sell may not be a "Waster" after all. Perhaps her low milk records are due to tender teats and extra-sensitive nerves, set on edge by erratic hand milking. Many good milk producers are too nervous and high-strung to yield the maximum milk flow when milked by hand.

But do not condemn them to the block before you *know* they're worthless milkers.

Thousands of such cows have responded to the *gentle, soothing, regular* action of EMPIRE Milking Machines. EMPIRES have saved many a dairyman hundreds of dollars that would have been thrown away if he had sent his so-called "Wasters" to the block.

Mr. L. E. Reynolds of Greenwich, N. Y., wrote us the following unsolicited letter about the results of EMPIRE Milking Machines in his dairy:

"The Empire Milker I purchased from you in June, 1917, is working in a most satisfactory way. For some years back I have been troubled with a few hard milking cows, and have disposed of several on this account that were exceptional good cows for milk production. My milker milks the hard ones just the same as the easy ones. I consider it the greatest labor-saving piece of machinery I have on my farm."

Put EMPIRE Milking Machines to work in *your* dairy. They will not only increase the production of the nervous cows that now "hold-up" their milk; but they'll also cut dairy costs and increase milk profits. They'll make you independent of hired help. They'll relieve you of the drudgery of hand milking.

Get these EMPIRE benefits now. Write at once for catalog 31 and complete information. We'll send it without obligation on your part.

EMPIRE CREAM SEPARATOR COMPANY
Bloomfield, New Jersey

Also manufacturers of Empire Cream Separators and Gasoline Engines

Chicago, Illinois; Denver, Colorado
Montreal and Toronto, Canada

EMPIRE
MILKING MACHINES

Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. **Hoard's Dairyman, Fort Atkinson, Wis.**





Don't Let Your Stock Lose their Summer's gain through November neglect

Your animals are now going on dry feed—hay and grain.

It's a big change from the succulent, nutritious grasses of summer pastures which supply the needed laxatives and tonics.

Keep your animals' bowels open and regular—drive out the worms—keep their blood rich—keep their digestive apparatus in order—by feeding Dr. Hess Stock Tonic.

A Conditioner and Worm Expeller

Don't allow your stock to "get off feed" and in a run-down condition.

Condition your cows for calving by feeding Dr. Hess Stock Tonic before freshing. Then feed it regularly to increase the flow of milk. It lengthens the milking period.

Buy Stock Tonic according to the size of your herd. *Here's a suggestion for your guidance:* Get from your dealer 2 pounds for each average hog, 5 pounds for each horse, cow or steer to start with, feed as directed and then watch results.

Why Pay the Peddler Twice My Price?

You buy Dr. Hess Stock Tonic at an honest price from a responsible dealer in your own town who guarantees it, and who refunds your money if it does not do as claimed.

25-lb. Pail, $2.25; 100-lb. Drum, $7.50

Except in the far West, South and Canada
Smaller packages in proportion.

DR. HESS & CLARK, Ashland, Ohio

DR. HESS STOCK TONIC

Dr. Hess Poultry PAN-A-CE-A

Will Start Your Pullets and Moulted Hens to Laying

Dr. Hess Instant Louse Killer Kills Lice

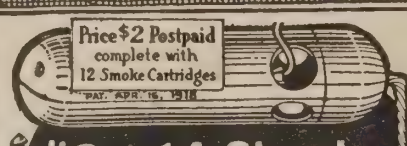
Trappers Secrets FREE FUNSTEN

Our wonderful book reveals old trappers' favorite methods, where and how to trap, best baits to use, how to prepare skins, little kinks that will increase your profits. Mailed FREE. Also includes Game Laws, and big list of Trappers' Supplies at rock-bottom prices—Steel Traps, Guns, Smokers, Baits, etc. Our market reports free!

Trappers are going to make heavy profits this season, due to bigger demand for skins, and so many trappers in army. Write at once for above book and fur price list so you will be ready.



FUNSTEN BROS. & CO.
of the Int'l Fur Exchange
393 Funsten Bldg. **St. Louis, Mo.**



"Got 14 Skunk In Ten Minutes With Taylor

INTERNATIONAL FUR EXCHANGE

SMOKE TORPEDO"

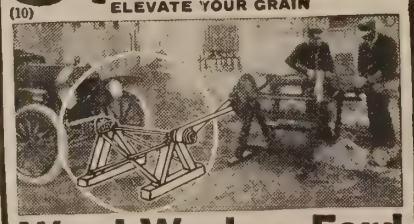
The quickest, slickest device you ever saw for driving all den animals into the open. Write for full details. Also get Taylor's "Book of Traps"—shows how to trap, what traps and bait to use; animals in natural colors; full supply catalog. **Free.** Write today.

F. C. TAYLOR FUR CO.
INTERNATIONAL FUR EXCHANGE
155 Fur Exchange Building **St. Louis, Mo.**

Use Your Ford!

to
GRIND YOUR FEED
FILL YOUR SILO
SAW YOUR WOOD
SHELL YOUR CORN
PUMP YOUR WATER
ELEVATE YOUR GRAIN

(10)



Ward Work-a-Ford

Gives you a 12 h. p. engine for less than the cost of a 2 h. p. The Ford car has a powerful engine—it will outlast the car—and you might as well save your money and use it to do all your farm work.

No wear on tires or transmission. Hooks up in 3 minutes. No permanent attachment to car. Cannot injure car or engine. Also used on other cars.

Friction Clutch Pulley on end of shaft. Ward Governor, run by fan belt, gives perfect control. **Money back if not satisfied.** Ask for circular and special price.

THE WARD CO., 2012 N St., Lincoln, Neb.

Louisiana Dairymen Meet

HOARD'S DAIRYMAN:—A speci meeting of the Louisiana Dairymer Co-operative Association, Inc., w held in Hammond, La., October 4th.

The matter of the action of t Hammond local dairymen in pulli away from their state association w investigated and a spirited probe w conducted to uncover the real motiv behind this unwise move on the pa of these local dairymen. Commissio er of Agriculture Wilson led straight from the shoulder attack such men as were posing as dairym and at the same time seeking to d stroy its organization. The inves gation of the association clea showed that the only opposition the association emanated from pro ganda spread among the producers such men who are seeking to bre down the solid front of the organiz producers and by false statemer calculated to embarass the assoc tion. After some very plain wor addressed to such of these men were present and after the false sta ments that were uncovered had be explained and corrected, membersh blanks were distributed with the sult that all of the Hammond dai men present, with the exception two, promptly joined.

The question of present costs a the winter price for milk was d cussed at length with the result t several illuminating points on the creased cost of production, due pr cipally to the war and the extraor nary weather conditions this summ were brought out. J. C. Wallace ported that it now cost him 43c a g lon to produce milk. J. G. Pricha reported a cost of 41c a gallon. W. Brooke reported 43c. L. H. Bo den reported a cost of 40c and S. Pendarvis 41c. All of these dairym said that they could back their ures with data as they kept acco of all operations in the dairy. Mess Wallace, Prichard, and Bowden erate silos, raise the greater part their feed, and keep high produc cows. But the high prices offered hay, corn, and other locally rai feeds, together with the scarcity farm and dairy labor which forced the dairymen to compete w the government and large industr for labor, has caused this 31% crease over last year at this ti Nothing was done by the associat regarding the setting of a price, being left to the Board of Direct who meet soon.

After several other topics of a lo character were discussed and dispo of, the meeting, amid pledges of alty from all sections, adjourned meet again for its regular fall m ing on the second Tuesday in Nov ber at a place to be decided upon ter.

SECRETARY

Canada Commandeers Butte

In response to an urgent ap from the British Ministry of F for increased shipments of bu from Canada, the Canadian gov ment has commandeered all cre ery butter made in the provinces Alberta, Saskatchewan, Manitoba, tario, and Quebec between Septem 30th and November 9th inclus and put Canadian consumers on allowance of two pounds of crea butter per person per month.

Great Britain and the Allies h been short of butter for many mon and although an Englishman's al ance is only one-half pound of bu and one pound of oleomargarin month, the government finds it cult to maintain this meagre ra The principle of the "Common Ta is the basis of this order limiting consumption of creamery butte Canada. If tonnage permitted gr er shipments of butter, Canada w

ubt limit home consumption still
rer in order to supply a fairer ra-
n for the English table.—U. S.
d ADMINISTRATION.

T: man who would like to burn
a because it is easier and handier,
t ho thinks enough of his country
d he boys over there to shoulder
s t, brave the winter wind, and go
t cut wood in order to save coal,
h oing to win the war.

T: United War Work Campaign
r 170,500,000 is approved by the
v nment. Get in and help.

Suppression of Milk

I a cow give birth to a calf. After the
f as born I took what milk was in the
le which was well developed. Her flow of
k opped and now is just like a dry cow.
th ast two calves I could not dry her. So
s ne I stopped milking her two weeks
o calving. Could you please advise me
at he trouble is and what could be done?
Ca ornia. W. T.

C ll or shock is the common cause
ch suppression of milk and it
y now be too late to bring back
r l secretion. In such cases, one
o l at once give copious warm
ir s to encourage secretion. Hot
ell sweetened with molasses, or
v rm flaxseed tea and molasses,
d g four ounces of gin per quart,
y e used and repeated at intervals
t ree or four hours. If the cow
o chill, add essence of ginger or
w red ginger to the fluid drink.
c cover the body with warm blan-
s Foment the udder with hot water
d nassage and milk three times
l At night, rub in warm melted
d lf cow is constipated, a full dose
(auber salts should start the
a nent.

Retained Afterbirth

n the membranes remain in the
r of a cow and decompose, in-
n ation of the lining of the womb
v e caused, and this, with the ab-
o n into the blood of the products
p trefaction, leads to ill-health,
n ation, diminished milk supply fail-
breed, and often blood poison-
d death.

od Farm Breeding Powder

s the afterbirth to come away
l lly in a few days, and thorough-
n nses and disinfects the parts, leav-
e cow in normal condition for
n ng.
e er four years of experience I
o ood Farm Breeding Powder very
a ary, for keeping my herd from
r g. It cleans the cows out quick-
a clean, they breed early and are
e stand."
Stuart Bird, Cropper, Ky.
H Hood Farm Breeding Powder
a nd you will never again forcibly
r e the afterbirth.

s prepaid $1.15, $2.75 and $5.00. Flexi-
ection Tube, by mail, 90c. Mammoth
eeding Powder and Tube, prepaid, $5.75.
n this paper.
C. I. HOOD CO., Lowell, Mass.

is Beats Dehorning

ning's Chemical Hornstop, used on very
ng calves, prevents growth of horns.
50 Cent Tube for 25 Calves
ns never grow if Hornstop is used early
gh. Money back if not satisfactory. Our
terinary Adviser" Free if asked for.
FLEMING BROS., Chemists
5 Union Stock Yards Chicago, Ill.

n't Wear a Truss

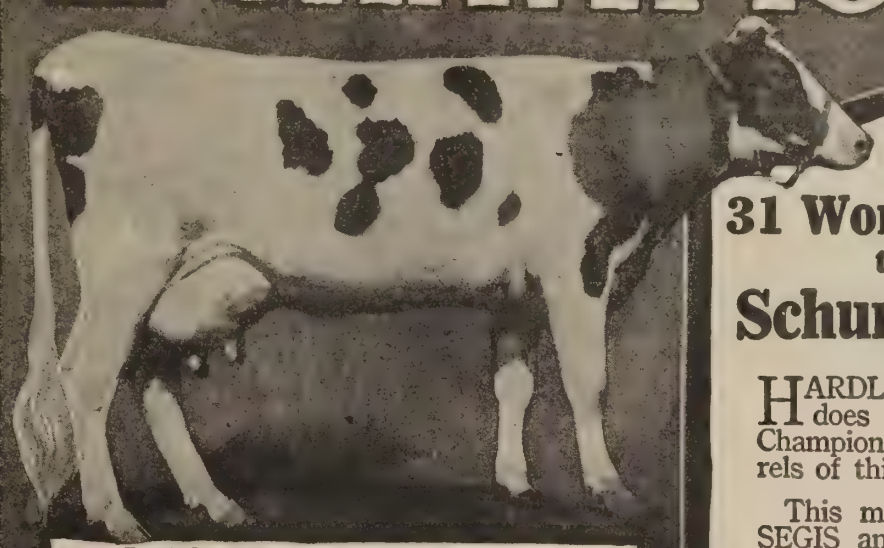

MR. C. E. BROOKS

ks' Appliance, the
n scientific invention, the
erful new discovery that
es rupture, will be sent
al. No obnoxious springs
ds.

Brooks' Rupture Appliance

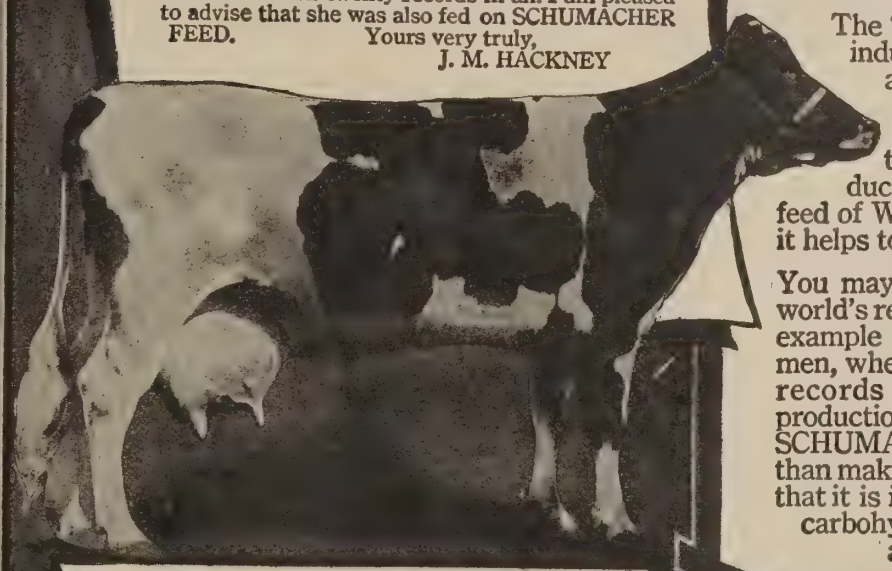
s automatic Air Cushions. Binds and
s the broken parts together as you would
oken limb. No salves. No lies. Durable,
. Sent on trial to prove it. Protected by
patents. Catalog and measure blanks
d free. Send name and address today.
s Appliance Co., 467 State St., Marshall, Mich.

2 NEW WORLD'S CHAMPIONS 2


Beauty Beets Walker Segis, World's Champion Senior 2-year-old Holstein
In 365 days produced 1040.64 lbs. Butter and 25343.3 lbs. Milk.
Photograph copyrighted by Holstein-Friesian World. Used by permission.

Where Sanitary Conditions Prevail — ARDEN FARMS, Inc. St. Paul, Minn. — PURE BRED HOLSTEIN FRIESIANS

The Quaker Oats Co., Chicago, Ill.
Gentlemen:—We have been feeding SCHUMACHER FEED to the two new World's Champion heifers, JEWEL PONTIAC SEGIS and BEAUTY BEETS WALKER SEGIS, for some time and are pleased with the results. We also enclose herewith a circular showing the World's Records made by BEAUTY GIRL PONTIAC SEGIS another of our young heifers that has broken twenty records in all. I am pleased to advise that she was also fed on SCHUMACHER FEED.
Yours very truly,
J. M. HACKNEY


Jewel Pontiac Segis, World's Champion Senior 3-year-old Holstein.
In 365 days produced 1171.15 lbs. Butter and 27068.5 lbs. Milk.
Photograph copyrighted by Holstein-Friesian World. Used by permission.

Making 31 World's Champions to the credit of Schumacher Feed

HARDLY a month passes that does not see a new World's Champion record added to the laurels of this wonderful Dairy Feed.

This month JEWEL PONTIAC SEGIS and BEAUTY BEETS WALKER SEGIS of Arden Farms, Inc., have completed new World's Records while fitted and fed on SCHUMACHER FEED. (See owner's letter.)

SCHUMACHER FEED fed as the carbohydrate part of the dairy ration, has

More World's Champion Milk and Butter Records
to its credit than all other feeds combined.

The "top-notchers" in the dairy industry have discovered long ago that SCHUMACHER FEED is the "OLD RELIABLE" standby that helps them to increase the production of their herds. It is the feed of World's Champions because it helps to make World Champions.

You may not expect to make any world's records, but if you follow the example of most successful dairymen, whether fitting and feeding for records or for maximum dairy production—day in and year out—SCHUMACHER FEED will more than make good for you. It will prove that it is indeed the world's greatest carbohydrate dairy feed. Try it and be convinced. (107)

The Quaker Oats Company ADDRESS CHICAGO, U.S.A.

HEALTH—FREE

Your name and address on a postcard will bring you absolutely free an interesting booklet called "Thirty Feet of Danger," presenting in plain American language the facts every human being should know and act upon in keeping his system clean and healthy. It is sound advice, and it *may be the means of avoiding illness for you and your family*. A clear statement on the best of medical authority. Write today to

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
50 Broadway New York

ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT. REGULAR BREEDERS BY
STERILOID

STOP LOSING CALVES

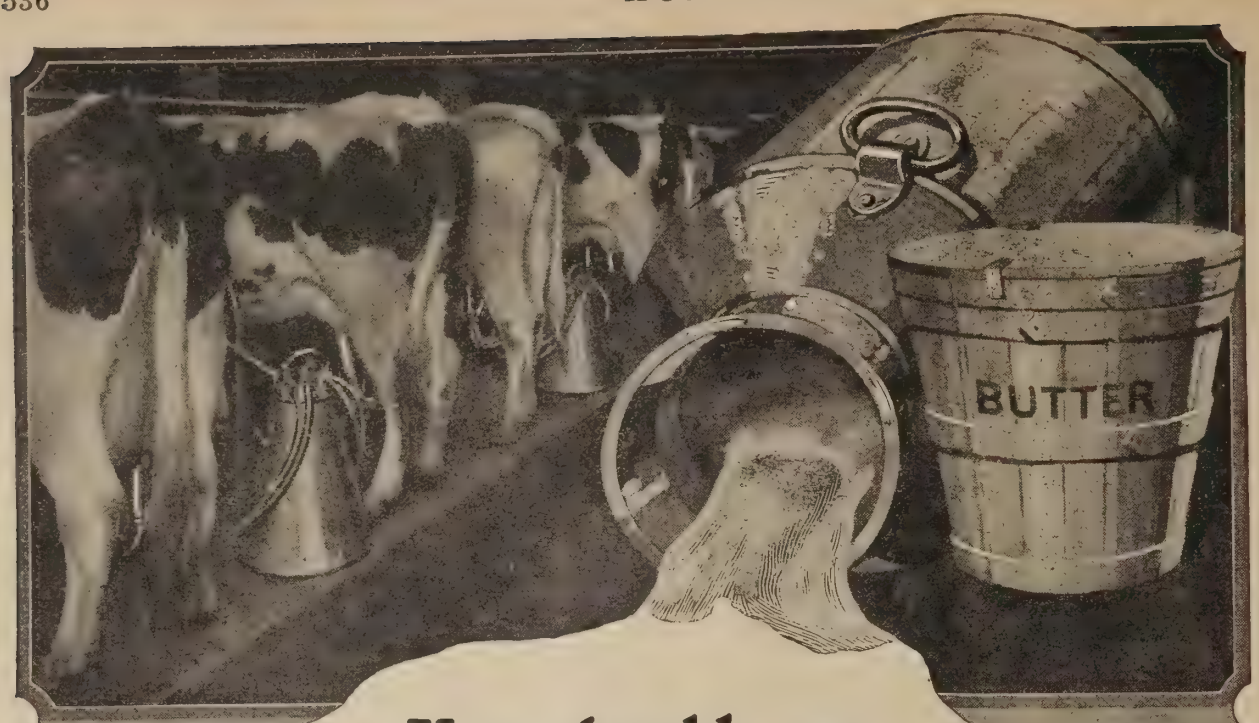
TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when STERILOID FAILS to make good. PRICE $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY, Dept. A, 398-408 Columbus Ave., New York City, Reference—Colonial Bank.

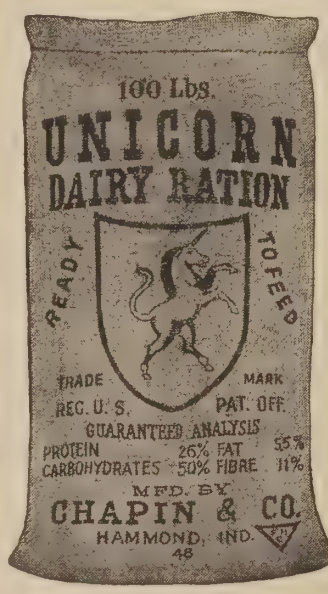
Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.



You should use
UNICORN DAIRY RATION

Because—it will make more milk and cut down your milk costs.



Because—you can save from 10 to 20% of your feed costs through the use of fewer pounds of grain per cow and the increase in milk or fat per cow.

Because—there is 10% more available food material in Unicorn than in any ration on the market.

Because—it saves labor and the mistakes of mixing and feeding. It is always uniform and reliable.

Because—Unicorn Dairy Ration is suitable for feeding alone, or can be fed with home-grown corn, oats or barley. Unicorn contains ample protein and may therefore be used either as a protein feed or as a complete ration.

Ask your dealer or write

CHAPIN & CO.,
Dept. Z, Chicago



Send for Calf Facts

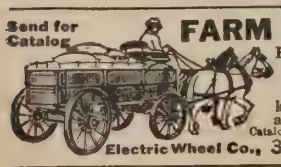
DON'T feed milk to calves. Feeding high-priced human food to calves is *waste*. Mature calves early, big and healthy on Blatchford's Calf Meal at ¼ the cost of milk. The other ¾ is *clear profit* to you. Write for the facts today.

Blatchford's
CALF MEAL

Write Today Send your name and address for pamphlet "How to Raise the Finest Calves on Little or no Milk". No obligation, it's free—write today.

Blatchford Calf Meal Co.
Dept. 4548 Waukegan, Illinois

Send for Catalog



FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free.

Electric Wheel Co., 31 Elm St., Quincy, Ill.

DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

HERES YOUR GROCERY
OPPORTUNITY

Your chance to cut down expenses. Save money on your grocery bill. Eat better food at less cost.

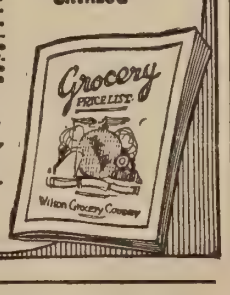
MONEY REFUNDED

If you are not satisfied with any purchase—for any reason. Every article we sell is GUARANTEED. Direct to You at Wholesale Prices is our method of selling. Our food products have been trade-marked for 50 years. We once sold to dealers only. We now sell to YOU—the Consumer only. It is the saving way to buy.

Get your copy of the latest catalog. Write today. Your chance to save is here.

FREE CATALOG

WILSON GROCERY COMPANY
Dept. F-27
PEORIA, ILL. U.S.A.



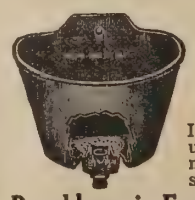
Chickens Sick or Not Doing Well?

An Extraordinary Offer: Germozone is a standard remedy everywhere for chicken troubles, roup, colds, cholera, swelled head, bowel complaint, chicken pox, canker, not doing well, non-laying, etc. Now our proposition: If no dealer there handling Germozone and you will agree to use it and pay if satisfied, we will send you a 75c package without a cent in advance. No pay if not satisfied. Can we do more? And we will send free 5 poultry booklets. Write today.

Local dealers handling Germozone will do the same.

GEO. H. LEE CO., Dept. 425, OMAHA, NEB.

Water in the Stable a Nceessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.



Cow Waters Herself

You must read about the new LIBBEY AUTOMATIC WATER BOWL for cows and horses—a wonderful improvement in barn watering. No float tank needed. Every bowl is automatic—controls its own water supply; can be placed any height and in any stall or pen. Most sanitary bowl sold. PREVENTS SPREAD OF CONTAGIOUS DISEASES. Increased milk yield quickly pays cost. Saves labor, saves feed. Write today. Also for Catalogue No. 9, if interested in stanchions, stalls, carriers, etc. Sent free.

C. A. LIBBEY CO., 195 Marion St., Oshkosh, Wis.

PERFECT Farm, Shop or School SHOE



From Factory to Feet

Aluminum bottoms, perfectly water-proof, two styles, removable steel calks or leather and fibre half soles and heels. Best water-proof uppers. Army style footform shape. Easy and durable. Rust and rot-proof.

Overland Aluminum Shoes

cheaper than leather shoes, will outwear several pairs. Ideal country school shoe, saving money on shoes and doctor bills. Easy and inexpensive to repair. Sold on money back guarantee. Illustrated catalog FREE.

Sizes 1-12, 6, 10, 13 or 17 in High

Thousands wearing Overland Shoes with perfect satisfaction.

OVERLAND SHOE CO. Dept. 18C RACINE, WIS.

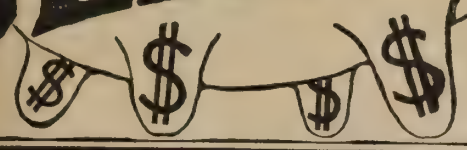
Why Your Boy Needs Hel

If ever you have doubt about t importance of giving money to United War Work Campaign, you c clear your mind completely by co paring the history of your countr early days with the history of western front. If, perchance, you h forgotten the history you studied the eighth grade, or in high school would be a good thing to go over again. When the first American ar went into battle a hundred and fo years ago, very little thought w given to anything except fight. Th were no comforts and very often th was no food. You will remem Valley Forge, even if you have f gotten the story word for word. Y certainly remember the picture Washington standing on snow cove ground, usually with one foot o tree stump, worrying about his h gry, shivering soldiers. You kn what a terrible time they had all t winter.

Compare the story of Valley Fo with the history of the last th winters in the European war. haven't heard of any frozen soldier not among the British, the Fren the Italians, or the Americans. W because of the perfect organizat for comfort physically and spiritu under which the great associati are employed, now consolidated in United War Work Campaign. Whet they be in American camps or on western front, our boys are cared by some of these organizations. doesn't matter whether they are P testants, Jews, or Catholics, some c petent person with more thought comfort than for creed is there, re and willing to help, There are alw men and women present to cheer homesick boy, to keep up the c munication line between him and home. This is the influence that k your boy clean and cheerful. It is influence that saves him, someti from himself, because there are cumstances you may know not about in which boy or man is tem beyond his strength to resist. A accustomed to the freedom of cou life is likely to feel himself a str figure among the thousands of e class encountered in a great army from his native land. The seven or izations I mention are asking for ey to keep up their good work an the soldiers here and across the They are represented by men and w en who understand the country just as they understand the man town. They know something a country mothers, and when they to a boy it is with those mothe mind.

President Wilson thought it a plan for seven big bodies to ge gether—Young Men's Christian sociation, Young Women's Chri Association, National Catholic Council (K. of C.), Jewish We Board, War Camp Community ice, American Library Associa and the Salvation Army—and the country in the week of Nov. for funds that are needed to car this work. It will take $170,500,0 about one dollar a week for soldier in the American army. farmers of America are expect contribute about forty per ce this money. I know they will do i cause they have learned to giv to lend since this war began. the solicitor goes around for part of the fund be sure that write your name in his book. The he is doing is for you and yours. getting nothing out of it excep satisfaction it gives a man to he country. He is giving his time strength. Surely you can give money.—CHAS. DILLON, Directo ral Publicity War Work Campai

JERSEYS *How much are a cow's teats worth?*



This depends on how much it costs to fill the udder and how rich the yield in butter fat. Jerseys are famous for the richest let-down at the lowest possible up-keep. Jerseys are known as "the profit breed" because they are natural money makers. Beautiful and hardy, their perfection has been standardized for over two hundred years.

Ask breeders for pedigrees and prices. Let us send you some very unusual information about this record-breaking breed.

THE AMERICAN JERSEY CATTLE CLUB, 351 WEST 23rd STREET, NEW YORK CITY

RED POLLED

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old; four cows and six heifers, all bred; one two-year-old heifer, two heifer calves, one bull calf. Selling to make room for Holsteins.

RICHLAND COUNTY ASYLUM FARM, Chas. W. Snyder, Supt., Richland Center, Wis.

For August and September

RED POLLED OFFERING

20 head of splendid females—
20 head of extra well bred bulls—
Daughters of Proctor Knott IV and Goldy's Best included. Write for our list just off the press.

NORTH DU LUTH FARM NO. 2, Nickerson, Minn.

AYRSHIRES



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Meadweiss Farms—Ayrshires

Bulls of all ages for sale. Seven yearling bulls ready for service.

FRED TSCHUDY & SONS, MONROE, WIS.

WESTMONT FARM AYRSHIRES

Offered in several choice bull calves. Handsomely marked, nearly all white, from tested dams. Advanced Registry. "Finlayston" and "Hood's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. **W. H. Druckemiller, Sunbury, Pa.**

Maid's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicobn. Dam's record 3-year-old, 13055 lbs. milk, 520 lbs. fat. Sire's dam's R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. Full sister to Lessnessock Buntie, 2-year-old, 9778 lbs. milk, 3-year-old, 15794 lbs. milk, 4-year-old, 17812 lbs. milk. Write for pedigree, prices and particulars.

WESTHURST FARM, NARBERTH, PA.

REGISTERED AYRSHIRES FOR SALE

Fresh cows. Also two choice young bulls.

J. McCONNELL, - Wellington, Ohio.

Clowmoor Ayrshires!

Herd's records. 300 head. Write for circular.

CLOVERLISE, Redmond, Wash. (Near Seattle.

JERSEYS

Please Remember That

Jersey Crest Farms are in a position to furnish you with either matured bulls or bull calves, from heavy producing dams and sired by bulls whose records are a credit to the breed.

Not only are these calves and bulls bred from high producing families but they are properly grown. In the first place, our Herd is absolutely free from all contagious diseases, have never had a case of tuberculosis or abortion in our herd. Calves get their skimmilk until they are at least a year old, plenty of grain and clover hay. A good start in life means Success in the future, with both health and strength combined.

When you are looking for beauty, look for it in the offspring of the Jersey Crest Farms Herd. Visitors always welcome.

Jersey Crest Farms, Oconto Falls, Wis.

FOR SALE

Six Registered Jersey Cows

Two yearling heifers, one registered Holstein cow and heifer calf, several calves, including two Guernsey bulls, will sell at practically grade prices. All absolute bargains. Let me price them to you.

H. BERTRAMS, - AUGUSTA, KY.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address

FINCH FARM, - DAYTON, OHIO.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.

The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order.

Ashland Farm Dairy, Inc.
ALTON PARK, TENN.

"The Hermitage" near Centreville, Maryland

Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.

Susan Williams, Owner. Edw. A. Nelker, Herdsman.

Wineland Farm Jerseys

Big Milkers—Prize Winners.

100 Head - - 100 Head

A few for sale.

H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.

A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Wisconsin Ayrshire Breeders' Association

For Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.

Adam Seitz, Waukesha, Wis.
Fred Tschudy & Sons, Monroe, Wis.
Stephen Bull, Racine, Wis.
Bros., Black Earth, Wis.
John DeMaster, Cedar Grove, Wis.
A. J. McNab, Secretary, Black River Falls, Wis.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

HEIFER FOR SALE



A daughter of Trials Noble of Oakland who was grand champion at Wisconsin State fair 1918. His dam has a R. of M. record of 563 lbs. butter. The dam of this heifer May of Oak Grove has a R. of M. record of 334.41 lbs. butter as a 2-year-old, advance test 6.2%. Heifer was dropped April 22, 1917, is solid color, black tongue and switch and is bred to a R. of M. son of Eagle's Chief.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address

ROLLIE VANDERVORT, Tomah, Wis.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.

J. Q. EMERY AND SON, - Edgerton, Wis.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

MERIDALE JERSEYS

Several foundation herds of particular merit are available from the Meridale Herd this summer. They are fully described in a small leaflet, mailed on request.

AYER & McKINNEY
300 Chestnut Street, Philadelphia, Pa.

Sophie's Tormentor JERSEYS

"Production" our Watchword.

FOR SALE—BULL CALF No. 257, dropped May 22, 1918; solid color, black tongue and switch; an excellent individual.

SIRE: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.

DAM: Varna 333660, in the R. O. M., Class AA—546.29 lbs. 85% butter in 1 year from 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. A daughter of the famous Hood Farm Torono 35th 99265.

FAIRVIEW FARMS, Inc.
R. L. Pike, Gen'l Manager, Geneva, Ohio.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.

CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohoi.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking.

E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917

Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.

CHAS. A. PETERSON, Rosendale, Wis.

JERSEY BULL

"Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write,

G. D. GILBERT, Lake Geneva, Wisconsin.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write

FRED STUBLEY, BLACK EARTH, WIS.

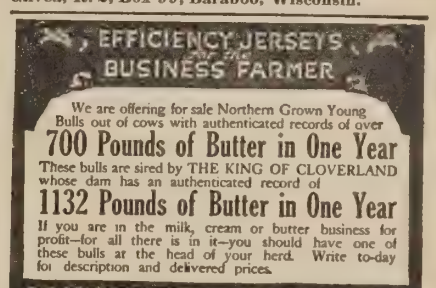
REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.

R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE

A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write **Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.**



SWINE

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.

CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

POLAND CHINAS

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Hadley

Herd boars and farm boars, open gilts, or shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell us what you want. We can please you. March pigs weigh up to 275.

Dobson, Eastman & Rech, Lancaster, Wis.

Kilehurst Farm

DUROCS OF QUALITY

We have a limited number of choice Spring Boars and Gilts left. Order now. Prices right. We will satisfy you. **Kilehurst Farm, Elwyn F. Bradley, Manager, Momence, Illinois.**

Real Herd Boar For Sale

Have decided to sell my great herd boar, BIG BEN H, and will price him right. Also, some good heavy bone, big type Poland China spring boars to offer. All immune. Write at once.

F. A. MOREHOUSE
Lancaster, Wisconsin

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.

Send postal for free information. Address

IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.

William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

Pleasant View Herd

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.

VISITORS WELCOME.

H. W. AYERS, HONEY CREEK, WIS.

GUERNSEYS

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

619 POUNDS FAT

is the average of our first nine Advanced Register Records

FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175.

Full particulars and pedigree from

Falcon's Flight Farms, Litchfield, Conn.

N. B.—No contagious abortion in over five years; no tuberculosis.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

THE GUERNSEY

stands for Economical production. More profit from every pound of feed. Do you want cows that will improve your Dairy? Write for free literature.

Guernsey Cattle Club,
Box H, Peterboro, N.H.

UPLAND FARMS

Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

RAEMELTON FARM QUALITY BREEDING VALUE GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, Perry, Ohio.**

On Two Accredited List

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the he has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidio disease this is an important matter and means more than any single tub culin test can mean. Every animal guaranteed to be free of the dise when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wiscons

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd h established for 26 years and is one of the oldest in Waukesha County. Write or come what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Serste

EDGEMOOR FARM

Santee, San Diego Co., Calif.

Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

Pinehurst Guernseys Produce

with *farm care*. *70 A. R. records* average *465 lbs. fat*. The former home of *Glenwood Boy of Haddon, 4605*, where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat*. His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat*. Present herd bulls, *a line bred Glenwood*, and *a line bred May Rose*.

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

GERAR GUERNSEYS

Production Reproduction Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.

Louis McL. Merryman, Cockeysville, Md.

Registered Guernsey Bull For Sale

Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golden Secret 52629. Out of a 450-lb. A. R. cow by Golden King of Arcady, a grandson of Imp. Golden Secret 12899.

Price $100. For pedigree and photo write.

FOLLY FARM, LIBERTYVILLE, ILL.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**

Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

TILDEN FAR

GUERNSEYS

For Sale:—Several large, well mark bred heifers of May Rose and Governo Chene breeding. These are excellent in out of high producing A. R. stock, an to sell. We are also offering a few p bulls ready for service, and several gr and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murph Delavan, Wisconsin.

PARK FAR

May Rose Bulls For S

Guernsey bulls from 1 month to 1 from A. R. dams with records up to fat. Sired by Lura's King of Maple 35525 whose half sister sold at Public $5,025 and whose sire sold at Public $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha,

HERE'S A REAL B

His Sire is May King's Vrangue of In May Rose sire whose first ten tested daug aged over 600 lbs. butterfat as 2-yr.-olds and **His Dam** is an imported cow now on tes finish her year with at least 400 lbs. fat, mi daily. **The Bull** himself is a dandy—a calf show well in any ring. The right kind of a b to use.

Remember he's guaranteed to be right.

W. A. LAWSON, Rosendale, W

Birchwood Guer

Bulls For Sale

Old enough for service and younge A. R. dams and sired by A. R. bu bulls are good colors and good i Herd on the state accredited list. Ser list.

M. L. WELLES, - ROSENDA

Tratt Guernsey

Herd headed by Bob Rilma's whose dam and grandam have A. averaging 887.5 lbs. fat.

Bull calves for sale by him out of good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATE

SARNIA

Imported and Home Bred G

No more to spare from 1918 im Place your order early for heifers importations.

Several high class bulls for sale f cows, and sired by best bulls mone Send for sale list.

Charles L. Hill & Son, - Rosen

ELDERWOOD GUERNSEY FA

offers for sale a nicely marked bu Nov 2nd, 1917, whose dam, now o make over 300 lbs. fat at 2 years grandam has a record of 424 lbs. fat and whose great grandam has a re lbs. fat at 2 years. **Roy Burton, Eagl**

"Homestead Fa "Guernseys

We are offering five *Grandsons Jay 4th* from two to seven months from A. R. cows or on test. Th choice individuals, sired by the hig bull of the breed.

W. G. Jamison & Sons, Appl

GUERNSEY DISPERSION

AT FORT ATKINSON, WIS.

Tuesday, November 19th, '18

W. J. Heid Sells His Entire Herd—35 Registered Guernseys



GLORIOUS 2ND.
Our former herd sire that has 6 daughters in A. R. with records averaging 489 22 lbs. fat all but 2 made under full age. 7 of his daughters and 10 granddaughters in the sale.



GLORIOUS MAY QUEEN.
One of the good cows to be sold. A daughter of Glorious 2nd.

Including 22 cows and heifers of milking age, six of them with A. R. records up to 512 lbs. butterfat and only 3 over 8 years old.
Casterilius' Hazel—612.78 lbs. fat (class A)—Gloria of Lake Bluff 612 lbs. fat (class A).
Treynore's Glenwood—466.11 lbs. fat (class G)—Glenwood's Juliette 506 lbs. fat (class B).
Benjamin's Gloria 492.8 lbs. fat (class B)—Royalines Lenorill 353 lbs. fat (class G).

7 Heifers and Heifer Calves. 1 Yearling Bull—a Grandson of Glorious 2nd. (See above.) 2 Bull Calves.

11 of these females and the yearling bull are by Miss Luetilius' Hambro who is turn by Langwater Hambro, a son of Dolly Dimple's May King of Langwater and ngwater Hayes Rosie with 645.50 lbs. fat (class A).

TRICKSEY'S GEORGE OF SUNNY SIDE, our present herd sire, will be sold. He ired by a grandson of Imp. King of the May.

His dam, Lady Tricksey of Waukesha, (11,680 lbs. milk, 662.26 lbs. fat, (class A), a daughter of Lord Waukesha. Tricksey's George of Sunny Side is 8 years old, a d individual and gentle.

Every animal guaranteed a breeder. Every animal over 6 months old sold subject to a 60-day retest for tuberculosis. There never has been a reactor in my herd.
Sale will be held at the farm 3 miles west of Fort Atkinson.
Write me for a catalog.

W. J. HEID, FORT ATKINSON, WIS.
J. E. Mack, Auctioneer.

A Guernsey Dispersion

THAT WILL INTEREST YOU

31 PURE-BRED GUERNSEYS 31

Will Be Sold

Wednesday, Nov. 20th, 1918, at Fort Atkinson, Wis.

THIS INCLUDES THE ENTIRE HERD OF RUSH CHAPMAN

15 head of milking age, either fresh since Sept. 1 or ie to freshen during the remainder of the fall and early inter. These cows have never been officially tested but ey are very good producers, well bred, of good size and ceptionally good individuals. The oldest animal is 9 ears old.

There will also be

7 open heifers from 1 to 2 years old.
2 heifer calves—2 bull calves.
3 young bulls 10 to 11 months old.

Our herd sire will be sold. He is a 3-year-old son of ob Rilma Superior, he a grandson of May Rilma, 1,073.4 s. butterfat,—(World's record for all breeds in 1914) nd of Imp. Galaxy's Sequel (32 A. R. O. daughters).

This young sire is a most promising individual, very well grown, and the sire of some splendid calves,—5 sons and 5 daughters in the sale.

Our previous herd sire, Massasoit of Bon Ayre, was a son of Langwater Demonstrator and from a cow with an A. R. record of 525 lbs. butterfat. Langwater Demonstrator was a grandson of Imp. King of the May (25 A. R. daughters) and Dolly Dimple, 906.89 lbs. fat as a 3-year-old.

3 yearling daughters and 2 3-year-old daughters of Massasoit will be sold.

All but 3 animals in this herd were bred on the farm. The herd has been tuberculin tested regularly for the past 5 years without a single reactor.

Write me for catalogs and further information.

RUSH CHAPMAN, Fort Atkinson, Wisconsin.

J. E. MACK, AUCTIONEER.

You Can't Afford to Overlook This Young Bull



Canary Ormsby Johanna De Kol 256894.

A SON OF THIS THREE-YEAR OLD FOR SALE.

Canary Ormsby Johanna DeKol produced 28.18 lbs. butter, 503 lbs. milk in 7 days and 111.95 lbs. butter, 2,318.6 lbs. milk in 30 days at the age of 3 years, 1 month, 6 days. Her sire, Canary Fobes Bessie Homestead (20 A. R. O. daughters), is a 31-lb. grandson of Canary Paul and Homestead Jr. DeKol. Her dam is a 17-lb. 2-year-old daughter of Sir Ormsby Johanna DeKol (31 A. R. O. daughters, 2 above 30 lbs.). Every dam in her 4-generation pedigree has a good A. R. O. record.

The Sire of This Young Bull is Mutual Fobes Longfield DeKol 82959, a son of Mooie Mutual DeKol and from a daughter of Homestead Jr. DeKol that, as a Jr. 3-yr.-old, made 30.04 lbs. butter, 630.8 lbs. milk in 7 days and 124.42 lbs. butter, 2,651.6 lbs. milk in 30 days.

This youngster is well marked and as straight as they make them; so are his sire and dam. Moreover, he's a descendant of proven producers from one end of his pedigree to the other. His dam's record as a 3-yr.-old is bound to be increased. There's no question but that he'll prove to be a top notch herd sire. He was born April 10, '18. Write us about him today, for he won't be here long.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

MAPLE LAWN DAIRY FARM
50 PURE-BRED HOLSTEINS 50

QUACKENBUSH for QUALITY HOLSTEINS

My Herd Sire, RAG APPLE PONTIAC is a bull of high class breeding. He is half brother to the famous $25,000 sire, *Rag Apple Korndyke 8th*, the sire of the $53,200 bull calf, the World's Champion 42-lb. 3½-year-old and the youngest 30-lb. heifer. He derives 43¾% of his blood from the noted Century sire, *Pontiac Korndyke*, the sire of the World's Champion 30-day butter producer and who has more 30, 36, and 40-lb. daughters and 1,000-lb. year-record granddaughters than any other bull. He is a grandson of the only double century sire, *King of the Pontiacs*, who has more 40, 30, and 20-lb. daughters than any other bull. He won first prize at the La Crosse, Wis., Fair this year and a daughter of his won first at the Wisconsin State Fair.

BOTH MALES AND FEMALES FOR SALE

Females of all ages. Some are springers and some are bred to the above sire. Some of the cows have A. R. O. records up to 27 lbs. in 7 days.

This stock is of the most popular breeding, such as Korndyke, Pontiac, Hengerveld DeKol, King Segis, Polkadot.

Bull Calves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeKol 3rd*, a grandson of *Sarcastic Lad*, the sire that won Championship at the World's Fair—and by *King Segis Pontiac Polkadot 8th*, a grandson of *King Segis Pontiac* and *Johanna McKinley Segis*.

Write at once or come and see me. **W. W. QUACKENBUSH, West Salem, Wisconsin.**

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

WAYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

WEST SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to eight years old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, and one of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 heifers and 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot 8th. Well grown and nicely marked. This stock is priced to sell in single or car lots. Also offer breeding stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, or write us for just what you want in Holsteins or Polands. We can please you. Farm located right in City Limits.

J. D. McDONALD, WEST SALEM, WISCONSIN.

A. R. O. Holstein Cows and Heifers

In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to

WISCONSIN STAR STOCK FARMS, ED. M. SCHULTZ, Hartford, Wis.

Cleveland Herd

Offers Yearling Holstein bull from a 29.08-lb. 3-year-old dam, that gave 100 lbs. milk in a day and won $109 prize money in one year. Her dam is a 26.10-lb. cow. His sire is a 30-lb. grandson of the $50,000 bull. He is evenly marked, a fine, straight individual and ready for heavy service. Price $500. If interested send for his pedigree. **H. R. Weiskopf, Cleveland, Wis.**

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs*. Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.

Bulls—Bulls
ALL AGES

Johanna and Ormsby Breeding.

Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY
Sheboygan Falls, Wis.

When writing advertisers please mention Hoard's Dairyman.

DON'T FORGET

The Holstein Breeders' Sale Co. will hold their

First Consignment Sale

In their new $35,000 Sale Pavilion at Fond du Lac, Wis.

November 14-15, 1918

175 - Registered Holsteins - 175

125 Cows and Bred Heifers—25 Heifers—25 Bulls.

The 125 cows and bred heifers are fresh or will freshen before spring. Two of them have 25-lb. records, one is a 24-lb. cow and several have good yearly records.

Bulls—25 bulls will be sold—most of them ready for service, including

3 30-lb. bulls, one having a 1,000-lb. dam.
One 28-lb. bull whose 5 nearest dams average over 1,000 lbs. butter in 1 year.
One from a 27.25-lb. 4-yr.-old.
2 from 26-lb. dams.

Dispersions—The Reid and Dawson herd of 30 head will be sold. All cows have A. R. O. records, 2 above 25 lbs., 12 daughters of Sir Johanna Rag Apple DeKol, a 37.09-lb. daughter included in this herd.

The James Sales herd of 25 head will be sold. This includes 7 2-year-old granddaughters of Johanna McKinley Segis.

This will be a sale of Quality Holsteins. Be there.

S. H. Bird, Sale Manager, South Byron, Wis.

Auctioneers: Haeger, Mack, Pohlman. S. T. Wood in the box.



Walcowis Ollie Hartog 240660.

Sire—Iowana Sir Ollie who is sire of Walcowis Ollie Mooie, state record junior two-year-old for seven and thirty days. He is a son of the famous 31-pound cow, Ollie Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—27 pounds from 624 pounds milk in seven days. Best day's milk, 101.5 pounds. A granddaughter of King of the Pontiacs and first prize winner as a three-year-old at the 1913 National Dairy Show.

Calf is well grown, a very good individual and reasonably priced. Have other younger bulls for sale. Write or come and see us.

Walcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

$25 Holsteins $25

Five weeks old 15-16 pure, mostly white, $25 crated. Two months old, $40. Registered Bulls two months old best quality $65. Two-year springers $125. Cows crated $150. Write us for car lots. Buy the best—it pays in the end.

DR. J. A. ROBERTS STOCK FARMS, OCONOMOWOC, WISCONSIN.

FOR SALE—Registered Holsteins

Young Bulls—5 to 10 months old, 2 sired by Johanna King Segis, the 40-lb. bull; 1 by the show bull, Beauty Walker Pietertje King; 2 by our splendid senior herd sire, Czar Walker 2d. We also have 7 beautiful heifers 4 to 15 months old sired by King and Czar above mentioned. *Eight well bred cows*, safe in calf to Czar 2d, offered. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis. Jas. McKone, Prop. Wm. Lucia, Manager.

Pabst Bargain

No. 1—A 32.02-lb. grandson King Pontiac Champion and Johanna McKinley Segis. This calf sire is a 38.03-lb. bull that sold for $12,500 and his dam is a m promising young cow, having a 4-yr.-old record of 32.02 lbs. but in 7 days.

No. 2—His sire is by King Pont Champion and out of Hengerv Colanthus, the cow that sold $3,500 at the last National H stein Sale, and his dam is a 26. lb. cow having three very cre able A. R. O. daughters.

Here is a splendid opportunity line up with the blood of K Pontiac Champion. Write for f ther particulars.

PABST STOCK FARM
Dept. A, Oconomowoc, W

Rock River Valley Fa

Awarded

FIRST PRIZ

In Wisconsin Dairy Cow Competitio

The *Winner, Queen Juliana Dirkje*, pr in one year as a 3-year-old 1,021.72 lbs ter, (80% fat.) Over 30 yearly record c herd headed by Mutual Piebe DeKol.

A few young bull calves from these cow by this bull for sale. (Herd tuberculin te

JOHN HETTS, FORT ATKINSON,

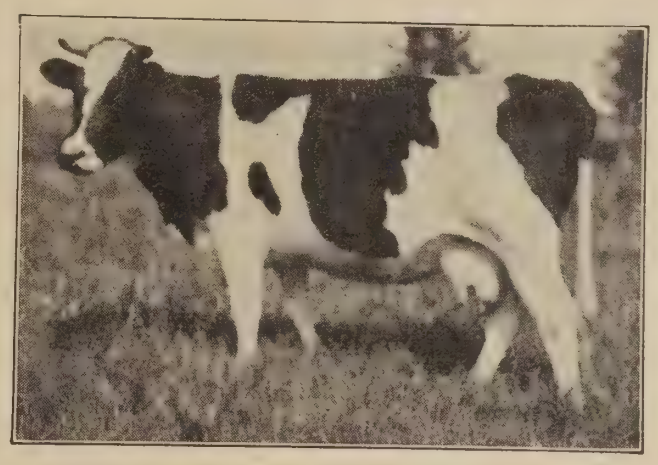
Watertown's Fall Sale

November 21st and 22nd, 1918

Conducted by the Watertown Holstein Sales Co., Watertown, Wis.



SIR KORNDYKE HENGERVELD DEKOL 36TH
A 2-year-old daughter of a 3 times 31-lb. cow, bred to Sir Korndyke Bess, a grandson of Sir Pietertje Ormsby Mercedes, Spring Brook Bess Burke, and Sir Korndyke Hengerveld DeKol.
CONSIGNED BY W. H. REED, PALMYRA, WIS.



A 30-LB. COW, IN CALF TO SIR KORNDYKE BESS
CONSIGNED BY W. H. REED, PALMYRA, WIS.

Holds out marvelous opportunities to intelligent buyers. Never before ave we assembled as choice a lot of cattle—130 head in all have been O. K. y our inspectors. We have a preponderance of large, rugged, milky, milch ows with records up to 30 pounds.

We have a grand lot of yearling bulls, records up to 31 pounds. To give you n idea of what we are going to have in our pavilion on the above named ates: Walter Reed of Palmyra offers a 30-pound cow, a daughter of a three mes 31-lb. cow and a daughter of a 24-lb. jr. two-year-old—these bred to Sir Korndyke Bess and Sir Korndyke Bess Pietertje. J. W. Goldthorpe, Milton ct. will sell twelve head—eight cows faultless individuals, with records up o 28 lbs.—all bred to a 36-lb. son of Sir College Cornucopia 2nd.



A 28-LB. COW CONSIGNED BY J. W. GOLDTHORPE, MILTON JUNCTION, WIS.

Remember that we have aimed to offer what you want—large, straight milch cows, largely: That we have rejected enough cattle to make a one day sale; that we are in the sale business to stay and appreciate the importance of satisfied buyers.

Our patrons all to a man declare
That Watertown sales are on the square
And if any of whom you chance to meet
They'll tell you, too, they're hard to beat.

or Catalogs Write Francis Darcey, Sec'y, Watertown, Wis.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS **HOLSTEINS** **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quali

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by h royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, I

Young Bulls From Yearly Record Da

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official reco 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Sch and other noted herds. These bulls are well marked, heavy bone, straight and large for thei We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, I

The Greatest Bull on Earl

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Ornh

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

HOME FARM HOLSTEIN FRIESIANS

His Six Nearest Dams Average 29.31 Lbs.

A beautiful son of KING KORNDYKE SADIE VALE 2 from 26-lb. dam who is a daughter of Prince Segis Korn from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One f world's record dam in yearly division. Breeding, size, individuality and price that will your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Large Yearly Records

No other herd has as many large yearly records now being made.

No other herd has two herd sires with as large yearly record backing. How would you like to own a herd bull with such breeding? We can furnish you this kind. Write

Hargrove & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.**

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont,** the **First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

Service Bull

5 bulls from 1 to 2 years old. One a son o tiac Korndyke. One a son of King Segis Pi The others and several not of service a grandsons of these two great sires. Also daughter of King of the Pontiacs and Pontiac Korndyke. Priced to sell. Wr full information.

WM. N. OSBORNE, WANATAH,

"NO HORNS"

Naturally Polled Holstein-Friesian bull sired by a son of the **World's Record** senior 4 1294.7 lbs. butter in 365 days, at $100 and up. Des catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Sum

FOR SAL

A WELL BRED BUL

Canary Paul Fobes Longfiel

Born July 29th, 1914.
Weight 2200 pounds.
Send for Pedigree.

Marblehead Farms, Manistique, Mic

Bull Calf, Born Jan. 6,

Sire—Colantha Johannn Champion 45674. 39 daughters. Son of Colantha 4th's Johan lbs. butter in 7 days, 1,247.82 lbs. butter in

Dam—Emblagaard Colantha Mahomet 279872 antha Johanna Champion 45674. Record a 2 months, 9 days: Butter, 7 days, 14.67; mil butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 68 11 months. The price of this bull is exceedin We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, M

The Traverse He

This is the chance you have bee ing for. We a few, good A. R. O. cows. One with 27 and 110.85 in 30 days. Three others abov Come and see them or write for descripti prices, but *hurry* for they will go quickl a few bull calves for sale, the kind you proud to own. Pedigrees and prices o cation. State age desired.

Traverse City State Hospital, Traverse City,

The Pontiac H

"Where the Champions come fr

Offer Bull Calves sired by sons of *Korndyke, Hengerveld DeKol, Pontiac land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd

PONTIAC STATE HOSPITAL, Pontia

Bloomingdale H

...HOLSTEINS...

For twenty-five years have been large production and good individuality Fayne Johanna, the first 50-lb. cow, breeding and made her first 30-lb. reco in our herd. Many of the large produc been bred here. Foundation stock a sp

A. A. Courtelyou, Somerville, New

Holstein Breeders, Attention! Buy your b young, 2 to 6 mos. old, good individuals, nice from A. R. O. dams. Sire: King Segis De Kol whose dam has 7-day A. R. O. butter record His grandsire is the sire of Segis Fayne Jo world's record butter cow for 7 days. 1 servi sale. **O. I. Reamer, North Liberty,**

Shipping Space Conserved

"Dairy products," says the Michigan College of Agriculture, "will feed the civilian population of our allies in conserve shipping space." The following table, showing the number of pounds edible dry matter in one cubic foot of shipping space required for various products and the cost per pound of the edible dry matter in these products, is used by the college to reinforce this statement:

	Edible Dry Matter No. lbs. in	Cost per pound
	cu. ft.	Cents
Sweetened condensed milk	33.8	21.1
Cheddar cheese	26.6	33.1
Whole milk powder	16.4	35.1
Skimmed milk powder	16.4	20.6
Canned roast beef	12.5	63.8
Canned corned beef	10.1	47.1
Canned salted pork	21.9	27.1
Eggs	26.1	52.1

HOLSTEINS



Are You a Member?

The Holstein-Friesian Association of America, the organized breeders of cattle of that name, was organized in 1885, then having 275 life members. Today it has nearly 12,000 members and is recording 80,000 Holstein-Friesian cattle per year, giving employment to 150 clerks, and has a reserve fund of nearly a quarter of a million dollars. It spends nearly $50,000 per year for publicity and extension work, promoting the interests of the breed and membership. The Holsteins are prosperous and popular.

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Offer High Class

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Every dam with an A. R. O. or C. A. record. Herd tuberculin tested. Prices right.

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Farm 25 miles West Chicago, on C. B. & Q. R. R.

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5 cows due to freshen soon.
5 bred heifers. Also a few bulls.
If you want the best at reasonable prices, it will pay you to write.
CLACKBURN, - CUBA, OHIO.

Buffalo Creek Farm

OFFERS A SON OF

Hengerveld Fayne No. 77461

a full brother to the sire of King Fayne Segis. Dam's record was as a 2-year-old and 24 lbs. as a 3-year-old with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request.
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MILLIONS

of cows have been slaughtered in the old country. When this war is over dairy cows and their products will command unheard of prices. Now is the time to get in. Send for our free price list of 100 head of choice females or if interested in a bull ask for bull list.
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Two year olds. High grade, well marked, from heavy producers. 50 head priced right for immediate sale. Write or come and see them. W. C. Kenyon & Son, Holstein Stock Farms, Box 71, Elgin, Ill.

Holstein Bull Calves For Sale

Registered, well marked, good pedigree; ages one year down. Farmers' prices.
FOR SALE, SUPERIOR, WISCONSIN.

Fairview Stock Farm Holsteins

Offering: 3 yearling heifers sired by Sir Korndyke Netherland Grouw, whose dam is a full sister to Pietertje Hengerveld Ormsby. Also one bull ready for heavy service. Write us your wants. FAIRVIEW STOCK FARM, Geo. Marshall, Prop., Whitewater, Wis.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality. Henry Stevens and Son, - Lacona, N. Y.

A Good Investment

Holstein Bull Calf Two Mos. Old

light in color, straight as a line, extra individual; sire is one of the best sons of *Tidy Abbekerk* Prince; dam, a twenty-four-pound daughter of *King Veeman DeKol*. Price $100 F. O. B. With registry and transfer. Also a few sons of *Tidy Abbekerk Prince* ready for service.
Henry Lathrop & Sons, Sherburne, N. Y.

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Three granddaughters of King Segis Pontiac 3 to 6 mos. old, light in color, mostly A. R. O. dams and grandams. They have the backing of 30, 40 and 50-lb. blood. A few choice bulls up to 14 mos. old. Prices right.
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HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

Holstein Cattle

In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
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Two Ormsby Bulls

No. 1. Born Jan. 1, 1918. Sired by a 29-lb. grandson of Sir Ormsby Hengerveld De Kol. Dam, is a 21.07-lb. daughter of Sir Ormsby Hengerveld De Kol. The bull is a grand individual and mostly white. Price $200. Delivered your station. No. 2. Born Feb. 15th, 1918. Same sire as No. 1. Dam has a record of 19.74 lbs. butter as a heifer. Bull is a good individual and mostly white. Price $150 delivered. For further particulars and pedigree address
A. M. ANDERSON, - Whitewater, Wisconsin

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. His Dam: Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4 year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

PEDIGREES Holstein pedigrees compiled by experts from one of the oldest and most complete systems in the country.
Sale Catalogs Printed — Live Stock Printing Co., La Grange, Illinois

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Complete Dispersal

of two well known herds of Registered Holstein Cattle, Fair Grounds, Owensville, Ohio

Wednesday, Nov. 20, '18

50 Head—Clermont Holstein Breeders Co., Bethel, Ohio—50 Head
30 Head— R. E. Head, Batavia, Ohio —30 Head

Nearly all of milking age have A. R. O. records up to 29.76 lbs. butter in 7 days.

8 semi-officially tested cows, half of them 2 and 3 years old, all but one under full age, records made under ordinary dairy conditions, average 11,819.2 lbs. milk and 494.4 lbs. butter in 328 days. 3 of them Ass'n prize winners.

Daughters of KING SEGIS PONTIAC, granddaughters of KING of the PONTIACS, KING SEGIS.

Grand Champion show herd Ohio State Fair 1918, will be sold.

All females of breeding age except 9 bred to one of the following bulls, both of whom will be sold.

JOHANNA CLOTHILDE CHAMPION 183398, *THE HIGHEST RECORD BULL WISCONSIN EVER PRODUCED.* His dam is the present state champion, 36.36 lbs. butter in 7 days; his sire's dam, COLANTHA 4TH'S JOHANNA, 35.22 lbs.

LORD SEGIS PONTIAC 200253, son of COUNTESS SEGIS, 31.70 lbs., a former WORLD RECORD daughter of KING SEGIS; sire's dam, PONTIAC ARTIS, 31.71 lbs. butter in 7 days, 3 WORLD RECORDS.

OWENSVILLE is 25 miles east of Cincinnati, on C. & C. traction, cars leaving Norwood station at 7 and 9 a. m. It is four miles from BATAVIA where all N. & W. R. R. trains will be met. Sale begins at 10 a. m. under cover. All cattle over six months of age will be tuberculin tested by Federal inspectors and will be sold on 60-day retest guarantee. For catalogues address

R. E. Head, Batavia, O., or Clermont Holstein Breeders Co., Inc., Bethel, Ohio.

Semi-Annual Consignment Sale

By the Maryland Holstein Sales Co.
Fair Grounds, Frederick, Maryland

THURSDAY, NOV. 14th, 1918

10:30 o'clock A. M.

100 - Pure-bred Registered Holsteins - 100

Consisting of fresh cows, with A. R. O. records; young cows and two-year-olds, bred to some of the best sires in the country, and soon due to freshen. Grand lot of yearling heifers and calves, bred in the purple.

BULLS FIT FOR SERVICE

Whose breeding and individuality fit them to stand at the head of any herd. Among them will be a son of "King of the Sadie Vales" whose three nearest dams average over 40 pounds of butter in seven days. The six nearest dams of this young bull average 29.62 pounds of butter in seven days. Yearling son of a 34-pound cow, and sired by "King Concordia Pontiac." A 31-pound grandson of the 37-pound cow "Diona Konigen." 1 bull ready for service from a 29-lb. dam sired by one of the best bulls of the breed. An individual of unusual promise. Cattle six months old or over will be tested by the B. A. I. or sold subject to retest by said Bureau within sixty days from date of sale.

LIST OF CONSIGNORS: Winterthur Stock Farm, Winterthur, Del.; Ira E. Fitzgerald, Chester, N. Y.; Alex N. Smith, Monroe, N. Y.; Allen R. Owen, Goshen, N. Y.; John B. Diamond, Jr., Gaithersburg, Md.; Harry H. Swomley, Frederick, Md.; Oliver Z. Coblentz, Middletown, Md.; Samuel A. Ensor, New Windsor, Md. *Write for catalog*

WM. P. MORSELL, SALES MANAGER, FREDERICK, MD.
Col. Geo. W. Baxter, Auctioneer.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

$200.00

Buys a Grandson of King Korndyke Sadie Vale

King Sadie Korndyke Fayne No. 241601, born Dec. 18, 1917. A large well grown fellow, fine individual, in color largely white.

Sire:—King Korndyke Sadie Vale 18th, one of the best sons of King Korndyke Sadie Vale from a 31-lb. 4-yr.-old daughter of the great Sir Veeman Hengerveld.

Dam:—Crescent Cora Fayne. A. R. O. record as a senior 3-yr-old: Butter 22.07, milk 488.60; butter 30 days 86.18, milk 30 days 1,876.50. She is in my herd at present and a promising candidate for a large record in the future. PLEASANT HILL HERD, W. D. ROBENS, - POLAND, N. Y.



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For pure-bred livestock and general farm sales. Write me before deciding on an auctioneer for your sale. Square dealing and satisfaction assured. References, State Bank of Honey Creek. I sell 25 head of pure-bred and grade Holsteins, including herd bull, at Kenmoor Farms, Oconomowoc, Wis., Saturday, Nov. 2nd. FRANK DRUMMOND, Honey Creek, Wis.

Your Profit Makers

THE Moline Wide Spread Spreader helps you to get 100% profit from your live stock. It enables you to make the best of your barnyard manure, keep up the fertility of your land and increase crops.

It is strongly built and equipped with the best mechanical devices for spreading manure in the most modern and practical way. It is a low down, endless apron, wide spread spreader and is correctly built for long life, easy loading, quick and perfect work. The Moline Wide Spread Spreader is the result of many years' experience in building manure spreaders.

The manure is subjected to a second handling by the rear beater, which pulverizes it much better than a single beater can possibly do, at the same time spreads the manure in a wide sheet instead of leaving it in streaks.

See your Moline Dealer or write us for full information and spreader catalog. Address Department 18



MOLINE PLOW CO., MOLINE, ILL.

Universal natural milker

Alternates, Like Milking With Hands



Milk Two Teats At A Time Two Times Every Day

Every farmer knows why he needs the time-saving, profit-increasing advantages of a milking machine, especially now with help so scarce.

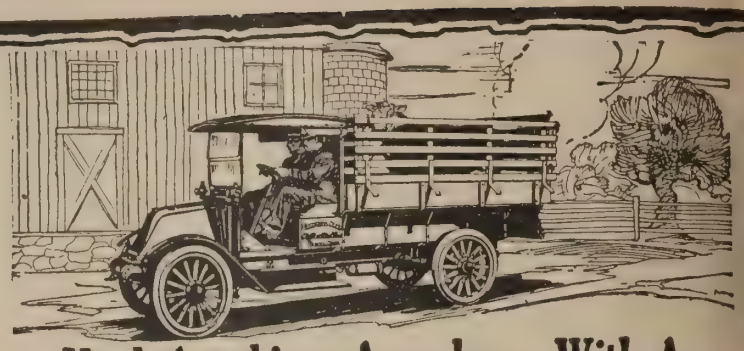
But do *you* know why you need *this* milker? Do not confuse the Universal with any other. It has exclusive advantages—farmers everywhere testify to its superiority.

The Universal alternates, like milking with hands. While two teats are being milked, two other teats are being massaged, thus the action is stimulating, comforting and relaxing.

The cow *benefits* from the use of the Universal, and gives more milk.

Experience of farmers completely establishes the unquestioned superiority of the Universal. Write for catalog.

The Universal Milking Machine Company
407 Mound Street, Columbus, Ohio



Haul Anything, Anywhere, With An International Motor Truck

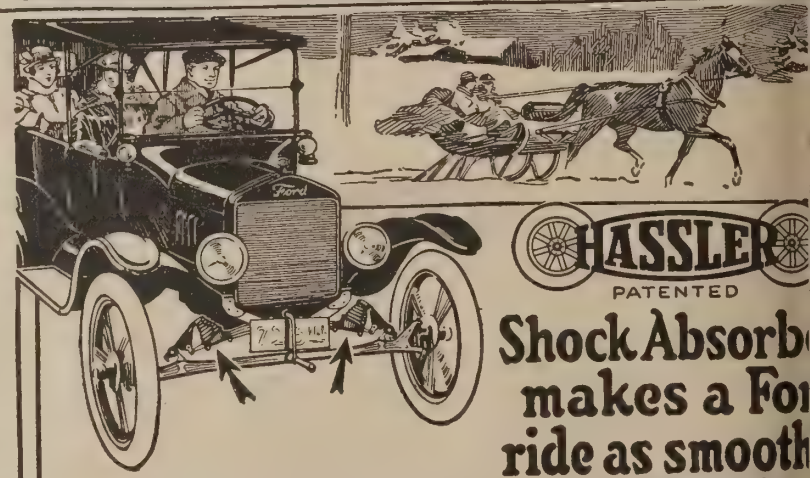
A FARMER never knows how much speedy hauling means to him until he buys an **International Motor Truck.** Ben Campbell, Minnesota stockman and farmer, says, "Looking back now I do not see how we ever got along without our International. We use it all the time."

The illustration shows Mr. Campbell hauling one of his famous pure bred bulls to market.

He uses the truck to haul livestock, farm produce, and supplies, and keeps it busy. Any farmer who owns an International will tell you that it is a necessary farm machine — one of the busiest pieces of machinery on the farm, and used more days per year than any other. New as the motor truck is to the farm there are already stories of thousands of dollars worth of crops saved by motor truck hauls when railroads were overloaded. With a motor truck a farmer can sell in the best market and make his deliveries as promised. With an International he can haul anything, anywhere, any time.

It will pay any farmer to investigate the **International Motor Truck.** We have a dealer, a branch house, or a service station somewhere near you, where the line can be seen, or we will send full information promptly if you will write us.

International Harvester Company of America
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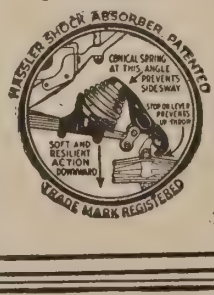


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Shock Absorb makes a Fo ride as smooth as a sleigh

A HASSLERIZED Ford glides along easily, smoothly, swiftly—just like a sleigh sliding quickly over a firm, even crust. There are no jolts, no jars, no upthrow, no sideway —practically no vibration. The car is easy to steer, safe to drive. It is just as comfortable as the old family sleigh filled with piles of soft furs.

Secure this comfort at no cost to yourself. Install a set of Hasslers and let them pay for themselves over and over again by adding to your tire mileage, giving you more miles per gallon of gasoline and oil, reducing the number and amount of your repair bills, and increasing the resale value of your car.



10-DAY FREE TRIAL OFFER

Write today for FREE TRIAL BLANK and we will have a set o Hasslers put on your Ford without a cent of expense to you Try them 10 days. Then if you are willing to do without them they will be taken off without charge. Don't ride without Has elers simply because someone discourages you from tryin them. Accept this offer and see for yourself. *Nearly a mil lion of the Patented Hasslers now in use.*

ROBERT H. HASSLER, Inc.
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Keep every issue, and USE the index. **Price, $1.00 Postp**

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., NOVEMBER 15, 1918. — Number 17

tory of a Co-operative Milk Plant

H. H. LYON, NEW YORK

BRIDGE farmers have been in and have come off victorious. ave won by co-operation, the ethod by which farmers can ctories, and the method by hey can always win if the co- on is real and not divided. dge is in the midst of one of sest market milk supplies that e in New York State. For me this milk has been handled evaporating concern which in h of the summer handled as is 180,000 lbs. a day from the ding country. ssible to divert f this milk to ncerns at times mmonly it is

le arose on the July when the tors said they re milk than nted and that e first of Au- y would cut off er portion of l milk and take h as they chose This was per- nd the action on account of lity of any of lk furnished. ners are mem- the Dairymen's and the con- people said y would now he League lo- d went so far ay to certain t they now had ue right where ted it. They would cut off a the most loyal League mem- no market for the milk and e of some of the rest. The would be helpless and divi- disintegration must result. ok so, but the reckoning lefective as I will relate. nothing like pressure some- bring out the best qualities. armers of the vicinity are osperous, but not what busi- les would count well-to-do. e some who have an income ousand dollars and who pay e tax. There are others who iculty in meeting the ex- f the year and others who d and economize closely to ments as they fall due on gages. As a whole, I would the average farmer does not ving on his farm. By mak- ng I mean that he gets in- terest at five per cent, pays his running expenses, all labor employed, including the work of the wife outside the regular housework and the labor of the children, then allows depreciation at a fair rate, and finally gets a labor income of somewhere around five hundred dollars from which to live. This would be making a living from the business of the farm, and I am certain that the average farmer does not get it. Just how much he falls below this I cannot say but it may be about two hundred dollars. The average man has not far from $4,500 as his personal investment.



LARGE SANITARY CREAMERY MADE OF TILE WITH ICE HOUSE OF SAME MATERIAL, THAT COST A FEW YEARS AGO, WITH HOUSE AND LOT, $30,000. IT IS NOW OWNED CO-OPERATIVELY BY FARMERS

Under these conditions it will be seen that for a community to raise a good many thousand dollars for a creamery is a task that might try the best to accomplish. There were two creameries in the place that were idle, one lacked something in sanitation, but had considerable equipment and was offered at $8,000. It seemed difficult to raise the money even to buy this one. The other was a well-built creamery of brick tile, nearly new, and came on the market if taken promptly together with a large ice house, a good dwelling house, and a garage at $22,000. Most said that this amount could not be raised. At a meeting of farmers there was practically a unanimous vote to refuse the cheaper structure. Then the chairman asked how many felt that they could go down into their pockets deep enough to buy the better property. One hundred twenty-five men stood up. That did not mean, however, that the deal was completed. It is one thing to get a practically unanimous vote to do something and quite another to get the money to pay for the property. Subscription blanks had been prepared in advance, but when volunteers were invited to subscribe, only a few hundred dollars were put down. It was a discouraging moment. The most optimistic looked at the situation as hopeless. It seemed best to make the attempt, however, and a committee of twenty-five was armed with blanks and urged to do all possible to raise the money, or at least enough so that a mortgage on the property be floated.

It is one thing to secure a competent committee and another to get work done. A supervisor of the committee was secured and this was one of the most important items at that date. The ground had to be gone over more than once, and several had to raise their contributions. In an effort of this kind it is necessary to do a lot of planning and plans had to be made somewhat in advance. The one man in charge must be on his job, and there were times when he said the task was more than could be accomplished. In this particular case the man in charge of the soliciting committee is in politics locally. It was to his interest to make the deal go through, and later he threw himself into the game. That made it a success. No man subscribed over $650 but several put in $600.

There were several plans discussed in relation to organization, but the idea of paying dividends on the stock at five or six per cent was adopted, although no positive promise could be made of such dividends. Then the plan of one man one vote regardless of the amount of stock held was urged and adopted. This plan met with some opposition but it is doubtless the best in all such cases. The subscription list called for all subscribers to be League members and required them to patronize the co-operative association when started. In a few cases where money could not be had to pay subscriptions it was permitted to take ten cents a hundred on the milk delivered until payment was completed. After that the stock could be issued as in the case of cash paid in. It seemed advisable to accept notes in a few cases if desired although the law does not permit issuing stock on notes. The stock in such cases would remain in the treasury until the note had been paid. In the actual working out of the scheme notes were discounted at the bank instead of being delivered to the association. I mention these various methods because someone may wish to work out a similar plan some day.

Now about the success of the endeavor. Some three or four days before the first of August it was found that over $22,000 had been subscribed and practically $20,000 paid in. It was almost impossible to believe our eyes when counting the money. On the 29th of July we had to complete our contract with the owners of the plant and take it over. A paper had been prepared and signed by towards a hundred of our farmers guaranteeing the directors of the co-operative plant against personal loss beyond their individual share in case they had to borrow money to meet any payments. They hired $3,000 at the bank and not a cent of mortgage had to be placed on the plant. Partial arrangements had been made with a savings institution to take a mortgage for ten thousand or less, but farmers responded so well that this could be omitted. There was considerable equipment in the plant but a cooler was bought at $600 as it appeared that we might

(Continued on page 570)

Hoard's Dairyman

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Subscription agents for New Zealand—Bray Bros., Agricultural Hall Building, Dunedin, New Zealand. Also—The New Zealand News Co., 150 Wakefield St., Wellington, N. Z.

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All foreign countries in the Postal Union $2.56 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Ask For "Victory Flour"

Ask your grocer for "Victory Mixed Flour". Some grocers carry it and some do not, but ask for it anyhow—the demand may bring the supply.

The 80-20 ready mixed flour saves the trouble of measuring from two flour bins every time you bake. It saves thinking, too, for a mixture of wheat flour and substitute flour in the four to one ratio makes a sweet loaf or light biscuit.

Millers are trying to keep up with the demand for "Victory Mixed Flour", and women can help themselves and help the trade by keeping up the demand. These flours are plainly labeled with the ingredients in the order of their proportion. In many localities stores are carrying one or more of the following flours:

Mixed wheat and barley flour: Four pounds of wheat flour to one pound of barley flour.

Mixed wheat and corn flour: Four pounds of wheat flour to one pound of corn flour.

Mixed wheat and oat flour: Four pounds of wheat flour to one pound of oat flour.

Mixed wheat, barley, and corn flour: Eight pounds of wheat flour to one pound barley and one pound corn flour.

Mixed wheat and rye flour: Three pounds of wheat flour and not less than two pounds of rye flour.

Whole wheat, entire wheat, or graham flour or meal: To contain at least 95 per cent of the wheat berry.

"Victory Flours" conforming to these regulations may be sold without substitutes but at no greater price than standard wheat flour.—U. S. FOOD ADMINISTRATION.

He who hath health hath hope, and he who hath hope hath everything.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Farmer's son:—"How do you like milkin' cows?"

Farmerette—"I like it well enough but I can't get the cows to look at it in the same way."

The Little Miss From Town

There's somethin' missin' 'round th' place;
A loneliness I can't explain.
The absence of a fair, sweet grace—
A voice I'd like to hear again.
I wander out into the fields,
And tell my troubles to th' herd.
But, nothing that the old farm yields
Can sound the beauty and the word.

At milkin' time, I'm lonely too;
My mind is never on my task.
There's nothing I can see or do—
There's nothing I can seek or ask
That fills the void—that measures up
To what I somehow seem to miss.
Ah, overflowing is my cup
With retrospective times likes this!

What is it? Why this discontent?
The cows are as they used to be.
The chores the same—yet I invent
A grouch that is no part of me.
Perhaps you've guessed! Oh, crushing gloom!
And dreams of girls that you have met!
They fade like summer-time perfume—
I miss a certain farmerette.

There are approximately 100,000 girls and boys enrolled in "Pig Clubs". Looks as if we could root our way across the Rhine if the airships can't make it.

What They Say of Dairying

The Artist:—"Profit Painted in Glowing Colors."

The Carpenter:—"A Safe Way to Build a Fortune."

The Banker:—"Every Cow is another Deposit."

The Aviator:—"On a Higher Plane Than Ever Before."

The Chauffeur:—"A Straight Drive to Success."

The Jeweler:—"Quick Returns in a Golden Setting."

The Baker:—A Fine Way to Make a Bunch of Dough."

Buying the Holstein

"Had she much sickness?"
"Well, a little this winter."
"Anything wrong with her feet?"
"The left fore has caused a limp at times."
"Good milker?"
"Not quite up to standard—no."
"Ever won any prizes?"
"Nope."
"Will she kick while being milked?"
"Never did it in her life."
"Good—that's enough. I'll take her fer spot cash."

The Little Feller on th' Farm

The little feller's eyes are bright,
The healthy cheeks are red.
And, oh, but how he sleeps at night,
Tucked in his little bed.
(But milk his diet is, I guess,
Touched off with heaps of cream.
Th' herd has helped to build a man,
Along a very rugged plan,
Of which all mothers dream.)

The little feller's stride is strong;
His voice is sweet and clear.
He sings the whole gay day-time long
And songs one loves to hear.
(But, oh, he drinks a lot of milk!
He has his private cow!
And when he eats a slice o' bread,
With golden butter wealth it's spread,
Let mother show you how!)

The little feller's kiss is sweet,
His hug is mighty tight.
He's active on his toddling feet;
His big blue eyes are bright.
(But, Gee! he's sipping all th' while,
Some dairy cow's precious brew.
And, so, it paints his cheeks—and seems
To bring him happy, smiling dreams,
Of things th' fairies do.)



Don't Wait till next
spring to get your new

DE LAVAL

WITH butter prices soaring no crea
producer can afford to go anothe
month without a New De Laval Crea
Separator.

This is true whether you have no separ
tor, or an inferior or half-worn-out machin
or even an old style De Laval.

In cold weather your waste of butter-fat is relati
ly greater, either with gravity skimming or a po
separator; and at present prices for cream a De La
would very soon pay for itself out of its own savin

See the nearest De Laval agent right away a
let him show you what the De Laval will sa
for you. If you do not know the local De La
agent, write direct for any desired informati

The De Laval Separator C

165 Broadway, New York
29 E. Madison Chicago

County Agent Work in Shawano County, Wis.



UNLOADING 60 TONS OF LIME ORDERED FOR FARMERS WITH SOUR LAND
his is only one of several such cars. Lime has made possible successful growing of 15 times as much alfalfa as was ever grown in the county before. The agent also procured a lime spreader and inoculation for this farmer.



"A SILO ON EVERY THIRD FARM" WAS THE MOTTO IN A CAMPAIGN THAT ERECTED 192 SILOS; NOW THE MOTTO IS "A SILO ON EVERY FARM"



OUTSIDE OF A MILK HOUSE PLANNED BY THE COUNTY AGENT. "IN STONEY COUNTRY USE STONE"



RT COURSES IN AGICULTURE WERE HELD ALL VER THE COUNTY LAST WINTER. THESE BOYS CAME IN 5 MILES AND MORE TO ATTEND



THIS BULL CALF AT 15 MONTHS OLD WEIGHED 1,300 LBS. He was purchased by the county agent for Frank Steffle. His grandam produced more milk in one year than any other cow of the breed. In one year 20 scrub bulls on as many farms were replaced by pure-bred sires.



SEVENTY DEMONSTRATIONS, SHOWING FARMERS THE GOOD AND POOR POINTS IN THEIR STOCK, WERE HELD



S MACHINE TREATED 5,000 BUS. OF OATS FOR SMUT
ne farmer had 47% of smut on his field last year. This tment cost him 28 cents and saved him $400 worth of oats.

AN estimate at the end of the first year of county agent work in Shawano County, Wisconsin, showed that $12.90 in cash was returned to the county for very dollar expended for the work. This did not include any work that did not actually bring in cash to the farmer. For instance, a pure-bred bull added to a herd of grades and a scrub bull sold from the herd may be of immense value to the farmer, but cannot be estimated in cash.

The one thing that brings me most satisfaction personally is that we are growing a little alfalfa on nearly one-fifth of our farms and the great cry even a year ago was that we could not grow alfalfa. Lime, inoculation, and the use of Grimm seed has helped us greatly, and the big stands that did not winter-kill are stimulating enthusiasm as no words could. Mr. Herman Naber of Cecil has reported that when he ran out of clover hay in the winter and substituted alfalfa hay without changing any other condition, his cows increased their milk flow one-fourth.—MERTON MOORE, County Agent.

"Which Milking Machine is Best?"

C. LARSEN, South Dakota College of Agriculture

everyone who contemplates purhasing a milking machine the 're question is foremost, and it is estion frequently asked.

here are only three classes of peowho would, and who are in a poin to, answer the above question ctly. One class would include e who contemplate buying a mae and who have been studying different machines, and have de-d for themselves which is the best hem under their conditions.

nother class would include those have been operating a certain hine with success for some time. ich men form their opinions en-y from the work of the machine, such opinions are valuable.

he third class includes the agents people who are connected in any with the selling and manufacture he particular machine. These men, ourse, are believers in their own ing machine. They would not ufacture it and they could not rtise and sell it unless they be-d it to be the best.

hich milking machine is the best? To say that it can not be answered correctly would not be proper. There is a best machine for particular herds, for certain barn surroundings, and for certain operators. There are differences in the various machines, but on the whole the standard milking machines are similar in effect.

Personal Choice Important

There are certain things that every dairy farmer can decide for himself:

First, the price. If a person has only so much money to put into a machine and his herd is not large, then the price is a deciding factor.

Second, shall it be a pipe line machine? If so, shall it be a double pipe line employing both pressure and vacuum, or shall it be the type that employs only vacuum?

Third, shall the milking machine be of the kind having the universal cup, or one sized cup for all cows; or shall it be a machine having cups of different sizes to fit the different cows?

Fourth, should the milking machine be a single unit machine, or should it be of the double unit kind; that is, should the machine milk one cow into one pail at a time or should two cows be milked into the pail at one time?

Fifth, if the double unit type is selected, should there be a partition in the pail to separate the milk given by the two cows?

Sixth, shall it be a machine having a pulsator that produces release and suction of equal lengths, or shall it be a machine having a pulsator whose duration of release and suction strokes may be regulated?

Knowledge of Herd Conditions Vital

Most dairy farmers have individual views on these questions. No one else can decide them as well as can the prospective users. If some one else should render a decision the owner may later decide that another type selected by a neighbor would prove more desirable.

At any rate, the person who has milked the herd of cows by hand regularly, and who is intimately in touch with each cow, and who understands his surroundings, is in the best possible position to select the machine that will milk that particular herd most successfully.

Study of the Different Machines

The dairy farmer who contemplates buying a milking machine should make it a business to study the different machines. He should visit the different fairs and the different dairy shows and make milking machines a study, and while doing so keep in mind his home herd and home conditions.

The results of such study will reveal much light of great help in the future successful operation of the machine finally chosen.

No matter how much knowledge and experience a person has with the different milking machines with a certain herd and under certain surroundings, he can not, as a deduction, point out that a certain milking machine is best. If such an experienced milking machine operator could have the opportunity of milking the different cows and become intimately acquainted with the different cows in the particular herd; if he could become familiar with the men who are to operate the machine; and if he could know the barn surroundings and facilities for caring for the milking machines and the personal likings of the owner, then such a person could come much nearer selecting the

(Continued on page 571)

How Strictly Vegetable Diets Influence Growth and Reproduction of Swine

E. B. HART, Wisconsin Experiment Station

THERE have been a number of experiments made in different parts of the world to determine whether animals can grow on rations compounded strictly from vegetable sources. The more modern disclosures that vegetable proteins may be essentially different in structure from animal proteins and that seeds probably have a lower concentration of fat soluble vitamines than certain animal products, would lend support to the idea that strictly vegetable diets might be found insufficient for normal growth and reproduction. The curious fact, however, that the animals which normally eat mostly vegetables appear to grow and reproduce on vegetable diets would indicate that there were certain factors not understood in the problem; for example, guinea pigs, sheep, cattle, etc., often make 80 per cent of their growth from strictly vegetable sources.

In our experimental work swine have been used. A grain mixture made up from oats, corn, middlings, and oil meal, with the proper protein intake, and same mixture modified by additions of skimmilk, meat scraps, or alfalfa meal, have been made the basis for these studies. Distilled water has been used in some cases, while in other cases natural water was used. Sugar beets have been added to the diet two or three times a week and alfalfa hay given the same number of times, involving, of course, only a very moderate consumption of this material. On strictly vegetable diets (practically a grain diet) growth ceases with either distilled or natural water after the animals have reached about 100 pounds and been on the ration about three months. They become miserably poor in physical appearance, loss of weight sets in, and proper correlation of the muscles disappears. They lose their ability to get up on their feet, except with very great pain, one predominating characteristic symptom being an attempt to walk on the knees. The microscopic examination of the cord of such animals shows a marked swollen condition, with the motor cells surrounded by considerable serous fluid and the entire motor cell markedly contracted. The microscopic picture of the cord is not unlike that of beri-beri which has been a common disease among the people of the orient, brought on by too excessive consumption of polished rice.

Where skimmilk has been added to the diet equivalent in solids to one or five per cent of the solids of the ration great help to the animals followed, but perfect nutrition did not result. These animals likewise passed into a condition very similar to those confined to the grain ration. It should be understood, of course, that these animals were confined in pens large enough for ample exercise, but wholly restricted to the known food mixture. With other farm animals, such as the chicken, we have had perfect success in growth where milk solids constituted 10 per cent of the solids of the ration. It is, therefore, not unlikely that had we used a larger proportion of milk we would have been more successful with swine than these earlier experiments indicate.

Where tankage has been added we have had normal nutrition. With tankage constituting but 1 per cent of the solids of the ration growth has been normal, the animals showed early oestrum and reproduced. These animals started at an initial weight of about 75 pounds. On a strictly grain diet the animals grew from 50 to 100 pounds, while on the grain diet plus the small amount of meat (1 per cent) they grew in the same time to 250 pounds. With 5 per cent of tankage in the diet normal growth and reproduction also resulted. The rate of growth where the grains were supplemented with skimmilk or tankage was a normal one, in some cases even being above the normal.

When the grain diet was mixed, so as to contain 15 to 25 per cent of alfalfa meal, growth and physical soundness followed. In the experiments where the sugar beets and alfalfa hay were thrown into the pen the animals consumed only relatively small quantities of these materials and for young growing animals such practice is not the best. When, however, they are forced to take as high as 15 per cent of the roughage the improvement that follows may be attributed to the fact that the animals were forced to consume a larger mass of this material. These animals receiving the alfalfa meal either in proportions of 15 per cent or 25 per cent of the ration grew very well, but their rate of growth was not up to normal. They remained physically sound, showed no signs, after two years on the ration, of physical degeneration and have produced normal offspring. Their ration consisted of 20 parts of corn, 20 parts of oats, 20 parts of middlings, 10 parts of oil meal, 25 parts of alfalfa meal, and 5 parts of corn starch. In other lots where a ration of 50 parts of corn, 20 parts of peas, and 30 parts of alfalfa were fed, physical soundness was maintained and reproduction has occurred. The curves of growth, however, are somewhat below the normal rate.

These experiments indicate that skimmilk, while furnishing better protein than the grains and improving the salt mixture of the diet very materially, is somewhat constipating in its effects and over a long period of time would not be conducive to normal growth and reproduction in the amounts used in these experiments. By using a somewhat larger quantity of skimmilk, providing thereby a splendid protein mixture and introducing more salts, the constipating effects can be overcome and the continued well being of the animal maintained. The crawling on the knees and physical degeneration of such animals, we believe, have their primary origin in a constipating ration.

These experiments indicate, however, that meat scraps or tankage carry all the necessary supplementing qualities for the grains, improving them through the introduction of better proteins, and especially through the introduction of bone meal or calcium salts. It does not seem probable that the mineral mixture of a strictly grain diet is the only inadequate factor, but that poor proteins and probably a lower quantity of fat soluble vitamines are two additional factors contributing to the failure of strictly grain rations. The introduction of tankage brings into the ration these factors and thereby modifies the inadequacy of the diet. The wonderful effect of the extra supply of calcium salts as introduced with tankage is of very great importance. It does not appear to be needed as a building material, but possibly serves its usefulness in regulating some intestinal function with which we are as yet little acquainted. It is indeed probable that the grains are somewhat deficient in fat soluble vitamines, excepting possibly corn, and when a roughage such as alfalfa is introduced and the animal forced to consume a large mass, as when 15 to 25 per cent of alfalfa constitutes the ration through intimate mixing with the grains, an additional supply of fat soluble vitamines, salts, especially calcium salts, and somewhat bulky intestinal residues are provided. These results would then explain why animals which naturally eat mostly vegetables can succeed on vegetable diets, while animals which naturally eat meat will not succeed when strictly confined to the grains; why pasture and forage are helpful in the successful management of swine; and why, for growth, grains or a mixture of grains under strict confinement will be a failure. They must be supplemented with either a plentiful supply of skimmilk, a supply of tankage, or with the leafy portion of the plant. Because of the bulkiness of roughage and its poor proteins it alone as a supplement to the grains will not give a maximum rate of growth. Only when the combination of grains and roughage has its protein mixture improved by the use of skimmilk or tankage will the maximum rates of growth be attained.

It might be inferred from the above discussions that the tissue changes in the cord of those animals going to pieces on grain diets were brought about by a low concentration of fat soluble vitamines. This probably is not true and other factors undoubtedly enter into the degenerate causes. In most of these rations wheat middlings occur in some cases as high as 30 per cent. We are led to believe from other experiments that the wheat embryo carries some poisonous material which interferes with the normal development of animals and specifically disturbs reproduction. It is, therefore, probable that in rations carrying the wheat embryo (middlings) success was only obtained when all the factors for growth were very perfectly adjusted to the body, making it possible for the animal to resist the poison of the wheat embryo. With better proteins, better salt mixture, and an abundance of fat soluble vitamines, all factors of relatively low efficiency in a strictly grain diet, it might become possible for the organisms to destroy or overcome the depressing action of the poison of the wheat middlings.

We believe, however, that the primal cause of physical degeneration of these animals on a strictly grain diet is of intestinal origin and due primarily to a poor salt mixture which causes retarded motions of the intestine followed, consequently, by constipation and absorption of poisonous materials from the intestine. An animal confined strictly to corn which, so far as we know, contains no poisonous material, will ultimately fail to grow and likewise pass into very poor condition. We have had animals pass into this condition when given wheat rations to which was added 2 per cent of butterfat, the ration containing, therefore, plenty of fat soluble vitamines. The cord showed the same changes as that from pigs receiving nothing but the grains.

It is, therefore, clear that omnivorous such as swine, can be reared on strictly vegetable diets, but not by grain alone, and the great function of the stem and leafy portion of the plant such as the summer pasture, or the winter clover or alfalfa, is to maintain a normal and healthy condition of the digestive tract.

We have some preliminary results on the maintenance and reproduction of swine on grains alone. It appears possible to maintain swine and have normal reproduction when confined wholly to the grains but only after the animal has reached maturity; but whether there should be much protein of vegetable origin in the ration, or grains from special sources, is still a matter of experiment.

Feeding Value of Skimmilk

Experiment station trials on 7 pigs show that when properly fed as a supplement to cereal grains (say 1 lb. grain to 3 lbs. milk), 100 lbs. skimmilk will replace 28 lbs. of grain that would otherwise have to be fed without the skimmilk. Using this as a basis the Michigan College of Agriculture figures out the relative value of 100 pounds of skimmilk with grain at varying prices:

Cereal grains Price per 100 lbs.	Relative value of 100 lbs. skimmilk
$1.00	$ .23
1.25	.35
1.50	.42
1.75	.49
2.00	.56
2.25	.63
2.50	.70
2.75	.77
3.00	.84
3.25	.91
3.50	.98
3.75	1.05
4.00	1.12
4.25	1.20

Use your gifts faithfully and they shall be enlarged. Practice what you know, and you shall attain to higher knowledge.—ARNOLD.

Aims of a higher order may not be entirely fulfilled and yet at that may often prove more valuable than those of a lower order entirely fulfilled.



TWO ASSOCIATIONS THAT GO HAND IN HAND

Bull associations are getting a new lease of life and are now being organized on a more permanent and satisfactory basis. Cow testing associations have proved their worth, but the scarcity of young men has made it difficult to meet the demand for new testers. A representative of the 18 woman testers in Wisconsin came to the National to show and to tell that women can do the work satisfactorily. Her booth was one of the best patronized and she was kept busy answering questions and demonstrating the work of a cow tester.

Directions for Making Cottage Cheese on the Farm

COTTAGE cheese is one of the few varieties of cheese that can be profitably manufactured on a small scale by the dairy farmer. Little additional equipment will be needed other than that which can be made on the farm.

The following equipment will be needed: Metal stirrer, or large tinned spoon; measuring cup; dairy thermometer; cans, about 8" diameter, 20" deep, made of heavy tin. These will hold about 3 gallons of milk; draining racks (one for each two cans); press boards (one set of two for each two cans); and junket tablets.

The cans may be made by the local tinsmith, or purchased from dairy supply houses. The draining rack and press boards can be made on the farm. They should be of cypress, white wood, maple or clear pine, free from pitch or resin.

For the draining rack which is 12" wide, 24" long, and 14" high, the following pieces will be needed: 4 pieces for posts, 2" x 2" x 14"; 4 pieces for side rails, 1" x 2" x 25"; and 4 pieces for end rails, 1" x 2" x 11". To make the press boards, the following will be needed: 4 pieces, 1" x 2" x 11"; 18 pieces, ½" x ¾" x 11"; and 8 pieces, ½" x 2" x 2". The strips are placed flatwise and spaced ½" apart.

The Milk

It is necessary to have fresh, clean skimmilk in order to make cottage cheese of high quality. Milk that has become slightly sour may be used, provided that no bad flavors or odors are present, but the quality of the cheese may be inferior. Either separator or dairy skimmilk may be used. Unless the skimmilk is to be made into cheese as soon as separated it should be cooled to 50°F. or lower and held at this temperature until ready for use. A good grade of cottage cheese can be made of the skimmilk from milk to which water has been added to hasten separation.

Setting the Milk

Place the skimmilk in a clean tin can or a "shotgun" can, and set in a tub or can of either hot or cold water as needed, to bring the temperature to 75°F.

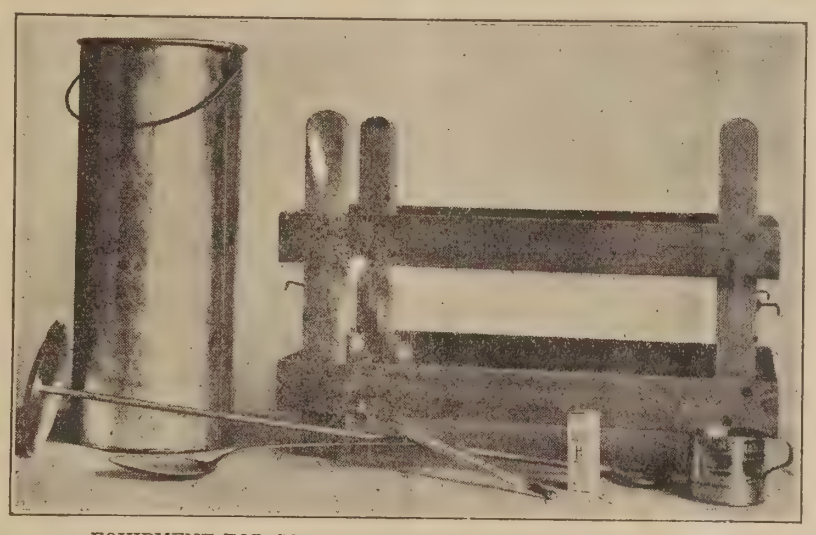
If the milk is sweet, add ¾ cup of clean sour milk or buttermilk per gallon of skimmilk. Dissolve ½ of a junket tablet in 4 tablespoonfuls of cold water, and add to the milk. Stir thoroughly to insure uniform distribution of the dissolved junket tablet and the sour milk or buttermilk through the whole.

If the milk is sweet and no sour milk or buttermilk is available, let the milk stand at 75°F. for five or six hours before adding the junket tablet.

The milk must be kept at 75°F. until firmly curdled (coagulated). This can best be done by placing the can of milk in a wooden tub or a half barrel and surrounding the can with water at 75°F. A double boiler may be used. Do not disturb the milk after setting until ready to drain. Milk set in the afternoon should be ready to make up the next morning. Milk set as above should coagulate in twelve or fifteen hours.

Draining the Curd

The curd is ready to drain when the milk has become firmly curdled so that a very little whey appears on top. The object of draining is to remove the whey. Pour the curd into a cotton or cheese cloth bag, breaking the curd as little as possible. This pouring can best be done by the use of a draining rack. Place the cloth over the rack and fasten it at the corners by hooks. Slide the curd out of the can as gently as possible to avoid breaking the curd. After the draining has proceeded for about 15 minutes, raise and lower the draining cloth at the corners and sides, first one corner, then the other, in order to loosen the curd from it and hasten the draining. The draining may be completed by tying the corners of the cloth together and hanging up or pressing. By the former method it will require from 12 to 24 hours to drain out sufficiently. The curd at the outside dries out faster than that in the center and may form lumps. This can be prevented by kneading the curd slightly two or three times during the draining process.



EQUIPMENT FOR COTTAGE CHEESE MAKING ON THE FARM



PRESSING THE CURD

The draining process can be finished by pressing in 30 or 45 minutes. The press consists of two slatted press boards made up of three-fourth inch by one-half inch strips placed one-half inch apart. Tie the bag of curd securely and place between these slatted pieces. Press by placing on top of the press boards a pail filled with either water, bricks, stones, or sand. Usually 25 lbs. pressure is sufficient. Two or three times during pressing the position of the curd should be changed slightly to prevent uneven drying. The pressing can be done very nicely by placing the bottom press board in a shallow pan, thus saving the whey. Press until the curd is dry enough so that it will not leak whey after salting. This point can be determined by experience alone. Cheese containing too much moisture will not keep well. If the cheese is pressed too dry it may be moistened by adding a little cream or milk before using.

Salting the Curd

Salt is added to the cheese to improve the flavor, the amount depending upon the individual taste. Usually 1 to 2 teaspoonfuls to the curd from one gallon of milk, or 2½ to 4 ounces to 10 lbs. curd is sufficient. All lumps of salt should be broken up before adding to the curd. When adding the salt, place the curd in a pail or pan, add the salt, and mix with a butter ladle or spoon just enough to thoroughly distribute the salt. Too much mixing causes the cheese to be sticky, pasty, or salvy.

Adding Cream

The flavor of the cottage cheese may be improved by adding a little sweet or sour cream. The cream may be added at the same time as the salt, thus making one mixing do for both. Heavy cream added at the rate of one-half pint to each 20 lbs. of cheese will improve the flavor greatly and give the cheese a mild creamy taste. More cream may be added if desired.

Preparing for Market

Cooling. Place the cottage cheese as soon as made in a cool room or refrigerator and keep cold until used. If stored in a refrigerator at 40°F., it will keep in good condition for several days.

Packing. Cottage cheese may be marketed very satisfactorily in single service containers. These containers are made of wood pulp treated with paraffin to prevent the paper from softening. They can be secured in 4, 8, 10, 12 ounces, or larger sizes. They make a neat package and the smaller sizes are very convenient for retail trade in grocery stores and meat markets. The name and address of the manufacturer or other advertising material may be printed on the containers.

Yield. 1¼ to 1½ lbs. of cheese will be secured from 1 gallon skimmilk, or at the rate of 15 lbs. to 18 lbs. of cheese per 100 lbs. of skimmilk.—Extension Circular 55, Massachusetts Agricultural College.

Butter Dealers Found Guilty of Profiteering

News despatches report that on October 25 the federal food board for New York City ordered eight wholesale dealers in butter and eggs to close their establishments for a week, following their conviction on charges of profiteering in butter. The dealers were also ordered to refund all over charges to customers and to display posters announcing their offense. Under Food Administration rulings, butter, both storage and fresh, must be sold at prices not to exceed a stipulated margin over cost, and dealers are not allowed to profit by abnormal advances in market quotations.

Does Education Pay?

The short course in agriculture was established at the University of Wisconsin in 1885 under the direction of Dean W. A. Henry. It was born under the discouragements of ridicule and lack of interest, but it long ago justified its establishment. Today it boasts of 5,012 students who have attended these courses, and they are well distributed over the United States. But, does it pay? The college answers this question in its announcement for next year's work:

"That Short Course training pays is shown by the fact, based on 825 records, that the Short Course graduates are making labor incomes—the amount left over to pay for the farmer's labor after paying all expenses and deducting 5 per cent interest on the total investment—of $739 a year, as against only $632 made by common school graduates; and the Short Course men live in more expensive houses; more often have modern bath equipment, lighting systems, and furnace heat; and one-fourth of them, as against one-fifth of the grade school graduates, have automobiles.

"The equipment of the College of Agriculture is thoroughly modern and practical. The buildings stand for the best types of farm architecture and the ideas represented in their construction can be readily adapted to the average farm. For years attention has been given to securing breeds of live stock that will be representative and true to type. The instruction in the short course is given by the regular members of the staff of the University, and the students have every advantage offered the students in the other courses.

"The short course consists of three terms of five weeks each. Students may enter at the beginning of any term. The course is so planned that a definite unit of work is completed during each five-week period. The course will start the middle of November and the studies for the first term (five weeks) will be completed at the time of the Christmas holidays. The second term will start after the vacation and the work of this term will close at the end of the first week in February. The third term will begin the second week in February and close the middle of March. The course will be completed in good time to permit the students to return to the farm to begin the spring work.

"Under this new plan Short Course students will concentrate upon a few subjects for each term and complete them before taking up other subjects. Instruction is given by means of lectures, recitations, laboratory practice, demonstrations, and conferences. Opportunity is given for students to secure answers to individual questions, which makes the work practical and helpful to them."

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The War Cripple in the Dairy

W. M. HUSSIE, NEW YORK

THE United States government certifies that of every million American soldiers in the field for one year ten thousand will be so disabled as to preclude the possibility of them following their previous occupations. They will require special training, calculated to prepare them for gainful employment in the post-war period. When trained, they will be skilled workmen, their impaired physical powers compensated for by superior knowledge along their chosen lines of work. They will be fitted to secure, and to hold, positions in competition with normal men, because they will possess the much desired "know how". Employers will welcome them for the reason that their employment will be based not at all upon charity, or the glamor of service in the army, but on merit.

According to the vocational rehabilitation act recently enacted by Congress, those disabled in the military and naval forces of the United States have been placed under the joint authority of the Surgeon General of the army and the Federal Board for Vocational Education. The Surgeon General has jurisdiction from the time the person is injured until he is restored to good physical condition, when he receives his honorable discharge from the service. The federal board then offers him vocational re-education and training which will enable him to return to useful active employment, and the U. S. Employment Service will find him a job.

The French, British, Italians, Germans, and Austro-Hungarians have blazed the trail. The Red Cross Institute for Crippled and Disabled Men of New York, a national activity of the American Red Cross, collects from the clinics and re-educational institutions of the world the results of the many experiments carried on. It, also, itself experiments with men of various disabilities, having accumulated much valuable data at first hand. The benefits of this work will be felt by American industry and agriculture throughout this generation.

In France between sixty-five and seventy-five per cent of those re-educated for profitable employment are farmers, although of all workers in the list of gainful occupations in France before 1914, the farmers furnished only forty per cent. There is no doubt, whatever, that the French farmer has furnished almost double his quota in filling the ranks of the dashing French infantry. The French farmer, one may almost say, has saved France in war, as he supports her in peace. In the United States before the war, roughly, thirty-six per cent of all our male population over the age of ten years were farmers. Since our draft applies to all citizens alike, it is safe to estimate that thirty-six per cent or more of all our soldiers and sailors are recruited from the ranks of the farmers and sons of farmers.

The experience of our neighbor, Canada, in re-educating disabled soldiers, shows that 2,077 men taking training for employment only some six per cent took agricultural wor in animal husbandry, farming, far tractor operation and care, garde ing, and horticulture. In other word out of 2,077 men only 131 elected return to the soil. And yet, for mar types of war disabilities a return the out of doors life indubitab means a guarantee of life and healt It is hoped that the Federal Board Vocational Education, (the gover ment department charged with t training of our disabled soldiers a sailors) will produce a much more i pressive percentage of sturdy, re-ed cated American fighting men return to the soil.

Re-education, the science of ada ing disabled men to serious occup tion, has made rapid strides, und the spur of necessity, since 1914. is advisable for all of us to form hard and fast preconceptions as to t industrial worth of any disabled ma until we realize what has been complished. It may seem prepost ous to assert that men, for examp with leg or arm amputations can s



NEBRASKA DAIRY JUDGING TEAM, WINNER OF H EST HONORS AT THE NATIONAL DAIRY SHOW

Sitting, left to right: Carl Powell, Martin N. Lawr Donald Spencer. Standing, Professor J. H. Frandsen, Dep't. Dairy Husbandry, and Eli Duncombe, coach.

cessfully engage in farming or d ing. There are, however, hundre instances where men so handica are actually doing such work ent successfully. Take, for illustrati case of a farm laborer, with a leg putation. The reader may re imagine that complicated, arti legs, costing hundreds of dollars, hardly prove practicable for wo on a farm, although very usefu walking about a city. That is and the re-educated British or F farmer or dairyman works we the ordinary "peg-and-bucket" "peg" leg. But, it will be obje while this sort of leg is very we hard ground, how can the man on, or traverse soft, or marshy The French have provided a wooden pad, clamping on the e the peg leg. This provides a pe ly workable apparatus by mea which the one-legged, or, for matter, the legless farmer equally comfortably and we marshy or hard ground. Agai training such a man in the u farm machinery, so that he fin specialty in operating it, the ve cessity of working on the soft g can be eliminated. These are on of numerous methods of g

ound a single difficulty. There is no stacle which, in a proper case, the voted men who have given their skill d knowledge to the education of the sabled soldier have not and cannot rmount. It may be stated, with comete assurance, also, that there are deed few farms or dairy operations at an ingenious, determined, onemed soldier can not master.

Forecasting the American establishents, one may glance at the institun provided by the new dairymen France, who have been forced to rn from the trenches to the soil by ason of wounds received in service. -educational schools for French ldiers for training in butter and eese making have been established Manirolle, Poligny, Surgeres, and rillec. The list of students has not en large, but some fifty have been rned out, it is estimated from the ta at hand, and are now equipped earn about fifty dollars a month, cording to the state of the market. is, it should be remembered, is a ench wage. The most seriously disled men are not received in these ools, as considerable activity is reired and the aim is to turn out, in ery branch of re-education, above , capable men. Many of the gradtes are acting as inspectors of milk. ose electing to specialize in butterking are able to begin work at ges of about twenty-eight dollars a nth, with opportunities to increase ir compensation as they become ll better acquainted with the work d the demands of the market. The -operative Dairy Association of arente and Piotau has worked with schools, generously guaranteeing alary of fifteen dollars per month graduates who are native to the partments of Charente-Inferieure, ux Sevres, and Vendee. This is ind practical co-operation with the orts of the government of France replace in productive occupations men who have risked all for the tion. It should be noted that the ability compensation received by ry French soldier is paid regards of his after-required earning wer. His wages have no effect atever on his pension or compenion. Our government has officially opted a like provision. Our allies' perience shows that all such train- institutions should be situated r adequate medical centers, that men's physical wants may be atded to while they are receiving ir technical training.

Our government has determined to fit by all experiences of foreign ntries. The Surgeon General of army, for example, has prepared agricultural training in connecn with hospitals of the army. It is less, obviously, to train men, howr well, if their physical needs are attended to until the man is comtely recovered, however long a e the process may require. And to illustrate this provision, the lter Reed Hospital in Washing- has equipment for agricultural ining for the disabled soldier dur- his convalescence.

t is expected that many soldiers m the farm will be apt to fancy the vn pursuits after recovery, and k training for them. This tenncy, except in extraordinary cases l, it is believed, be gently but firmcombatted by the medical and vo- ional authorities. The requirents of the farm must not be overked at any time.

All re-educational authorities hope t American re-education will bear part in populating our farms with manly, sturdy men who come k from the war, impaired, it may to a degree, physically but with rt intelligence, and unimpaired fidence and ability to take up the rk of the dairy, the farm, and the est.

Southeastern Fair

HOARD'S DAIRYMAN:—The Southeastern Fair held annually at Atlanta, Ga., was held during the week of October 14—19, and in spite of the influenza scare was declared by those in charge to be a success in every particular.

The most notable feature of the fair was its live stock exhibit, particularly of swine. More than 2,000 pure-bred hogs were shown, most of them being Georgia grown. Exhibitors from the North and West were present to compete for the fairly good premiums. The honors were taken by Georgia hogs, and what is most surprising, a large number of the hogs belonged to pig club members. The winners in the bunch were bred, for the most part, during the past three or four years by Georgia boys under the guidance of James L. Downing, the state agent of the College of Agriculture and of the United States Department of Agriculture.

Next in point of numbers in live stock was the beef animal exhibit, mostly Georgia bred. There were 16 Hereford exhibitors, 6 Shorthorn, 3 Aberdeen-Angus, and 1 Poll Durham, most of these being herds. It has been only within the last few years that live stock of the beef breeds was shown at southern fairs except in a very limited way. Now, however, they are always seen in large numbers and there is always a great deal of interest manifested. The cotton farmer who has begun to diversify his agricultural crops has taken to the beef animal with a good deal of favor and has been especially interested in pure-bred animals. As a consequence some very fine breeding herds are being built up in the South.

No small amount of interest centered in the dairy exhibits. Here, too, were found some classy southern bred animals out of well selected strains of the country. Southern dairymen have been fortunate in getting some very good dairy animals from various sources and have exercised very creditable care and shown good understanding in breeding.

Three Jersey herds were on exhibit. The Jersey is quite a southern favorite. Two Guernsey herds were displayed. This breed is catching on in the South and there is a widespread belief that it is going to prove well adapted to southern conditions. Four Holstein exhibits were made. In all of these classes there were several cattle that got high rank on the score card.

There is not as much interest, however, among dairymen in fairs this year as usual. The labor situation has been so acute as to make many of those who wanted to exhibit, give up their hopes. Several southern fairs have been cancelled on account of the spread of influenza.

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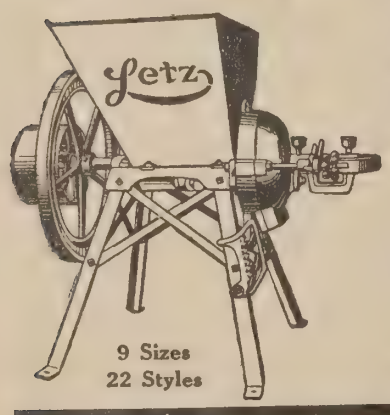
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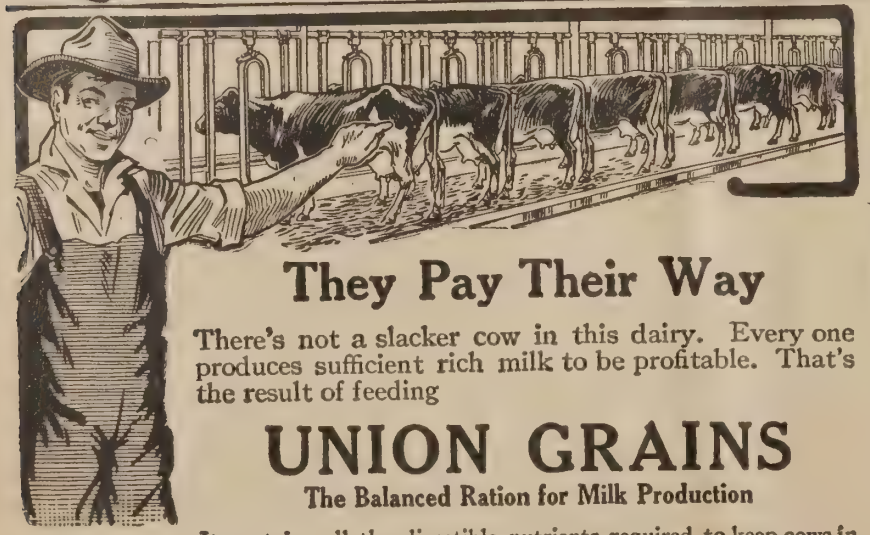
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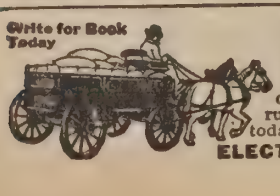


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Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Penn.	Canton	B. E. Whitney	Oct.	450	8	73.6	L. D. May
"	E. Bradford	M. E. Neal	Sept.		4	42.8	W. E. Sturdevan
Va.	Orange	R. S. Gillispie	"	346	37	59.5	J. P. Kite
Colo.	Arkansas Valley	G. W. Barr	Oct.	336	4	53.5	A. V. S. B. & I. L. Co.
Ill.	Lake Co. No. 2	R. Williams	"	412	58	76.3	L. H. Pepper
Wash.	Stillaquamish	H. W. Quimby	"	422	22	65.6	L. R. Palmer
"	Walla Walla	Wm. Dawson	Sept.	337	39	68.6	C. H. McGilvray
Wis.	Ft. Atkinson	R. Kargl	Oct.	230	2	61.1	E. G. Roberts
Vt.	Craftsbury	P. E. Bassett	Sept.	332	2	44.0	Hines Bros.

Association Notes

Canton, Pennsylvania:—Dairymen are on the lookout for better sires and the testing association work covering the past five years is having good effect. In October market milk sold for $3.50 per hundred, the average test required being 3 per cent and for each point above, 4 cents were paid. Milk retailed for 14 cents per quart, butter 60 cents per pound, and cheese 30 cents per pound. Corn meal sells for $3 per cwt.; bran, $2.15; gluten, $2.80.

Eastern Bradford, Pennsylvania:—Ten boarder cows were sold during the past month. In September market milk sold for $2.84 per hundred, the average test required being 3%, and for each point above, 4 cents were paid. The creamery paid $.53 per pound fat. Butter sold for 60 cents per pound. The prices of feeds are: Gluten, $2.37 to $2.95 per cwt.; oil meal, $2.68 to $3.10; Arcady Dairy Feed, $2.60; Unicorn, $3; buckwheat feed, $1.70.

Orange, Virginia:—In September market milk sold in Washington, D. C., for $3.63 per hundred. The average test required was 3.5%, 4 cents being paid for each additional point. The creamery paid 82 cents per pound for fat.

Lake County, No. 2, Illinois:—This association has been organized for another year's work. With the exception of two, all the old members have stayed in. The interest they are taking in the work is remarkable. Several of the members are in the market for pure-breds. Three new silos were built this fall. In Chicago in October market milk sold for $3.22 per hundred, the average test required being 3.5%. Unicorn costs $65 per ton; oil meal, $60; brewers grains, $58; bran, $38; Schumacher feed, $54; corn meal, $60; Planters dairy feed, $48; alfalfa hay, $30.

Arkansas Valley, Colorado:—Our near "dryland" neighbors raise considerable milo-maize, feterita, and dwarf broom corn. The dairymen here are materially reducing their feed cost by utilizing these home-grown products. The milo-maize and feterita crops are either put in the silo while green or later headed and ground. The broom corn stover while still green is ensiled. This makes a succulent although not a rich feed. The entire crop of barley and emmer is being ground and used within the county. Adding these feeds to the home-grown corn and alfalfa and supplementing them with the by-products from the local flour mills, will avoid the high freight rates to a large extent. In October market milk sold for $3.35 per hundred. The average test required was 3.5% and for each point above, 3 cents were paid. The creamery paid 58 cents per pound fat. Milk retailed for 13c per quart and butter 60 cents per pound. Local prices of feed: Alfalfa, $20 per ton; corn silage, $8; corn fodder, $6; beet tops, $6; mangels, $6; corn, $3.15 per hundred; barley, $2.50; emmer, $2.50; headed-milo, $2; bran, $1.25.

Johnstown, Colorado:—The longer I stay with the testing work, the mor important I find it. During the pas year I have found "leaks" on man dairy farms and still continue to fin them. Some dairymen have a ver poor method of feeding grain, th mangers many times being so narro that the cattle drop most of the grain in the litter in front of th manger. Other instances have bee found where the mangers have larg cracks and much of the grain fal through. Many hay feeding racks ar very wasteful of feed. I have su ceeded in getting several men to s these things and to remedy them.

The cow, Rocabie, owned by W. Purvis, has already produced 13,0 pounds of milk and 482 pounds of f in seven months, a production due a parently to systematic feeding. La year she was not fed properly an only produced 406 pounds of fat du ing the entire year.—R. M. Curti tester.

As to the benefits of keeping re ords, H. W. Cooley, a member of t Linn County Association, Orego says: "In two years' time my crea check has been increased form $142 $287 per month from the same nu ber of cows." He says he attributes th largely to the work of the testing a sociation. A Washington County A sociation member says: "Having r herd book at the sale and showi the records of each animal as she w sold, I am sure that I received fr thirty to forty dollars more per cow

"My herd average has been rais from 6,347 pounds of milk and 28 pounds of fat in 1915 to 6,578 pou of milk and 315.3 pounds of fat 1917. I attribute this to the work the testing association.—Wm. Wi iams, Oregon.

"My cream check from 27 cows the month of September, 1916, w $46.70. My cream check from 28 co for the month of September, 1918, w $515. This increase in production w due to the keeping of records."—No Black, Smith and Umpqua Assoc tion.

The Inter State Fair at Prinevi Oregon, which is in the heart of a ranching beef section, had one of best dairy shows in the state t year except the state fair. Our te ing association is largely responsi for this, as it has taught the peo how to dairy.—John Kemmli Oregon.

Stillaquamish, Washington:—T noticeable improvement of the he in the association is due to the univ sal practice of keeping registe bulls. In several herds the older c are being sent to the butcher, and daughters which show an impro ment over their dams are taking th places. A number are trying alf this year for the first time on highland.—H. M. Quimby, tester.

Clarke County, Washington:—M cows are coming fresh and the p pects are good for winter dairy Twelve cows went for beef. dairymen realize the necessity weeding out the low producers. F is bound to be high and scarce. La



"Customers, gladly pay more for butter they know is as perfect as when it first comes from the churn.

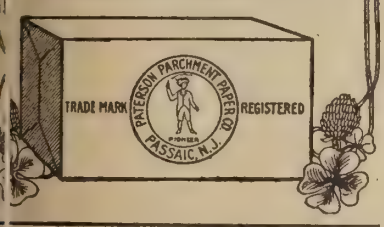
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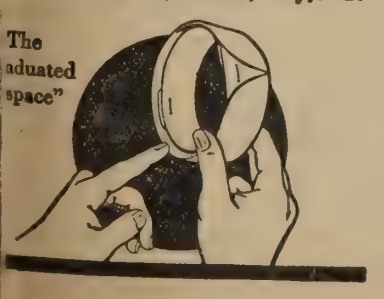


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saving devices must be adopted by every dairyman.—R. L. LAUDERDALE, tester.

Issaquah, Washington:—Everyone is getting ready for silo filling time. The corn is excellent so far, and will be well dented in most instances. Most of the members of the association have a good supply of roughage for the winter and with the gradual increase in the price of milk, things are looking brighter.—E. B. KINYON, tester.

Whitman—Spokane, Washington:—The report of this association shows an unusually high production among individual cows in the herds. A pure-bred Jersey owned by Jay R. Graves produced 1,589 pounds of milk and 79 pounds of fat with a total feed cost of $30.09, and a pure-bred Jersey owned by T. S. Griffith produced 1,535 pounds of milk and 64.8 pounds of fat at a feed cost of $26.17. A pure-bred Holstein owned by A. V. Bradrick & Son made 1,851 pounds milk and 62.9 pounds of fat with a feed cost of $11.75.—R. C. JOHNSON, tester.

Wahkiakum County, Washington:—Every member has a pure-bred bull, and most of them are from cows with a record behind them. One member purchased three pure-bred Jersey cows this month and another 2 pure-bred Holstein heifers. Pasture is showing up good and will probably be good until the middle of November. The past five months this association has had 718 forty-pound cows. Can you beat it?—G. E. SONNER, tester.

Walla Walla Valley, Washington:—Eight cows have been sold for beef, and three cream separators corrected. Recent auction sales of dairy stock in the Valley indicate more clearly than a page of argument the money value of having records on cows. At one sale each cow's record was read and the buyer knew what he was paying his money for. At another no records were kept, the buyer was in the dark as to the production of the cow, the bidding was low and the average sale price far below the one where the records were kept.

Ft. Atkinson, Wisconsin:—One member sold several cows. Two members bought pure-bred sires whose dams have records of 25 lbs. fat and over per week. Two more milking machines have been installed in the association, making the total five. Most members will use home-grown feeds this winter. Some have purchased oil meal. In October market milk sold for $3.25 per hundred. The average test required was 3.5% and 4c was paid for each additional point. The creamery paid 60 cents per pound fat. Oil meal costs $62 per ton; mixed dairy feeds, $55; oats, $45; barley, $45.

Craftsbury, Vermont:—Very few silos have been filled; one or two were filled with millet and clover rowen. Most every man has plenty of hay, very little being sold. Grain is hard to get. Most members are feeding ready mixed grains costing around $65 a ton. Some farmers have fed no grain since turning cows out to pasture last spring. Most herds are in good condition to come to barn. In September market milk sold for $3.50 per hundred. The average test required was 4%, and for each point above, 4 cents was paid. The creamery paid 51 cents per pound fat. Butter sold for 55c per pound.

Ambition is life's great pathway that points to the stars. It is lighted by the rays of hope that spring from the heart of man and is paved with beads of sweat that fall from his brow.—THE PEPPER BOX.

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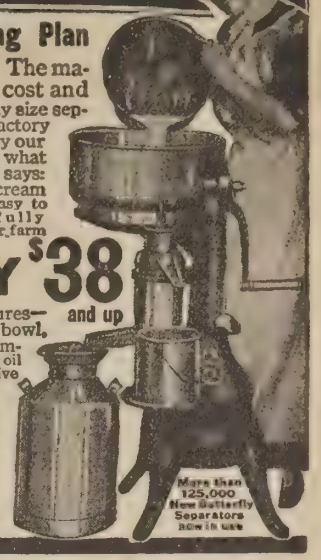
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This risk results: Liquid gasoline may be drawn into the cylinders and combustion chambers. The use of the carburetor choker valve to start the engine aggravates the trouble.

Once in the cylinders and combustion chambers, the gasoline tends to thin out the lubricating oil. As the pistons move up and down the gasoline tends to cut away the oil film on cylinders, pistons and piston rings.

On the compression stroke this liquid gasoline is forced down past the piston rings—into the crank-case.

The amount of gasoline which reaches the crank case and mixes with the lubricating oil depends largely upon the correctness of the lubricating oil used. Oil must form and maintain a thorough piston-ring seal to prevent the escape of the fuel charge and liquid gasoline past the piston rings into the crank-case.

To withstand the cutting effect of present-day gasoline, your lubricating oil must be of the highest quality and of the correct body. The Chart below specifies a grade of Gargoyle Mobiloils for your car which fills both these requirements. The use of the correct grade of Gargoyle Mobiloils will give you scientific protection against premature thinning out of oil in your crank-case.

If you have not read the article on pages 19 and 20 of the booklet "Correct Lubrication," it will pay you to send today for a copy. This book contains valuable data in authoritative articles prepared by our Board of Engineers.

Address our nearest branch.

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Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the red Gargoyle on the container. If the dealer has not the grade specified for your car, he can easily secure it for you

CORRECT AUTOMOBILE LUBRICATION

How to read the Chart:

The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A" **Gargoyle Mobiloil "E"**
Gargoyle Mobiloil "B" **Gargoyle Mobiloil "Arctic"**

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A," "Arc" means Gargoyle Mobiloil "Arctic," etc.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Tractor Lubrication.

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models		1914 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	A	A		
Allen	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Auburn (4 cyl)					A	Arc	A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-38 & 6-39)			A	Arc	A	Arc				
" (6-39B)(Teetor H)	A	Arc								
" (6-39B)(Cont'l)	Arc	Arc								
Autocar (2 cyl)			A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (6 cyl)					A	A				
Buick	Arc	Arc	Arc	Arc	Arc	Arc	A	A	A	Arc
Cadillac	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Case	Arc	Arc	A	Arc	A	Arc			A	Arc
Chalmers	A	A					Arc	Arc	A	A
" (6-40)					A	Arc				
" (6-30)			A	A	A	A				
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
" (8 cyl)	A	A	A	A						
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham							Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Dart	A	Arc	A	Arc	A	Arc	Arc	Arc	A	A
" (Mod. C)			A	Arc	A	Arc	A	Arc	A	A
" (2 & 3½ ton)	A	A								
Detroiter			Arc	Arc	Arc	Arc	A	Arc	A	A
Dodge	A	Arc	A	Arc	A	Arc	E	E		
Dort	A	Arc	A	Arc	A	Arc	Arc	Arc		
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc				
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod. S-X)	A	A	A	A						
" (Special)	Arc	Arc								
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
Hudson					Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							A	A	A	A
" (8 cyl)	A	A	A	A	A	Arc	Arc			
" (Cont'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (Mod. 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington			Arc	Arc	Arc	Arc	Arc	Arc		
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod M)			A	Arc	A	Arc				

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models		1914 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Lippard Stewart			A	Arc						
" (Mod. MW)			E	E	E	E	E	E	E	E
Locomobile	A	E	A	Arc	A	Arc	A	Arc	A	A
McFarlan	A	Arc	A	Arc	A	Arc	A	Arc		
Madison	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)			A	A	A	A				
Marmon	A	A	A	A	A	A	A	Arc	A	Arc
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Mercer (4 cyl)	A	A	A	A	A	A	A	A	A	Arc
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	Arc	A	A
" (12 cyl)	A	A	A	A	A	A				
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
" (Cont'l)	A	A	A	A	A	A	A	A	Arc	Arc
Paige (4 cyl)							A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-30)					A	Arc	A	Arc		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A	A				
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	A	Arc	A	Arc	A	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	Arc	Arc		
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (¾ ton)			A	Arc						
Simplex			A	A	A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	Arc	A	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (2 & 1½ ton)	Arc	Arc								
" (2½ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	A	A						
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Six			Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc

YOUR TRACTOR

also may be lubricated efficiently with Gargoyle Mobiloils. On request we will mail you a separate Chart specifying the correct grade for each make and model of tractor.

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Warren Formula Explained

The so-called "Warren formula" for ascertaining the cost of producing 100 lbs. of 3.8% milk in the New York district is described as follows in a circular issued by the New York Dairymen's League:

The average annual quantities of feedstuffs and labor to produce 100 lbs. of market milk of 3.8% test is: 33.79 lbs. grain, 43.3 lbs. hay, 10.8 lbs. other dry forage, 92.2 lbs. silage, 8.3 lbs. other succulent feed, 3.02 hrs. labor.

When current values are applied to the above quantities, the sum of such values is 79.7% of the average annual cost of producing 100 lbs. of milk, the remaining 20.3% being for bedding, pasture, use of buildings, cans, and other equipment, bull service at cost, horse labor at cost, depreciation of dairy cows, cash paid for milk hauling, fire and lightning insurance on cows, veterinary and medicine, louse killers, ice, salt, and numerous other minor miscellaneous expenses. From the total value of these is deducted the value of calves, manure, feed bags sold, and a few other miscellaneous credits. As the above represents but 79.7% of the entire cost, 25% must be added to the costs computed according to the above table in order to secure the entire cost.

The above formula determines average annual costs. To ascertain the costs for any particular month a table of percentages (known in the trade as Professor Warren's Scale) is used, by the application of which percentages to the average annual costs, the cost for each month is ascertained. This table of percentages is as follows:

	Per cent		Per cent
January	119.0	July	81.0
February	114.7	August	90.8
March	106.1	September	96.9
April	93.9	October	110.4
May	79.1	November	119.0
June	70.6	December	120.2

Method of Determining Values

At a conference between producers and distributors held at the request of the Federal Food Administration, Professors Warren and Larsen were requested to suggest a method of determining the value of "other dry forage" and of "silage and other succulent feed", and they reported that two-thirds of a pound of hay was equivalent in value to one pound of other dry forage and that one hundred pounds of silage and other succulent feed was equivalent in value to eight pounds of corn and sixteen pounds of hay. This report was adopted by all parties, the revised feed requirements for producing 100 lbs. milk being simplified to 33.79 lbs. grain, 50.5 lbs. hay, and 100.5 lbs. silage.

The value of hay and corn shall be determined by quotations of their farm values in New York State, as published in the Monthly Crop Report published by authority of the Secretary of Agriculture of the United States.

The value of grain feeds shall be determined by market quotations of prices charged retailers in the Utica, New York freight district, adding thereto the retailer's profit of $4.00 per ton as allowed by the rules of the Federal Food Administration, where purchases are at the warehouse and in lots of one ton or more.

The value of labor per hour shall be determined by investigation at different points in this milk producing territory, and shall be based upon the average price as near as can be ascertained of hired men's wages and the value of the services of the farm operator, it being understood that about one-half of the market milk produced in the milk territory tributary to Greater New York is produced by

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There's a great fuel shortage—Protect yourself—saw your own wood. It's easy with our Equipment and your car to furnish power. A big labor and money saver for you. Does all a 14 H. P engine can do.

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GET FULL VALUE OUT OF YOUR GRAIN

Grind it and Feed it on your own place, where nothing is lost. Besides roughage, live stock must have Concentrates. Ground Grain is the most effectual and economical.



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DAYTON AIRLESS TIRES in the past 6 years have been used by thousands of owners of light passenger and delivery cars in all parts of the civilized world and have conclusively demonstrated:



1st—They can't puncture nor blowout.
2nd—They ride as smoothly as pneumatics.
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They have been endorsed by 50,000 or more satisfied users including the late George Westinghouse and Edward Grey, formerly Chief Engineer of the Ford Motor Company.

Piers of live, elastic rubber built about one inch apart inside the casing and vulcanized or welded to it take the place of an inner tube.

Nothing can happen but wear.

We have standardized on 30 x 3 and 30 x 3½ and the price is right.

We sell direct where we have no dealer.

We want an exclusive dealer in every county—tire experience not necessary. Excellent chance to build up in a protected territory a very profitable business either by itself or as a side line.

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Please send without obligation booklet and information on Dayton Airless Tires as checked below:

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.....For light delivery cars.
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Address .....

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County..... State.....

se who manage and operate the ms.

The present (September) values of e several items entering into the nputations were found to be: ain, $3.0367 per 100 lbs.; corn, 92 per bushel ($3.43 per 100 lbs.); y, $17 per ton ($.85 per 100 lbs.); l labor, $.334 per hour. As 8 lbs. rn and 16 lbs. hay were considered al to 100 lbs. of silage in feeding ue, the silage would be valued at 1 per hundred pounds. Applying se several values to the simplified mula, and making the other requi- e computations, the total average nual cost of producing 100 lbs. of % milk was found to be $3.595, as llows:

79 lbs. grain at $3.0367 per 100 lbs.	$1.026
.5 lbs. hay at $0.85 per 100 lbs.	.429
1.5 lbs. silage at $0.41 per 100 lbs.	.412
2 hrs. labor at $0.334 per hour	1.009
tal (79.7% total cost)	$2.876
l 25% for miscellaneous costs	.719
tal average annual cost	$3.595

According to Professor Warren's ale", the percentage spread for Oc- ber is 110.4%, therefore the October st of producing 100 lbs. of 3.8% lk would be $3.595 multiplied by 04, or $3.97. The basis of the New rk prices has always been 3% milk d the allowances for higher tests is w 4 cents per point fat, therefore st of producing 100 lbs. of 3% milk computed by deducting 32 cents alue of 8 points butterfat at 4 cents r point) from $3.97. This makes 65 per 100 lbs. of 3% milk as the sic price of milk, which the New rk producers asked for the month October. Values for other months d at other prices may be similarly culated.

Prevailing Milk Prices

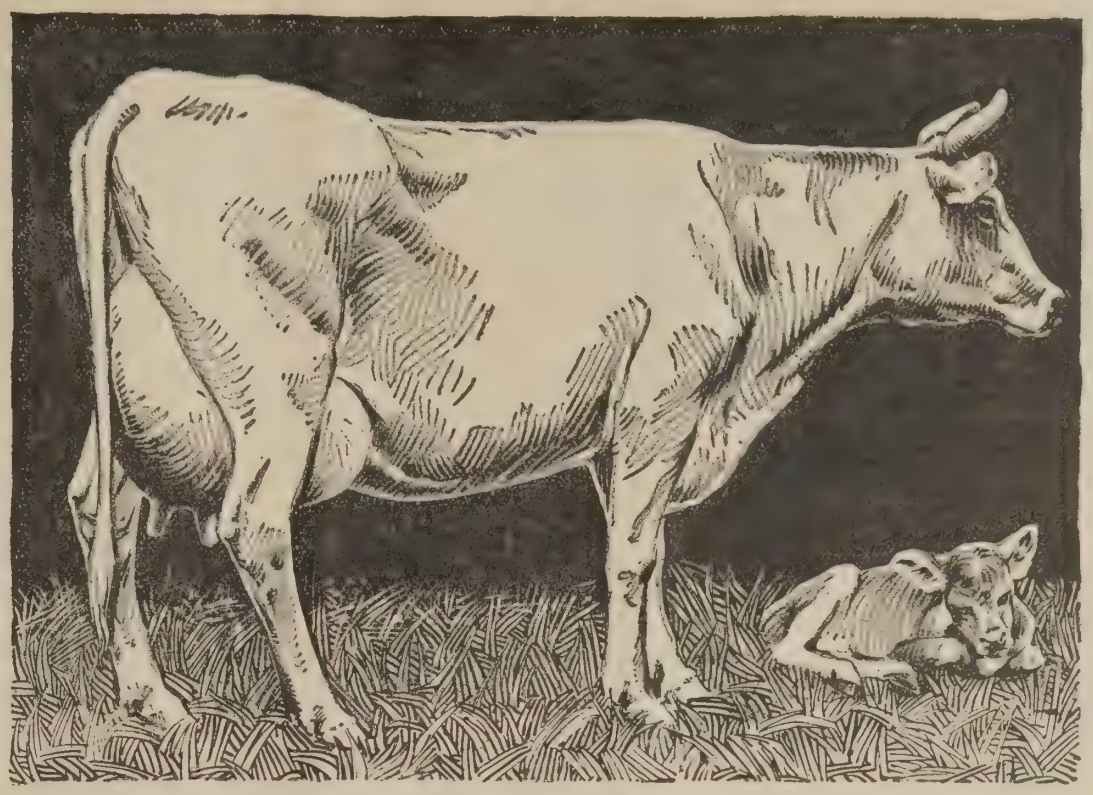
From reports of the U. S. Bureau Markets we take the following ces per quart of "standard grade" lk received by producers and paid consumers in several widely scat- ed sections of the country during month of October:

	Producer Receives cents	Consumer Pays cents
Francisco, California	7.7	14
ver, Colorado	6.7	12
shington, D. C.	11.0	17
Petersburg, Florida	10.5	15
usta, Georgia	9.0	18
ago, Illinois	7.1	13
t Wayne, Indiana	5.9	13
Moines, Iowa	7.8	15
sas City, Kansas	7.0	14
Orleans, Louisiana	9.5	16
ton, Massachusetts	9.4	15¾
roit, Michigan	7.3	15
Paul, Minnesota	6.9	12
Louis, Missouri	8.2	14
York, New York	8.3	15½
eland, Ohio	8.1	14
ene, Oregon	7.5	14
sburg, Pennsylvania	8.7	14
adelphia, Pennsylvania	9.0	13
phis, Tennessee	8.5	16
aso, Texas	8.6	18
Lake City, Utah	7.2	12½
ane, Washington	7.9	15
waukee, Wisconsin	7.9	12

he prices quoted for producers ing to Chicago and Detroit are for k delivered at the country shipping tion, while the others are F. O. B. and to get actual price the vari- transportation costs must be de- ted. The average test required of ducers is 3.5%, but it varies for several cities from 3.25 at El so to 4% at Philadelphia. From r to five cents per point fat is paid 100 lbs. milk for tests higher than t required. The consumer's price or milk bottled in quarts and de- red.

Jersey Cattle Notes

or week ending Nov. 1, 1918: umber of animals registered: lls, 183; cows, 420; total, 603. mber of transfers recorded: Bulls, ; cows, 365; total, 476.



You know you are Safe

WHEN you buy a Hinman there is no question, "Will it work? Will it save time? Will it improve the milk flow and help the cows?" During ten years Hinman Milkers have found their way into many thousands of Dairies. They are right now in use by a great army of cow owners—and on some of the finest prize stock ever registered. Big and little dairies everywhere are operating the Hinman day in and day out with absolute success.

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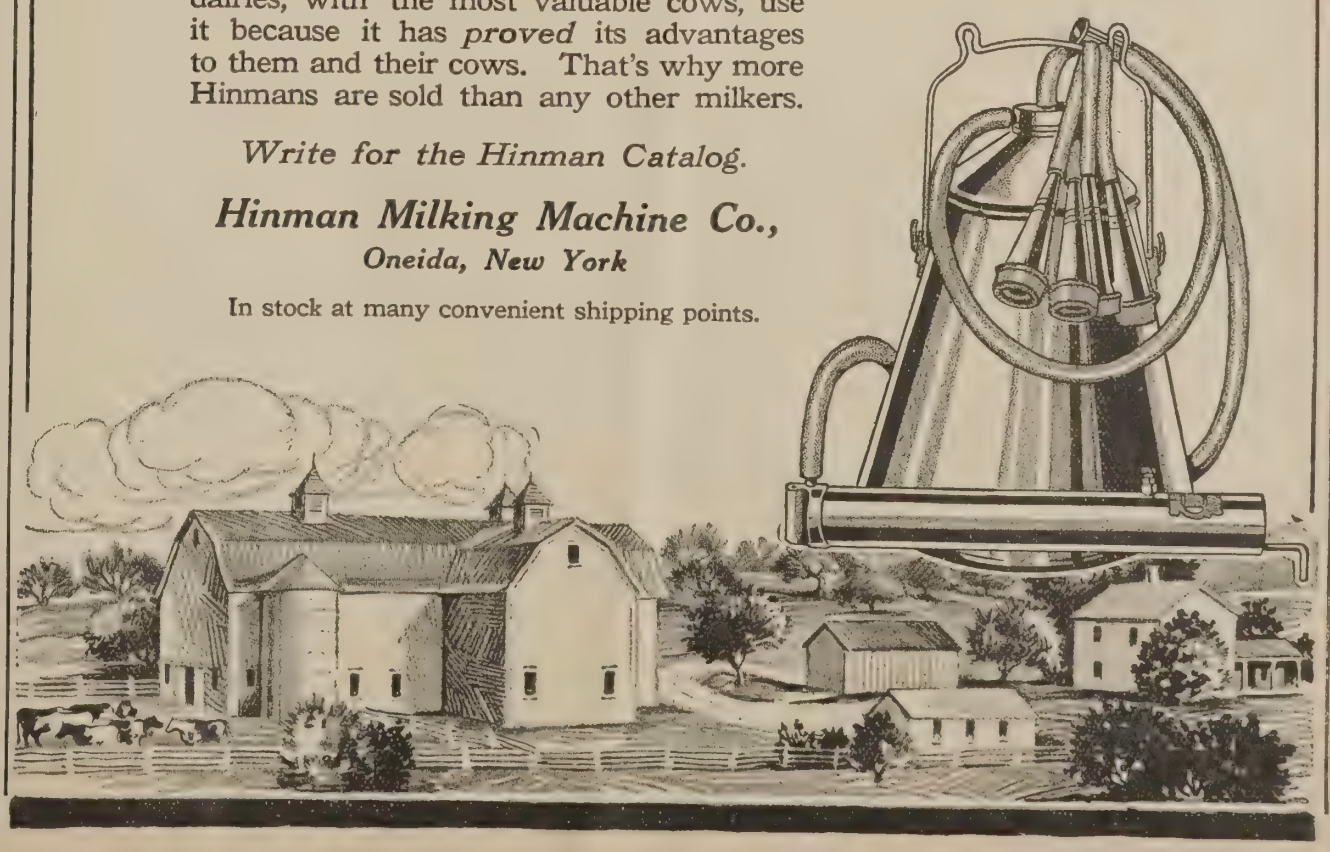
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You know that it is the simplest and surest milker made, that a boy or girl can easily operate it. You know that the best dairies, with the most valuable cows, use it because it has *proved* its advantages to them and their cows. That's why more Hinmans are sold than any other milkers.

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Coming Events

Wisconsin Dairymen's Association meets at Menomonie, December 5 and 6. Secretary, P. C. Burchard, Ft. Atkinson, Wis.

National Farmers' Exposition, Dec. 6—14, Toledo, Ohio. Manager, H. V. Buelow, Toledo.

A Producer on New York November Milk Prices

HOARD'S DAIRYMAN:—The last day in October the League has, under some protestations, I understand, accepted the price of the Food Administrator of $3.81 a hundred for November milk. The up-state food administrator for New York stated this morning that he regarded the milk situation in New York for the past year about as bad a bungle as can be found. The cause is not all on one side, he said, but he thinks that the Food Administration is the largest factor in the unsatisfactory situation. His prediction is that within a month a better solution will be had. I find that farmers generally do not place any great confidence in the implied promises of the administration. There have been so many such promises gone astray that others are expected to do the same. It is a strange situation that farmers continue to advocate large production to help the war situation when they feel as they do about getting help from authorities, as in this case, but it goes far to prove the farmer's loyalty to his country.

The price of $3.81 means at 150 miles out from New York, and when it gets up into the larger producing sections where the League contends the price should be based, it is cut to $3.73 or about that. This is for three per cent milk, and if we assume 3.6 test is about the average, and that it costs the average farmer about twelve cents to deliver his milk, we find this average man getting at the farm not far from $3.85 a hundred. This is just a trifle above eight cents a quart.

The things that are to be done the coming month to make conditions better, as promised, have not been announced yet. We hope it is an effort to determine if so much margin is really necessary between the farm and the final purchases. It is estimated that there was, last Saturday, some heat developed between the League and the Administration in the conference in Washington. The League meeting in New York on Wednesday was attended by an administration man who is understood to have been there to help smooth matters down. This seems to have been done by the implied promise above referred to. We will await patiently the developments and follow the administrator's advice given this morning, not to rock the boat just now. We will accept the conditions and be patient about it for a month.

New York. H. H. LYON.

New York Milk Prices for November

The Federal Food Board announced, to the trade press and dairymen recently, the new milk prices for the month of November. These prices were discussed at a conference in Washington, D. C., and telegraphed to the Food Board at New York City by Dr. Clyde L. King, assistant in the Food Administration. The schedule is increased over that of October one-half cent for quarts and one cent for pints. The prices follow:

	Price, cents
1 Grade "A"—Bottled, delivered, qts.	18
2 Grade "A"—Bottled, delivered, pts.	11
3 Grade "B"—Bottled, delivered, qts.	16
4 Grade "B"—Bottled, delivered, pts.	10
5 Grade "B"—Bottled, to stores, qts.	15½
6 Grade "B"—Stores, to consumers, qts.	16
7 Grade "B"—Loose, to stores,	12½
8 Grade "B"—Loose, by stores	13
9 Grade "B"—Wholesale, 10 gallons, qts.	12¾
10 Grade "B"—Under 10 gallons	13

The published announcement of the increased prices reads, in part, as follows:

"The Food Administration states that a thorough examination of the accounts of the milk distributors shows that they have lost money on milk sold during the month of October and will lose money during November at the prices already announced.

"The distributors, however, accept these prices rather than have a further increase in cost to the consumer, which would be likely to result in decreased consumption.

"The price of ten cents a pint for Grade "B" bottled milk is explained by the Food Administration as based upon the fact that the cost of delivering pint bottles of milk is practically the same as that for delivery of quarts. The public is urged to use quarts bottled rather than pints, because of the greater economy in the use of the larger size.

"The price to the dairy and milk producers of $3.81 for 100 lbs., which was approved by Mr. Hoover some time ago, means a cost of approximately 9 cents a quart to the distributors, to which has to be added the cost of distribution, transportation, bottling, delivery, and overhead expenses."

New York. A. H. KOLBE.

New York Butter Market

NEW YORK CITY, Nov. 6—The market is responding promptly to several factors which usually influence it and is becoming much stronger. In the first place receipts are falling off considerably and the element of supply is, as usual, making itself felt. The decrease in receipts is due primarily to the usual fall decrease in production. In addition the influenza epidemic is abating rapidly and there is a greater consumptive demand in New York than has been in evidence for the past two or three weeks. On top of all there has been some speculative activity particularly with undergrades and centralized butter and those stocks have moved quite freely. However, the speculative demand would have been in greater evidence had it not been that storage facilities were limited, the government having commandeered all available space for storing its supplies. The proportion of high quality butter as compared to undergrades is rapidly diminishing and it is expected that that condition will continue during the next few months.

Since last Tuesday the quotation on extras has advanced a full two cents, that is, up until yesterday. Today being election day, New York has declared a holiday and no butter is moving at all, neither has the Exchange met. On Wednesday of last week quotations advanced a half cent. That was followed by half cent advances on Saturday and yesterday, leaving the price of extras, as established yesterday, 60c. Quotations on other grades of butter advanced similarly and at the close yesterday additional quotations were as follows: Higher scoring than extras (93 score or above), 60½@61c; firsts (88 to 91 score), 57@59½c; and seconds (83 to 87 score), 53@56½c. There is a growing demand for unsalted butter and it is moving freely.

Quality of butter in general shows a marked deterioration. In addition to foreign flavors the workmanship is not up to normal. The undesirable flavors are undoubtedly due to the fact that dairy herds are being kept in barns over night and to the change of feed since the pasturing season is over. Then, too, many whole milk creameries are receiving milk four times per week instead of daily as during the summer months, the quality of the milk being affected thereby. As usual, in handling milk or cream, farmers become less careful with the approach of cooler weather. The result of all conditions enumerated show up markedly in the quality of butter. There is some mottled butter in the market which indicates that buttermakers have not taken into consideration the difference in composition of butterfat during cooler seasons and have not changed their methods accordingly. W. B. LIVERANCE.

Annual Meeting of the Wisconsin Dairymen's Association

The forty-seventh annual meeting of the Wisconsin Dairymen's Association will this year be held at Menominie, Wisconsin, on December 5 and 6. The meetings will be held in the auditorium of noted Stout Institute, which was founded through the generosity of the late Senator Stout and has recently been taken ov the state of Wisconsin as a pa the state school system.

Dunn County, of which Menor is the county seat, is a distri splendid agricultural possibilitie has made good as a dairy sectio now boasts of having five of th cow testing associations in the

The speakers at this meetin men of national prominence i dairy world and the sessions are thy of attendance by every dair within reasonable traveling dist The program is as follows:

Thursday, December 5, 1918—First S 10 A. M.

Address of Welcome
Hon. J. R. Mathews,
Response C. H. E
Editor Wisconsin Agricu
President's Annual Address
Geo. McKerrow, Pe
Cow Judging Contest
In charge of C. L. Hill, Ros
Second Session—1:30 P. M.
Milking Machines on the Dairy Farm
Prof. C. Larsen, So. Dak. College o
Lessons from Cow Testing Associations
Helmer Rabild, U. S. Dairy D
My Four Years as a Tester
Erwin Sutton, A
Third Session—8 P. M.
Milk, Its Food and Economic Value, Illus
Dr. E. B. Hart, Wis. College o
The New Wisconsin Dairy Council
A. J. Glover, Pres., Fort Atkinso
A Film From Dairyland Supplied t
courtesy of Wis. College of Agricultur
Gridley Dairy Co.

Friday, December 6, 1918—First S 10 A. M.

The Basis of Milk Prices
Prof. B. H. Hibbard, Wis. College o
Address Prof. H. H.
Iowa State College of Agric
Second Session—1:30 P. M.
Feeding Cows for Profit C. D. Gri
West Salem
The Something More in Ration M
Illustrated Dr. E. B.
Wisconsin College of Agric
Third Session, 6:30 P. M.—Banque

Prominent Dairy Investigator

Fred Silver Putney, professo experimental dairy husbandry a Pennsylvania State College and known among dairy professors an vestigators throughout the U States, died of pneumonia at his in State College, Pennsylvania, ber 5, 1918.

Always interested in live problems, in recent years he ha voted his energies to teaching fundamental research along the of animal nutrition. Dairy feeding problems have been his cial interest and his work along lines is well known. He is co-a with Dr. C. W. Larson of the book and general reference "Dairy Cattle Feeding and Ma ment", and, in conjunction with D P. Armsby, of the bulletin "Com tion of Dairy Rations", in additi numerous papers on dairy ma ment and nutrition.

Professor Putney was born in kinton, N. H., November 10, 1881 was graduated from the Concord School in 1901 and received the degree from the New Hamp State College in 1905. In 190 Pennsylvania State College conf upon him the degree of Maste Science, and he had completed re ly the requirements for his doct degree at the University of Wi sin.

Professor Putney first went t Pennsylvania State College in where he worked with Dr. H Armsby as an assistant in anima trition and general experim work until 1908. That year he be assistant to Dean F. B. Mumfor the College of Agriculture, Univ ty of Missouri, at which instit he continued his studies in nutr towards a doctorate degree. Missouri he went to the Rhode I State College as professor of a husbandry and head of the de ment, and he remained at that in tion for several years. In 1913 h turned to the Pennsylvania State lege as assistant professor of

Sale Announcements

Nov. 19—Guernseys. Dispersion of W. J. Heid's Guernsey Herd at Ft. Atkinson, Wis.
Nov. 20—Holsteins. Daniel O. Hastings, Wilmington, Dela.
Nov. 20—Holsteins. Lansing, Mich. Edward Stoll and W. K. Parker, R. 1.
Nov. 20—Jerseys. J. H. Reichert, Reading, Pa.
Nov. 20—Guernseys. Parker & Coggshall, Moravia, N. Y.
Nov. 20—Guernseys. Dispersion of Rush Chapman's herd of Registered Guernseys at Fort Atkinson, Wis.
Nov. 21-22—Holsteins. Watertown Holstein Sales Co. Consignment Sale at Watertown, Wis., Francis Darcey, Mgr.
Nov. 22—Holsteins. Consignment Sale. M. L. Enright, East Grand Forks, Minn.
Nov. 26-27—Holsteins. Tri-county Holsteins breeders' second semi-annual sale at Dixon, Ill. Sales Mgr., E. M. Detweiler, Polo, Ill.
Nov. 27—Jerseys. G. H. Carter, Freeport, Ill.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec 6—Holsteins. Elliott Bros., Woodward, Iowa.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

usandry and later became profes-
or f experimental dairy husbandry.
J st in his prime and in the full-
es of his powers, the loss of Profes-
or 'utney will be keenly felt by his
ic circle of friends and associates
ily work. He had that rare com-
in ion of practical common sense
on ined with research ability which
na ed him to keep a proper balance
d problems of a research nature.
y is death, science has lost a well
a ed and efficient worker.

FRED RASMUSSEN.

I nsylvania State College.

Hood Farm Challenges

Je ability of champion sires and
a pion dams to reproduce them-
el s is often questioned by many,
p ially by those who have not made
reful study of the whys and
h efores of breeding. I give below
ic and figures which prove the
re ling on ability of champion Jer-
ey

We believe the sire referred to be-
wis the greatest dairy sire alive,
if others have a sire who has
a hters to equal the daughters of
Po 99th of Hood Farm, we would
kto see the figures.

Pogis 99th of Hood Farm 94502
a dropped December 25, 1909. He
e sire of 54 Register of Merit
v and two producing sons. His
re was Hood Farm Pogis 9th 55552,
ro f 79 Register of Merit cows and
5 roducing sons, and his dam, So-
ni 19th of Hood Farm 189743,
c l's champion Jersey cow with a
re s record of 17557 lbs., 12 oz.
il 999.1 lbs. fat, and a world's
a pion long distance seven years'
re d of 91,869 lbs. milk, 5,280.6 lbs.
t Pogis 99th of Hood Farm is
a mitting his inheritance through
t sons and daughters, some recent
s showing up more forcibly his
p erful prepotency. His daughters
v records as follows:

D 's Adaline	Age	Milk lbs.	Fat lbs.
Ne of Cow	4 yrs.	15852.2	888.00
D 's Adora	4 yrs. 9 mos.	16102.1	876.35
D 's Bertha	4 " 8 "	14149.7	834.88
D 's Agnes	4 " 2 "	13718	789.55
D 's Cora	4 " 5 "	11850.2	751.69
D 's Charity	5 " 1 "	11982.7	703.18
D 's Jewel	2 " 3 "	10813.9	689.54
D 's Dolly Dimple	2 " 3 "	12205	625.07
D 's Emily	5 " 7 "	10251	619.76
B 99th's Bessie	2 " 9 "	11345.5	606.57
D 's Christina	2 " 8 "	19361.7	608
D 's Deborah	2 " 10 "	9380	580.1
D 's Beth	3 " 9 "	9475.2	537.4
D 's Blanche	2 " 11 "	9200.9	533.8
D 's Ada	2 " 1 "	9147	497.9
Average for 15	3 " 7 "	11722.3	676.1

This is only part of the story as
the daughters on test will carry
the averages much higher, and it
will be years before the final story
can be written. It is ample proof,
however, that the champion bull and
champion cow of the breed are breed-
ing on and up.

Massachusetts. J. E. DODGE.

The Hired Man's Morale

The farm hand who has a room of
his own—in the house, not the barn—
with a chance at the bath tub and a
car or car to take him to town oc-
casionally, is worth any number of
discontented, poorly housed hired
men. The tenant paying share rent
on a long lease, with good live
stock and modern ideas of farming is
worth more than twenty soil robbers
who stay for a year, neglect all the
things, and then move on to repeat
the offense.

The comparison is just as true be-
tween soldiers. Nine men who are
happy and contented can out-
fight ten men who are lonesome and
homesick. Every military man certi-
fies to the importance of that truth.
Morale is worth 24 billion dollars to
next year, surely it is worth $170,-
America to keep its men under arms
500,000 to make them fight 10 per
cent more efficiently—to contribute
that factor which, as Napoleon said,
is "as other factors in war as three
to one"—that indispensable factor,
morale.

You'll have your last chance next
Monday, Nov. 18, to contribute to the
influence which creates and maintains
this morale in the American forces
here and over the sea, the United War
Work Campaign. Seven organiza-
tions, recognized by the War Depart-
ment, and consolidated for one drive
upon President Wilson's request are
asking for the money. Every king,
premier, and prominent general of
the allies has written to urge the ne-
cessity of the work which is repre-
sented by these united agencies—not
merely as a fine service to the sol-
diers, but as an actual military neces-
sity.

The amount requested—$170,500,-
000—will have to be subscribed, in-
deed, if the war work is to go on un-
hampered. John D. Rockefeller, Jr.,
chairman of the campaign for the
New York district, declared a few
days ago that 250 million dollars
would be needed. The campaign bud-
get, he said, had been approved by
the War Department but that bud-
get represented the estimates made
before the plans for the second draft
were announced and before there was
talk of sending 4,000,000 men to
France.

"We all admit," Mr. Rockefeller
said, "that the facilities offered by
these organizations to the soldiers
are worth, one would say, not less
than $1 a day certainly. For 1,000,-
000 men that means $1,000,000 a
day, or $365,000,000 a year. But we
are seeking now only $250,000,000.

"Among the questions asked us is
whether, if the war should end, there
will be a need for this money. The
answer is that the
sooner the war stops
the more urgent will
be the need for the
money. More and more
money will then be
needed. Now our fight-
ing men are keeping
themselves fit for their
hard tasks, and they
are occupied in a great
struggle." — CHARLES
DILLON, Director Rural
Publicity, United War
Work Campaign.

Mouse Control in Orchards

"Mice in the orchard are allies of
the Hun," says R. B. Cruickshank of
the Department of Horticulture of
the Ohio State University. Further
in this connection he says, "that un-
less the young trees are protected,
considerable damage is often done
during the winter by the rodent."

As a protective measure he sug-
gests that during the fall or early
winter all weeds and rubbish should
be hoed away from the trees, leaving
the soil clean and well firmed about
the trunks to a distance slightly be-
yond the spread of the branches. A
slight mount around the trunk of the
tree is an additional advantage.

Every owner of a cow welcomes the
time when the animal can be turned
out to pasture because each cow is ex-
pected to give the best results of the
year on grass. Immature grass, such
as we have in early spring, contains a
large amount of water and a small
amount of dry matter. It is almost
impossible for a heavy milking cow to
eat enough of such feed to supply the
necessary amount of nutrients.—C. H.
ECKLES.

Make More Money With Hogs

THIS largely involves the feed question, as feed is the principal cost of producing pork. It is not only what to feed, but how to feed, to enable the feeder to get the most out of hogs, in the quickest time at least cost.



An Ideal 900-Lb. Brood Sow.

It is a proven fact two or more feeds properly combined are better than any one of the same fed singly. The general farmer, without knowing it, wastes one-fourth of the feed given his hogs, which is a total loss. This is where the balanced ration comes to the relief of the wise feeder. It is not what the pig eats, but what he digests and assimilates that makes the profits.

Expert feeding means success. It teaches you how to cheapen the feed, how to get greater growth and gain over the common way of feeding, from the same feed given, and how to get more pounds of pork from a bushel of corn.

The American Swineherd

is progressive and aggressive. It instructs you in the wisdom gathered by experience, from the greatest experts in their line, being successful, practical feeders, managers and caretakers of the herd. It is a specialist in producing pork from pighood to the pork market. This is the era of advancement and adoption of up-to-date, scientific methods in the hog business. There is a new crop of experience grown monthly.

Special Offer:—For $1.00 we will mail you the *American Swineherd* for 2 years. This is the cheapest expert help you can hire. It pays and is economy to take advantage of the experience that brought the other fellow success.

The American Swineherd was founded 33 years ago by the present editor. We have subscribers who have taken the paper for over 25 years. Hundreds of them on renewing say: "Don't let us miss a copy". TO MAKE THIS OFFER SAFE AND FAIR, if you send in the dollar and are not satisfied upon receiving your second month's paper, if you will write us then we will send you the dollar back and take your name off the books.

We give you as a premium for your subscription a copy of the "Hand Book on the Sow". Louis Olin, Peekskill, N. Y., writes:—"I found information, out of a single copy, that, put to practice, saved me more than the cost of your paper for ten years". No matter how many papers you take, you need the money-making information the "Swineherd" gives you. S. A. Love, Supt. Mountain Orchard Farm, Johnstown, Pa., writes:—"I believe the Swineherd the most valuable publication on our list, which includes 16 of the best, dealing with all branches of stock raising, dairying and farming". Address:

American Swineherd, 322 Old Colony Bldg., Chicago, Illinois.

The Farmer's Service Shoe



Here is a new splendid shoe, designed specially fo farmers. Made for hard service, long wear, and real comfort. Will outwear shoes that cost considerably more. Particular care is taken with every part of the Farmer's Service Shoe and EVERY PAIR IS INSPECTED before leaving the factory. Only GENUINE SOLID LEATHER SOLES AND HEELS, TAN-OILGRAIN UPPERS, SOFT, COMFORTABLE, ROOMY TOES, BELLOWS TONGUE to keep out dirt, dust and pebbles. Sizes 6 to 11. We know you'll be more than pleased with the Farmer's Service Shoes and if you will send check or money-order, giving exact shoe size, we will mail the shoes to you at once, parcel post free. If they aren't the best value you ever saw, send them back, we'll refund your money.

$4.45

PARCEL POST FREE

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Save Your Cream

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Learn how easily you can own this world-famous Swedish-made machine—now sold direct to users at "Direct-to-you" prices. Skims cream right down to the last particle. Easiest running and easiest cleaned separator ever built. Sold with **lifetime guarantee.** Write today for wholesale price. **Ask for Catalog M.**

Kalamazoo Stove Company, Mfrs.
Kalamazoo, Michigan

We manufacture Stoves, Ranges, Gas Ranges, Furnaces, Oil Stoves and Heaters, Kitchen Kabinets and Tables

A Kalamazoo Direct to You

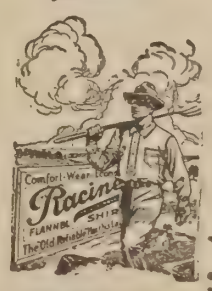
THE Racine TRADE MARK

Soft Shirts

Collar Attached or Neckband

Cotton or Flannel

The Farmer's Friend





YOU'LL like their honest, broad-shoulder comfort; cut full, not skimpy—let muscles play and body "breathe." Reinforced where the "strains" come. Continuous facing on sleeves—making them "rip-proof"—"dirt-proof"—"non-gapping"—buttons sewed on to stay.

Ever Racine is good or we make it good.

The Chas. Alshuler Mfg. Co.
Racine, Wisconsin

"Soft Shirt Specialists for 34 Years."

If you do not find the Racine shirt promptly, write and tell us the name of your favorite dealer and we will see that you are supplied. Insist on the Racine.

EDITORIAL COMMENT

THE Eau Claire Creamery Co. shipped in October a carload of butter containing 600 tubs, weighing on the average 63½ lbs., and 50 boxes, weighing 50 lbs. each. This butter sold F. O. B. for 64 cents a pound, making the carload worth $26,000. This, so far as we know, was the highest price ever paid for a carload of butter.

MILK FOR WOUNDED SOLDIERS

Dr. Truman Brophy, who for many years was a prominent breeder of Guernsey cattle in Illinois, is now in France helping to care for wounded soldiers. He sends us a copy of "The Daily Mail" of Saturday, September 21st, which reports the following:

"As a token of appreciation for the United States effort, the people of the Channel Islands, Guernsey and Jersey, have volunteered to stock the American Red Cross hospital farm at Sarisbury Court, near Southampton, with sixty pure-bred dairy cows."

This war has revealed that no food is better adapted to help wounded soldiers recover than milk and an effort is being made to provide all hospitals with an adequate supply.

MUSH AND MILK

The standard supper for the earlier settlers of this country was mush and milk. It is a better ration, and less expensive, than is now used in most homes. It is a balanced ration and especially desirable for growing children.

Our war has turned our attention to simpler diets and mush and milk is again in good standing. The Dairy Division states it is a suitable war ration and in a recent bulletin says:

"What has become of the old-time bowl of cornmeal mush and milk? It is an American dish, cheap, nourishing, and palatable. We of the older generation loved it, and for economical, sentimental, and patriotic reasons we should now go back to it and take all America with us. Mush and milk furnishes a balanced ration, yet contains no wheat, no meat, no sugar. It is a whole meal in itself, and while the war lasts it should be used more largely in this country. Its larger use here will release other and more concentrated foods for our armies and the armies of our allies."

ROQUEFORT CHEESE FROM COW'S MILK

The Dairy Division of the U. S. Department of Agriculture has been successful in making and curing Roquefort cheese. This type of cheese has been made very largely in France from goat's milk or a mixture of cow's and goat's milk. It has been cured in cellars or in caves in order to develop its characteristic flavor. The temperature and humidity of these places must be controlled in order to permit the growth and development of the bacteria and fungi that provide the flavor in Roquefort cheese.

The Dairy Division has been investigating all the requirements to produce Roquefort cheese and it has been successful. At the Dairy Show this year it served Roquefort cheese made and cured in its own laboratories. The investigation with Roquefort cheese has been thorough and the quality of cheese brought to the Dairy Show indicates strongly that good Roquefort can be made commercially in this country and from cow's milk. This industry is full of promise for those capable of applying the principles and practices as worked out by the Dairy Division.

The work done with Roquefort cheese is highly commendable to those responsible for it and it should be appreciated by the dairy interests of this country.

BOYS' AND GIRLS' CLUBS

For several years advanced thinkers in agriculture have seen and understood the importance of interesting farm boys and girls in the possibilities of agriculture and home making. Much effort has been put forth to interest the farmer in a better system of operating his farm, but the success has not been highly encouraging. Men who have established ideas and practices are not easily moved to adopt new methods. They prefer to continue as they were taught when young.

Boys and girls have open minds and for this reason our educators are endeavoring to organize them for the purpose of studying some phase of agriculture. The hope of agriculture lies with the children of plastic minds and a desire for information. Calf, pig, corn, canning, chicken, etc., clubs have been formed rapidly during the past few years. Our government, as a war measure, is providing leaders in counties for the purpose of directing the efforts of our young people.

It is important to teach a boy how to raise a calf properly and it is of still greater importance to give him the responsibility of rearing it. The pride of ownership naturally leads him to seek and desire information regarding breeding, feeding, and caring for his animal. Such work reveals to the boy the meaning and value of true education. Likewise the girl, in her club work, is taught not only useful work, but she is led to understand the principles of home making.

We see great possibilities in boys' and girls' club work if it is properly directed, for every activity of the farm holds wholesome and valuable lessons for our young people.

BUTTER PRICES

In October the prices of butter advanced very rapidly. This alarmed some engaged in the handling of butter and the United States Food Administration. So far as we can learn, the advance in the price of butter was not due to any manipulation of the butter market, but to a large demand and a small supply. The increase in price was but a natural result of conditions.

Mr. W. B. Liverance, who sends us comments upon the butter market of the East, states: "The consumer has lessened his demand for butter. * * * There is a point above which the consumer, regardless of how prosperous he may be, will not go in buying butter."

It is plain that the price of butter is governed by the same forces that regulate the selling prices of most of our food products. The consumer has his own conception regarding prices he is willing to pay for food. He begins to curtail consumption when the prices seem too high. Then follows a decrease in prices, maybe but for a short period, and then they proceed to advance until the supply holds them at a level which the consumer will sustain. Butter dropped 5 cents a pound in October, but has advanced since to some extent. It would seem that unless the supply decreases materially the price of butter will not reach one dollar a pound as some thought it would.

There may be observed, in the increase and decrease in the prices of butter, the consumer's power over prices. The moment the market does not absorb a product at a certain price there is a decline in the price. On the other hand, when the demand is larger than the supply the price advances. We should keep this ever in mind.

FRENCHMAN CARES FOR COWS

A member of the American Red Cross, now serving in France, in writing to his brother, in substance said:

"Our American Red Cross is caring for a great many children from war districts. Cows are hard to find and cost about 1,500 francs or nearly $300 each. He said they were poor in type and of decidedly mixed ancestry. He states that the French people are horrified to learn that the American dairymen leave their cows out in the rain. The Red Cross at Lyons bought three cows of a farmer and the day he delivered them there was a light summer shower and the French farmer carefully blanketed all the cows and held an umbrella over the head of his favorite. He also states that dairying is looked upon as pre-eminently a woman's work and that few men, even among the farmers, know how to milk."

The French farmer in protecting his cattle from rain indicates that he gives them good care and attention. His example in this respect may profitably be followed by many of our American dairymen who do not give their cattle the treatment they should have. It is not uncommon to find herds exposed to cold rains, to cold winds, and often to snow storms, all of which are not conducive to milk production. From what we gather as to the breeding of cattle, we believe on the whole that the American dairyman has paid more attention to this than the French, but we are inclined to feel the foreign dairyman gives his cows better care than does the American dairyman.

It is perhaps well that we draw no further lessons from this news item for if we did it i mean pointing out the opportunity for more .r ican women to interest themselves in carir cows. The American farmer has not made as use of woman help in the field and in the b has the foreigner, but if the war keeps u quite possible that more American wives wi themselves capable milkers.

Let not the American farm woman take th seriously for the war will soon be over ar milking machine and the chivalry of the Am husbands will save them.

AN ARMY DAIRY HERD

The government has not been successful of its cantonments or army schools in securi adequate supply of milk for its soldiers. For Oklahoma, has been forced to establish it dairy herd in order to provide the boys in tr there with milk. The farmers have been p cents a gallon (15 cents a quart) wholesa milk, but this price did not bring enough Captain Whitmarsh has been detailed by the manding officer of Fort Sill to purchase e cows to supply 350 gallons of milk daily. E Mr. McDowell of the Frisco Railroad came t consin for these cattle.

These men informed us that the gover would rather purchase milk than to produce i when 15 cents a quart wholesale did not bri adequate supply it was decided to buy cow produce the milk required by the soldiers a Sill.

The necessity and importance of milk is realized by those responsible for the rations soldiers. Up to this present war our gover made no great effort to supply its army with products. Now most of the soldiers are given lowance of butter, cheese, and milk. The ar tion does not contain cheese, and it is our o that it does not include milk or butter, but products are now to be provided to some ext not in liberal amounts. Those who have u larger consumption of dairy products beca their food value and importance to health ma claim some credit for a larger use of these pr in the army.

It is not out of order to call attention to th that 15 cents a quart wholesale did not le farmers in Oklahoma to produce a sufficient of milk for the soldiers at Fort Sill. This sit indicates that the present wholesale price o is none too high, if an adequate supply is maintained. The bulk of the milk used for consumption is being sold by the farmers at 8.5 cents a quart wholesale.

UNITED WAR WORK

Seven organizations engaged in war wor united in a canvass to raise 250,000,000. canvass is on now and will continue to Nov 18th. These organizations are the Y. M. C. W. C. A., K. C., Jewish Welfare Board, War Community Service, American Library A tion, and Salvation Army. All these insti have been recognized by our government a rendering a most useful service to our boys. They have built hundreds, yes thousa places, called huts, really homes, for our s serving in foreign lands. These huts bring boys the touch of home; the comforts wh mothers and fathers desire to have exten their boys.

We heard a soldier make this remark abo huts and the service these seven organizatio rendering: "You cannot imagine our feelin the huts which are built and conducted by M. C. A. and the kindred organizations. Th the only places where we receive the to home. We may have lived for weeks like g or we may haye lived in the open exposed t wind, and cold, and the only places where warm ourselves, dry our clothes, and rece real touch of home is in one of these huts. could not go on without them. They no bring us physical comforts, but they have lifting influence which cannot be estimated.

General Pershing has said: "I would have 900 soldiers who have had the care and tion offered by the Y. M. C. A., the K. C., a kindred organizations, than 1,000 boys wh been deprived of this service."

The end of the war is in sight, but the rendered by these seven organizations needed more the coming year than in the p will take at least 18 months after the war to bring our boys home and some will be there" for several years after hostilities ce

t our sacred duty to give to these organiza-
s which are bringing the touch of home to our
s which are making better men and better sol-
of them; which are bringing physical com-
s nd a moral uplift to those who have served
faithfully.

Straw for Silage

anyone ever tried oat or wheat straw for
silos? I think I will try it in a small way,
st want to ask if by cutting fine, adding
of water, and packing well one could not
a good filler at least. I have two silos, one
d one 225 tons. I have used cane, corn,
and feterita with success.
ahachie, Tex. R. K. E.

would hesitate to recommend the ensiling of
even though plenty of water is used and the
is well packed. We apprehend that instead
ming good silage, one would only secure a
of moldy, poor feed, and the straw would
een more valuable if fed dry. Even under
st of conditions, it is difficult to ensile the
rops with success, particularly if they have
nced to reach maturity and are dry. We
nown of no occasion where straw has been
ctorily ensiled, and would be pleased to hear
hose who may have tried it.

Advise Making Alfalfa Last

se make us a balanced ration. We have a
uality of pea straw, enough to carry us
h the winter; alfalfa hay to last us for two
; corn silage, barley, and oats and clover
xed. Bran is worth $38 a ton; oil meal, $60;
2c a bushel; barley, $1.74 per 100 lbs.
aunee, Wis. D. F. C.

would feed a small quantity of alfalfa hay
ay making it last as long as possible. We
r this would be a better system of feeding
use it in liberal quantities and have the sup-
e in about two months. We would also feed
f the pea straw and a liberal allowance of the
clover hay. About 30 lbs. of silage should be
each animal daily per thousand pounds live
. A mixture consisting of 400 lbs. ground
300 lbs. ground oats, and 100 lbs. oil meal
pplement the roughage very nicely for cows
ing average testing milk. We would feed
me pound of the combination for each 4 lbs.
produced. When bran and oats are about
ne in price, bran may be fed in the place of
it seems desirable. For cows producing less
) lbs. of milk daily, it may be wise to omit
meal from the mixture.

Maintaining Milk Flow

ou advise trying to maintain cows at max-
production—to which good pasturage has
t them—by increasing the grain allowance
he milk flow falls off with the declining pas-
even though that increase in grain means
grain in excess of the customary rule of
nd of grain to four to five pounds of milk?
ave just a few cows, almost all being grade
in their first milk period. On pasture these
gave from thirty to forty pounds per day.
this fall on a timothy meadow they again
l that production. Before that, and again
hen we are feeding excellent silage, and fair
hay, their production drops to from eighteen
ty pounds. We expect some falling off as
ge is supplanted by hay and silage, but
ems too much of a drop. One of our men
e grain too lightly, but we do not see the
feeding more grain when the milk produc-
so light. The first time the cows went on
ge, we increased the grain allowance as the
w went up. This second pasturage on tim-
e did not increase the grain allowance,
was then about four pounds per day, but the
oduction went up just the same.
Aurora, N. Y. H. D. R.

e cows have freshened recently it is highly
le to try to maintain their flows of milk
anged from pasture to barn feeding. If the
e permitted to shrink in their milk flow it is
ubtful whether increasing the feed would
em back to their production on pasture and
l, it is still doubtful whether the increase in
uld pay for the feed consumed.
of the essential principles in feeding is to
ws to their full flow of milk for when per-
to shrink in milk production it is difficult to
them to their normal or original production.
cows are fed very well when taken from
sture, there is usually a slight decrease in
roduction but under the right system of
and care only the normal decrease will fol-
en taken from grass and put in the stable.
her cows giving less than 20 lbs. of milk daily should receive grain depends upon the price received for the milk, the percentage of fat in the milk, and the character of roughage. If there is an abundant supply of good legume hay, like clover or alfalfa, and an abundance of silage or roots, it is often more profitable to feed no grain to cows giving less than 20 lbs. of milk daily.

If the prices of feeds are not relatively higher than the prices of dairy products and the cows are somewhat thin in flesh and it is highly desirable to bring them back to good physical condition and sustain a flow of 20 lbs. of milk daily, then some grain may be profitably fed such animals.

Cows Like Sunflower Silage

I planted sunflowers with the corn for silage last spring, putting in about 10 per cent of the sunflowers, but this seed grew much better than the corn and also the sunflowers made a much larger growth so that in some places perhaps 25 per cent of the volume is of sunflowers. I have understood that this makes a more nearly balanced feed than corn alone and that less protein roughage is required with silage of such a mixture. How is this?

I am agreeably disappointed in the way the cows eat this feed. I was apprehensive that the coarse stalks of the sunflowers would be left, but the cows nose the leaves of the corn and sunflowers away and search out the coarser parts, seeming to relish the stalks best. We began running this green stuff through the cutter and feeding it three weeks before starting to fill the silo and it has all been cleaned up from the first. Even the large butts, some of them two inches in diameter, when broken up in the cutter are readily eaten.

I would like to know the analysis of sunflower silage so as to determine a proper grain mixture, and also if it will be advisable to depend partially on this silage as a substitute for clover hay, as the latter is a little short .

Fennville, Mich. E. H.

There are no analyses of sunflower silage available. Feeding experiments which have been conducted at the Montana Agricultural Experiment Station indicate that the sunflower silage has nearly, if not quite, the same feeding value as corn silage.

At this station they found that one pound of choice clover hay was equal to 3¾ pounds of sunflower silage when fed in connection with a grain mixture consisting of 5 parts oats, 2 parts malt sprouts, and 3 parts bran. This, of course, is not an ideal comparison as we question whether it is proper to compare a carbohydrate feed, like sunflower silage, with a high protein feed like clover hay.

According to such information as is available we would feed the same grain mixture with sunflower silage as we would with corn silage. Later investigations may disclose that sunflower silage has a higher protein content than corn silage, but there is nothing in our present knowledge of these two feeds which would lead us to expect such a condition, except that chemical analyses give green sunflowers a crude protein content of 3.6% as compared with 1.9% for green corn fodder. There have been no digestion trials with sunflowers, but assuming a higher digestion co-efficient for sunflowers than for corn, Henry's "Feeds and Feeding" gives the following as the number of pounds of digestible nutrients found in 100 pounds of these two fodders:

	Protein Lbs.	Carbohydrates Lbs.	Fat Lbs.
Green sunflowers (whole plant)	2.2	10.7	1.3
Green corn fodder	1.9	12.8	0.4

These analyses would indicate a decidedly higher feeding value for green sunflowers than for corn fodder, but the previously mentioned trial at the Montana Station does not seem to warrant this conclusion. It is also to be remembered that the figures given for sunflowers are based on only three analyses and an assumed digestion co-efficient, while for corn fodder there were 708 analyses and several actual digestion trials to determine the digestion co-efficient.

Barley and Bran Cheapest Feeds

Please give me a balanced ration for my Guernsey cows from the following feeds: Feed on hand: Oats, 70c per bu.; barley, 90c; corn, $1.25; roughage: silage, a little alfalfa, some clover and timothy hay. I can buy oil meal at $62 per ton; Krause Dairy Feed, $62; Amco Dairy Feed, $60.25; sucrene dairy feed, $46.75; bran, $35.

Sinsinawa, Wis. F. R.

We would suggest letting each cow have daily about 30 lbs. of corn silage and a little alfalfa hay supplemented with the clover and timothy. We would try to make the alfalfa hay last as long as possible and feed no more than three or four pounds daily.

Barley and bran are the cheapest feeds mentioned and in view of this, we would advise their use rather liberally. We suggest a mixture of 400 lbs. ground barley, 200 lbs. bran, 100 lbs. ground oats, and 100 lbs. oil meal. We would feed about one pound of this mixture for each four pounds of milk produced. It might we well in some cases to feed one pound for each 3½ pounds of milk yielded by each cow. In other words, we would feed around 7 lbs. of grain to an animal giving 24 lbs. of average Guernsey milk. This is not heavy grain feeding but we believe, as a rule, that this allowance at the present prices of feed is the most profitable.

Ensiling or Shredding Corn Stover

We had a silo which blew down and was unable to get help at the proper time to reconstruct or to fill silo if rebuilt. Conditions are now changed somewhat, but we have our corn cut and shocked. We have a shredder but no cutter. The question arises if we can gain anything by rebuilding silo and filling the same with the dry fodder, as against shredding and wetting the dry fodder and letting it lay a week before feeding.

St. Joseph, Mo. F. P. H.

We can see no advantage in ensiling the dry fodder over the system of shredding and handling it as indicated. However, the silo filling can all be done at one time and if it is inconvenient to shred the corn stover, say once a week, it might be found preferable and desirable to adopt the other system. Should it be decided to fill the silo with the cut stover, it will be found necessary to add about an equal weight of water in order to insure the proper packing of the silage and that it will come out in good, palatable shape.

The Cow's Keeper

The superintendent of a boys' school, where a dairy herd is maintained and is cared for by the students, recently asked us for an "authoritative word which we can use to impress upon our boys the necessity of carefulness, quietness, and gentleness in handling the cows." Thinking that possibly our reply may be of interest to others, we reprint it below, although it is a somewhat more intimate and personal statement than we usually publish. We said:

"Possibly the best word we can give the boys is to quote the following "Notice to help" which Ex-Governor Hoard, the Senior Editor of Hoard's Dairyman, keeps posted before the men doing the work on his farm:

"The rule to be observed in this stable at all times toward the cattle, young or old, is that of patience and kindness. A man's usefulness in a herd ceases at once when he loses his temper and bestows rough usage. Men must be patient. Cattle are not reasoning beings. Remember that this is the Home of Mothers. Treat each cow as a mother should be treated. The giving of milk is a function of motherhood; rough treatment lessens the flow. That injures me as well as the cow. Always keep these ideas in mind when dealing with my cattle."

Many years ago, in his lecture on "The Dairy Temperament of Cows", Mr. Hoard said:

"Now, my friends, you and I very little understand the wonderful connection between the nervous machinery and the mammary function; if we did understand it better, we would use this gentle mother a great deal better. No finer truth was ever uttered than that expressed by Mr. W. C. White of Wisconsin, a man who illustrated in his person the sweetest elements of human nature,—the most successful dairyman that ever appeared in our state. When asked how he treated his cows, he said: 'I always speak to a cow as I would to a lady.' A great many men reverse it, and speak to ladies as they would to a cow. But, my friends, the man who is lacking in respect for the motherhood of either does not deserve either."

Let the boys understand that a cow is a mother, that she needs the care and comforts of motherhood if she is to do her best. No true dairyman believes the dairy cow can rough it and perform her function to the highest degree. She must receive the treatment her function demands or low production of milk will follow. The cow is honest and does the very best she can with her talents and the care she receives from her owner.

There is a tendency upon the part of all of us to overlook little things but it is the little things that make the difference between profit or loss—success or failure. See to it that your cows are well fed, it pays. See to it that your cows are comfortable and well kept, it pays. See to it that

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100 Head of Guaranteed, Healthy Registered Holsteins

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with 1000 feet of lake frontage in Waukesha County, Wisconsin, 18 miles from Milwaukee.

Buildings and machinery modern and in good condition. 150 tons of fine alfalfa hay, 500 tons silage and other feed included, also I. H. C. Tractor and 3 ton Truck. This proposition will be sold for one-half actual cost on easy terms on account of owners removal to New York.

J. G. Hickcox, 418 E. North Ave., Milwaukee, Wis.

COMBINATION SALE

Lansing, Mich.

Wednesday, Nov. 20th, 1918, 1 P.M.

40 - Head of Registered Holstein Females - 40

30 fresh or to freshen soon. This herd contains daughters of Pontiac Ceres Korndyke, Sherlock Lilith DeKol Hengerveld, Prince Ybma, Spofford the 4th, King Model Johanna Fayne.

All stock will be given the T. B. test. Sale held at the farm of Edward Stoll, 2½ miles from city limits on St. Joseph St., West. Stock all raised by present owners. 50% Liberty bonds accepted. Transportation provided for out of town guests. Phones—Citizens' 5—4 rings, Bell 7139 F. 5. Send for catalog.

Edward Stoll, R. F. D. No. 1, W. K. Parker, R. F. D. No. 1, Owners.

W. A. Murry, Auctioneer. F. J. Fishbeck, Pedigree Reader.

Belle Alto Farms

Young Guernsey Bulls

Sons of Langwater Royal Master (23663), who is the son of Imp. King of the May (9001). Get one of these splendid young bulls for your foundation. Herd is on the Accredited List of the state. Send for pedigree and price list, or better, come and see this excellent working herd. **M. H. McCallum, Mgr., Wernersville, Pa.**

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But A Big Bargain

We are saving on space and giving it to you in the goods. Don't buy a cream separator until you get Galloway's proposition on new 1919 models. We make our own Separators in our own factories and sell them direct to you with only one small profit. Ask any Galloway user about the close skimming and easy cleaning. Four Good Sizes at Four Low Prices.



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Oconomowoc, Wis., Box Q. Seattle, Wash.

your cows are known to you as individuals and that they have a place in your affection, it pays. See to it that all the little things around the barn are done well, it pays. See to it that kindness and intelligence govern your every action in caring for your cows, it pays. The man who does not think it worth the very best there is in him is not worthy of farming.

It is not uncommon to hear the dairy cow spoken of as a machine. Barring the injustice this does to the cow as a sentient, intelligent, and responsive being, there is considerable justification for applying this antonym to her for in many respects she responds to the definition and purposes of a machine—so wonderfully is she designed, so carefully is she constructed, so delicately is she adjusted.

When we consider the dairy cow from the machine point of view we find many similar conditions. She is marvelous in construction; has a nerve force, closely allied to electricity, which separates, combines, and transforms crude raw material into a refined and useful product; she has been developed by intelligent breeding and feeding from practical worthlessness to great and constantly increasing efficiency; she is thoroughly responsive to human sympathy and humane treatment from day to day and year to year; her productive capacity is largely governed by the care she receives and the feed given her. When we consider and compare these resemblances we begin to realize that the man behind the cow is a most important factor in dairy husbandry in developing and maintaining the efficiency of the dairy cow.

Dairy Contest at Kansas Fair

Fourteen cows were entered in a three-day butterfat test at the Kansas State Fair. H. M. Jones superintended the contest. The sweepstakes winner was Omega Luscke Hengerveld owned by the Cass Farm Company, Iowa. The winners in the several classes are listed below:

Class	Winner	Owner
Holstein over three years	Omega Luscke Hengerveld	Cass Farm Co., Iowa
Holstein under three years	Korndyke Gerben DeKol	N. H. Holdeman, K
Jersey over three years	Rural Bluebelle	R. A. Gilland, Kansas
Jersey under three years	Interested Owl's Grace	R. A. Gilland, Kansas
Guernsey over three years	Imp. Herival's Bettie	Dairyland Farm, Iowa
Guernsey under three years	Princess Euphemia	Dairyland Farm, Iowa
Ayrshire over three years	Lina's Beauty	O. H. Peverill, Iowa
Ayrshire under three years	Good Gifts Nona	O. H. Peverill, Iowa

Virginia Holsteins Make Good Records

The Virginia Polytechnic Institute announces the following new records:

V. P. I. Norma Veeman II completed a yearly record on September 30th, 1918, producing 15,240 pounds of milk containing 491.8 lbs. fat, which is a new state record for milk production for junior two-year-old heifers. V. P. I. Norma Veeman II is sired by Star Farm Johanna Lad and is out of V. P. I. Norma Veeman. Star Farm Johanna Lad was used in the V. P. I. herd with great success, having sired 12 daughters that averaged 467 pounds fat per year. All these were heifers with first calf, except two. The Dairy Division of the U. S. Department of Agriculture has selected the above sire for the breeding work at Beltsville, Maryland.

V. P. I. Javoca DeKol Korndyke completed a yearly record on October 24th, 1918, producing 15,617 pounds of milk containing 556.2 lbs. fat, which is a new state record for both milk and fat production for senior two-year-old heifers, all breeds. V. P. I. Javoca DeKol Korndyke is the first daughter of Virginia Korndyke Butter Boy to complete a yearly record. If V. P. I. Javoca DeKol Korndyke's record is any indication of this sire's merit—and we have good reason to believe that it is—he is a worthy sire for the V. P. I. herd, which h the following world's records for leges and experiment stations:

One cow has a yearly record 927.2 lbs. fat.

Three cows have an average ye record of 821.6 lbs. fat.

Six cows have an average ye record of 744.8 lbs. fat.

Ten cows have an average ye record of 664 lbs. fat.

Eighteen cows, or the entire h including 4 mature records, 2 i year-old records, 2 three-year-old ords, and 10 two-year-old rec have an average yearly record 570.4 lbs. fat.—R. E. HUNT, Pr sor of Animal Husbandry.

Massachusetts Guernsey Bree Consignment Sale

Seventeen thousand one hun twenty dollars for sixty-six hea the history of the first annual signment sale of the Massachu Guernsey Breeders' Association, at the New England fair gro Worcester, Mass., on Thursday, tober 24, 1918. The eighteen cow eraged $258.44, the thirty-one he averaged $316.93, the seventeen averaged $154.41, and the ave for the sixty-six head was $2 The sale was topped by Langw Yuletide 64987, consigned by Jo Ames, Massachusetts, and purch for $1,250 by the Oaks Farm, M chusetts. Langwater Yuletide is a three-year-old heifer, a dau of Langwater Advocate 20514, a granddaughter by her dam, of Dimple's May King of Langw 12997, being out of Langwater cess Rhea 32287. She dropped he calf February 5, 1918, and was s in April by Langwater Wa 26509. She is now on Advanced ister test in class F, and in months has produced 5,123.2 p of milk and 231.34 pounds of b fat.

The highest priced bull was a t month-old calf sired by Lang Steadfast 31672 and out of La ter Lily 26606. He is a half br to Langwater Warrior 26509 premier herd bull at Lang Farms, both being out of the dam. Langwater Steadfast 31 the second herd sire at Lang Farms, and is a son of Lang Dairymaid 26377. This bull ca consigned by F. L. Ames, Mas setts, and purchased for $655 by Burnham, Massachusetts.

Cattle were purchased by t two buyers from Massachusetts, necticut, Rhode Island, Vermont York, and New Jersey. Only teen head were sold to breeder side of Massachusetts. The bu the greatest number was A. C. ham, Massachusetts, who pur seven head, five of which were Edward Porter May, Massach purchased one bull, one cow, and heifers.

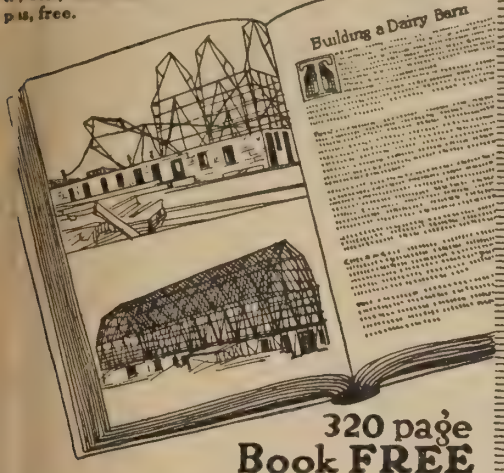
The consignment of five anim F. L. Ames brought the avera $756, which was the highest a received by any of the fifteen co ors. John S. Ames sold four he an average of $740.

The sale was conducted by Herrick, Massachusetts, and C George Bain and Colonel La were the auctioneers.

New Hampshire. E. A. ONS

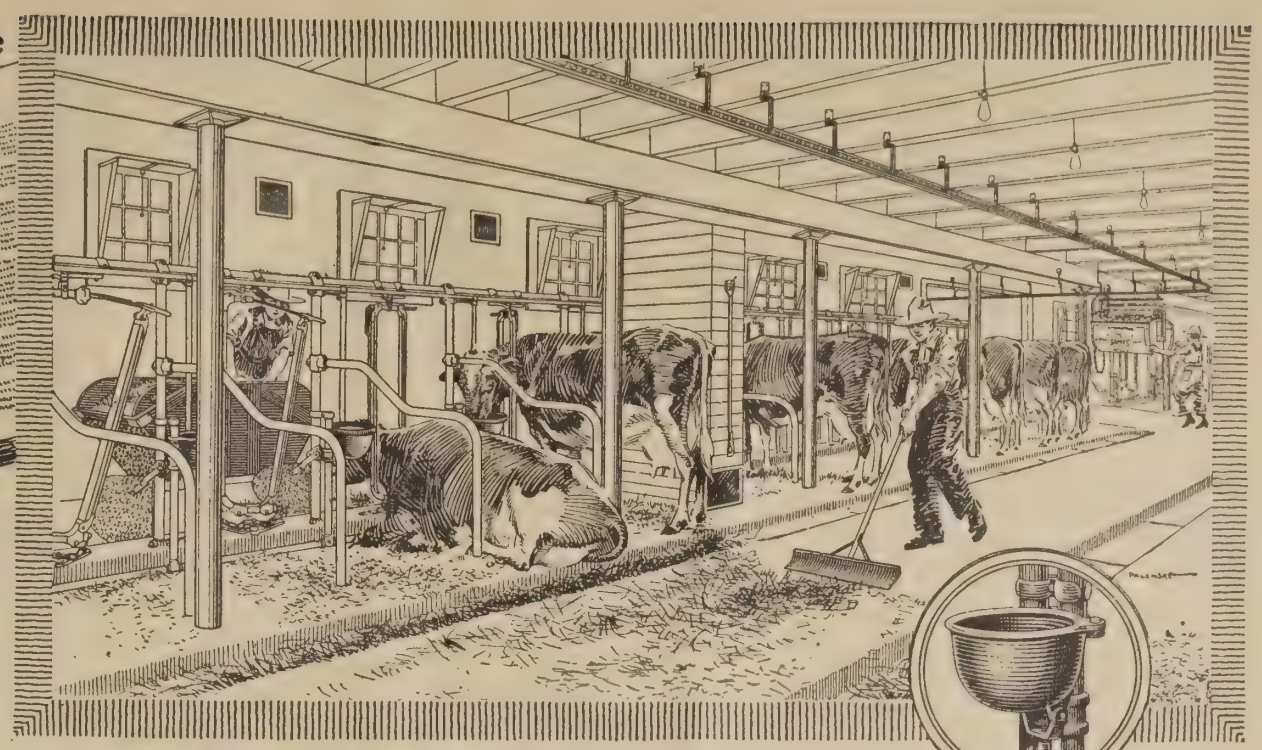
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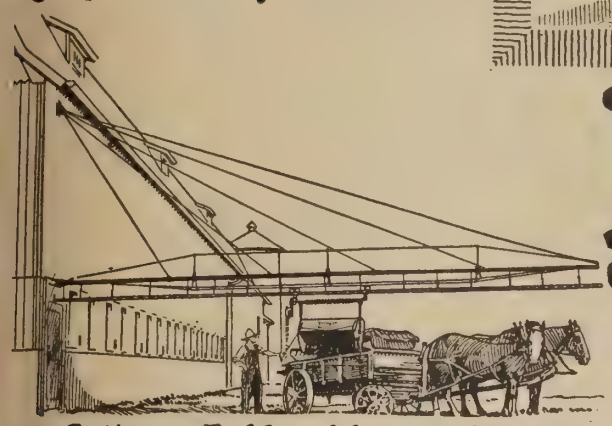
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Throughout this land upon the farms, thousands of boys and girls have taken upon themselves the work of men who are at war. Boys too young to don their country's uniform, girls too young for army nurses, have put on overalls to serve the nation.
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The James Feed Truck or Feed Carrier saves much walking to and from feed rooms,—makes unnecessary the lifting of heavy baskets of feed.

James Drinking Cups

not only save time—cows have fresh water before them day and night—but they do away with the nuisance of tending bothersome tank heaters in blizzardy weather; save fuel expense; and on top of that increase milk yields.

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It tells about the James barn plan service; the James barn experts who know what has been successful and what has not; what not to do as well as what to do in planning convenient, money saving barns.

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150 REGISTERED HOLSTEINS 150

25 Bulls—125 Females

This offering is made up of consignments from some of the very best Holstein herds in the state. It includes representatives from the best producing families of the breed—choice cows and heifers many of them with good A. R. O. records. A good many of these females are close to freshening from the service of excellent bulls.

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Homestead Farm, Dover, Del.

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43 head of excellent individuals with splendid A. R. O. backing. Most of the females old enough are safely bred to the senior sire of our herd, FINDERNE PRIDE FAYNE NO. 84452, who already has 7 A. R. O. daughters, one 3-year-old, 26 pounds, whose dam, FINDERNE PRIDE JOHANNA RUE, has an official record of 36.87 lbs. of butter in 7 days, with a test of 4.26%, 28,403.7 lbs. of milk, testing 4.14% fat and 1,470.5 lbs. of butter in 365 days, a world's record when made.

His sire, KING HENGERVELD AAGGIE FAYNE, is the sire of a 37.34-lb. 3-year-old, who also has a record of 1,395 lbs. of butter in a year, and of 4 others above 35 lbs.

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For catalogue apply to the owner.

Daniel O. Hastings, Wilmington, Del.

REGISTERED HOLSTEIN SALE

East Grand Forks, Minn.

November 22nd, 1918

We Will Offer 65 Head of Pure-bred Holstein Cattle

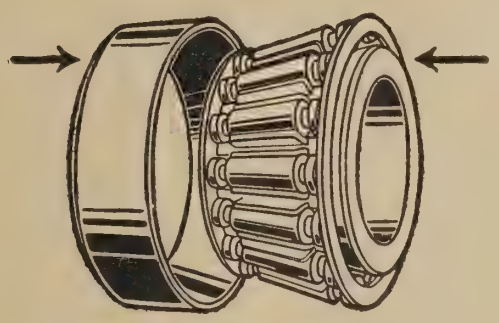
M. L. Enright consigns 40 head; 15 young bulls and heifers sired by Sir Pietertje Ormsby Mercedes 41st, the only son of Springbrook Bess Burke and Sir Pietertje Ormsby Mercedes, and 20 cows and heifers, soon due to freshen, bred to him. He is the only sire in the world with a 30-pound dam that has three daughters which average 37 pounds butter in 7 days, two of them recently sold for $50,000, the highest price ever paid for two females. J. D. Bacon puts in 15 head of cows and heifers bred to a son of J. M. Hackney's famous sire, King Segis Pontiac Count. J. W. Coulter consigns his select herd of 9 females and one male. We are located outside of the Holstein belt so this is your opportunity to get Hackney and Schroeder Farms' world's record breeding at grade Holstein prices. For catalogues address

M. L. Enright, East Grand Forks, Minn.

Why Once a Year?



Inspect your tractor at least once a year to grind valves, tighten bolts and take up wear—and don't forget the bearings, for a little wear on bearings means a great deal of wear on other important tractor parts.



Timken Roller Bearings consist of a tapered cup, a tapered cone and a set of tapered rollers. The once a year take-up corrects looseness by advancing the cone a little further into the cup. The why and how of this take-up are told in the booklet F-81, "Timken Bearings for Farm Tractors." Write for your copy.

There are three bearing principles that we have continually impressed on the tractor user and builder:

1—All bearings wear.
2—Wear makes bearings looser.
3—Looseness is harmful unless corrected by some form of take-up.

Naturally, the tractor user asks—"How much wear is there?" Also, "How often does it really need to be taken up?"

How Much do Bearings Wear?

Bearing wear is extremely small. Fine measuring instruments would be needed to tell just *how much* the rollers had decreased in size after a hard season. And wear varies with use. Difficulty of service at bearing point doesn't matter much, because the *harder* the *service the bigger the bearing.*

How Often is Take-up Necessary?

Only once a year—between seasons if the bearings are Timken Roller Bearings. Once a year—because that's when all the other take-ups are made—motor main shaft bearings taken up—valves ground and adjusted—nuts tightened. Lots of Timkens could go through two or three seasons without it, but it's best to be on the safe side. You want to *know* that your bearings are new when you start the season.

Wear May Be Serious Though Unnoticed

Why do Timken Bearings need this take-up when other bearings are *said* to go on season after season without adjustment? The answer is that any good bearing properly installed and lubricated will continue to serve for several seasons, but wear is going on little by little all the time. They are wearing just as Timken Bearings would wear if adjustments were neglected.

Foresight is Better Than Hindsight

The big difference between most bearings and Timken Bearings is this: In the former, wear goes on without your knowing it, and without a chance to correct it. In Timken Bearings this wear is recognized. You know there is slight wear, and you can take it up as easily as you can make other tractor adjustments.

Bigger Things at Stake Than Bearings

Take-up puts new bearings on your tractor—but it does more. *It keeps the gears new.* That's one of the biggest jobs that Timken Bearings have to do in passenger car, truck or tractor. Take the case of new gears. Contact is rolling. Friction is a minimum. Gears running like this would wear for *years* longer than the ordinary gear.

Wear on Bearings Wears Out Gears

Suppose that the bearings wear just a little. There's a slight looseness. The teeth separate a little. Instead of rolling contact a little sliding contact is introduced. Friction increases. Teeth slide in and out of mesh. Wear becomes greater. Worst of all the shape of the teeth is changed.

Right here is apparent one of the biggest differences between Timken Bearings and other bearings.

If the wear goes on, the wear of tooth on tooth becomes a little greater. At the end of two or three years the gears are noisy—work hard—wear out rapidly.

But you don't want to wait till your gears are worn out before you know they're wearing.

Take-up Keeps Gears New

Of course, new bearings can be put in; but new bearings won't solve the problem, because the gears have worn with the bearings. New bearings wouldn't help. New bearings at this stage mean new gears always.

With take-up for wear there's quite a different story.

At the end of the first season when sliding, wearing tooth motion is just beginning, take-up puts the gears in mesh just as they were when new. Contact again becomes purely rolling. Teeth wear *in* shape—not *out* of shape. Gears as well as bearings are renewed.

Don't forget this:

—All bearings wear
—All gears wear

Timken Bearings wear just as long as *any* bearing before the first adjustment is necessary. Most important of all—other bearings need adjustment just as much as Timken Bearings, but have to work along the best they can without it because their construction does not permit the take-up that adds life to Timken Bearings.

THE TIMKEN ROLLER BEARING COMPANY
Canton, Ohio

TIMKEN BEARINGS

FOR MOTOR CAR, TRUCK & TRACTOR

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Two Boys at the Fair

"WELL, boys, get all your work done tonight if you want to go to the fair tomorrow with your mother and me. We're going to start early,—about eight o'clock."

The speaker, Mr. Barret, was a prosperous Minnesota dairyman living about 20 miles south of the Twin Cities,—Minneapolis and St. Paul. The state fair was on and almost every day for the past two weeks the boys had been at their father to promise them this trip.

"Im ready now," George answered at once. He was 14 years old, and while among the boys he was less a leader than his younger brother, he was very much a leader when it came to working at home. Dick was a good worker once he got started. He was an interested junior farmer, too, but there were so many good times to interest him that he was usually just a little behind his brother when it came to his share of the regular work.

"I'll be ready when you are, Dad," said the younger boy. "I've got to clean the barn yet. Was going to do it tomorrow morning but now I'll do it tonight."

He was as good as his word and before dark his work was as well done as his brother's.

The next morning both boys were up with the sun and by breakfast time had their chores done, whereas ordinarily there was at least an hour's work to be done after the morning meal.

"Well, you fellows sure are hustlers," said their father when all were gathered at the table. "How about the car? Are you sure there's plenty of gas, oil, and water in it?"

"Yes, sir. I looked after that last night," said George.

"Good enough. Then all that's left to be done is to get dressed. Wait a minute though; I almost forgot something. You boys have both been doing extra good work the last week or two so I guess you've got something extra coming." As he spoke Mr. Barret reached into his pocket and drew out some more money.

"Let's see. Dick, there's two dollars, and there's two for you, George. Oh yes, you both eat once in a while, too. We'll have to add a half dollar apiece for lunch. There you are. Now then, I'll see that you get in at the gate and after that the $2.50 will have to take care of you unless you spend some of your own money which I don't think is necessary."

"Well, Dad, suppose we don't spend all of this money, what then?" asked George, who was evidently figuring on having some left for another purpose.

"Do as you please with it, son, it's yours."

"Say, George, what's the idea of your asking Dad about the money we don't spend?" demanded Dick a little later when both boys were in their room changing their clothes.

"Oh, I just wanted to know," answered his brother. "There might be some of the money left, you know."

"Huh, bet there won't be any of mine left," said the younger boy.

Long before eight o'clock both boys were ready. They had the car out and waited impatiently for at least a half hour before their parents were ready to start. The twenty miles to the fair grounds were soon covered and it was still early when Mr. Barret parked his car among those of other early arrivals.

"You boys be back here at 4:30 sharp. Until then do as you please, only don't get into trouble," said he.

The boys were not slow in starting you may be sure. For a time they simply wandered about the grounds looking over the various exhibits, asking questions, and collecting as many free circulars and samples as they could. At the dairy barn George was inclined to spend plenty of time watching the preparations for the day's show. Dick was not so interested and before long the two separated, each to follow his own interests.

Nor did they meet again during the day. Apparently their interests lay apart, or if they did go to see the same things, they did so at different times. Promptly at half past four, however, both boys were at the car and neither had any complaint to offer at their early start for home.

"Well, you fellows must have been pretty busy today. I don't hear anyone say he wants to stay longer. Had a good time?" asked their father.

"Yes, sir," both answered as they took their seats, tired enough for once, so that they had nothing to say.

Supper was over and the evening chores finished before anything was said about the day's pleasure. Mr. Barret himself brought up the subject after they were all together in the big living room.

"Boys," said he, "I'd like to know what you did today,—what you saw and how you spent your money. The money was yours and the whole day was yours. I wanted you both to do exactly as you pleased and I hope you have, but I'd really like a report from each of you. I'm curious to know what kind of a good time you really had. Let's hear from you first, Dick."

"Well," returned the boy, "first thing George and I started out together. We went through the buildings and saw most all the exhibits. Then we went and saw the hogs, horses, and cattle. After that George stayed at the barns and I went up where the side shows were. Billie Gibson was there and we went to two shows together in the morning. We went through the war exhibit, too. Guess we spent an hour there. It was good; did you see it?"

"Yes, both your mother and I went to see it. We said at the time that it would interest you boys all right. I suppose it was about dinner time when you got there."

"Yes, sir, it was after noon before we got sat down to a dinner table in one of the lunch tents. After that we bought some candy and a cane, went to another show and then watched the horse races. I bought two tickets to the grandstand because all Billy's money was gone. And anyway he bought two boxes of candy and give me one. Guess that's all. Oh, yes, I got 40 cents left, too."

"Well, did you have a good time, Dick?" inquired his father.

"Did I? I should say I did," returned the lad.

"That's good. I hoped you would. Now then, George, how about you? Let's hear what you did."

"Well, sir, I didn't see everything that Dick did but I had a good time," replied the older boy. "After Dick got tired of looking at the cattle I stayed and watched the men get them ready to show. It was fun,—about the best thing I saw at the fair. Then I went over and watched them judge Guernseys for about an hour. Every time they'd get them lined up I'd guess which one I thought was best. Twice I got it right. I'd have liked it better though if I could have been down in the ring and known why that judge placed them the way he did. I'd like to know better how to judge dairy cows.

"I stayed around there till after 11 o'clock, I guess. Then I went over where they were running tractors. Say, but there was some dandies there. I could've stood round and watched them all day. I didn't though 'cause about noon the fellows that was running them quit and went to dinner. I went too, then."

"By the way," interrupted his father, "did you see any Guernseys that you liked?"

"I should say I did," returned the boy. "I liked most all of them but there was a bull there, a year old I guess, and a cow that was about six years old that sure would make a slick pair to start with. I'd be satisfied with them any time."

"All right. What did you do after dinner?" asked the father.

"Why right after I got through eating I went through the war exhibit, stayed there pretty near an hour and then went up in the grandstand to watch the races. Oh yes, I almost forgot, I bought some candy just before I went up to the stand. I stayed there till it was time to start home."

"I see. But how did it happen you didn't get to some of the shows?" inquired his father.

"I didn't have any time. I did think about going but I didn't get around to it. There was one show there I'd like to have seen," answered George.

"How about money? Did you have plenty?"

"Sure, I got $1.25 left that I didn't spend," said the boy.

"Well, boys, I suppose you're wondering why I asked you all these questions," said their father. "The fact of the matter is, I wanted to see what you really got out of the fair. Apparently both of you had a good time, which is right. You've earned it. I don't think Dick here got much else except perhaps a better idea of the war from the British exhibit. I believe though that George learned something about Guernseys and may be a little about tractors. I hope so because I bought four pure-bred Guernseys from one of the men showing there and I rather expect to buy a tractor some time this fall.

"I had hoped that both you boys would learn something about these things at the fair. It looks as if one of you did and the other did not. I know that Dick here will pick up plenty of information on both these subjects now that he knows what to expect to do, but I'm sorry he missed his opportunity today.

"Boys, a fair, if it's a good one, offers you a chance to study what is being done along the line of improved machinery, improved cattle, or better farming methods. It is a place where you can learn more about your business, because you're both junior farmers. Next time we go I want both of you to do two things: Learn what you can from the fair and have a good time. There is plenty of opportunity for both.



GRADE HOLSTEIN WITH TRIPLET CALVES

She has dropped six calves in two years—one heifer calf, twin heifer calves, and these triplets—two heifers and a bull.

OWNED BY ALBERT ASTIN, WISCONSIN



TO HOG-DOWN CORN IS TO EFFICIENTLY HARVEST THE CORN CROP

Junior Letters

Hoard's Dairyman Juniors:—As I have n written for quite a while I thought I wou write now. I have been so busy with far work that I have not had time to write and te about it.

I have two brothers in the army. Julius ha been in the army for over a year, and he ha been in France for over five months. He ha been fighting for three months but of cours

He gets a rest once in a while. He has been over the top several times, too. In the last letter he was in a hospital just getting well from influenza. Martin, my other brother, has been in the army since July 5, 1918. He is on his way across now. He is in the artillery and Julius is in the infantry. My father and I have done all the farm work since they left. We had an auction and sold 10 cows and some young stock and other things so that we could handle the farm better. We still have 28 head of cattle left, 18 of which are milk cows. We have 7 horses. Two of them are colts. The same mare that we had to the fair last year took first prize again this year and her colt took second prize. We had a few other prizes.

We filled silo a few weeks ago. We have not threshed yet but expect to soon. Our wheat is fine this year. We did not have much barley but we had quite a lot of wheat, oats, and rye.

We have a registered Holstein bull that is 10 months old. Our twin heifer calves are still doing fine. One is a brindle and the other is black, so they do not look much like twins.

I have not started to go to school yet, but expect to start as soon as we get through threshing, which will be about the 15th of October. I will be in the first year high school.

I have 10 War Savings Stamps so you see I am trying to help lick Kaiser Bill. My father has bought both liberty bonds and war savings stamps.

Well, I guess I will close, wishing success to the juniors. My address is Route 1, Glenwood City, Wis. Arthur W. Sorenson.

Hoard's Dairyman Juniors:—Have you forgotten this junior?

We have been hauling cattle almost all last week. We sold four pigs, nice big ones, but they were not so very fat. We sold them all for $250.

My calf is in good condition now. She is getting big and fat. Every time she sees me she will run to me and wants me to pet her.

We are milking seventeen cows, and one of them the calves are sucking.

We were filling silo a week ago Monday and Tuesday. We got it full to the top and had four loads left which we sold to our neighbor. After a day or two it had settled a couple of feet. It is all corn that was put in the silo.

We are all through threshing and got a thousand bushels of oats and 50 bushels of barley. This year we got all the oats we need and sold a little besides.

My sister, Mary, is going to training school this term to become a teacher.

It has been a bad day. It has rained a little all day.

I am milking four cows every morning and night and haul the milk to the cheese factory before I go to school.

I think it is time to close, wishing good luck to all the juniors. I wish the juniors would write to me. My address is Box 57, Ringle, Wisconsin. Chester Mortenson.

Hoard's Dairyman Juniors:—This is my second letter to the juniors. My brother and I both have our buttons, creeds, and fobs. We are very much interested in Hoard's Dairyman. I always read the letters from other juniors. I am 11 years old and my brother is 2 years younger and our young brother is 3 years old.

We live on a farm of 318 acres and have 5 cows and 4 calves. Some of them are Holsteins and we think they are the best. We go to school, the school being right on the farm although just now we are staying home to do the shocking. All the wheat is cut and some of the other grain. During the busy time I milk one or two cows. Owing to the dry spring early crops are not very good here but late crops are better because rain came in the summer. Soon we will be threshing and after that school till Xmas. We are in Southern Manitoba and days are very hot but nights are always cool. We would be glad to have some letters from other juniors. Our address is Hilton, Manitoba, Canada.

Fredrick and Harold Curtis.

Hoard's Dairyman Juniors:—I thought I would write you a letter and tell you what I have been doing this summer.

I am only twelve years old so I can not do very heavy work, but I can do some work with the team. I cut nearly all our grain and cut our neighbor's wheat. I cultivated the corn two or three times with the two-horse riding cultivator. My brother is in the navy so my father had no help but mine.

My mother and I had a garden together, and what she did not use she gave to me to sell as pay for my work. With the money I bought three War Savings Stamps and have one Thrift Stamp started on another one.

We have a registered Holstein sire and six cows. My father is trying to build up a Holstein herd. We have one ten-thousand-pound cow. My father weighs the milk and keeps a record of it. We have a milk tester at our school and the children from the different families bring samples of their milk and we test it. The children from the sixth grade up can test the milk without any help from the teacher. I am in the seventh grade. Just to show you that our little country school is not behind the times I am sending a language paper written about the fourth Liberty Loan.

I would like some of the juniors to write to me. My address is R. D. 1, Box 68, Whitehall, Mich. Warren M. Blank.

PERFECTION MILKER

Milks Like The Calf

PUT your finger in a calf's mouth and feel the way the calf milks. First it sucks gently. Next it squeezes downward with its tongue and the roof of its mouth. Then it stops sucking for a moment while it swallows, letting go of your finger and allowing the blood to flow freely.

This is the natural, safe way to milk.

Now, put your finger in the Teat Cup of the Perfection Milker. Notice how it first applies a gentle, steady suction, second, squeezes downward, and third, completely releases your finger from the suction.

This is exactly the same way of milking as that used by the calf. It is Nature's Way—no wonder the cows like it.

Try this test yourself and you will see why such famous dairymen as Professor P. O. Holland, of St. Olaf College, Minnesota, and Clifford R. Plumb, of Bangor, New York, recognize the Perfection as the safest of all milkers and use it on their valuable cows.

The Teat Cup Is The Secret

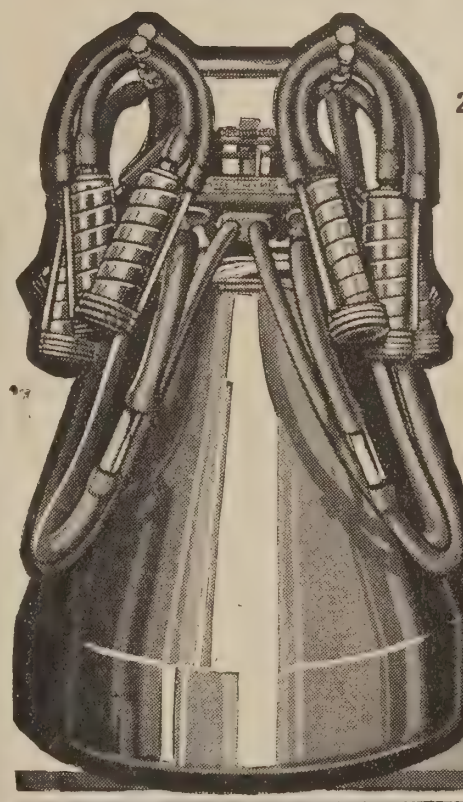
Because of its exclusive patented Teat Cup, the Perfection is the mechanical milker which can milk exactly like the calf. Cows stand quietly for it and often give more milk.

Like every part of the Perfection, the Teat Cup is the result of years of experiment and study to make it the best thing of its kind in the world.

Get This Valuable Book Free

Whether you have a great many cows or only a few you should study the mechanical milker at this time. The world needs more milk. A good milch cow is worth twice what it was before the war.

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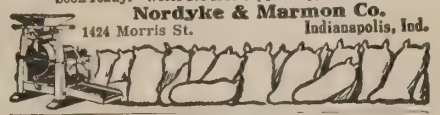
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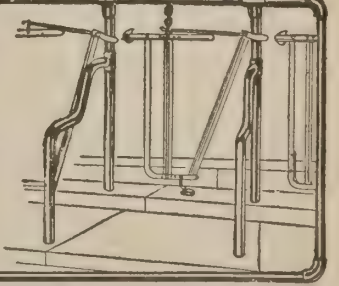
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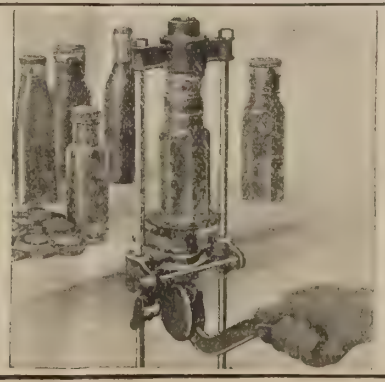
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In putting up preserves, catsups, chow-chow, chili-sauce, berries, Indian Relish, etc., don't follow the troublesome paraffine wax method of closure.

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In storing condiments of all kinds for future use you will find this the safest method of sealing.

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STOCK FOR SALE

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

Four extra good registered Guernsey bulls for sale. Age 7 to 9 months, May Rose breeding, being sired by Langwater Frederick 22268, from dams with A. R. records 510 to 740 lbs. fat. Pedigrees and sale list. HOMER F. RUNDELL, Livingston, Wis. 15-tf

For Sale—High grade Holsteins, all ages. Choice springers a specialty. FRICK & HOESLY, New Glarus, Wis. 15-5

Farview Farm now offers a registered Holstein-Friesian baby bull. $125 in check or Liberty Bond. Choice breeding and nicely marked. Write. W. A. TAYLOR, Roberts, Wis. 15-tf

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Holstein springers—7 high grade heifers, coming three years old, to freshen soon. Send for photo. Price $100 each. Heifers at Lake Mills, Wis. Write ALBERT C. WOLLIN, Grove City, Pa. 16-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 16-tf

On account of shortage of help, will sell 40 springing two-year-olds, for $90 per head. CHAS. THAYER, Palmyra, Wis. 16-2

Four registered Holstein cows, springers, two ten-month-old bulls. C. F. DINEEN, Cedarburg, Wis. 16-3

Two Holstein bulls just ready for service. Dams have big semi-official yearly records. Priced to sell. A. F. RANDOLPH, Whitehurst Farm, Canton, Illinois. 15-spl

Holstein grades—Sixty for sale. The best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minnesota. 16-4

150 high grade Holstein cows and heifers for sale. 35 well marked heifers, close up springers, ready now. 50 head to freshen in December. Also a number of young cows due to freshen in next three weeks. Don't wait to write. Come and see them. Special inducements on car lots. Will meet you by appointment at Libertyville, Highland Park, or Prairie View. EVERGREEN FARM, Prairie View, Ill. 16-3

Grade Holsteins—36 head, 2 years old, bred to 30-lb. bull, due to freshen in 30 days. Large and well marked. Write for particulars. H. P. CLEVENGER, Cuba, Ohio. 15-4

For Sale—Two registered Holstein cows, two and three years old, due to freshen in December. Bred to a 36-lb. sire. One bull calf almost old enough for service; out of 36-lb. sire. Price $450. ERNEST SEDGWICK, Greenup, Ill.

$75 will buy a 4 months old grandson of Spring Farm Pontiac Cornucopia, the $15,000-bull. A. C. THORESON, Baldwin, Wisconsin.

For Sale—10 heifer calves and 4 young bulls. Sire a grandson of King Segis. Through their dams they trace directly to Woodcrest Pietje, Colantha 4th's Johanna, and King of the Butter Kings, a son of Pontiac Rag Apple,—three of the best animals the breed has produced. Write for pedigrees and prices. AUSTIN FARMS, Windsor, Vt. 17-4

Being non-resident farmers unable to hire sufficient help we will sell our herd of 50 high grade Holsteins, all females, ages 6 months to 6 years; 25 milkers, mostly December and January springers. MARSH FARM, Ross, Minn. 17-2

Pure-bred Holstein bull calves for sale, Ormsby and Pontiac breeding. J. T. GALFORD, Ventura, Iowa. 17-2

Six grade Holstein heifers for sale, all bred. LOUIS BORNEMANN, Hilbert, Wis. 17-2

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernsey bulls, Advanced Registry breeding. GLENN CLARK, Eau Claire, Mich. 13-5

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

STOCK FOR SALE

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Guernsey bulls of serviceable age. Also bull calves, A. R. dams, noted sires. May Rose, Golden Secret and Strong Anchor breeding. Satisfaction guaranteed. TARBELL FARMS, Smithville Flats, N. Y. 14-4

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

16 Guernsey bulls on hand. Am overstocked, will sell very cheap while they last. H. W. GRISWOLD, West Salem, Wis. 17-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Excellent registered Guernsey bull calf, 3 months old. $50. B. McADAM, Mosinee, Wis. 15-3

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Guernseys for Sale—Three excellent heifers, granddaughters of Governor of the Chene and bred to Clara's Sequel. Can also spare two cows and two bulls serviceable age. B. L. RUNDELL, Hammond, Wis. 15-3

For Sale—One heifer, four months old. Sire, Florham Quality, son of Ne Plus Ultra. Dam, Glenwood heifer. One bull calf. Sire, Florham Quality. Dam, A. R. cow by Glenwood's Combination (8927). H. C. HURLEY, Rockville, Md. 15-3

For Sale—A proven bull, registered Guernsey, five years old, cannot use longer, sorry I cannot. For picture, pedigree, full description, etc. write. F. N. FISH, Strongsville, Ohio. 16-2

For Sale—Yearling, registered Guernsey bull. Glenwood breeding. Dam in Advanced Registry. Tuberculin tested. Good individual. Price $90. Alvin Handrich, Manager. HENRY F. ORA, 173 W. Lincoln Ave., Oshkosh, Wis. 16-2

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, six weeks old, 95 per cent pure-bred, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 16-tf

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

For Sale—Splendidly bred Guernsey bull, two years old. A bargain. Great A. R. ancestry. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

Silver Birch Farm has one registered Guernsey bull coming 3 years; sure breeder. Also 8 high grade heifers from 8 weeks to 19 months for sale. Address ALEX STACHOWSKI, R. 2, LaCrosse, Wisconsin.

A real Guernsey herd bull 7 years old, $150, Imperial of Birchwood 19271. B. McADAM, Mosinee, Wis. 17-3

For Sale—A few choice bred young Guernsey bulls from such sires as Imp. Clara's Sequel 29414 and Dairymaid's Glenwood of Pinehurst III 26948 and from A. R. dams with records as high as 836 lbs. fat. CHAS. A. WILKINS, Mound City Farm, Platteville, Wis.

One Liberty Bond or $50 buys a good registered Guernsey bull dropped last January. RICHARD EINFELDT, Greenwood, Wis.

For Sale—Three registered Guernsey cows, five to seven years old; three grade cows; seven bred, grade heifers; twelve grade heifers, eight to twelve months old; two pure-bred bull calves. J. D. BECK, Viroqua, Wis.

Four registered Guernsey cows, two heifers; all bred; good foundation stock. FRANK PLUMB, Saginaw, Mich.

Jerseys—Choice bulls, service age, excellent blood lines. Will sell at reduced prices to make room. CLOVER VALLEY FARM, Medford, Wis. 16-3

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

STOCK WANTED

Wanted—Several good, young, registered, Guernsey cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 13-6

Wanted—To buy for cash. Registered Holsteins, young cows and bred heifers in lots of ten or more or will buy entire herds of females if priced right. Address LOCK BOX 97, Sterling, Ill. 16-2

Wanted—Carload of good grade Holstein cows or extra heifers, fresh and heavy springers. Give full description and price. H. W. JONES, Colliersville, Tenn.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis.. 10-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 17-4

SWINE

For Sale—400 stock pigs eight weeks old for $7 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 16-tf

Duroc Jersey bred sows: boars, and spring pigs. PHILIP LEHNER, Princeton, Wis. 24-tf

Duroc-Jersey service boar out of litter of thirteen. First check for $40 gets him. Papers furnished. F. F. AYDT, Dahlgren, Ill.

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—Registered Poland-China boars. Reasonable prices. CHAS. W. O'NEILL, Bridgeport, Wis. 16-5

POULTRY

Rhode Island Reds—Prize-winning Single Comb strain. Eggs, 15 for $1.50, 45 for $4.00, 75 for $6.00, 100 for $8. Satisfaction guaranteed. HILDEBRANDT & VEA, Telephone 365-J3, Stoughton, Wis. 15-tf

Giant Strain—Bronze turkeys, both sex; females $5.00 to $7.00; males $7.00 to $10.00; any number. Write. Satisfaction guaranteed. MRS. GEO. CONNELL, Box 14, Bancroft, Wis. 15-3

Choice—Single comb Rhode Island Red Cockerels. Laying strain. $3.00 to $5.00. C. E. COPELAND, Jefferson, Wis. 16-2

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 16-4

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

GOATS

For Sale Cheap—50 Angora goats, the kind that clear the land of brush and weeds. J. J. JENNINGS, New London, Wis. 17-3

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

A Splendid Spring Wheat for Sale—We offer for sale a limited quantity of the Blue Ribbon variety of spring wheat, only 70 bushels. Our record with this wheat is as follows: Last spring we sowed two bushels on two acres of land. The return, threshers' measures, was 76 bushels which grades uncleaned, 61 lbs. per bushel. We will sell this wheat well cleaned for seed for $3.00 per bushel. Bags furnished at 60 cents each. W. D. HOARD, Prop., Fort Atkinson, Wis. 16-tf

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Farm Wanted—Must have stock and feed. Want trade 2 two-family fine buildings part payment. M. WALTER, 641 Walker St., Milwaukee.

SALESMEN WANTED

Salesmen—Many of our salesmen have gone to war and we are filling their places with men exempt from draft. Lack of competition and great prosperity of our customers makes sales the best we have ever known. Selling experience desirable but not necessary. McCONNON & COMPANY, Dept. 67, Winona, Minn. 14-4

EXCHANGE

Wanted to Exchange—160 or 320 acres of fine, well improved, all tillable land, in the Red River Valley of Minnesota for registered or number-one grade Holstein milk cows and heifers. Address WM. OHLHAVER, Aurora, Ill. 14-4

For Exchange—160-acre farm in Muskogee County, Oklahoma, for herd registered or high grade Guernseys. Farm is A-1, 80 acres under cultivation, rest pasture and hay. Could all be cultivated. Fenced and cross fenced. New barn 36x57, good 5-room house. Within one mile of producing oil wells, 1½ miles of good little town, 18 miles from Muskogee, the second largest city in the state. Address BOX 291, care Hoard's Dairyman. 16-4

Would like to trade a very fine Indian pony team, mare and stallion, both 1½ years old, for a car of good oat straw delivered at my station. HENRY SERY, Three Lakes, Wis.

MACHINERY

For Sale—Complete pasteurizing outfit. Slightly used. Will sell for very low figure. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

For Sale—In excellent condition. One Hinman three-unit milking machine, $150.00. One 900-pound DeLaval steam turbine separator, $75.00. 30 Louden steel stanchions, $45.00. BEN H. AMES, Kaneville, Ill. 17-2

For Sale—One-unit Sharples Milker, new; closing dealers' proposition, 30% discount. DAVID CROSHAW, Wrightstown, New Jersey.

For Sale—Three (3) unit Hinman milking machine. Write RALPH HARING, R. 1, Clinton, Iowa.

For Sale—Four-roll McCormick shredder, No. 14 Silberzahn silo filler. HILBERT PAULSON, Hollandale, Wis.

FARMS FOR SALE

Come to Syracuse, the Empire state's ag cultural artery—We offer 80 acres of wond ful alfalfa land situated ⅝ mile outside line; ½ mile from 5c trolley line, 6 minu service to city center; adjoining one of m beautiful country clubs in the state; buildi are in good repair and painted, and the fa is in an excellent productive condition. M ern barn, 24 stanchions; feed and litter riers; bins; milking machine; electric ligh silo; milk house; ice house; running wat basement barn, horse, box stalls and st chions for dozen young stock. Tool ho implement shed, feed barn, hog pens, chic houses; accommodating 500 head. Mod beautifully situated farm house, 11 roo steam heated; electric lights from city rent; city rates telephone on city board; b room; running water; two cellars, one heater, other for vegetables. Tenant house rooms; well and conveniently situated. Ot business and manufacturing interests dem owner's whole time. Write at once for particulars to I. S. MERRELL, care Merr Soule Co., Syracuse, N. Y.

Booklet on request presenting facts by S Commissioner of Agriculture describing Mazarn Valley in the Ozarks, ideal for da ing and stock farming. Address MAZA VALLEY LAND COMPANY, 847 Cen Ave., Hot Springs, Arkansas. 1-

For Sale—60,000 acres cutover land in no ern Wisconsin. $20 up per acre, $10 down forty and $10 per month or balance paym extended, provided you do required amoun work. We have a few eighties with build ready for use. To purchasers of these we rent teams and tools on community basis advance money for cow, pig and chick when you can supply feed; also grubstake during farming season providing you put tire time to developing your farm. TO HAWK LAND CO., Box L, Tomahawk, 7-

If you wish a farm in the best grass sec of the south where alfalfa and all the clo including Red White, Alsike, Sweet, B Crimson and Japan grow to perfection, soy beans, cowpeas, peanuts, velvet be corn, oats, wheat, rye, and barley where have a creamery making fine butter and ing Elgin for butterfat, and where there i bovine tuberculosis nor cattle ticks; in a munity of northern farmers, write to H GURLER, Macon, Miss. 25-

Wouldn't you like to look over a produc country where you can buy good railroad l at low prices, on terms that are easier paying rent? Good roads, prosperous set for neighbors, schools, churches, banks, st and creameries. For maps and full info tion, write ARNOLD, Land Agent, Rock land Railway, 154 Wolvin Bldg., Duluth, M

Farms in the Mississippi Prairie Belt, al and clovers. Corn, hay and live stock pr sition. Ideal climate, good neighbors, sch churches, good roads. Main line of rail Close to large markets. Write now. H HANSEN, Macon, Miss. 11-

For Sale—875 acres the best alfalfa, clover and hog farm in north Mississippi. acres in alfalfa and corn now; strong, l lime soil ten feet deep, good well and run water. Come and see the alfalfa and cor this farm now. Price $60. For quick Don't wait to write letters. Come and see crops on this land now. Will make terms. Ten years' time, 6 per cent. K WISHART, Aberdeen, Miss. 1

Now is the time to buy land before the evitable rise begins. With means to e the plant, and ambition to make his pe nent home amid the most desirable surro ings, where his children can live at home have the best educational advantages, where he can spend his old age with gre contentment and satisfaction, an opportuni just now offered, to lease or buy, an e tionally desirable farm of 230 acres, mirably located for dairy and pure-cattle farming and well adapted to gr two sets of farm buildings, one of which fully equipped down-to-date dairy plant, w could not be duplicated even in normal for less than $10,000. Two good dwel besides tenant house. This farm has worked for many years by one of the farmers in the township, who on accou the increasing ill health of his wife has in the last month decided that he must giv farming, and dispose of his stock, includi head of registered Holsteins, at the best now obtainable, even though reasonably ce to be worth more next year. Location o surpassed attractiveness, within two mil the city of Ithaca and Cornell University. dress J. T. NEWMAN, Ithaca, N. Y. 1

Farms of all sizes and all prices for sa this banner dairy section. Largest crea in the world right here. Write F. W. ME Barron, Wis. 25-

160-acre dairy and poultry farm. Ad city of Abilene, Kansas. 90 acres cultiv of which 40 acres is alfalfa. 70 acres pas Fine water. Soil, black sandy loam. Ho rooms. Barn 24x70. Hay barn 24x60. tric lights and power. Address R. 4, BO

For Sale—250-acre Virginia dairy Old colonial house in A-1 condition. M twenty-cow barn. Milk house, two big horse barn. Machine sheds, bull and pens, garage. Water in all buildings, fences, some timber, land rolling. Milk forty cents wholesale. Will sell with or out stock and equipment. W. A. STOCK Blackstone, Va.

For Sale—Farms of 60, 127, 80, and acres No.-1 buildings, near to town and i great dairy center. Price $150 up to an acre. W. H. NEVINS, Jefferson, Wi son.

Fine Farms and Land Cheap—120 acr acres clearing; large house, log barn, $ 235 acres with buildings; 45 acres under $5,600. 40 acres bushland $500. 80 $1,000. 240 acres $3,000. Write for d to THE E. L. C. CO., D-M, Dept. 31, M Wis. 1

For Sale—Fine dairy farm of 264 fine buildings, 40 head of stock, 4 horses, machinery, sap bush and outfit for m sugar, 25 acres woodland, 14-room house, with wood furnace. Income from dairy crops the past year $4,500. Price of with stock and machinery $12,000; down, remainder on easy terms. FAIR V FARM, South Kortright, Delaware Co New York.

FARMS FOR SALE

rdwood cutover land, silt loam, clay sub- Neither sandy nor gravelly. Close to . Good roads. Good schools. In the of the dairy country. You deal direct the owners. No agents and no commis-. Easy terms. Write for map and book-t. NORTH WESTERN LUMBER CO., Dept., Stanley, Wis.

-acre stock farm, pair horses, 16 cows and fers. 2 colts, brood sow, hens, grain bind-mowing machine, roller, drags, harrows, ator, plows, wagons, harness, long list harvested crops, stove wood, etc., includ-On county pike near 2 cities. 125 acres loam fields, big crops, wire-fenced 40-pasture, door-collected milk, home use , fruit. 12-room house, 3 big barns, hog, ry, tool houses, all painted. Good con-. $14,560 gets everything. Small amount . Details page 69 Strout's Big Catalogue is and other corn and stock farms; copy E. A. STROUT FARM AGENCY, Dept. 312 Marquette Bldg., Chicago, Ill.

r Sale or Trade—240 acres of as good land ere is in Wisconsin. Everything up-to-new this year. Will take in 80 towards Will sell stock and tools, a little down and ears' time on the rest, or twenty years. ess EUGENE T. BELL, Hustler, Wis. 14-4

PARTNER WANTED

iryman only; southern Pennsylvania; ied milk farm. BOX 297, care Hoard's rman. 17-2

PRINTING

ard's Dairyman Art Dept. designs your head free. Just tell us your breeds of . Book of 5,000 Farm, Ranch and Cottage s 25 cts. Ask for samples of letter heads, lopes, shipping tags, cards, milk tickets, Poor stationery is more of a damage a help. Address HOARD'S DAIRYMAN, Dept., Fort Atkinson, Wis. 8-tf

HAY

alfa hay for sale. Write or wire us for ered prices. ALBERT MILLER & COM-Y, 192 North Clark Street, Chicago, Ill. 26-tf

CREAMERIES

eamery, ice cream factory, wholesale and l butter store. Business this year $100,-Lively town in growing Puget Sound try Butter trade greater than supply. ream in season 200 gallons daily. Rav-of war make possible the purchase of plant at great bargain. Sell or lease ing. Unusual opportunity for live cream-man. JOHN MILLS, Puyallup, Wash. 17-2

FOR RENT

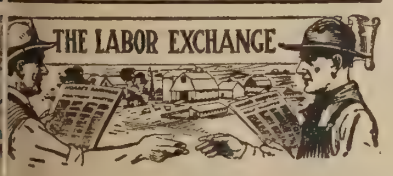
r Rent—Fine 500-acre farm on shares. rn improvements. Located in the village alf mile from milk plant. Present renter led hand filling silos this fall. Funds re-d to buy the renter's equity. Address . COOLIDGE, Downing, Wisconsin. 13-tf

r rent on shares—Dairy farm, well ed, three hundred acres. Limestone soil. . WHITHAM, Wheeling, West Virginia.

MISCELLANEOUS

ep a herd record—Pocket Herd Book, re-able, good for ten years, 75 cents postpaid. J. WHEELER, Tully, N. Y. 17-4

s Sir, we have a special opportunity for during spare time, an opportunity to do good work in your neighborhood, for betterment of dairy farming, that will pay in cash for the effort you put forth. Write our "Special Opportunity Getting To-er" folder. Address HOARD'S DAIRY-N, Fort Atkinson, Wis. 2-tf



ivertising in this department is 5c per word. Remit in advance.

HELP WANTED

anted—Married man on my dairy farm can do general farm work and willing to perate with my herdsman in caring for my nseys. Wife must be willing to board two a men. State wages in first letter. H. C. MS, Algona, Iowa. 7-tf

anted—Young, experienced, married man arge Guernsey dairy farm. Start Nov. 1 ater. Good habits, good milker. Prefer who can milk. Give reference, age and ification. Furnish wood and milk. Wa-$750 per year. HOMER F. RUNDELL, ngston, Wis. 14-4

erdsman wanted for a Guernsey herd in ern Wisconsin. He must be experienced . R. O. work, feeding and breeding of cat-nd preferably hog raising. If married, it ld be desirable if wife could manage the ding house. State age, nationality, experi-, references and expected salary or salary percentage. Address BOX 284, care rd's Dairyman. 15-3

anted—Man to help care for my herd Hol-ns and do general farming. Steady work right man. State wages and experience letter. H. R. LITTLE, Eldridge, N. D. 15-4

anted—A good chore man on a ranch in fornia. Good pay. Address BOX 290, care rd's Dairyman. 16-6

anted—Correspondence from an experi-ed dairyman with his own help for a 30-dairy on a share basis. $6.00 per 100 lbs. 3½ per cent milk. N. A. WATSON, Erie, 16-4

anted—Single herdsman, Holsteins. Must good caretaker and able to get results in R. O. work. Milking about 20 cows, will about 12 this winter. State age, experi-e and wages. CORWIN FARMS, Rock ley, Ia. 16-2

HELP WANTED

Wanted—Capable, honest, energetic man, with family, who understands feeding and care of cattle and farming in all branches, to operate stock farm on salary and share of profits. Farm stocked and well equipped. Situated suburbs of thoroughly modern small city fifteen thousand. Excellent opportunity right man. State age, experience, references, salary. ALLEN HARRIS, Johnson City, Tenn. 17-2

Wanted—Farm hand. General dairy work $50 month. Wm. DILLON, Round Lake, Ill.

Wanted—Married or single man, white or colored, to work on dairy farm. Both must be able to milk and man to do general farm work. House, garden, milk and wood. State wages and how many in family. Transportation refunded after six months' service. BIRCHWOOD FARM, Route 2, Coatesville, Pa. 17-4

Wanted—A good dairyman who understands pure-bred cattle. In neighborhood Oconomowoc, Wis. Address BOX 301, care Hoard's Dairyman.

Wanted—Married man to take charge small Jersey herd and handle select milk route. Must be fond of Jerseys—and good milker. Best of treatment and home to right party. Write with references, and salary expected to W. S. PARK, Las Vegas, Nevada.

Wanted—Dairyman to care for and milk forty to fifty cows. Use Hinman Milker. Prefer man with help sufficient to handle the job. Mild climate. Good wages to right man. BROAD-ACRE FARM, Blackstone, Va. 17-2

Wanted—Woman to cook and keep house for help on small dairy farm northern Ohio—close to Cleveland. Modern house and convenient. Place now open. KEEWAYDIN FARMS, Gates Mills, Ohio. 17-2

Wanted—Good milker and farmer, for 40-acre farm close in to city. Must be good fast milker. $50 per month and board. ROUTE 10, BOX 61, Battle Creek, Mich. 17-2

Wanted—Good dry hand milker on a large dairy farm, located on electric street car line three miles from Denver, Colorado. Farm equipped with all modern conveniences and men well cared for. Hollanders preferred. Wages on yearly contract $65 with good board and room. Address BROOKRIDGE FARM, Littleton, Colorado.

Wanted—Working foreman for fifty-cow dairy, using Empire machine. Single man with deferred classification preferred. Salary for three months, then profit sharing basis if wanted. Can also use a good herdsman for Duroc swine. ARLES PLANTATION, Americus, Ga.

Wanted—Manager for a new up-to-date centralized milk plant and creamery in a city of 25,000. Give salary, experience and references in first letter. None except those having successful experiences in handling a plant like this need apply. C. M. LONG, Sedalia, Mo. 17-2

Herdsman wanted for Holstein herd, also one or two milkers. High class place to work, all improvements. State salary expected, nationality, experience and references. Address BOX 326, Colver, Cambria Co., Pa. 17-2

Herdsman, who can operate milking machine, also two good dry hand milkers. $80 per month and board to proper men. No idlers need apply. J. H. MILLNER, Norfolk, Va. 17-2

Wanted—Married man for dairy farm; must be good milker, feeder, and have good references. House, wood, water, garden, milk and $1,000 year or shares. LEWIS DAIRY FARM, Edna, Calif.

Wanted—To contract, to milk, feed, and care for 65 cows. ROSEDALE DAIRY, Silver City, New Mexico. 17-3

POSITIONS WANTED

Farm manager wants position on large pure-bred stock farm. Large experience in modern farming, stock breeding, production of certified milk, gardening, greenhouse management, and general development of modern, up-to-date farm. American, married, successful record. Best references. Will only consider first class proposition. BOX 277, care Hoard's Dairyman. 14-4

Farm manager or herdsman, experienced in all branches of modern farm methods, stock raising, milk and milk production. Handled large certified dairies and farms. Thoroughly versed in contagious diseases, testing, feeding, and management, accounting, Holsteins, Guernseys and Jerseys. Disengaged Dec. 1st, 1918. Address BOX 280, care Hoard's Dairyman. 15-3

Farm manager, thoroughly experienced, progressive, good executive. A. R. O. testing, fitting, care registered Holsteins. Machinery, gas engines, crops, etc. Can get results. First class proposition. Eastern states only. Age 29, college graduate, class 4C in draft. Married, no children. References exchanged. BOX 288, care Hoard's Dairyman. 16-3

Herdsman, small herd, life experience in breeding, raising, feeding, and care of cattle. Do A. R. O. work; am married, no family, house desired. Excellent references, draft exempt. Eastern states preferred. Address BOX 298, care Hoard's Dairyman, Fort Atkinson, Wis.

Position as manager on dairy or stock farm. Agricultural training, 25 years' practical experience. Expert in official testing, raising calves and pigs, and feeding for profit. Swedish nationality. Married. BOX 294, care Hoard's Dairyman.

Wanted—Position by middle aged lady to take charge of a boarding house on a stock farm or as housekeeper. Reference. Address BOX 299, care Hoard's Dairyman.

Position Wanted—By a thoroughly proficient general farm and private estate manager of proven ability and exceptional record. Present position includes successful management of one of the most extensive and prominent private estates in Ohio. Well qualified in construction, improvements, reclamation of soils and animals. Address BOX 302, care Hoard's Dairyman. 17-2

Married man wants position March first on large stock or dairy farm as working superintendent. Understand tractors, milking machine, handling of men and teams. What can you offer? Address BOX 300, care Hoard's Dairyman.

Ayrshire Two-year-old Leads Roll of Honor

The Roll of Honor records authorized at the last meeting of the Ayrshire Breeders' Association call for production and reproduction.

To qualify for Roll of Honor a cow must conform to all the requirements for her class in the Advanced Registry in a period of 300 days from and after day of entry instead of a year, and in addition must produce a living calf which she has carried for at least 180 days during the period.

The following cows have made the Roll of Honor:

Days in milk	Name	Days carried calf	Milk Lbs.	Fat Lbs.	Owner
300	Snowflake Auchenbrain	238	12,038	445.45	A. H. Higginson
300	Auchenbrain Favorite Beauty	188	11,730	467.85	Penshurst Farm
265	Finlayston Mable	201	10,605	413.78	Penshurst Farm
254	Princess Thelma	191	11,614	431.07	Penshurst Farm
300	Ryanogue Lady Peggy	216	13,058	534.50	Wendover Farm
300	Barkely's Flossy	209	8,566	328.24	Penshurst Farm
300	Beauty's Lady White	191	7,548	354.56	Friends Hospital
300	Netherton Crafty 5th	208	10,813	425.55	Penshurst Farm

C. H. JOHNSON, Vermont.

New Co-operative Creamery in Vermont

HOARD'S DAIRYMAN:— The farmers around Holland, Vt., are nearly ready for business in their new co-operative creamery plant. They completed their organization in July and since that time have been getting equipment together and looking for a manager. This organization was fortunate in being able to purchase a new creamery building at a reasonable price. Some of the equipment was purchased second hand at a low figure. Everything considered, these farmers have been very fortunate. It is expected that the equipment will be in place so that operations can soon begin.

This organization is a truly co-operative organization. Each shareholder has subscribed for stock to the amount of at least $5 per cow and any new patrons who deliver their products to the creamery when it begins operation, will be required to take out stock to the amount of at least $5 per cow and pay down one-half of this amount in cash, the remainder to be taken out of the cream checks at the rate of two cents per pound on butterfat until the stock is fully paid up. This is absolutely sound business for a co-operative organization.

This is the second co-operative creamery that has been organized this year through the efforts of the county agent. The farmers in these communities are beginning to realize that the Orleans County Agricultural Association can be of real benefit to them if they will make use of it.

C. H. JOHNSON.
Co. Agent.

Milk and Sugar

HOARD'S DAIRYMAN:—The annual consumption of sugar in the United States has in recent times amounted to about 90 lbs. per head of the population. At the present time there is a shortage and the allowance must be cut to a much smaller figure. This sugar deficit is due to two main factors—a decrease in production and a lack of transportation facilities.

Fom a nutritional standpoint sugar is not an absolute necessity as its main function when taken into the body is to provide energy and this duty can conveniently be performed by the starch and other carbohydrates in cereals and similar products. The main reason for the consumption of sugar is its flavor and consequent appetizing properties.

Many substitutes for cane and beet sugar have been offered, including the use of honey, syrup, molasses, fruits, and fruit juices. These serve a useful purpose, but one important factor—the consumption of more milk—has not received the attention to which it is entitled.

Milk contains about 5% of a sugar known as lactose or milk sugar, and though it is not as sweet to the taste it is quite as valuable for nutritive purposes as is cane sugar. The present government allowance of sugar for home use is 2 lbs. per person per month and this amount can also be supplied by a rather limited consumption of milk. Thirty quarts of milk contain three and a quarter pounds of milk sugar and consequently the consumption of from one to two pints per day forms an economical, wholesome, and convenient method of supplementing the government allowance of sugar.

A. C. MCCANDLISH.
Iowa College of Agriculture.

DAIRY MARKETS

CHICAGO, Ill., Nov. 7—Butter—Creamery, extras, 59½c; standard, 58@58¾c; dairy, firsts, 55@59c; seconds, 52@54½c.

Eggs—Ordinary, 54½@56c; firsts, 57@57½c.

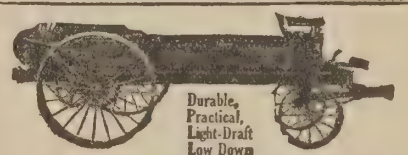
Cheese—Twins, 32½@33c; Young Americas, 34@34½c.

Pine Grove Dairy Farm Holsteins

My dairy of 80 High Grade producing Holsteins are bred to a pure-bred sire and will freshen before Dec. I will crate and ship these calves for $15 when 1 week old or will keep until older for $2.50 per week. This is your chance to improve your dairy with some well bred calves.
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Spreads all kinds of barn manure, fertilizer, lime *evenly, quickly,* with least draft. The only Spreader that has the special graded, self-sharpening

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Indestructible; teeth are bolted to bars. Shreds in wide uniform strips. Does not clog or bunch manure.

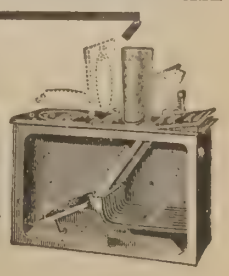
Write for Catalog and Prices. Ask for valuable article on "Saving and Application of Manure" by the inventor of the manure spreader.

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Down draft sends heat down from fire, heating water in tank, not outside air. **Heats one inch of water.** Holds fire 24 hours. Sparks can't escape.

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all ashes quickly removed without disturbing fire or grate. Feed cooker on lid. Absolutely leak proof because built of 16 gauge iron with welded seams. Clean—easily operated. Burns wood, coal, cobs, trash, anything. **Guaranteed.** If not sold by your dealer, write for literature and prices.

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When you invest in a manure spreader you are buying an implement that ought to be the most profitable machine on your farm. It will be, if you profit by the experience of others and choose the machine that has stood the test of time. Buy the original, the machine which revolutionized old-fashioned methods, which has always been the leader in quality, in sales and in improvements. This machine is the

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Registered U.S.Pat.Off.

Lowdown, light draft. Loads and pulls without undue strain on man or team. Has solid bottom with chain conveyors. Pulverizes thoroughly and spreads evenly. 5 to 7 ft. wide. Spreads from 3 to 15 loads per acre, at your option, by merely shifting a lever. Drives with heavy sprocket chain—no gears.

See the "New Idea" at your dealer's. Don't wait for him to see you as he is probably short of help. Insist on the "New Idea," and don't buy regrets by taking some other machine. If you don't know who sells the "New Idea," write us and we will give you his name. Get our Book—"Helping Mother Nature," which gives much new information about manure and soil fertility. (2)

We have found your Spreader to be most satisfactory. The light team, weighing only about 2000, handles it on practically all the farms.

The evenness and strength of the growth after top-dressing with your machine, shows it is a tool no farmer can afford to be without if he wants results. J. H. McCLUER.

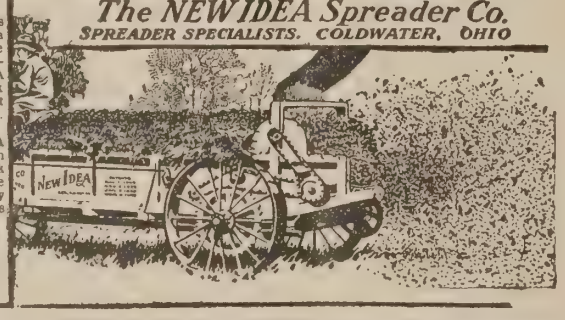
Two years ago I bought one of your spreaders, last year I got a second one.

A good Manure Spreader is one of the best paying tools a man can have on a farm. We spread lime as well as manure with our NEW IDEA Spreaders. Would not think of running my farms without them. A. S. WELCH.

I have used your NEW IDEA Spreader for five years. Am so well pleased with the work it does, that I would not have any other. Has cost me only 30c for repairs and that was caused by my own neglect. P. I. WORTHINGTON

Original letters on file. Addresses upon request.

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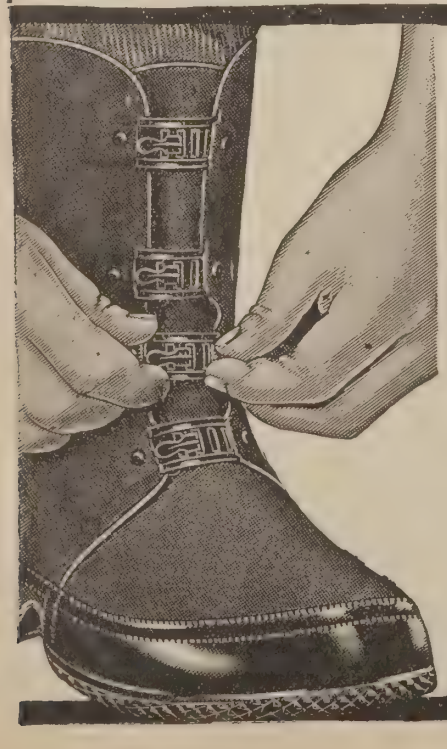
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Keep your feet and legs dry and warm. Protect your high-priced leather shoes by wearing "Ball-Band" Rubber Footwear. See that every member of your family is supplied. Ten million people wear "Ball-Band." Sixty thousand dealers sell it.

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W.S.S.
WAR SAVINGS STAMPS
ISSUED BY THE
UNITED STATES
GOVERNMENT

Story of a Co-operative Milk Plant

(Continued from first page.)

have to ship milk on our own account. With the three thousand all expenses were met from the treasury and a small balance remained.

While these events absorbed attention, someone had to be thinking about selling milk. It was said that no milk could be sold. It was found, however, that several concerns wanted milk. We were fortunate in entering the field at the opportune moment, and in having the headquarters of the League with us in organization and in selling. Of the various concerns that wanted milk, the Borden Dairy Products Company seemed to us to be the most desirable. They would take all of the milk from our two hundred farmers and contract to take it for six months at League prices, although the price had not been set beyond two months. The League would endorse the deal. The Bordens would install a pasteurizer and ship pasteurized milk, which would be of advantage to us at that season of the year. In addition to this we had too much to do on our farms to try to handle the plant ourselves, besides we lacked experience. The company would pay us a rental for use of the plant of $150 a month and we could rent the house for twenty more. We figured that we could meet expenses and pay a fair dividend to the stockholders from the start, and so the property was rented. It took a load off our shoulders and by the time the six months is out we may be more ready to conduct the creamery ourselves, particularly if we can contract the milk for a year with some good concern like the Bordens.

It is customary to allow fifteen to eighteen cents a can for handling at the creamery. If we average four hundred cans a day, and we will do better than that, we would get a substantial income in handling the business. It seems likely that we will do the best that way when we come to be fully ready for it.

We feel mightily encouraged on one point and that is the loyalty of our League members. Ninety-six would be taken on by the old concern that had caused us the trouble and that proposed to break up our organization. I do not think they are getting a half dozen. One funny thing about it all is the fact that now we have our plant and a market for our milk, the old concern has suddenly found out that they want milk too. They are begging for it and offering a bonus besides, I am told, but it is doubtful if they will win back our members and certainly not our confidence. They played a boy caper and no one can regret that they failed in their attack upon us.

Someone has observed that it requires a catastrophy or a calamity to bring about needed reforms. Be that as it may it is pretty certain that if the farmers who purchased the creamery on short notice, and so far as the general majority is concerned did it with comparative ease, nothing of the kind would have been done had not the creamery company in effect compelled it. Had there appeared a fair market for the milk prior to the purchase of the plant these farmers would have taken the market rather than the creamery. It is usually so. The question that comes to mind is how can such things be avoided. So far as I see they cannot be avoided. There are usually a few who see that some avenue of safety is needed long before it is possible to get any action started to provide something, but in most cases these are powerless to secure action on the part of the many.

In this case some initiative had been taken and this was wise. Something of the sort may be possible in

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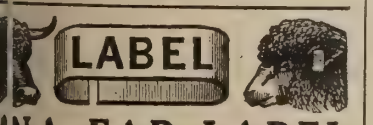
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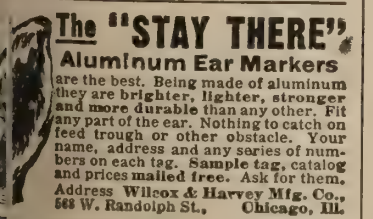
















other communities even where not enough interest is taken to buy or build a plant. Last fall I wrote for Hoard's Dairyman a description of what we did in the way of buying a piece of property that was situated nicely for a creamery plant and was worth all we paid for it whether we should build or not. We then went at it and incorporated with a moderate capital and called in forty per cent of the subscriptions. In this way we were somewhat prepared when we had to do more. We had the organization and there was the sixty per cent of the subscriptions that might be called for at any time; besides, we had a property that might be sold or mortgaged if necessary. All this helped when we went at the new proposition described above. I would suggest to any community where there is some intention of owning a creamery sometime that an organization be formed if possible. Some property might be acquired and used for some purpose in most localities. About all that there is to do is to get ready as far as conditions will permit. It is small use to go further than sentiment of the community will uphold, and it is sometimes necessary to create sentiment. It cannot be done by force. Sentiment here was created by the pinching method that the milk dealers proposed to exert. It was ample and they did the farmers a service without so intending, and against the wishes of the community.

"Which Milking Machine is Best?"

(Continued from page 547)

best machine for that herd.

Without such understanding, advice as to which is the best milking machine is of no certain value.

The above is said as a summary reply to the many inquiries received by me from readers of Hoard's Dairyman since my articles on milking machines were published in this valuable dairy farm journal.

Another Langwater Guernsey Makes Notable Record

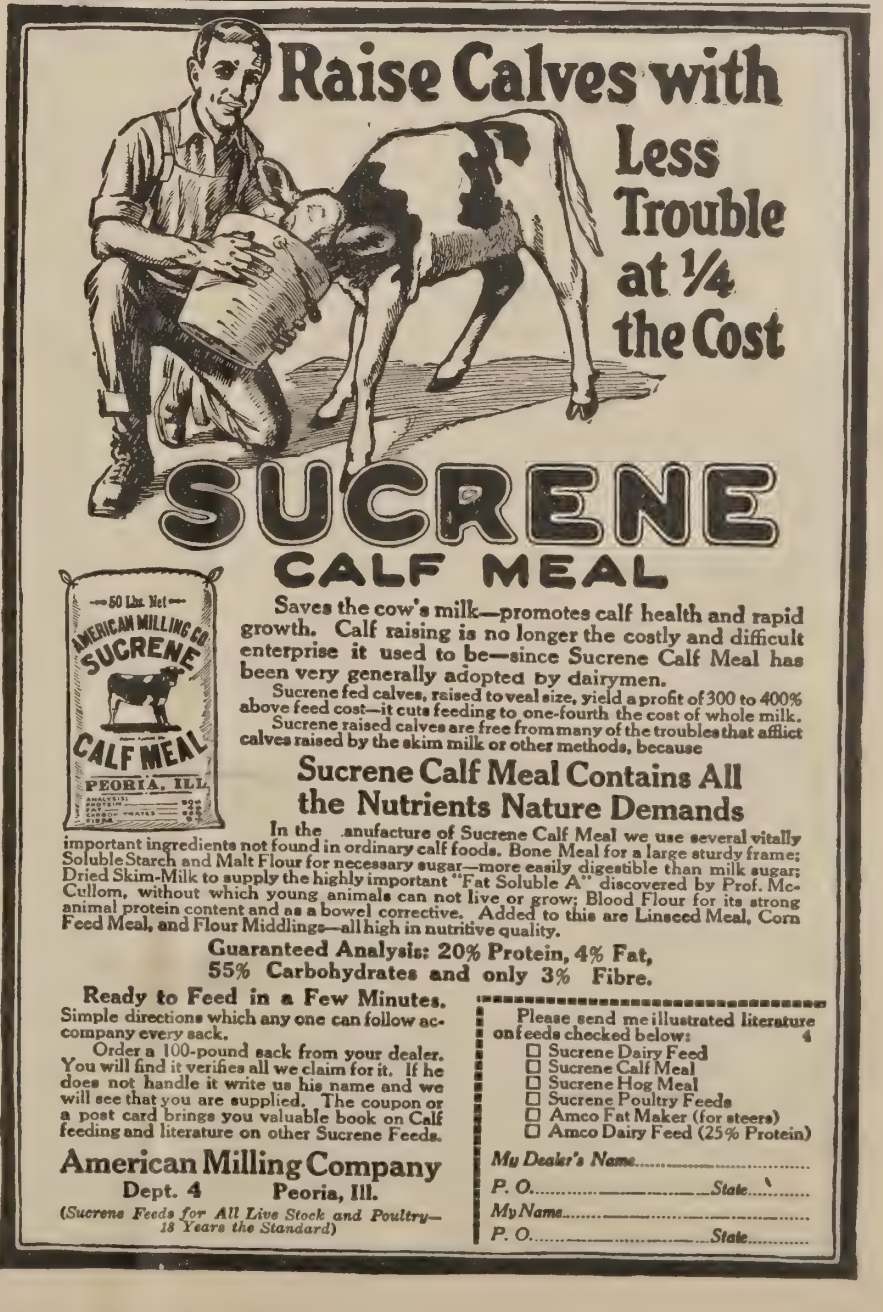
Langwater Heroine 49483, owned by F. L. Ames, Massachusetts, recently completed a record of 16,221.1 lbs. milk and 805.64 lbs. fat, at the age of three and one-half years. This record has been exceeded by only two Guernseys in this division, Azucena's Pride 2d 24957 and Governor's Pauline 30472, and places Langwater Heroine 49483 in third place in Class D.

Langwater Heroine 49483 has a previous record made in Class G of 12363.9 lbs. of milk and 612.34 lbs. fat. She finished her first record on April 13, 1917, and calved again on July 12, 1917.

She is one of the last daughters of Imp. King of the May 9001 that has twenty-six daughters in the Advanced Register whose average production is 606 lbs. fat. Her dam is Langwater Hayes Rosie 24200 that has Advanced Register records of 453.16, 556.56, and 645.50 lbs. fat in Classes G, D, and A, respectively. She in turn is a daughter of Imp. Hayes Rosie 15476, one of the first cows to be tested for the Advanced Register, and produced 714.31 lbs. fat.

Langwater Heroine 49483 is a full sister to Langwater Hayes Rosie's King of the May 16723 that has eleven Advanced Register daughters whose average production is 528 lbs. fat. She is descended from an exceptional strain of producers and her owners believe she will soon equal the performance of her half-sister, Langwater Hope 27946, that produced in one year 1,003 lbs. fat.—AMERICAN GUERNSEY CATTLE CLUB.





For Style, Fit and Wear buy
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For all the Family
Ask your dealer for Mayer Shoes. Look for the trade-mark on the sole.
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MILWAUKEE Mayer CUSTOM MADE
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AT LAST—the light of lights! A lantern that lights with common matches just like the old style oil lantern, but makes and burns its own gas from common gasoline, giving a brilliant, steady, white light of 300 candle power.
Most Brilliant Light Made
Brighter than the brightest electric bulb. More light than 20 oil lanterns. Cheapest and best light made. Costs less than one-third of a cent per hour. Safer than the safest oil lantern. The
Coleman Quick-Lite
No wicks to trim—No globes to wash. No dirt or grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger if tipped over. Guaranteed Five Years—will last a lifetime.
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The original chemical closet. More comfortable, healthful, convenient. Takes the place of all outdoor toilets, where germs breed. Be ready for the long, cold winter. Have a warm, sanitary, comfortable, odorless toilet right in the house anywhere you want it. Don't go out in the cold. A boon to invalids.
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The germs are killed by a chemical in water in the container. Empty once a month as easy as ashes. Closet guaranteed. Thirty days' trial. Ask for catalog and price.
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VETERINARY

Advice is given free in this department. Inquires must be signed by the writer, and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Depraved Appetite

Lately our milch cows have been eating and chewing old bones. I have thought that there was some necessary food that they need and which they are not getting. All that they have had to eat is oat stubble and timothy hay and what salt they need.

Wilson Creek, Wash. R. McD.

Semi-starvation is the cause in the cases mentioned and depraved appetite probably will subside after the cows have been generously fed a balanced ration for some time. Wheat bran should be freely supplied as one ingredient of the ration. In some instances the addition of bone meal or precipitated phosphate of lime is necessary to supply the lacking element in the feed.

Abortion

I have a Jersey cow that drops her calves. She dropped two and then gave birth to a matured calf and now she slinks again. Can I do anything to prevent it? Should she be bred right away or have a rest? Being a Jersey she is worth but little to fatten for beef.

Calhan, Colo. W. A. P.

Do not breed the cow sooner than six months from date of aborting. If you have only the one cow, we should advise you to let her go to the butcher and buy a new, healthy cow. If you prefer to treat her, have her womb cleaned by a veterinarian, then syringe out her vagina every other day for ten days with lukewarm water containing one teaspoonful of coal tar disinfectant to the quart and again, do this daily for two or three weeks before she is bred.

Barrenness

We shall be pleased to have you advise us with reference to the breeding of dairy cows. We have bred some cows as much as eight times and we can not get them to calve.

Wauwatosa, Wis. P. F.

Contagious abortion disease usually is present in such cases and the cows should be treated accordingly. See recent answers on barrenness and also abortion.

Feed Regulations in Great Britain

The effect of war on agriculture in Great Britain, is strikingly shown by regulations now in force affecting feeds and bedding. Among restrictions of unusual interest are the following:

The use of straw for bedding purposes is forbidden. Oat straw in particular may be used only for feeding purposes.

All persons owning horses entitled to limited supplies of hay, straw, chaff, and cereal feeding stuffs, must keep records showing the number and class of horses, and full facts regarding source, kind, and amount of feed used.

The occupier of an agricultural holding may not sell or part with the possession of any horse which is used or capable of being used, for the cultivation of the holding, except with the authority of a license.

When it is realized that these orders are necessary war measures, the importance of voluntary feed conservation in the United States is apparent. The U. S. Food Administration especially asks for elimination of all feed waste, and utilization of farm by-products to which little attention may have been paid in former years. During the year ending July 1, 1919, we must export 2,700,000 tons of feed grains (mostly army oats) overseas. This amount is 750,000 tons more than last year and must come from our present supplies.—U. S. Food Administration.

Clean Out Abortion
From Your Herd
IT CAN BE DONE BY THE PERSISTENT USE OF
Hood Farm Abortion Remedy
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Hundreds of breeders have saved valuable cows and their calves by giving the Abortion Remedy promptly and freely on the first sign of abortion.
This Remedy strengthens the weak parts and helps hold the foetus. Its success has been remarkable.
Injection with Hood Farm Breeding Powder every day for 21 days before service, then every day for 21 days after service, destroys abortion germs, disinfects the organs and keeps cows in a normal, healthy breeding condition.
PRICES: Abortion Remedy, prepaid, $1.25, $2.75 and $9. Breeding Powder, prepaid, $1.15, $2.75 and $5. Injection Tube, by mail, 90 cents. One medium Breeding Powder, one medium Abortion Remedy, one Tube, prepaid, $5.75.
Write for full information. Mention this paper.
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WHITE SCOURS
BLACKLEG
Your Veterinarian can stamp them out with Cutter's Anti-Calf Scour Serum and Cutter's Germ Free Blackleg Filtrate and Aggressin, or Cutter's Blackleg Pills.
Ask him about them. If he hasn't our literature, write to us for information on these products.
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"The Laboratory That Knows How"

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THE AMERICAN JERSEY CATTLE CLUB, 351 West 23rd St., New York City

RED POLLED

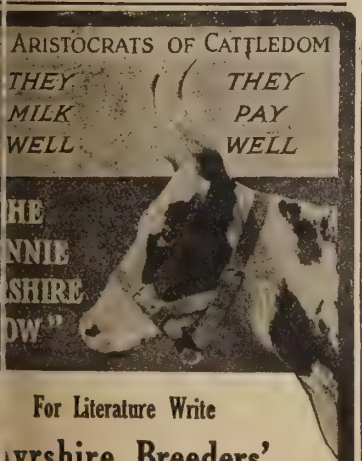
Closing Out of Red Poll Herd

ting of Herd Bull, seven years old; four d six heifers, all bred; one two-year-old , two heifer calves, one bull calf. Selling room for Holsteins.
AND COUNTY ASYLUM FARM, . W. Snyder, Supt., Richland Center, Wis.

August and September RED POLLED OFFERING

head of splendid females—
head of extra well bred bulls—
ighters of Proctor Knott IV and y's Best included. Write for list just off the press.
DU LUTH FARM NO. 2, Nickerson, Minn.

AYRSHIRES



For Literature Write
Ayrshire Breeders' Association
Park Street, Brandon, Vermont.



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

ESTMONT FARM AYRSHIRES

red in several choice bull calves. Handnarked, nearly all white, from tested Advanced Registry. "Finlayston" and s Best of Bargenoch" breeding. Head d with these splendid animals at reasones. W. H. Druckemiller, Sunbury, Pa.

lgewood Farms

WM. FRAZIER HARRISON.
Breeders of Registered
ercheron Horses, Ayrshire Cattle, hire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Stock For Sale. Personal Inspection Invited.
ND, MONTGOMERY COUNTY, PA.
ne, Ogontz 575, Arthur H. Walker, Mgr.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicohn. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle.

JERSEYS

Please Remember That

Jersey Crest Farms are in a position to furnish you with either matured bulls or bull calves, from heavy producing dams and sired by bulls whose records are a credit to the breed.

Not only are these calves and bulls bred from high producing families but they are properly grown. In the first place, our Herd is absolutely free from all contagious diseases, have never had a case of tuberculosis or abortion in our herd. Calves get their skimmilk until they are at least a year old, plenty of grain and clover hay. A good start in life means Success in the future, with both health and strength combined.

When you are looking for beauty, look for it in the offspring of the Jersey Crest Farms Herd. Visitors always welcome.
Jersey Crest Farms, Oconto Falls, Wis.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917
Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.
CHAS. A. PETERSON, Rosendale, Wis.

HEIFER FOR SALE



A daughter of Trials Noble of Oakland who was grand champion at Wisconsin State fair 1918. His dam has a R. of M. record of 563 lbs. butter. The dam of this heifer May of Oak Grove has a R. of M. record of 334.41 lbs. butter as a 2-year-old, advance test 6.2%. Heifer was dropped April 22, 1917, is solid color, black tongue and switch and is bred to a R. of M. son of Eagle's Chief.
Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order.
Ashland Farm Dairy, Inc.
ALTON PARK, TENN.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

IROQUOIS FARM
AYRSHIRES

gh production animals of the best milking and prize winning strains of Scotland, Canand the United States. A few bull Calves for sale.
A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

DISPERSAL SALE

of Entire Herd of

40 Registered Jerseys 40

30 High Grade Jerseys 30

Wednesday, Nov. 27th, '18

Be sure and attend this sale as it is located just outside of the dairy district, and you can buy these Wonderful High Producing cows at the right prices. Sale under cover. Write for catalogue. Auto meets all trains.

G. H. CARTER, FREEPORT, ILLINOIS.
Edgar C. Eeels, Auctioneer.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

For Sale: Carload Registered Jersey Females

Because we are over stocked we are offering for sale a carload of excellent Jersey cows and heifers, some fresh, the remainder due to freshen from time to time throughout the year. 15 of them daughters of "The Warden", a Tormentor-Eminent bred bull from a R. M. dam and himself with 33 daughters in the Register of Merit. 10 of them sired by "Pogiwarno", he a son of Pogis 75th of Hood Farm and from Lass 49th of Hood Farm with 488 lbs. fat to her credit in Class AA.

A part of these females are now in the Register of Merit. All are bred for production and individuality.

This is an exceptional opportunity. Write us at once or better still come and see what we are offering.
BRONDALE FARM, EAST HARDWICK, VERMONT.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

Sophie's Tormentor JERSEYS

"Production" our Watchword.
FOR SALE—BULL CALF No. 257, dropped May 22, 1918; solid color, black tongue and switch; an excellent individual.
SIRE: Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. butter 85% fat, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM: Varna 333660, in the R. O. M., Class AA—546.29 lbs. 85% butter in 1 year from 8,160.3 lbs. milk, at 2 yrs. 3 mos. old. A daughter of the famous Hood Farm Torono 35th 99265.
FAIRVIEW FARMS, Inc.
R. L. Pike, Gen'l Manager, Geneva, Ohio.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohoi.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale
Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

JERSEY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write,
G. D. GILBERT, Lake Geneva, Wisconsin.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

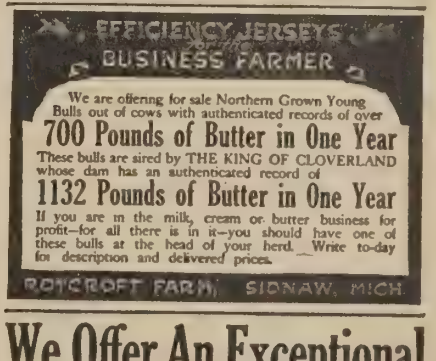
REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.



We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

Prairiedale Holstein Dispersion

The dispersion of the Prairiedale herd of registered Holsteins at Dixon, Ill., October 3, furnishes abundant proof that there is an excellent demand for good Holsteins.

This was in several respects an unusually good herd. Established in 1903, a milk record for every cow had been kept since that time and for the past 4 years the herd had averaged over 10,000 lbs. per cow per year,—a remarkably good showing. Nor was official testing overlooked, every cow and heifer in milk had an A. R. O. record.

The fact that the entire herd, 75 animals, sold for $31,980, an average of over $426, shows that the dairy public is in the market for bred-for-production stock and is willing to pay for it.

Johanna DeKol Fairmont Maid, a 28.15-lb. 8-year-old cow, topped the sale at $1,110, going to Bert Irwin, Illinois. Second honors in the price list went to Colantha Creamelle Butterfly, a 4-year-old daughter of Dutchland Creamelle Korndyke Lad, with a 20.15-lb. 2-year-old record. She was purchased by W. R. Angle, Illinois, for $870.

Haeger and Perry did the selling with S. T. Wood in the box.

A complete list of the animals sold, buyers, and prices follows:

C. A. Wilson, Illinois	
Maplecrest Sir DeKol	$595
Jane Harcourt Maid	830
Zerma Belle Hudson	430
Zerma Harcourt Maid	750
Mooseheart Farm, Illinois	
Pauline Ward Mercedes	$390
Princess Ward DeSoto	375
Princess Ward Mercedes	405
Meta Belle Columbus	840
Charles Reed, Illinois	
Meta Belle DeSoto	$500
Johanna Ward Mercedes	310
Princess Harcourt DeSoto	230
Lady Zerma Fairmont Maid	550
Zerma Harcourt Columbus	555
W. R. Angle, Illinois	
Colantha Creamelle Butterfly	$870
Prairiedale Alice DeKol Mercedes	330
E. M. Detweiler, Illinois	
Lady Segis Maid of Prairiedale	$605
Lady DeKol of Prairiedale	445
Zerma Harcourt Columbus 2d	605
Meta Pauline Mercedes	380
Lady Ward Fairmont Maid	405
Segis Maid of Prairiedale	400
Pauline Segis of Prairiedale	425
Princess Segis Columbus	505
Werner Bros., Illinois	
Colantha Johanna Butterfly	$700
Princess Belle Columbus 2d	790
Princess Belle DeSoto 2d	525
Colantha Ward Butterfly	470
Lloyd Ebersole, Illinois	
Lady DeKol Johanna Maid	$375
Prairiedale DeKol Segis	145
Herman Tulberg, Illinois	
Ward Harcourt Columbus	$490
Prairiedale Maid	330
Prairiedale Alice Columbus	345
Peter Eckhardt, Illinois	
Prairiedale Colantha Butterfly	$345
Zerma Pauline Mercedes	825
Chas. Shippert, Illinois	
No. 14½	$115
Prairiedale Sir DeKol Pontiac	110
A. V. Stall, Iowa	
Zerma Belle DeSoto	$830
Prairiedale Sir DeKol Johanna	350
Belle DeSoto of Prairiedale	825
Zerma DeSoto	790
F. H. Schafer, Illinois	
Prairiedale Johanna Butterfly	$345
Bert Irwin, Illinois	
Johanna DeKol Fairmont Maid	$1110
Zerma DeKol Johanna Maid	600
J. C. Wadsworth, Illinois	
Zerma Overlooper	$855
Meta Belle Hudson	800
B. F. Hoover, Illinois	
Calamity Ward Fairmont Maid	$380
Prairiedale Sally Harcourt	300
Prairiedale Fannie Columbus	300
Ira Rutt, Illinois	
Zerma Dekol Fairmont Maid	$600
George Mohrman, Illinois	
No. 35½	$100
Prairiedale Alice DeSoto	305
Bert Fish, Illinois	
Prairiedale Belle DeSoto	$305
Prairiedale Alice Mercedes	275
J. K. Frey, Illinois	
Prairiedale DeKol Maid	$250
Prairiedale Sally Columbus	375
E. H. Whitehouse, Illinois	
Prairiedale Belle Livingston	$330
Prairiedale Belle Columbus	385
E. V. Malthy, Illinois	
Prairiedale Belle DeKol	$400
Rush W. Carroll, Illinois	
Prairiedale Sally Zerma	$255
Charles Broersma, Illinois	
Prairiedale Alice Fairmont	$220
Prairiedale Sally Ward	265
Prairiedale Fannie DeSoto	340
J. H. Ahrens, Illinois	
Prairiedale Sir DeKol Mercedes	$150
E. H. Kirkpatrick, Illinois	
Prairiedale Sally DeKoto	$285
Dan Gilbert, Illinois	
Prairiedale Alice Harcourt	$175
M. R. Hess, Illinois	
Prairiedale Sir Columbus DeKol	$360
A. L. Goodenough, Illinois	
Prairiedale Belle Maid	$350
Prairiedale Belle Meta	330
Countryman & Cox, Illinois	
Prairiedale Sally Hudson	$165
A. Lewis Anderson, Illinois	
Prairiedale Grace Columbus	$225
Wilco Farm, Illinois	
Prairiedale Grace Maid	$150
C. A. Spangle, Illinois	
Prairiedale Sir DeKol Hudson	$215
S. C. Forney, Illinois	
Prairiedale Sir DeKol DeSoto	$130
R. E. Allison, Illinois	
Prairiedale Sir DeKol Fairmont	$210

Edward A. Grombacher is Dead

Mr. Grombacher, who had charge of the Register of Merit Department of the American Jersey Cattle Club from June 15, 1914, to September 29, 1917, died of pneumonia on the 21st of October. He volunteered in the Naval Reserve upon the United States entering the war, but was not called for service until the 29th of September, 1917. After completing his training he sailed for foreign waters about the first of January, 1918, and from that time until his death he served faithfully in one of the hardest branches of the naval service, aboard a submarine-chaser operating in the Mediterranean. He died when his vessel was in Grecian waters, and has been buried in Greece.

Mr. Grombacher was educated at Rutgers Agricultural College, and before coming to the American Jersey Cattle Club was the inspector of test supervisors in the state of New Jersey. He was about twenty-five years old and unmarried.

Barrenness

I have had three heifers in my herd that do not calve. Have you any cure to suggest?
Amagansett, L. I. M. P. H.

As often stated here there is no specific remedy for barrenness and can be none as the causes of the condition are many and different. Some heifers are born barren, some of these are hermaphrodite, as for instance the female if twinned with a male is barren in a majority of cases. In other cases abnormal conditions are present in the vagina, neck of the womb, womb or ovaries, and the exact trouble has to be located and removed, if that proves possible. In many instances infection with the contagious abortion disease is the cause and that requires special treatment with disinfectants. We can only advise you to employ a trained veterinarian to give the special treatment he finds necessary.

Jersey Cattle Notes

For week ending Oct. 25, 1918:
Number of animals registered: Bulls, 137; cows, 362; total, 499. Number of transfers recorded: Bulls, 127; cows, 374; total, 501.

FOR SALE
REGISTERED
Duroc Jersey Boars
$50.00 to $75.00
Will Ship on Approval.
McCanna's Edgewood Stock Farm, Burlington, Wisconsin.

GUERNSEYS

GUERNSEYS
Tabulations made by the U. S. Department of Agriculture show that the average income over cost of feed from one cow that produces 450 lbs. fat is equal to the average income over cost of feed from 20 cows that produce 100 lbs. each. The average of all official Guernsey records is 450 lbs. fat. Learn more about these profitable cows. Ask for our free booklet "The Story of the Guernsey".
The American Guernsey Cattle Club
Box H Peterboro, N. H.

619 POUNDS FAT
is the average of our first nine Advanced Register Records
FALCON'S DON
carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175.
Full particulars and pedigree from
Falcon's Flight Farms, Litchfield, Conn.
N. B.—No contagious abortion in over five years; no tuberculosis.

GRASSLAND FARMS
Offers several exceptionally choice
Young Bulls For Sale
Send For Price List.
Taconic, Litchfield Co., Conn. (C.N.E.R.R.

EDGEMOOR FARM
Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred
May Rose, Gov. of Chene and Glenwood Bull Calves
Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

Pinehurst Guernseys Produce
with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*
E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

SWINE

Cedar Crest Farm Berkshires
Cholera Immune
The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

POLAND CHINAS
THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Hadley
Herd boars and farm boars, open gilts, or shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell us what you want. We can please you. March pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, Wis.

Big Type Poland China Boars Sired by Wonder
a champion boar at Wisconsin Fair. No better breeding. Splendid individuals, wonderful type, good enough to ship any place. Considering breeding and quality priced very reasonable.
BROOKSIDE JERSEY FARM,
ARTHUR ZENZ, - LANCASTER, WIS.

Kilehurst Farm
DUROCS OF QUALITY
We have a limited number of choice Spring Boars and Gilts left. Order now. Prices right. We will satisfy you. Kilehurst Farm, Elwyn F. Bradley, Manager, Momence, Illinois.

Real Herd Boar For Sale
Have decided to sell my great herd boar, BIG BEN H, and will price him right. Also, some good heavy bone, big type Poland China spring boars to offer. All immune. Write at once. F. A. MOREHOUSE Lancaster, Wisconsin

ISLAND **GUERNSEYS** FA
Herd Sires—Bedas May King 11893 Maxim of Linda Vista 42270
24 completed records, all ages, ave 516.09 lbs. fat.
17 of above 24, all ages, every record 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in abov average 10025.2 lbs. milk and 5 lbs. fat.
Bull Calves of this breeding for sale, of cows of correct type and proven pro tion. Correspondence solicited. Inspe invited. Address
ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. M

GUERNSEY - BULLS - CA
PRICES THAT WILL INTEREST YO
"McLERAN OF MINN. WRENSH

IOWANOL GUERNSEYS
Serviceable Bull For S
His Sire is Cherub's Winner, a firs winner at 1915 Iowa and Minnesota fairs and Waterloo Dairy Cattle Congre 1917 Cattle Congress. He is sired b Hayes Cherub, one of the best show b the breed and a consistent winner i 1915, 1916.
Dam: Lady Belle of Arborvitae 9508 lbs. milk, 420 lbs. fat in Class now on retest.
This young bull was born April 16, 1 is well grown and an excellent ind Priced to sell.
Write us for pedigree and price.
Mountain Bros., R. 5, Des Moines

Albamont Guerns
Headed by
Don Diavolo of Linda the Great $10,000 B
Choicest young bulls and several hei sale at reasonable prices.
U. S. Bureau Animal Industry Healt ficate with all animals over 6 mos. old.
J. C. HAARTZ, 10 High St., Boston

UPLAND FARM
Ipswich, Mass.
Offers for sale a Bull Calf dr February 4, 1918.
Sired by—*Langwater Cavalie* 21012. (A Double Grandso Imp. King of the May 9001.)
Dam—Imp. Chywoone Eulali 44538. Record of *10,686.8* lbs. —*558.62* lbs. fat in Class B.
Price and full particulars o quest. F. P. Frazier & Son, W. K. Hepburn, Supt.

Greenway Fa Guernseys
WARE, MASS.
Young bulls of May Rose breeding out cows and cows now on test. Herd tu tested. Prices low.
GEORGE H. TIMMINS, Pro

The Mixter Fa
325 GUERNSEYS 325
Excellent bull calves for sale at exceptio rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS

HILLSWOLD FA
Shrewsbury, Mass.
Registered Guernsey bull calves for sale. Advanced Registry and tuberculin tested. Pr and animals guaranteed to suit. W. A. Clou

RAEMELTON FARM QUALITY BREEDING VALUE GUERNSEYS
Choice Y BULL
Backed by Pr at reasonable
Raemelton Mansfield.

Young Cows, Heifers and
from the greatest prize-winning herd of the breed, at reasonable prices. My catalogue you want, or come and see. L. V. A
Old Homestead Farm, Per

For Sale: Bull Cal
6 to 7 months old. A. R. Dams. Sire son of Dolly Dimple's May King of La
Jericho Guernsey Farm, N. C. Dahl, Owner, South H

Second Semi-Annual Sale OF GUERNSEYS

50 PURE-BREDS AT AUCTION 50

Wednesday, Nov. 20th, 1918

At W. P. Parker's Sale Stables, Moravia, N. Y.

A sale of selected pure-bred young cows and heifers from the best herd districts in Pennsylvania and New York.
An opportunity to select a foundation herd from May Rose and Governor of the Chene breeding.
Every animal over 6 mos. to be tuberculin tested. Write for catalogues.

Parker & Coggshall, Moravia, New York.
A. W. Lawrence, Auct., LeRoy, N. Y.

Remember the Date Nov. 19th, 1918

W. J. Heid's Dispersal Sale

35 REGISTERED GUERNSEYS 35

At Fort Atkinson, Wisconsin

An opportunity to buy the best from a breeder's herd.

A Guernsey Dispersion

At Fort Atkinson, Wis.

Wednesday, Nov. 20th, 1918

On that date I will sell my entire herd of

31 REGISTERED GUERNSEYS

5 of them of milking age either fresh, or due to freshen this fall and during early winter. They represent *production, breeding,* individuality, and health.

RUSH CHAPMAN, - FORT ATKINSON, WIS.

SHKONONG PLACE GUERNSEYS

Bull: Jury of Koshkonong Place
Jewel of Koshkonong Place A. R.
Blossom of Koshkonong Place
714 lbs. fat.

Bulls six to fifteen months old.
action guaranteed with every sale.
HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.
Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in service bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd has been established for 26 years and is one of the oldest in Waukesha County. Write or come and see what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd in the county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted, Mgr

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

HERE'S A REAL BULL

His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. **His Dam** is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. **The Bull** himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.
Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.
Bull calves for sale by him out of cows with good A. R. records.
Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

ELDERWOOD GUERNSEY FARM

offers for sale a nicely marked bull dropped Nov. 2nd, 1917, whose dam, now on test will make over 300 lbs. fat at 2 years and whose grandam has a record of 424 lbs. fat at 4 years and whose great grandam has a record of 484 lbs. fat at 2 years. **Roy Burton, Eagle, Wis.**

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.

W. G. Jamison & Sons, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.

HOMER RUNDELL, LIVINGSTON, WISCONSIN.

Registered Guernsey Bull For Sale

Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golden Secret 52629. Out of a 450-lb. A. R. cow by Golden King of Arcady, a grandson of Imp. Golden Secret 12899.

Price $100. For pedigree and photo write.

FOLLY FARM, LIBERTYVILLE, ILL.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. Now Hat ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows.
Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

One of Our Good Cows

with a record of 579 lbs. fat recently dropped a bull calf whose sire's dam made 721 lbs. fat. Individually this calf and his dam are rather good and indeed a pedigree of the calf shows that his ancestry is mainly the really good kind. Nicely marked and colored. Price here, $150. Pedigree sent on request.

W. R. DUNLOP, Fayetteville, New York.

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grand sons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

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Production
Reproduction
Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.

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8 times more water than Feed



burns KEROSENE

Give hogs warm water, they put on more fat. Proper ration is 8-lbs. of water to 1 of feed. Water **Must Not Be Cold.** Hogs require less feed.

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Keep water at proper temperature at all times,—easily regulated. Patented kerosene lamp. Automatic float valve prevents overflow. Built strong. **Write for Special Farmer Agent's Offer on Hog Waterer and Tank Heater.**

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A strictly high grade wood panel dairy wagon. Ask for free catalog. Terms to suit. Pioneers in dairy wagon building with Sanitary Bottled Milk equipment. Also builders of metal panel enclosed body wagons. No check, split, warp or crack.

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"Kant-Suk" Calf Weaner

LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but absolutely prevents sucking. Extremely easy to put in place. Endorsed by dairymen everywhere. At dealers. Sent Prepaid: Calf size 45c; Cow size 60c.



PAT'D. AUG. 15, 1916



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Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

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HOLSTEINS



Grand Champion at the Sheboygan Co. Calf Club

Sire—Princess Mercedes Piebe Champion, whose dam made 26.39 lbs. as 4-yr.-old and 667.39 lbs. in 1 yr. as 2-yr.-old.

Dam—Huntress Segis Lyons 2d.

First check for $150 gets him.

R. B. MELVIN & SON, Glenbeulah, Wis.



Who Wants This 24-lb. Bull at $150?

Born April, 1918. Sire, Canary Aaggie Homestead, his dam a 22.79-lb. three-year-old, she a daughter of Cloverdale Pietertje Posch, he a large list of A. R. O. daughters.

Dam, Hope Hengerveld 112848. Butter (114 mos.) 24.72. Dam of Hope Hengerveld 2d, at (27 mos.,) 30.22 lbs. butter.

A 30-lb. sister and a show bull as near perfect as it is possible to breed them. The first check of $150 takes him.

YOHN'S STOCK FARM, - WATERTOWN, WISCONSIN.



Walcowis Ollie Hartog 240660.

Sire—Iowana Sir Ollie who is sire of Walcowis Ollie Mooie, state record junior two-year-old for seven and thirty days. He is a son of the famous 31-pound cow, Ollie Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—27 pounds from 624 pounds milk in seven days. Best day's milk, 101.5 pounds. A granddaughter of King of the Pontiacs and first prize winner as a three-year-old at the 1913 National Dairy Show.

Calf is well grown, a very good individual and reasonably priced. Have other younger bulls for sale. Write or come and see us.

Walcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

Pabst Bargains

No. 1—A 32.02-lb. grandson of King Pontiac Champion and Johanna McKinley Segis. This calf's sire is a 38.03-lb. bull that sold for $12,500 and his dam is a most promising young cow, having a Jr. 4-yr.-old record of 32.02 lbs. butter in 7 days.

No. 2—His sire is by King Pontiac Champion and out of Hengerveld Colanthus, the cow that sold for $3,500 at the last National Holstein Sale, and his dam is a 26.07-lb. cow having three very creditable A. R. O. daughters.

Here is a splendid opportunity to line up with the blood of King Pontiac Champion. Write for further particulars.

PABST STOCK FARM
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Pure-bred and Ordinary Live Stock

Write me for dates as I have 95 per cent of all sales in this section of country. Also sell Real Estate at Auction.

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For Sale—Registered Holsteins

We still have left two young bulls, excellent breeding, one about eight months old, the other about eleven mos. old, backed by splendid seven day as well as yearly records. Also four beautiful heifers, two of them about 18 months old, sired by Johanna King Segis the 40-lb. sire and out of a good A. R. O. dam. Another one about thirteen months old, her dam a show cow; sired by a 30-lb. sire. Another one about a year old, granddaughter of the $15,000 Sire. Very classy stuff. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
James McKone, Prop. William Lucia, Mgr.

By 35.43-lb. Sire

No. 1. Born Feb. 1st, 1918. Dam has a record of nearly 22 lbs. of butter 7 days. Best days milk 75 lbs. Bull is extra good individual especially high rump, half and half in color. Price $175.00 delivered. No. 2. Born Feb. 16th, 1918. Dam has 20.20 lbs. at 4 years, second dam has over 25 lbs. 7 days. A little more white than black. Individually he's a dandy. Price $200 delivered. For further particulars and pedigree address

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The Holstein-Friesian Cow is large, strong and vigorous, full of energy and abounding vitality. It is able to turn to best advantage the roughage of the farm, converting it into large quantities of excellent milk for all purposes. She perpetuates herself through strong, healthy calves, and when useless in the dairy fattens readily and makes excellent beef.

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Send for our booklets—they contain much valuable information.

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BULL CALF

Dam's Record (3 yr.) 23.63 lbs.
Sire's Dam's Record 34.56 lbs.
Seven Dams Average 29 lbs.

Calf born April 6th, 1918. Fine individual, beautifully marked. Write for photo and full pedigree. Delivered express prepaid any point in U. S. A. Price $250.00.

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Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

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of high class grades and pure-bred registered Holstein cattle, all ages, males and females; some are fresh, some to freshen soon. Priced for quick sale. For further information and prices write H. H. Wickwire at Laurel, Miss. or write him at Hubbardsville, N. Y.

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The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

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Holstein Bulls

Every dam with an A. R. O. or C. T. A. record. Herd tuberculin tested. Prices right.

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Pure-bred and 15-16 Pure-bred Holstein Heifers

2 and 3 years old. Well marked. 18 head to be fresh soon. Sired by a 30-lb. bull and in calf to a 30-lb. bull. A very choice lot—all my own raising.

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Just fresh and due within a few These cows were selected to furnish milk famous summer hotel which is soon turned into a Government Hospital. Th a very fine lot and will be sold in numb suit the buyer. There are only a few kind in New York State. Wire your Don't wait to correspond.

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Nearly all of our sons and grandsons of ertje Hengerveld Segis are sold. A few 11 months old from high record dams bought yet. Pietertje is the only bull with 100 A. R. O. daughters and 55 son is the best Segis sire living. Prices to su

Susquehanna Farms, Hartwick Seminary

$200.00

Buys a Grandson of King Korndyke Sadie

King Sadie Korndyke Fayne No. 2 born Dec. 18, 1917. A large well g fellow, fine individual, in color la white.

Sire:—King Korndyke Sadie Vale one of the best sons of King Korn Sadie Vale from a 31-lb. 4-yr.-old da ter of the great Sir Veeman Hengerve Dam:—Crescent Cora Fayne. A. R record as a senior 3-yr-old: Butter milk 488.60; butter 30 days 86.18, mil days 1,876.50. She is in my herd at ent and a promising candidate for a record in the future. PLEASANT HILL H

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Best Bulls For the Money

State about amount to be invested, with required. I will describe the best for the a Large number of females to select from, a Highest individuality, large productio type, best udders are characteristics of La Herd. E. A. POWELL, Syracuse,

Soon Ready for Servic

Young Holstein bulls from good Record dams and sired by SPRING KING PONTIAC 6TH. Fourteen of h sixteen two-year-old daughters last wint made better than 20 lbs. of butter in days; a showing never before equaled first two-year-old daughters of any othe These young bulls are nice straight, t desirable animals. We would be glad t you full particulars. You will be su that our prices are so low for so much

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Holstein Heife

325 High grade heifers 1½ to 2½ yea bred to freshen this fall and winter, large, well marked, fine tion.

50 Registered yearling heifers, bea marked, very well bred, good siz condition, extra fine lot.

35 Registered heifers, bred to early this fall, practically all spr now, fine individuals, bred to goo

Positively the best lot of registered an grade heifers ever offered for sale i York State. Buy now before the price ad

J. A. Leach, 203-205 Savings Bank Bldg., Cortla

M. & P. Holst Bull Calves

Sired by a bull whose 10 nearest dams age 29.20 lbs. of butter in 7 days. Price and up. Send for pedigree today.

MARKHAM & PUFFER, - AVON

A Grandson of the Famous $50,00

Here is a show bull, about three-q white, born Sept. 27, 1918. His sire is the best bred sons of the World's Greate

KING SEGIS PONTIAC ALCA

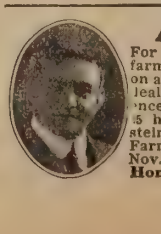
His dam has a junior three-year-old re 22 lbs. butter and 422 lbs. milk. His te est tested dams average 28 lbs. butter, $135. G. G. BURLINGAME, Cazenovi

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25 cows due to freshen soon.
25 bred heifers. Also a few bu

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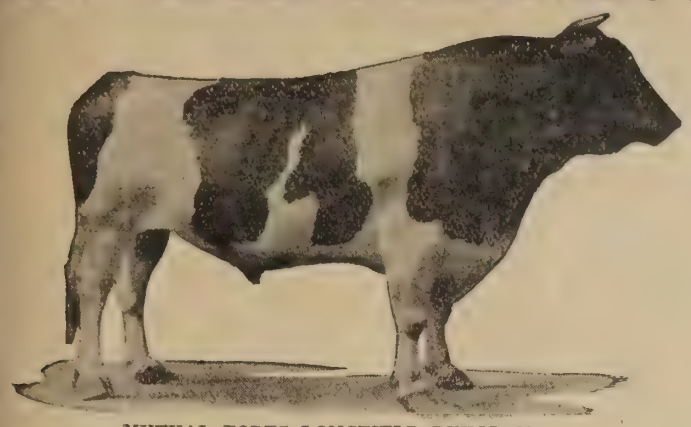
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How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly te, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a ge number of younger ones coming on that will be retained in our herd. His sire ne of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie nestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 8 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his t's sire both being from daughters of Homestead Jr. DeKol, both with records ve 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete rmation about him.

LFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

MAPLE LAWN DAIRY FARM
50 PURE-BRED HOLSTEINS 50

My Herd Sire, RAG APPLE PONTIAC is a bull of high class breeding. He is half brother to the famous $25,000 sire, *Rag Apple Korndyke 8th*, the sire of the $53,200 bull calf, the World's Champion 42-lb. 3½-year-old and the youngest 30-lb. heifer. He derives 43¾% of his blood from the noted Century sire, *Pontiac Korndyke*, the e World's Champion 30-day butter producer and who has more 30, 36, and 40-lb. and 1,000-lb. year-record granddaughters than any other bull. He is a grandson of double century sire, *King of the Pontiacs*, who has more 40, 30, and 20-lb. daughters other bull. He won first prize at the La Crosse, Wis., Fair this year and a daughter of irst at the Wisconsin State Fair.

BOTH MALES AND FEMALES FOR SALE

s of all ages. Some are springers and some are bred to the above sire. Some of the e A. R. O. records up to 27 lbs. in 7 days.

ock is of the most popular breeding, such as Korndyke, Pontiac, Hengerveld DeKol, is, Polkadot.

lves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeKol* andson of *Sarcastic Lad*, the sire that won Championship at the World's Fair—and by *s Pontiac Polkadot 8th*, a grandson of *King Segis Pontiac* and *Johanna McKinley Segis*. t once or come and see me. **W. W. QUACKENBUSH, West Salem, Wisconsin.**

STEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, immediate shipment. Several bulls ready for service.

RNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

RON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

JERSEYS Anything you want in Duroc Jersey Swine.

sold on a 60-day retest guarantee. Write us at once before the best ones go.

EWATER STOCK FARM, Fort Atkinson, Wis.

A Bull That Will Suit You

ed by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna e made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is short and long time records. Individually he's a dandy, nearly half white, just the kind you've been Other young bulls by the same sire and from A. R. O. dams for sale. Write

E STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

T SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to rs old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 d 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot grown and nicely marked. This stock is priced to sell in single or car lots. Also offer stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, us for just what you want in Holsteins or Polands. We can please you. Farm located City Limits. **J. D. McDONALD, WEST SALEM, WISCONSIN.**

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o make room in our barns we a number of cows and heifers acked by large official milk r records. They are bred to SUN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to **ED. M. SCHULTZ, Hartford, Wis.**

veland Herd

Yearling Holstein bull from a 29.08-lb. dam, that gave 100 lbs. milk in a day $109 prize money in one year. Her 6 10-lb. cow. His sire is a 30-lb. grand- $50,000 bull. He is evenly marked, a ght individual and ready for heavy Price $500. If interested send for his **H. R. Weiskopf, Cleveland, Wis.**

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ALL AGES

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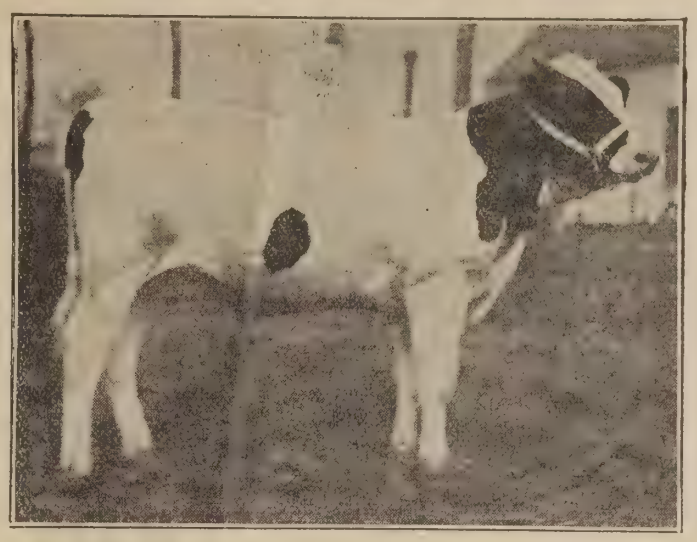
Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

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Sheboygan Falls, Wis.

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The Watertown, Wis. Sale

of 140 Head Registered Holsteins
November 21st and 22nd, '18
is practically a milch cow sale.



A 29.83-LB. GRANDSON OF KING PONTIAC CHAMPION. HIS 4 NEAREST DAMS HAVE YEARLY RECORDS AVERAGING 918 LBS.
CONSIGNED BY PABST STOCK FARMS, OCONOMOWOC, WISCONSIN

100 head of winter milkers, superb individuals, with records up to 30 lbs., bred to some of the very best bulls in the state.

15 choice yearling bulls, with records up to 30 lbs.—all having well balanced pedigrees.

25 heifers from dams with records up to 31 lbs.

These offerings come from the cleanest, oldest and most reputable herds in the state.

To our knowledge we have never sold a tubercular animal. We have an enviable reputation for square dealing to maintain.

Write for catalog and be convinced that Watertown is the place to buy.

WATERTOWN HOLSTEIN SALES CO.
Francis Darcey, Sec'y, Watertown, Wis.

FARM SALE OF
Registered Holsteins

Wednesday, Nov. 20, '18

On the farm 3½ miles south of Lake Mills, 7 miles north of Fort Atkinson, and 5 miles west of Jefferson.

BEN WOLF, Prop.

20 Head of First Class Registered Holsteins of good breeding and well fed and well groomed.

A good two-year-old bull, a son of Uneeda Korndyke Abigail Boy, the 33-lb. sire, and from a 21-lb. 3-yr.-old. A fine individual and just the kind many a man is looking for.

A 22-lb. cow from a 27-lb. dam, also two of her daughters.

A 17.62-lb. 2-yr.-old. A heifer calf from this cow sired by a 34-lb. bull.

Daughters and granddaughters of two 19-lb. cows.

A dandy heifer—granddaughter of a 23-lb. cow and sired by King Superba, a 34.08-lb. sire.

After the Sale of Registered Cattle, 15 grade Holsteins will be sold—12 winter milkers and 3 yearlings.

If desired cattle will be held until after Watertown Sale which follows this sale.

Sale 1 P. M. Sharp. Trains met by appointment.

For catalog apply to

F. H. Everson, Sale Mgr., Lake Mills, Wis.
Col. J. Cook, Auctioneer.

Ormsby Jane King 2nd

Two Nearest Dams Average 35.64

Ready For Service

HERE IS AN OPPORTUNITY for some small breeder to get a sire of exceptionally rich breeding and splendid type at a very reasonable figure.

ORMSBY JANE KING 2nd was a year old June 24th. He carries a straight topline and is nicely marked.

HIS SIRE, ORMSBY JANE KING, is a son of the "Great White Heifer", Ormsby Jane Segis Aaggie, who has a record of 46.33 lbs. butter and 879 lbs. milk in 7 days.

AS A FOUR-YEAR-OLD she broke the world's records by producing 44.42 lbs. in 7 days and 183.16 lbs. in 30 days.

NO OTHER COW IN THE WORLD has ever made two records above 44 lbs.

ORMSBY JANE SEGIS AAGGIE has a three-quarter sister, Ormsby Jane Piebe, with 38 lbs. in 7 days.

ORMSBY JANE KING'S dam and two nearest dams of his sire average 37.16 lbs. butter in 7 days and 147 lbs. in 30 days. Nothing left to be desired on the sire's side of the pedigree, is there?

THE DAM OF ORMSBY Jane King 2nd is Moneta Pietje with a record of 24.95 lbs. butter in 7 days.

SHE IS A SISTER TO Agnes Pietje and Ilmata Pietje, both with seven-day records above 34 lbs. as three-year-olds. Another 3-year-old sister made over 31 lbs.

THE DAM IS SIRED BY Hillside Della Pender Pietje who has three daughters with records from 31 to 34.86 lbs. as three-year-olds and six three-year-olds averaging above 30 lbs.

THE NEXT SIRE IS Woodcrest Pietje with 60 A. R. O. daughters, over half of them having over 20 lbs.

SO YOU SEE both sides of the pedigree are full of great sires and producing dams and besides this Ormsby Jane King 2nd is one of the first grandsons of the "Great White Heifer".

WRITE US TODAY FOR pedigree and full particulars.

The E. C. Schroeder Farms, Box 576-H, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owa'onna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 HOLSTEINS 3

BULLS — **BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.	
No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	All by a 23.3-lb. SIRE
	No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams. For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quali

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters b royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis,

Young Bulls From Yearly Record Da

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official rec 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Sc and other noted herds. These bulls are well marked, heavy bone, straight and large for th We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls,

The Greatest Bull on Ear

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Or

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.



His Six Nearest Dams Average 29.31 Lbs

A beautiful son of KING KORNDYKE SADIE VALE from 26-lb. dam who is a daughter of Prince Segis Kor from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One world's record dam in yearly division. Breeding, size, individuality and price that w your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

HARGROVE & ARNOLD HOLSTEINS

They have the yearly record kind. Dairymen and breeders who want bulls backed by yearly records, and who appreciate the 4% Holstein cow, had better write Hargrove & Arnold Holstein Co., Norwalk, Iowa. They are headquarters for high testing Holsteins, and they have on hand now just a few bulls bred along these lines. Come and see us.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Registered Holstein Cows

Some to freshen soon. Also heifers and heifer calves and bulls. Very fine strain of good breeding. Non-tested dams. Prices right.

HENRY EICHACKER, - AKRON, IOWA.

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

When writing advertisers please mention Hoard's Dairyman.

Bargains in Bulls Ready for Servic

We offer fine individuals closely rel King Segis Pontiac Count and Colantha na Lad from dams of splendid breeding

CERRO GORDO FARMS, Mason C

Service Bull

5 bulls from 1 to 2 years old. One a son tiac Korndyke. One a son of King Segis The others and several not of service grandsons of these two great sires. Als daughter of King of the Pontiacs and Pontiac Korndyke. Priced to sell. W full information.

WM. N. OSBORNE, WANATAH

"NO HORNS"

Naturally Polled Holstein-Friesian bu sired by a son of the **World's Record senior** 1294.7 lbs. butter in 365 days, at $100 and up. D catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Su

Bull Calf, Born Jan. 6,

Sire—Colantha Johannn Champion 45674. 39 daughters. Son of Colantha 4th's Joha lbs. butter in 7 days, 1,247.82 lbs. butter i

Dam—Emblaggard Colantha Mahomet 27987 antha Johanna Champion 45674. Record 2 months, 9 days: Butter, 7 days, 14.67; m butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 11 months. The price of this bull is exceedi We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette,

The Traverse He

This is the chance you have be ing for. We a few, good A. R. O. cows. One with 2 and 110.85 in 30 days. Three others abo Come and see them or write for descrip prices, but *hurry* for they will go quick a few bull calves for sale, the kind you proud to own. Pedigrees and prices c cation. State age desired.

Traverse City State Hospital, Traverse City,

The Pontiac H

"Where the Champions come fr

Offer Bull Calves sired by sons of *Korndyke, Hengerveld DeKol, Pontia land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your her

PONTIAC STATE HOSPITAL, Ponti

Bloomingdale H

...HOLSTEINS...

For twenty-five years have been large production and good individualit Fayne Johanna, the first 50-lb. cow, breeding and made her first 30-lb. rec in our herd. Many of the large produc been bred here. Foundation stock a sp

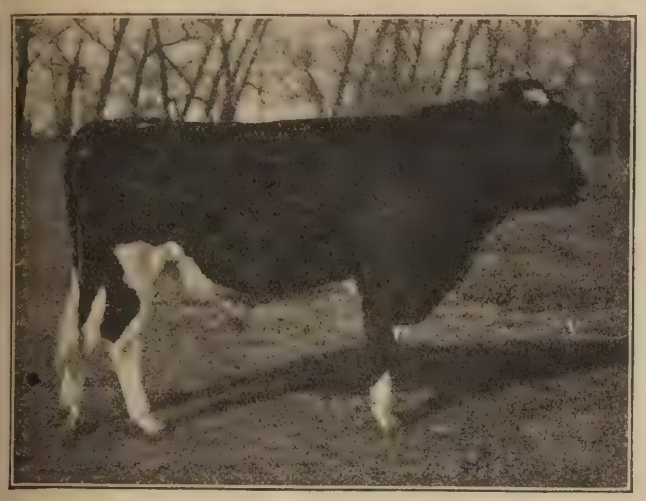
A. A. Courtelyou, Somerville, Nov

Holstein Breeders, Attention! Buy your young, 2 to 6 mos. old, good individuals, nice from A. R. O. dams. Sire: King Segis De Kol whose dam has 7-day A. R. O. butter record His grandsire is the sire of Segis Fayne Jo world's record butter cow for 7 days. 1 servi sale. **C. I. Reamer, North Liberty**

Elliott Brothers Dispersion Sale

WATERLOO, IOWA, DECEMBER 6th, 1918

We Will Sell, Without Reserve, Our Entire Herd of 65 Registered A. R. O. Holsteins.
Six Cows With Records from 30 to 32 lbs. Butter in Seven Days.
A Dozen Sons and Daughters of Cows With Records from 30 to 35.24 Pounds.



KING PIETERTJE ORMSBY PIEBE, AT 16 MOS., THE WORLD RECORD SON OF QUEEN PIEBE MERCEDES, 1,389.45 LBS. BUTTER, 30,230 LBS. MILK, 365 DAYS AT 4 YRS.

He is the only bull whose two nearest dams average over 1,312 lbs. butter or 29,641 lbs. milk in 365 days. Sixteen of his daughters that for production, type and individuality cannot be surpassed. We believe that no breeder ever offered 16 daughters of one sire equal to these.

A 32-lb. cow and her two daughters, one with 31.6 lbs. at 7 yrs., the other 22.98 lbs. 7 days at 26 mos.

(1) Nearly half the offering consists of sons and daughters of, and cows in calf to, KING PIETERTJE ORMSBY PIEBE, THE GREATEST YEARLY RECORD SIRE IN THE WORLD. His dam and sire's dam average 1,312.39 lbs. butter and 29,641 lbs. milk 365 days. This makes him the highest record bull of any breed. Dams of these calves have records up to and over 31 lbs. butter A. R. O.

(2) 16 choice daughters of SIR GERBEN PAULINE, a 33.8-lb. bull. The first two daughters sired by him and the only ones that have yet freshened in mature form, have recently completed A. R. O. records of 34.8 lbs. and 30.54 lbs. butter 7 days at 5 yrs. of age. Several daughters in the sale that we consider still better.

(3) ORMSBY KORNDYKE LAD 7TH, the 3-yr.-old herd sire and a bull of remarkable breeding both for 7-day and 365-day records. His dam, 35.24 lbs. butter and 700 lbs. milk 7 days, is a sister to Woodcrest Dora DeKol. His sire, Ormsby Korndyke Lad, is making a reputation second to no bull in the East with daughters producing above 30 lbs. at 3 and 4 yrs. and making world records in the 365-day and 8 months after calving divisions.

(4) A breeder's sale as everything except the bull and four foundation cows were born on the farm.

(5) Tuberculin tested and sold with a 60-day guarantee. Catalogues ready Nov. 15th.

Catalogues ready Nov. 15th.
R. E. Haeger, Auctioneer.

ELLIOTT BROS., WOODWARD, IOWA

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olstein Cattle
In Carloads or Less

ranging from 6 months to 8 years. Tele-
e, 491 East Troy Exchange.
N MURPHY, R. 27, Eagle, Wisconsin

UNG BULL FOR SALE

m now offering an excellent young bull dropped
ary 27.
s Sire: A son of King Segis Pontiac Polkadot,
nas 100% the same breeding as K. S. P. Alcartra,
from one of the good daughters of Korndyke
ie Paul De Kol. His Dam: Rosa Queen Herbert
l, a 22.5 lb. junior, 4 year-old. This calf is well
n and a remarkably fine individual.
ew other bulls up to 11 months old, and several
es for sale. Every animal guaranteed.
LSEY SEDGWICK, Limeridge, Wis.

Holstein Bull Calves

27-lb. dam at 3 years 4 mos. King of the Pontiacs,
erveld De Kol and Johanna breeding. 19 years
ing and selecting a producing herd. Write or be-
me and see. M. F. Peck & Sons, Marshall, Wis.

IGH GRADE HOLSTEIN

es, either sex, from heavy producers, well
ed, 4 to 6 weeks olds, 15-16ths pure. $25
, cratcd and shipped to your station. Ex-
s and all charges paid here.
land View Place, Whitewater, Wis.

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lstein Bull Calves For Sale

ell bred, well marked, good pedigree; ages
one year down. Farmers' prices.
C. LUSE, SUPERIOR, WISCONSIN.

Cedar Lawn Farms

months old bull sired by Cedar Lawn Champion
ut of a 19.37 lb. daughter of Sir Johanna De Kol. A
did individual ¾ white. Price right.
. SCHROEDER & SONS, West Bend, Wis.

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uffalo Creek Farm

OFFERS A SON OF
ice Hengerveld Fayne No. 77461
lb. son of King Fayne Segis. Dam's record
lbs. as a 2-year-old and 24 lbs. as a 3-year-
with a semi-official record of 13,471 lbs. of
and 520 lbs. of butter. Pedigree and price
equest Albert R. T. Lillie, Supt.,
Arlington Heights, Illinois.

OLSTEIN HEIFERS

nd two year olds. High grade, well marked, from
y producers. 50 head priced right for immediate
Write or come and see them. W. C. Kenyon &
Holstein Stock Farms, Box 71, Elgin, Ill.

Are You Looking



for the husky kind?

Calves that start eating hay at one hour old, pasture and grain, with milk on the side for twelve or fourteen months. Calves from big, healthy cows that are producing milk and more calves every year.

We have that kind.

Young bulls, heifers, and bred females. Herd tuberculin tested for eight years.
ECHO FARM, Menomonie, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

$25 Holsteins $25

We have thousands of satisfied customers and we want you as one. Buy the best. Five weeks old, 15-16 pure, $25 crated. Express paid. C. O. D. Write us for anything in cattle.
Dr. J. A. Roberts Stock Farms, Oconomowoc, Wisconsin.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. FAIRVIEW STOCK FARM,
W. G. Marshall, Prop., Whitewater, Wis.

80—HEAD—80

Complete Dispersal

of two well known herds of Registered Holstein Cattle, Fair Grounds, Owensville, Ohio

Wednesday, Nov. 20, '18

50 Head—Clermont Holstein Breeders Co., Bethel, Ohio—50 Head
30 Head— R. E. Head, Batavia, Ohio —30 Head

Nearly all of milking age have A. R. O. records up to 29.76 lbs. butter in 7 days.

8 semi-officially tested cows, half of them 2 and 3 years old, all but one under full age, records made under ordinary dairy conditions, average 11,819.2 lbs. milk and 494.4 lbs. butter in 328 days. 3 of them Ass'n prize winners.

Daughters of KING SEGIS PONTIAC, granddaughters of KING of the PONTIACS, KING SEGIS.

Grand Champion show herd Ohio State Fair 1918, will be sold.

All females of breeding age except 9 bred to one of the following bulls, both of whom will be sold.

JOHANNA CLOTHILDE CHAMPION 183398, *THE HIGHEST RECORD BULL WISCONSIN EVER PRODUCED.* His dam is the present state champion, 36.36 lbs. butter in 7 days; his sire's dam, COLANTHA 4TH'S JOHANNA, 35.22 lbs.

LORD SEGIS PONTIAC 200253, son of COUNTESS SEGIS, 31.70 lbs., a former WORLD RECORD daughter of KING SEGIS; sire's dam, PONTIAC ARTIS, 31.71 lbs. butter in 7 days, 3 WORLD RECORDS.

OWENSVILLE is 25 miles east of Cincinnati, on C. & C. traction, cars leaving Norwood station at 7 and 9 a. m. It is four miles from BATAVIA where all N. & W. R. R. trains will be met. Sale begins at 10 a. m. under cover. All cattle over six months of age will be tuberculin tested by Federal inspectors and will be sold on 60-day retest guarantee. For catalogues address

R. E. Head, Batavia, O., or Clermont Holstein Breeders Co., Inc., Bethel, Ohio.

Less Weight in the Pistons
Less Wear on the Engine

Shock and vibration—these are two of the most destructive enemies your automobile engine has to withstand.

Overcome either of them, and you increase your engine's efficiency, lengthen its life and have fewer repair bills to pay.

That's one of the many reasons why *Lynite* Pistons have found such favor among motor-car owners.

For *Lynite* Pistons, by reducing piston-weight two-thirds, practically eliminate vibration from a well-designed engine.

The explanation is simple. Thousands of times a minute the pistons travel up and down in the cylinders. As they reach the end of each stroke, they have to be abruptly stopped and sent moving in the opposite direction. The sudden stopping of such a swiftly-traveling object cannot help producing a shock. Multiply these shocks by thousands every minute and you have the reason for vibration.

Constant vibration, besides interfering with the pleasure of your motoring, tends to throw shafts out of line and gears out of mesh; causes bearings to wear unevenly; shakes nuts and bolts loose and produces other more or less serious engine troubles.

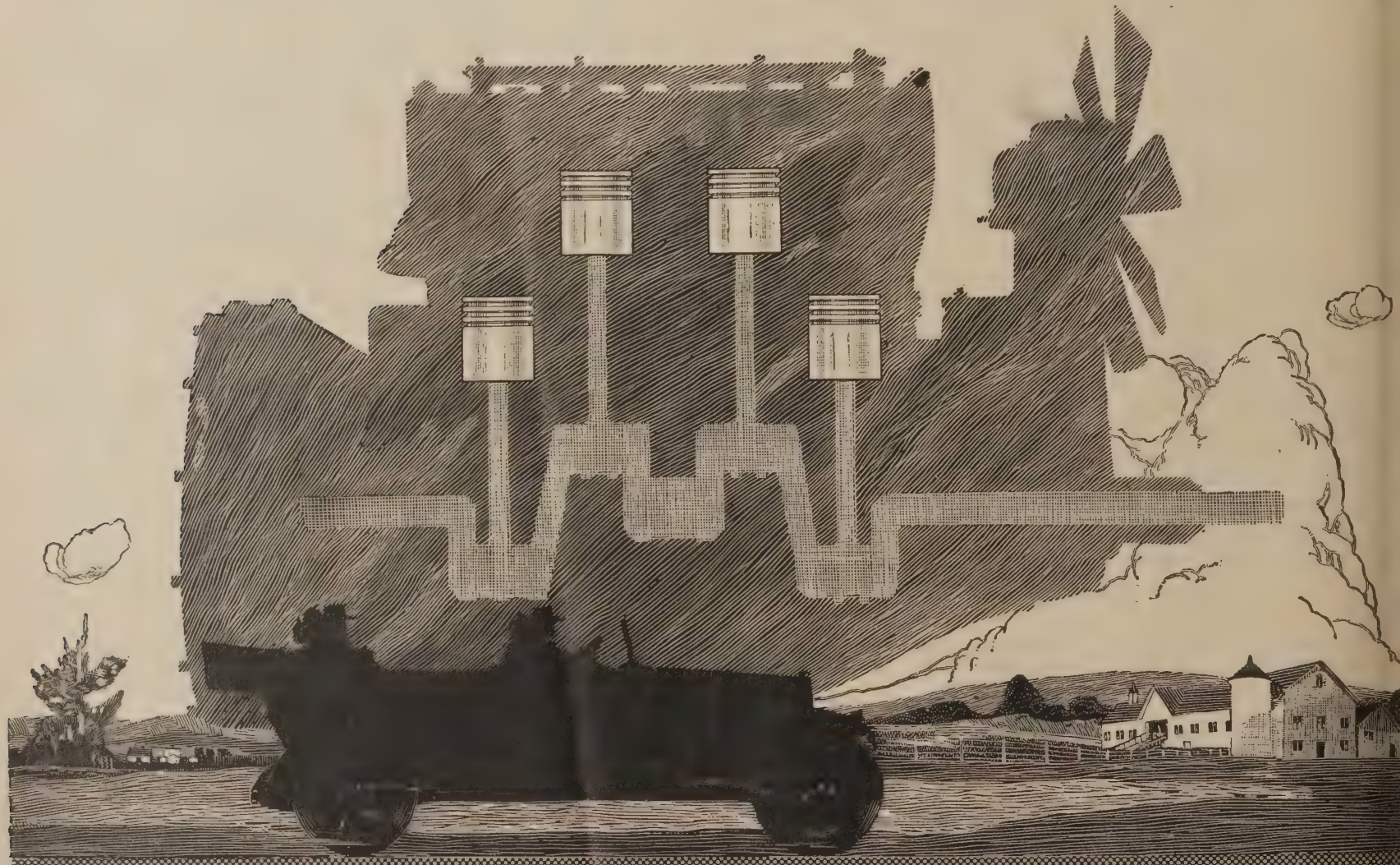
With pistons three times as light as cast-iron, the rapid-fire shocks or blows are virtually freed of their hammering effect—vibration is almost entirely overcome.

If *Lynite* Pistons had no other advantage than this, their adoption by so many automobile builders would be fully justified, but the benefits of their use do not stop here.

Much quicker pickup, greatly reduced carbon deposits and other benefits must be added to get the sum total of *Lynite* Pistons' contribution to longer motor-car life and improved performance.

Send for booklet, "*Lynite* Pistons." It's free.

THE ALUMINUM CASTINGS COMPANY
LYNITE and LYNUX Products
Ten Plants in
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20 JUL 19
COLL OF AIR

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

olume LVI — FORT ATKINSON, WIS., NOVEMBER 22, 1918. — Number 18

'HERE IS THE BRAN?

SANDERS SOSLAND, Missouri

'AT is the height of impossibil-
ty?" inquired a dairyman of his
ooring milk producers, desiring
n from a discussion of peace
ar.

re was an immediate rush of
s to act. "For the kaiser to
around and whip the world",
oosevelt to be re-elected to the
House", "for dairymen to ad-
the price of milk without a cry
ofiteering from the public"—
were among the answers. But
r member of the dairy industry
as present at the
nptu conference
red with empha-
To get a sack of

is a fact that
dairymen find it
, if not entirely,
ible to obtain a
f bran, this ap-
even to some
ien who produced
hels of wheat per

one asked what
ie height of fool-
s, the last dairy-
would doubtless
replied: "When
ago flour millers
e United States
lly dumped their
in the rivers for
of even free dis-
on, and dairy-
oked 'idly on'."

great is the con-
The situation to-
nds dairymen
waiting in long
at flour mills for
e sack of bran,
a little more than
e years ago the
available market
ran and shorts
ie bottom of rivers.

nishment over the mill feed
on continues among farmers
erted every effort to produce a
wheat crop and who harvested
ond largest yield in the history
nation. In the winter wheat
f the Southwest, 555,725,000
s of wheat were produced, in
forthwest spring wheat area
5,000 bushels, making a com-
wheat yield of 918,920,000
s, compared with only 650,828,-
ishels in the preceding crop
So the outstanding question in
iry industry today is: "Where
bran?"

is generally understood that
in the Southwest caused a
reduction in feed crop yields and made pastures unsuitable for grazing; the comparatively low, or better, the artificially low price at which bran and shorts must sell has resulted in a great demand from buyers who never before used the mill offal; also, the heavy exportations of wheat in the raw form from the United States instead of shipping flour from this country—these have continued the most important influences in the acute scarcity of bran and shorts.

Copyright Underwood & Underwood

A SNAPSHOT OF A SAN JOAQUIN VALLEY, CALIFORNIA, DAIRY HERD

Wheat vs Flour Export

In the crop year 1917-18, the United States Food Administration followed a policy of exporting flour to the hungry allies of Europe, allowing only little wheat in the raw form to be shipped from the ports of this country. This, of course, was highly favorable to the milling industry and likewise to the dairy interests of the United States. Millers enjoyed an unlimited demand for flour, and, in comparison with the supply of wheat then in the country, dairy interests were able to obtain a large quantity of bran and shorts. Mr. Hoover, as soon as he was officially appointed to the position of United States Food Administrator, made the statement that a policy of exporting flour instead of wheat would be followed, this course being adopted to insure a plentiful supply of feed for the dairy herds of the country. The feed situation a year ago was not so critical as today, yet the opening of the present crop year witnessed a change of policy as regards exports of breadstuffs from American ports. Government food officials have been permitting an unlimited outgo of wheat in the raw form, and only a very small quantity of flour has moved from this country to Europe on the 1918 crop.

In August, 1918, when the movement of wheat from interior producing points was well under way, almost three times as much of the precious bread grain was shipped from the United States as in the preceding seven-month period of this year. The following tabulation of official figures on the clearances of breadstuffs for export from American ports shows the change in the outgo:

	Wheat, Bus.	Flour, Bbls.
August, 1918	15,119,873	972,470
August, 1917	5,169,649	1,014,649
8 months, 1918	21,169,948	17,469,290
8 months, 1917	88,800,050	7,876,428

The yield of bran and shorts from each bushel of wheat varies, of course, with the test weight of the wheat. However, it is safe to estimate the resultant production of bran and shorts from each bushel of wheat milled at 15.4 pounds. On this extraction basis, there was virtually lost to the live stock producers of the United States 232,846,064 pounds of mill feed in August, 1918, as compared with a loss of less than one-third this amount in the preceding year through exports. When the wheat is shipped in the raw form, the feed production resulting from milling in foreign plants is not returned to this country, as some possibly may believe, but is consumed by the herds of our Allies abroad.

Effect of Flour Market

Of course, when the wheat is milled in American plants and flour is exported to our warring allies in Europe, 68 pounds of feed for each barrel of flour become available for herds of this country. Also, by exporting flour instead of wheat from the United States, a greater outlet is found for the product of American mills, and more active operations of flour plants are witnessed. Now, however, with little flour leaving our ports, and domestic demand diminished by the use of 20 per cent of substitutes in the baking of bread, the market for flour is extremely dull. Many mills have been forced to suspend operations owing to their inability to sell flour. This, it can be seen, cuts a great hole into the available supply of feeds.

Another influence in the shortage of bran and shorts in this country, though only a minor one, is the fact that shipping authorities of the government are packing the great guns manufactured in the United States with bran. No doubt, stock men will marvel at this fact—feeding bran to our great munitions material!—nevertheless, it is true. And why? Heretofore, sawdust has been used in packing the great guns before being placed on ships, but with the shortage of shipping tonnage space, federal authorities discovered that a double purpose might be accomplished by substituting bran for sawdust. Not only does the bran serve the purpose of the sawdust as a packing material, but, after the guns are unpacked in France and England, this feed can be consumed by the live stock herds of those countries, whereas sawdust is a total waste. Peace will check such shipments.

Government Purchases of Bran

The Forage Division of the United

(Continued on page 589)

Hoard's Dairyman

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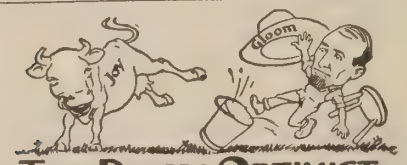
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THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The Boy and the Chance

A successful farmer once said that any man can make a go of it, if he receives enough encouragement at the time when it counts most—during early youth.

And I'm inclined to agree with that statement. I have seen it work out. Over on Hilton Road there is a prosperous dairy farm. The dairyman has three sons. From the very first, these boys were consumed with the idea of streaking it for town. They frankly admitted that the dairy business bored them.

Along came the war and took the two eldest. I heard last week that a message came in an official envelop about one of these lads. His father sort of grew very old in an hour and I haven't seen the mother in the village at all. However that may be, I do know that a great miracle has been suddenly performed on that dairy farm. The youngest of the boys has become another chap—there is a new light in his eyes and a new song in his heart. He was at Millar's Feed Store last evening and I scarcely knew him. His shoulders were back, his head high, and he looked as if he could step into his father's shoes at a moment's notice. Remember—he's just a youngster.

And then I found out. His father has changed from the old days. He had allowed the boy to have more that blood relation interest in the farm. His son had been given the sole responsibility and management of a sizable herd. He was keeping his own books and testing his own milk and cream and keeping his own private records of each month's showing. He even marketed the dairy products himself—and the profits were to be put in the bank in his name.

There isn't much mystery in keeping boys on the farm. Leastwise, that's the way I feel about it. My father, I remember, never thought I could assume such responsibilities. Perhaps it was because I was too near—too intimate with him—it never occurred to my father that I might have inherited some of his talents. And I never got a chance. As a consequence, the big farm did not interest me. I had the feeling that it was very, very far away. I was no factor in its growth or success. True, I worked there and slept there and attended to chores, but it was never impressed upon me that I was indispensable—that Dad couldn't get along without me. What I needed was to have someone who really cared—and that meant my father, of course—sit right down with me and pet me and talk business with me and make out as if he just had to have my personal collaboration—whether he meant it or not. As I think it all over, I am sure that I would have worked my hands to the bone for him, had he put it to me in that way.

But boys, nowadays—even very young boys—are surprisingly receptive to business influences. At eight, they have a great deal of horse sense. At twelve they know more than you can readily see on the surface. If there is one way better than another to bring out the best there is in a lad, it is to stand squarely back of him, believing in him, encouraging him—convincing him that he is a son after his father's heart. That's the material of which success is made.

Is there enough of this very companionship on a great many farms?

Is the other man's son always brighter than your own—at least, do you think of it in that way?

It interested me to talk with this boy from Hilton Road.

"I'm going to surprise some folks around here," said he, "wait a little while. You folks are feeding good butterfat to hogs. That's too expensive."

"Have you a cow?" I inquired.

"I have a whole lot of them," he answered proudly, "my father has gone into partnership with me—or, or rather, I should say,"—and he blushed—"I have gone into partnership with him. I have a herd of my own."

I did not smile—in fact, there was no smile in mind or heart. I could not laugh at this youngster, since I saw, unfolding, a very fine human drama. It was too great a thing to bring humor.

"I thought you wanted to go to town," I continued.

"No—I guess not," said the lad slowly, weighing his words. "Father needs me. And, besides, I like what I'm doing. In three months I'll be able to buy a cream separator of my own and next spring—then I'm going to clear ten acres of land that's full of stumps."

Every ounce of that boy radiated supreme happiness. Nor was there the slightest suggestion of doubt—of uncertainty—no lack of confidence in his own ability to put the thing over.

What wonderful creatures boys are!

And how necessary it is for us to mix loving them with studying them, to see how best to bring out all that is worthy, progressive, inspirational.

Every silo is a fortress that will make it harder for the enemy to win—especially if it's full of ammunition.



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This is no time for "cream slacker" separators or wasteful methods of skimming milk.

With butter-fat at present prices and the Food Administration begging every one to stop waste, "cream slacker" methods of skimming milk must go.

Whether you are trying to get along without any cream separator or using an inferior or partly worn-out machine, you are wasting butter-fat and losing money.

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Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or, if you don't know him, write to the nearest De Laval office as below.

THE DE LAVAL SEPARATOR COMPA

165 Broadway, New York **29 E. Madison St., Chicago.**

Principles in Breeding Pure-breds

LOUIS McLANE MERRYMAN, MARYLAND

The first problem that faces the beginner in the breeding of pure-bred stock is that of founding his herd and the distribution of his money between the male and females. Of course, the best method is to buy the high priced bull and twenty of the best females. These should be all with records of over 500 pounds fat at two years; and good enough to be in the ribbons at the National. Such a herd can be purchased very readily for about $20,000. Next invest about twice this amount in a farm and suitable buildings and you have a nice start. Unfortunately, however, few beginners have so much money to invest in the business and so we must look around for some cheaper method of getting a start in the right direction. When it is possible to do what I have suggested, however, the man who does it is giving a tremendous impetus to the breeding of good stock. The farmers who do so are doing the country a very great service. And the cow who gives twenty really high class cows the opportunity of being mated with the best bull of the breed is doing incalculable good to that herd. Frequently he does not reap the benefit himself; but it is certain that many others will.

The beginner may also go to a sale and buy all the low-priced animals he may buy a bunch of cheap, immature animals. But, in any case, he should then wait until he gets the heifers and, in most cases, the granddaughters of these animals, before he has any really high class animals.

Still another method is to go to some reliable breeder and buy unregistered animals—a hip off or a quarter more gone. If he can get some of these bred to a proven sire this is by far the best method for one who does not thoroughly know pedigrees or individuals. Most breeders are only too glad to help beginners in this way and the buyer may thus get a topper out of the first crop of calves.

Selecting a Sire

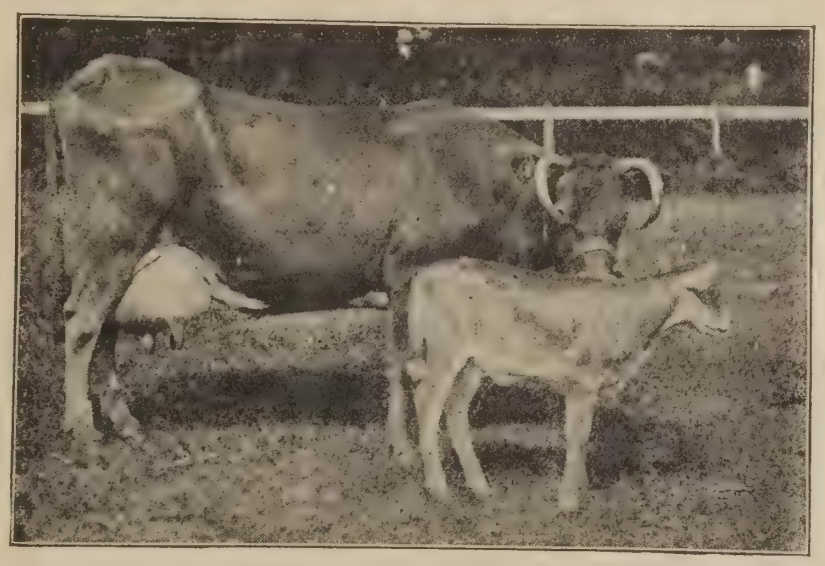
When it comes to the selection of a sire I would advise the beginner to try to get a bull out of the best cow he can, so personally know the cow out of which the bull he is buying came, and under what conditions her record was made. For example, I am using a son of a cow without a record. But she is capable of a very large record, having eaten once only in the show ring, and lived to the age of eighteen.

I also believe that no bull is so bred that he is suitable to be bred to a whole herd of cows. I am using three bulls at present and am raising four more. They are all out of great cows and have some particularly striking characteristic that I wish to perpetuate. For example, again, I have a daughter of Johanna Chene that has a wonderful head and wither and is quality all over. I am saving her son to breed on some cows in the herd that are magnificent big cows with straight backs and good udders, but are decidedly thick over the withers and are short-necked. For the little cows with abundant quality I am saving a fine lusty son of Clare of Poplar Grove 3rd, who was fifth at the National as a fifteen-year-old cow. She made 13,170 pounds of milk and dropped two calves in the year as a 12-year-old cow. The second calf was a 100-pound heifer.

So much for the bull question; and now for the females. Let us return to the original plan of the best. Suppose the beginner knows dairy form or can secure the service of some one who does. There must be in his neighborhood a herd that was founded originally with the best cows and where the best bulls have always been used. Often this is a small herd maintained as a hobby, where no records have been kept, but where inferior animals have always been discarded.



FEBRUARY AND MARCH GUERNSEY CALVES ON GERAR STOCK FARM
OWNED BY LOUIS McL. MERRYMAN, MARYLAND



GUERNSEY COW, MARY JANE OF GERAR
She has a year's record of 494 lbs. fat in Class AA and 697 lbs. fat in Class A. This picture was taken at 14 years of age and with her twelfth calf.
OWNED BY LOUIS McL. MERRYMAN, MARYLAND

Some Personal Experiences in Buying

I know a Jersey herd fifty years old from which heifers can be bought for $100 each. I saw Guernsey heifers bought within the year, from what I consider to be the greatest herd in America, for a like figure. Again, I recently saw some splendid Holsteins by an own brother to one of the most prominent bulls of the breed that had been bought "right". To give a personal example of this sort of buying: When I took our herd in 1913 we had six animals whose value we were just beginning to realize. My grandfather had purchased two heifers and a bull in 1889. My father bought all the subsequent bulls for him. He always tried to get the best. The results of this sort of effort through twenty-four years were just beginning to show. Mr. M. T. Phillips purchased Gerar Pearl from us for $125. He has already sold over $6,000 worth of calves from her and still has two daughters and two granddaughters of this fine cow in his possession. And Fruit Brothers recently refused $8,000 for her second son.

In the neighborhood were several cows of our breeding. I purchased a daughter of one of these cows for $80 as a calf, and subsequently sold her for $2,200. Her sixteen-month-old daughter won the cup as highest priced Guernsey heifer at the Lake Forest sale. At the same time I purchased the Clare of Poplar Grove 3rd family, giving $30 for a heifer out of the old cow. This heifer I called Clare of Gerar. She made 25,000 pounds of milk before she was five years old and dropped three calves—a bull and two heifers. The elder promises 12,500 lbs. of milk at two years and won her class at the recent Maryland State Fair. The pair took first as produce of dam. I can think of many other cases where the result of careful breeding has been realized by others in the game.

I advise every beginner to see if he can realize on the work and thought of others by acquiring animals of really high class that can be bought right, because, as I have before stated, they have not been developed to the highest point. Murne Cowan, the present Guernsey champion, and Jacoba Irene, a former Jersey titleholder, are examples. Neither had immediate ancestors with A. R. records, but both traced to notable animals of the breed. It is evident that their immediate ancestors were inconspicuous rather through lack of opportunity than lack of merit. In fact, Gray's Elegy applies equally as well to the bovine as to the human race: "Full many a flower is born to blush unseen, and waste its sweetness on the desert air."

Having gotten together the best animals one can afford, it must be realized that success depends as much on their care and the raising of their offspring as in the original selection. And, furthermore, having undertaken the guardianship of high class animals which are the result of years of careful thought and judicious expenditure of money, it is the duty of the breeder to see that his herd does not revert to the original cow that produced only enough milk to feed her own calf during six months. Every breeder who, through his criminal neglect or short-sighted niggardliness, allows his animals to go back so that they fail economically to produce the greatest possible quantity of the most valuable of all human foods is giving as much help to the Germans as if he were destroying munition factories.

Handling the Calves

Here at Gerar we have worked out, in a somewhat haphazard way, a system of bringing our animals to maturity. At first the calves were raised in the main barn. This was built originally as a horse barn and was of the large, bank, Pennsylvania type. It worked quite well for a while, but presently increased numbers of stock brought various troubles and then the old barn became a hot-bed of infection. Later, we built a calf barn with accommodations for about thirty calves and six maternity stalls. This has

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GUERNSEYS ON GERAR STOCK FARM, MARYLAND
At the left is Miss Rosedale and her two daughters, Gerar Rosedale and Gerar Rosie. Miss Rosedale, not yet six years old, has dropped five calves. She has an A. R. record of 11,856.8 lbs. milk, 2 lbs. fat which gives her third place in class BB. The two heifers were dropped within ten months of each other and while she was making this record. The eldest daughter of Miss Rose- has a record of 466 lbs. fat begun at 23 months; the youngest two were third as produce of dam at the Maryland State Fair.
At the right is Clare of Gerar, first A. R. cow in class DD, with a record of 13,782.9 lbs. milk, 637.8 lbs. fat. She dropped three calves and made 25,000 lbs. milk containing 1,150 lbs. fat e she was five years old. Her eldest and youngest calves were first as produce of dam at the Maryland Fair and her eldest daughter won in her class and promises 12,500 lbs. milk at two years.

New York Institute Workers Meet

H. H. LYON, NEW YORK

THE annual meeting of New York farm institute workers was held at the state college at Ithaca a few weeks ago and was well attended. During the conference Mr. Robertson discussed questions of marketing. There are various methods of quoting or determining prices,

Market Quotations

but these are rather slow and prices are far from uniform. On the same day prices on cabbages or potatoes may have great variations in different communities. What method can be adopted that will make prices more uniform? Buyers get produce as cheaply as they can. There is sometimes a wide difference in prices in two adjoining towns. The Department of Foods and Markets is willing to include local quotations in its weekly reports. Possibly ten men in a county can, in conjunction with the county agent, secure prices. It is being tried in some way in a few counties. Some method of co-operation might be worked out in which local farmers, possibly dealers, the county agent, the State Foods and Markets, and the National Department of Agriculture may be able to get a more definite knowledge of prices and may inaugurate a better method of distribution of quotations.

Mr. Freman of Ithaca, who is the up-state food administrator of New York, gave some information as to his work. He is one of the best informed food administrators in the country we are told, especially in respect to the farmers' side. He mentioned the market milk situation, and intimated that this has been the worst bungle of the past year. He predicts that something more favorable is likely to be in evidence within a month. He requests dairymen to keep their criticism for the present. He thinks that the League on the one side and the Administration on the other will arrive at something reasonable. Mr. Fre-

Food Administration Talks

man regards the work of the state administrator as accompanied with difficulties. He did not intimate any method of adjusting the milk questions, and there still remains an unsatisfactory outlook. It is best for us to leave the questions to the League for the present. I cannot say that we should express no opinions, for the sentiment of producers ought to be understood.

Professor Babcock spoke on community organization. He called attention to the tendency, especially of older folks, to look back

Farm Bureaus Grow

and say they wish crops and conditions were as when they were young. Mr. Babcock says he got hold of a report of 1849 which contained a statement by a speaker who deplored the then recent changes and expressed the wish that they might get back to the good old days when he was young. In working on community problems, it is best for the county agent to keep in touch with his community members. Many places will ask if they have received adequate benefit from the county bureau. The war will close some time, perhaps soon, and the incentive for liberal spending will be curtailed. There is to be retrenchment, and there is danger that there will be loss of confidence in bureaus. There were 23,000 members of bureaus in the state last year. There are 43,000 this year, and close to sixty thousand are expected for 1919.

Regarding milking machines, the question of keeping down bacterial counts was discussed. Many are keeping their machines in

Milking Machines

good shape with cold water and some sterilizing solution. It seems better to use hot water occasionally and at Genesee it is used twice a week. Cold running water is good. Salt water is all right, but there is a salt bacterium which does not affect milk but which makes counts. Chloride of lime better be added to the salt water. Institute men are likely to recommend milkers this winter, although somewhat guardedly. Their success depends largely upon the operator. The kind of machine is not to be advised, for practically all the machines are successful. It is a question for the individual, but all those who took part in the discussion seemed favorable to them. One man finds that it is profitable for him with only fourteen cows.

Tractors in New York are much more in favor than I had supposed. Some men with steep hillsides and stony land are making a success with tractors. The number of days in spring when oats, for example, may be sown is not very large. A tractor may be profitable because of this and similar reasons. The smaller machines seemed to be preferred on rough land.

The power ditcher, as is to be expected, is more satisfactory on level land free from stones. I was not able to determine that ditchers are at present to be recommended on really stony land. There is considerable discussion on ditchers and the state is doing something with them. I am not sure how many the state owns. They have been ditching for fifty cents a rod if not over three feet deep, but have hardly come out even on that. Next year the cost will be sixty cents for two and one-half feet.

Seed corn in New York is to be short again. There are sections where silage seed may be had for a time,

Seed Corn and Varieties

and there is some flint seed in a few counties. The hardy and early dents are small and do not seem to be advisable in the place of flints. There may be a few sections where some dent corn can be used to advantage, but flint is the standby for the usual conditions of the state. Lucie's Favorite and its relatives are to be recommended for silage. Farmers still claim that they can get more milk per acre of corn by using Eureka or some of its kind, even if the college authorities say there is less value in it. It is to be tried out by the animal husbandry department. Succulence is an important element. For all that, there is only about one-fourth as large a proportion of the large, immature corn grown in New York as was grown five years ago. This was assented to by practically all.

Fertilizers are needed for New York State. Potash has been off the market for some time, but is slowly coming back by the

Fertilizer Needed

new manufacture that is going on. We have evidence that potash will be in supply up to nearly one-fourth that of former years. At the same time it is found that acid phosphate on most New York soils furnished as much value as when used in connection with potash. It seems unnecessary to buy much potash for New York. It is much more difficult to get nitrate, and this substance is to be practically off the market this year. Stable manure and clover are to be the reliance for nitrogen for the present. Lime is needed. There seems to be some disposition to hold back lime either because of shipping or of coal for burning or grinding. There are those in authority who do not understand the usefulness of lime. We come up against agricultural ignorance at every corner.

Even now it is required of a farmer that he will sign an agreement not to use over a ton of lime to the acre, and this seems to apply whether it be burned lime or ground. There is



CERTIFIED MILK DAIRY WHERE BOTTLES ARE FILLED AND CAPPED BY MACHINERY

good deal of formality connected w this and it may be that the use lime will be cut in half unless so thing can be done to relieve the sit tion. What we need is lime and a phosphate. Nitrate, we need also, cannot get much until the war is o With the labor shortage, nitr shortage is felt more seriously, we will have to stand both for present. Lime shortage, it would se ought not to be inflicted if avoidab and it should be avoidable so far we can see. Some agricultural visor to the administration has sta that lime is not needed. This man are told comes out of the national partment of agriculture.

Dr. Warren attacked a stack of s tistics and with his accustomed vi and discernment interpreted them

Statistics Interpreted

get out the truth t carry. He showed cost of various food feed supplies in different countries. start with he showed that our 1 production is 97 per cent of the p vious year, but took the ground t we may have more f this year than last. example, last ye corn crop was lar but carried more wa hence less food. France pork is 44 c a pound and butter cents. Hay is $52 a or more. Spain p $4.13 for wheat $4.42 for corn. Sw erland has butter a cents, cheese 58 ce and pork at 81 ce Denmark sells straw for $42. Germ gets butter at 74 ce Russia pays $2.56 it. Turkey quotes ar at $4.56 a po potatoes $2.12 a bu and butter at $2.1 pound. Prices of p ucts depend on amount of the pro and the worth of rency. Currency pends on confidenc the government. Turks need both w and confidence to f The prices indicate they are short on and it is small wo they have quit. Germany, prices do yet indicate so much shortage.

In this country we are sup with sugar only to the extent o per cent. We have 103 per cen butter and 179 on condensed Our flax production this year s at 184 per cent and next seaso ought to get oil meal somewhat c er. Cotton is at 105 per cent and tonseed meal might be expecte lower a little. The oil may be us make "creamery butter". Our crop is at 91 per cent and u prices advance enough to call f ers' attention, the next crop, usual weather conditions, may be The hay market and hay price f is a bad bungle. Hay went so hi New York for a time that many horses and bought auto trucks, farmers did not get the high p After the war, prices in general be expected to drop considerably, advance somewhat, and finally back more slowly. It is likely land, the last to advance, wi somewhat higher after a time. are likely to want farms, perhap many will wish to be farmers. I mistake to develop land faster t can be made to pay. As for catt have slaughtered faster than we grown them, but it is hardly to

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(ne Man's Benefit to His Community

F. G. SWOBODA, Wisconsin

T E striking value of one farmer in community owning a high class u -bred sire is well proven on W hington Island, Door County, W For several years Chris. Han- o a prosperous Danish farmer who a lived on the island for four dec- d, has kept a pure-bred Holstein ir For the past seven years Han- o sires have been practically the n pure-breds on the island. At the ta , as was to be expected, farmers re a bit slow about availing them- el s of the use of these sires, even t e very reasonable service fee of n dollar.

t so slow, now, however. In 9 two hundred forty-eight of the v hundred cows on the island were r to Hanson's bull. "They were r ght from every corner of the is- n" he declared in telling of it and, i entally, it should be stated that o many farmers this meant a trip f ur or five miles. Interest is be- g kept up, for during the first six m hs of 1918 one hundred forty- g cows were brought.

ere probably isn't another com- u ty in Wisconsin of territory q l to Washington Island where i a large percentage of the im- r ement is attributable to sires w d by one man. Travel where you il on the island, from north to u , from east to west, and there is a ely a single herd that hasn't one ore grades, offspring from one nother of Hanson's bulls. The young stuff in particular is show- p very strong.

. Hanson's sire as an individual very superior animal. Straight line, deep bodied, with good h and in the pink of condition, te his heavy service. Then, too, backed by good breeding. On ire's side both Canary Paul and Fobes Bessie Homestead appear e pedigree.

hen I went out to buy a sire," Mr. Hanson, "I decided first of at he had to be a good individu- Because of the fact that the of Mr. Hanson's pure-bred sire ience should prove an inspira- to the beginner or to the man for various reasons has contin- o put off being a beginner, we the following: "Mr. Hanson," we , "how did you happen to get d using a pure-bred sire?" "I'll ou," he answered. "It was like I had been reading in the farm 's a good deal about live stock. see I always take three or four papers and read a good deal. , before I came to this country, in Denmark, we had good stock. d good cattle so I made up my to get started by buying a pure- bull. The first one I got when as only a calf cost me $75, and eight, which made the total $80. This animal was sold to the butcher for $117 after I could no longer use him."

The sire bought to replace him cost $125 at one year, a freight charge of $15 bringing the cost up to $140. Because he did not develop quite as well as was anticipated and some of the offspring fell short of expectations, he was disposed of at a little past three, the butcher paying $85 for him. Mr. Hanson's first two sires cost him in cash, delivered on the island, $223. They brought him for beef, $202.

The first one produced right up around 200 calves, bringing his owner an equal number of dollars as service fees. The second one, though used a shorter period, produced three hundred calves. Holstein popularity had grown with the years. Farmers saw that the grade calves were so superior to the offspring of the scrub bulls of which there was a host that they began to come in increasing numbers. At the age of three and a half years Mr. Hanson's third sire had up to July 1, 1918, bred four hundred and fifty cows. His first year of service the number was forty; the second year, 225; and the first six months of the third year, 147. Mr. Hanson keeps an accurate book record of every cow brought to his farm so that the accuracy of the above figures cannot be questioned.



Chris. Hanson, who has so largely benefitted his community couraging the use of pure-bred sires, and the bull he is now At three and a half years of age this bull, according to anson's records, had bred four hundred and fifty cows.

That the heavy service has had few bad effects can readily be seen by the splendid appearance, bloom, and activity of the bull, also by the fact that he is a sure breeder. Mr. Hanson lays this to the fact that he used the sire comparatively lightly as a yearling. What is more, the bull is a good feeder. At the height of the breeding season he eats as high as a half a bushel of oats a day. As roughage he gets alfalfa hay with clover and in the summer fresh cut green grass. When in light service in winter 10 to 15 lbs. of silage per day are given.

"What do you figure it costs you to keep a bull a year?" we asked him. "I cannot do this for a cent less than $200 a year," he replied. "The feed alone costs me at present prices over $100. Then there is the work of feeding him, cleaning him, and taking him out." Mr. Hanson considers currying a matter of big importance. His bull is kept tied in a stall.

When we asked what he considered the big factor in building up a good herd of live stock Mr. Hanson replied, "Good breeding, good feeding, and good care. Those are the three things. A reason why a lot of our stock isn't better is because it isn't fed well enough."

Prominent mention was made a few months ago of a movement which has been put on foot to make Washington Island a Holstein island. This movement was started by County Emergency Food Agent, Moulton B. Goff, and D. S. Bullock, representing the Wisconsin Live Stock Breeders' Association in co-operation with the farmers of the island. Mr. Hanson was elected president of the Washington Island Live Stock Breeders' Association, and most fittingly, too, for if credit for putting the live stock industry of the island on a higher plane is to belong to any single individual, that man is Chris. Hanson.

At the present time there are four pure-bred Holstein sires on the island. The assessor's report shows that the one hundred ten farmers there own 508 cows. Up to this summer there was always a promiscuous lot of young scrub bulls, many of them running at large on the highways and commons. A recent trip on practically every road of the island failed to reveal a single one of these nuisances.

A prosperous, well run creamery is manufacturing a high class butter from the cream brought in by the farmers. As yet, but comparatively few in number, silos are increasing. Farmers are beginning to realize more and more that if they want to keep up their crop yields they will have to keep more stock. The high price of feeds is convincing them that they can't afford to keep just common stock. The liberal milk checks received by the good feeder is tending to convince the poor feeder that if he wants results he, too, must feed better.

Lack of size is a conspicuous fault noted in much of the stock, even in the grade Holsteins. This results largely in improperly raised calves. Several farmers have the right idea and the influence of their example should spread. On one of the farms we saw four as well raised winter calves as anyone could wish to own. They were being kept in a clean, comfortable building and fed skimmilk twice a day and a grain ration consisting of ground oats, barley, and bran twice a day. "I like to see nice stock," declared the woman of the family as she affectionately fondled one of the calves. "It gives me pleasure to watch them grow." Young calves are not turned out in pasture on this farm as is the common practice on the island.

While somewhat isolated and out of the common routes of travel, Washington Island offers splendid opportunity for developing into a strong Holstein center. Leading farmers on the island are optimistic and hope that with proper encouragement a bright future for their live stock industry will develop.

Storing Manure in Holland

HOARD'S DAIRYMAN:—It is common knowledge that in the little thrifty countries, as Denmark, Holland, and Switzerland, much more attention is paid to the little things on the farm than is here the case. In this topic I hope to explain, for instance, something about the conservation of manure as we see it done there.

The visitor who has been in these little countries in springtime may have observed, not far from the back door, a big manure pile nicely fixed up. Round the manure pile a small dike of hard clay is thrown up to prevent the manure from scattering all over the place in rainy times, and to make a certain pressure in the heap. Close to the manure pile is a pit into which all the sewage and the liquid part of the manure flows. This pit is pumped empty from time to time and the contents spread over the manure pile. I need not tell of what big importance this is for making the finest and most valuable manure produced, because the hard and the liquid parts make just such a fine combination. All over the length of the manure pile poles with planks are placed, so that the manure can easily be spread over the whole manure pit. All the manure of hogs, cows, and horses, together with straw and other waste materials, are thrown in this pit. This is another important thing, as it is the mixture of different manures that helps supply all the necessary elements needed by the plant. Around the manure pile we often see high trees, poplars or elder bushes as not every kind of tree will grow around it. The purpose of these trees is to prevent the hot sunshine from drying out the heap and evaporating a good deal of the ammonia or nitrogen.

If the manure pile is not spread in springtime, but in fall time, the manure pile is covered with a thin layer of clay on which cabbages are planted. This has two advantages, first the cabbages give a fine crop and secondly the manure pile is all shaded over by them.

Colorado. L. DIJKSTRA.

Bulletins of the Week

Suggestions to Beginners for Selecting Breeding Sheep, by W. C. Coffey. Extension Circular 26, Illinois College of Agr., Urbana, Ill.

Saving Farm Labor by Harvesting Crops With Live Stock, by J. A. Drake. Farmers' Bulletin 1008, U. S. Dept. of Agr., Washington, D. C.

Larkspur or Poison Weed, by C. D. Marsh, A. B. Clawson, and H. Marsh. Farmers' Bulletin 988, U. S. Dept. of Agr., Washington, D. C.

Housing Farm Help, by R. S. Whiting. Farm Bulletin 8 of the National Lumber Mfgrs'., Asso., Chicago.

Relation of Milk Yield to Age at First Calf, by R. C. Towles. Maryland Experiment Station, College Park, Md.

Contagious Abortion of Cattle. Circular 69, Kansas Experiment Station, Manhattan, Kans.

Controlling the Garden Webworm in Alfalfa Fields, by E. O. G. Kelly and T. S. Wilson. Farmers' Bulletin 944, U. S. Dept. of Agr., Washington, D. C.

Facts About Concrete Roads, pamphlet published by Portland Cement Association, Chicago.



MANURE CONSERVATION ON THE MODEL FARM, "HET HUIS TER AA", HOLLAND

All the manure is brought by an overhead carrier and dumped into the manure pit and shed at the left, where smaller carriers inside are used to spread it evenly over the concrete floor. To avoid loss of nitrogen the baled peat shown in the shed to the right is mixed with the manure.

Warning from Washington Shows why you Need the Universal natural milker

Alternates, Like Milking With Hands

EUROPE is begging for our dairy products. Our home demand far exceeds the supply. The situation calls forth warnings from officials at Washington, urging farmers and dairymen to increase their supply.

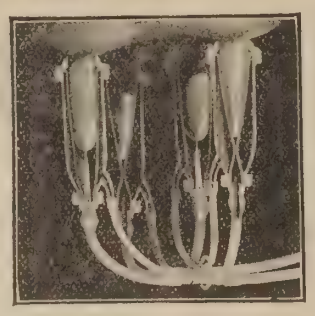
This condition will far outlast the war. Labor is the big problem. Others are solving this difficulty by using the perfected ***Universal Milker*** instead of the old hand-milking method which takes too much time and energy.

The Universal makes it possible for the dairyman and farmer to enlarge his business, and to get greater profits from his dairy products. For both, the Universal opens a limitless field of income.

The exclusive advantages of the Universal place it unquestionably in the lead. Where there have been comparative experiences, dairymen and farmers decidedly favor the Universal.

The Universal alternates, like milking with hands. While two teats are being milked, two other teats are being massaged, thus the action is stimulating, comforting and relaxing.

The cows benefit from the use of the Universal, and frequently give more milk.

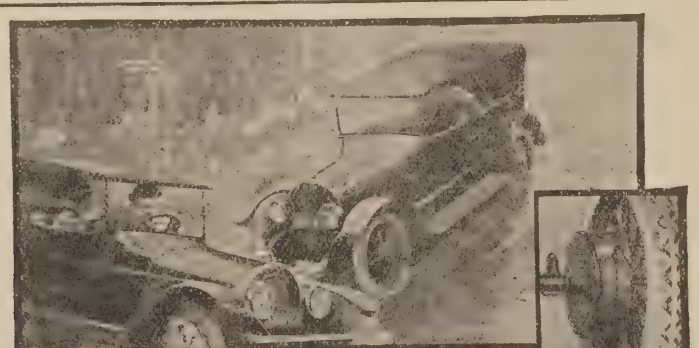


"The machine runs fine, and my wife (a girl of 19) did all the milking while I was away—she milked 12 cows and rinsed the machine in 37 minutes."

J. L. HUGHES,
Lebanon, N. Y.

WRITE FOR OUR CATALOG

The Universal Milking Machine Company
408 Mound Street, Columbus, Ohio



How moisture affects ordinary brake lining

Do your brakes take hold too quickly after the car has been out all day in a driving rain? If they do it is because the dampness has worked in, causing the brake lining to swell. Brakes that are swollen from moisture are never dependable. Today after a rain-storm they "grab" and take hold too quickly. Tomorrow, after they have dried out, they act more slowly. Brakes that swell from moisture wear out quickly.

Why Thermoid resists moisture

Thermoid Hydraulic Compressed Brake Lining is Grapnalized—an exclusive process which resists moisture, oil and gasoline. In addition to being Grapnalized, Thermoid is Hydraulic Compressed. This makes it uniformly hard.

Over 40% more material and 60% more labor are used in the manufacture of Thermoid than in any woven brake lining.

Support the Brake Inspection Movement and have your brakes inspected today.

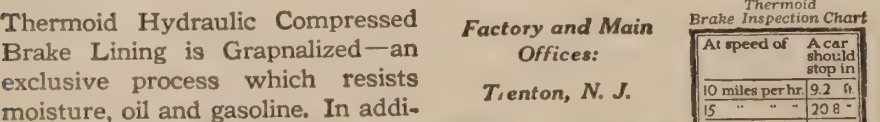
Every foot of Thermoid is backed by *Our Guarantee: Thermoid will make good—or WE WILL.*

Thermoid Rubber Company

Factory and Main Offices:
Trenton, N. J.

Thermoid Brake Inspection Chart

At speed of	A car should stop in
10 miles per hr.	9.2 ft.
15 " "	20.8 "
20 " "	37 "
25 " "	58 "
30 " "	83.3 "
35 " "	104 "
40 " "	148 "
50 " "	231 "



Makers of "Thermoid Crolide Compound Casings" and "Thermoid Hardy Universal Joints." *Will your car do this?*

Cow Testing Association

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
N. J.	Middlesex—Somerset	J. G. K. Duer	Oct.	452	17	66	Forsgate Farm
Kans.	Arkansas Valley	C. G. Wehrman	"	308	39	103	F. H. Bock
Wash.	Stillaquamish	H. W. Quimby	"	422	22	65	L. R. Palmer
Minn.	Pioneer	H. C. McMurray	"	765	47	67	J. F. McKeow
N. H.	Claremont	N. E. Cross	"	267	7	67	F. A. Kemedy
Ill.	Lake Co. No. 1	R. E. Porter	"	308	8	49.9	H. K. Vose

Association Notes

Middlesex—Somerset, New Jersey:—A year's record of the herd of S. S. Hastings, completed this month, shows his two best cows to be a grade Holstein with a record of 9,810.6 lbs. milk, 349 lbs. fat in 9 months, and a grade Jersey fresh Oct. 29, 1917, with a record of 8,549 lbs. milk, 389.9 lbs. fat in 11 months. She is still milking 675 lbs. per month and is not due to freshen until next May, having failed to breed as expected. In October, market milk sold for $3.57 per hundred. The average test required was 3% and for each point above 4c were paid. Milk retailed for 14 to 18 cents per quart; butter, 70 cents per pound. Feed prices: Alfalfa hay, $30 to $35 per ton; timothy, $27 to $30; clover, $20 to $25; corn silage, $10; cottonseed meal, $70; oil meal, $66; bran, $50; Larro, $64; Big Q, $66; oats, $.70 per bu.; corn, $1.50 to $1.85.

Arkansas Valley, Kansas:—Several of the members have co-operated in buying two carloads of oil meal, hominy, and gluten. One member has disposed of all his grades and will start with pure-breds. In October market milk sold for $3.35 per hundred, or 30 cents a gallon, the average test required being 3.5%. The condensery paid $3.35 per cwt. for milk testing 3.5% and 3 cents differential. The creamery paid 65c per pound fat. Milk retailed for 12½ to 15c per quart and butter 62c per pound. Feed prices are: Silage, $8 per ton; alfalfa, $20 to $25; bran, $28; corn chop, $68; oil meal, $72; hominy, $70; gluten, $66; pasture, $1.50 per head per month. Bran is hard to get. Wheat pastures are good.

Stillaquamish, Washington:—Feed situation is acute for concentrates. The condensery paid 78 cents per pound fat and the creamery paid 60 cents. Milk retails for 13 cents per quart, butter 58 cents per pound, and cheese 30 cents.

Pioneer, Minnesota:—The creamery paid 66 cents per pound fat and milk retailed at 11 cents per quart. Pasture cost $1 to $2; hay, $8 to $15; bran, $29 to $34; oats, $35 to $40; oil meal, $59 to $64.

Libertyville, Illinois:—A number of grades have been sold, but pure-breds have been purchased in their stead. Two pure-bred bulls have also been purchased during the month. In October market milk sold for $3.32 per hundred. The average test required was 3.5% and for each point above 4 cents were paid. The creamery paid 57 cents per pound fat. Silage cost $8 per ton; alfalfa hay, $30; timothy and clover mixed, $28; oats, $45; barley, $40; oil meal, $60; cottonseed meal, $61.

Advertising Benefit to Consumers

HOARD'S DAIRYMAN:—In these days of war food economies, it is strange indeed that milk and its products, with their exceptional high nutritive values, do not command a demand which makes possible frequent and even sharp advances in prices in order to insure generous returns to dairymen. When a rise in milk pr is proposed in large cities, ther immediately opposition and talk o duced consumption. Yet milk is where selling at other than bar prices in comparison with other articles. Besides, even sharp adva which, it seems, the present f stuffs situation may necessitate, w still leave milk and its products cheap basis as compared with c food articles.

Of course, this unwarranted dition in food markets has been quently diagnosed. The most re finding, and the one which seem offer the greatest opportunity remedial measures, is that there lack of proper advertising, or b a total absence of advertising, o products of the dairy industry a America's millions of consumers

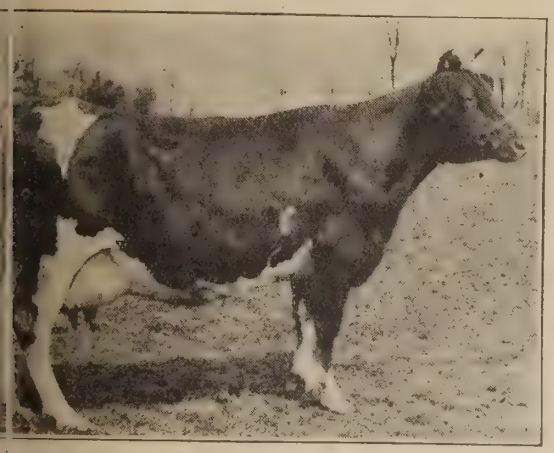
No industries with the capita vestment of dairymen spend so on advertising as the produce milk and its products. Thus, the c er and even the bread bakers s millions in the aggregate to en age the consumption of these st Even the dispensers of distilled d ing water spend more money tha sellers of milk to advertise for sumers. The makers of oleomarg advertise more than the dair terests. Even the peanut butter dists are outdoing the manufact of creamery butter, compara speaking, in advertising.

No doubt, the high food val butter, milk, and other produc the cow have led the dairy int into the idea that "quality wil the market". This is true to son tent, and to the extent of the p volume of sales of dairy pro But for the industry to furthe vance, more than quality is dem to open wider the available ma There are many industries in A to-day whose products have atta high degree of quality, yet thi is only a talking point for inc advertising. Such should be the of dairymen.

At the present time, dairyme argue that they have a greater n for their products than they ca ply. This possibly is true of the west, where drouth has great duced the flow of milk. But the n is not as broad as it should be, does not adequately compensate men. If one will glance throu advertising columns of any p tion, it will be noted that amo largest advertisers are those tries which cannot possibly domestic orders, owing to gover contracts which are taxing t most capacity of the plants. M these industries cannot hope t their products on the Am market for an entire year. It i the idea in mind of maintainin former broad market that the tinue their advertising. When conditions again prevail—th when warring nations will ha down ther arms—these great tries will turn back to their established trade. But, withou name continually before the through the mediums of adve

h great industries would soon dis-
:r that their name was entirely
otten in the minds of their form-
rade. Dairymen have more than
h to gain from advertising.

ne of the important factors which
s indering the development of the
y industry, besides the lack of ad-
ising, of course, is the publicity
n by newspapers to the amount
acteria in the milk as offered by
y interests. Occasionally, for
ical or other reasons, newspapers
t reports showing the bacteria
t in milk. In Kansas City, a news-
r recently published the bacteria
rts in order to "hit at" the city
inspection department but
was a terrible "jolt"—hitting
only the city milk inspec-
department but the dairymen
. The housewives, who are
y affected by fears of danger
bacteria, reduced their consump-
of milk. Bacteria to the house-
is nothing short of bugs swim-
in their food. Thus, the dairy-
were unwittingly made to suffer
y losses. But this loss, which
rs from time to time throughout
country, varying by the extent
e political situation, can be over-
and eliminated by an advertising
paign. To give the housewife a
idea of bacteria, their presence



RNSEY COW, BENTON'S LADY CHESTERBROOK OF INGLESIDE
ecord in Class A: Milk, 17,083 lbs.; fat, 731 lbs.; in Class
5 yrs.: Milk, 13,305 lbs.; fat, 690.65 lbs. She is high cow
ss AA and is owned by F. E. Fox, Wisconsin.

xcellent quality milk and other
along this line, would serve to
ate the consumer who is ignorant
e technical facts in dairying. The
y newspaper writers themselves
d benefit from such advertising,

hat has been the basis of the suc-
of the butter substitutes, oleo
ucts? Can the success be attribu-
to the fact that the substitutes
a better food value than butter, or
bly that the substitutes are rel-
ly cheaper than butter from a
arison of food values? Certainly
who have a knowledge of food
ents will not say that oleo prod-
have a food value similar to
r. Our leading dietitians tell us
the only substitute for butter is
r itself, meaning, of course,
is absolutely no substitute for
important dairy product.

ousands and thousands of dol-
have been and are now being ex-
ed in an advertising campaign
butter "substitutes," oleo prod-
"nut" butter and similar arti-
These "substitutes" have found
de market in the United States.
is the result of advertising—
y not the result of the introduc-
of a product of high food value
he market. Sales of butter have
red as a result of the introduc-
of these "substitutes". The manu-
rers of these foods seemingly
rstand the basis of success in
ng a market for their products
h are inferior to the food offered
airymen.

he beneficial results of advertising
products would be particularly great if carried on during the present food situation in the United States. Besides educating the public, the housewives particularly, of the high food value and comparative cheapness of milk, butter, cheese, ice cream, and other dairy products, considerable space might be devoted to the fact that the dairy products can be substituted for beef and pork to good advantage, thus leaving a more plentiful supply of these expensive foods for the soldiers of the armies of the allies and the United States. It is a common statement that Americans are eating too much meat. This is only one of the thousands of statements upon which dairy advertising might be based.

The time is ripe for dairymen to begin advertising. They should aim in their advertising to bring to general attention the fact that their food products are the most highly praised of any in the world by physicians, physiologists, and dietary experts. They should so stimulate the demand for milk and its products as to make possible liberal advances in prices without affecting consumption. The expense of this advertising should rightfully be a charge against production, just as the purchase price of alfalfa and bran in the herd's ration is a part of the cost. Whatever the expense of this advertising, it will be a profitable investment for America's customers, who, it is plain, ought to be using more milk, butter, and cheese. The benefits to dairymen would perhaps not be so great as to consumers, but the producers of milk, butter, and cheese would through such advertising not only create a stronger and more profitable demand for their products, but would pave the way for further extension of the dairy industry.

SANDERS SOSLAND.
Missouri.

Dairy Show at Winnipeg

A Canadian Dairy Show will be held at Winnipeg, Manitoba, February 17th to 21st, 1919, in conjunction with the annual convention of the Manitoba Dairy Association. Prominent manufacturers of dairy equipment and farm dairy supplies in Eastern Canada and the United States have stated their intention to place exhibits and all will doubtless welcome this, the first opportunity to display their goods to the representatives of dairying in all its branches in Western Canada. It is to be really the greatest demonstration of its kind ever held in Canada.

A splendid auditorium, comprising seven thousand square feet of space available for exhibits, has been secured for the Dairy Show, while sessions of the convention will be held in the beautiful Fort Garry Hotel near by. Strong committees have the whole affair in charge and their plans ensure exhibitors and visitors their money's worth and a genuine western welcome in addition.

Blue prints of the Dairy Show auditorium are available and will be furnished with all additional particulars upon application to Mr. L. A. Gibson, Secy. Manitoba Dairy Association, Government Buildings, Winnipeg.

The Philippine Islands are steadily gaining in the production of raw sugar. From crops of 345,077 short tons in 1913, and of 408,339 tons in 1914, the crop of 1917 advanced to 425,266 tons.

The Pioneer American Separator

and the

Most Efficient

P. M. Sharples, President of the Sharples Separator Company, invented the first American Cream Separator. For over a third of a century, he has been manufacturing and improving this remarkable saver of butterfat.

Tests show that all separators are turned at the wrong speed some of the time; some separators are turned at the wrong speed most of the time—but the Sharples Suction-feed Separator skims clean at *any* speed *all* of the time.

The Sharples provides a method of positive conservation of millions of pounds of butterfat at a time when such food is so valuable.

The Sharples factories are the most extensive of their kind—and the Sharples institution is the largest American-owned separator and milker business in the United States.

SHARPLES
SUCTION-FEED
CREAM SEPARATOR

Write for catalog to nearest branch, addressing Department 10.

THE SHARPLES SEPARATOR CO., West Chester, Pa.

Sharples Milker—Used on half a million cows daily.

Branches: Chicago San Francisco Toronto
DC-75



Babcock Milk Tester Complete $12.00

Any Cow Owner Can Make Accurate Milk Tests With the Efficient and Simple Crepaco Babcock Milk Tester

There is nothing intricate about it—operated by hand. There is a size for every dairy, from the 2 bottle tester to the large size with 24 bottle capacity.

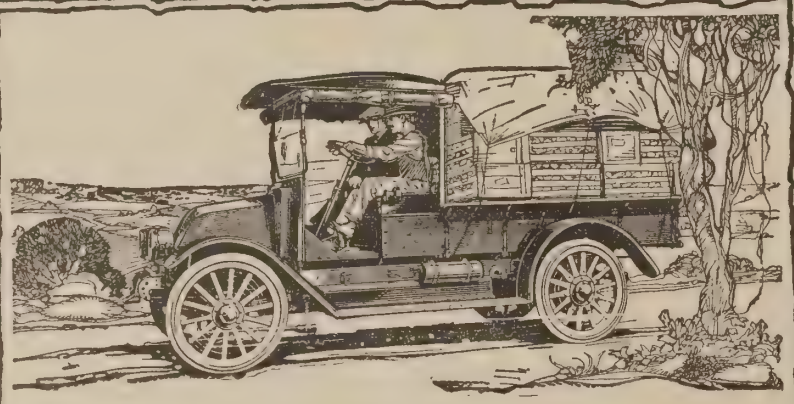
This tester is noiseless in operation, the high speed being attained without unnecessary friction, by means of a spur and worm gear with cut teeth. The full instructions which are supplied with each machine tell you how to make accurate milk tests.

Crepaco Babcock Tester complete with glassware as illustrated above—six bottle capacity costs only $12.00.

We have Babcock Testers as small as the 2 bottle size costing $4.25 complete with glassware.

Our big Dairy Catalog describes fully, all size Milk Testers and other appliances of value to the dairyman. Write for it TODAY.

THE CREAMERY PACKAGE MANUFACTURING CO.
68 W. Kinzie Street, Chicago, Illinois



International Motor Trucks on the Farm

THE motor truck, just coming into general use on the farm, is fast proving itself a most valuable farm machine. Farm hauling with horses takes a lot of time, keeps the driver from doing much needed farm work, and costs altogether too much in money as compared with the speedier, economical truck.

Mr. L. C. Henry of Utica, Minn., purchased an International Motor Truck to haul his live stock and farm produce to market and to bring return loads from town. He says, "We use the truck for nearly every kind of hauling. It saves more time than any other machine in our farm service." Five of Mr. Henry's neighbors bought International Motor Trucks when they learned, from his experience, what a useful economical farm machine he had.

An International Motor Truck can be used both on the farm and on the road. It is a safe machine to buy, for over 15,000 are now in service. We have a dealer, a branch house or a service station somewhere near you. Write us for prices and complete information about all seven models.

International Harvester Company of America
(Incorporated)
CHICAGO U S A

Conservation Program for Farms

From a harvest less in aggregate production than last year, the United States must export at least 17½ million tons of foodstuffs overseas during the coming season. This is about 12 million tons more than average prewar exports, or nearly two tons apiece for the average American farm where most of this food originates.

Rigid conservation of food and feed stored in granaries, cribs, barns, and similar buildings—also products now in the fields—are essential to properly maintain our own population and to meet increased foreign needs. Animal feeds, though in a crude form, must be considered as food, since they are the basis for meat, milk, and poultry products.

The vast quantity of foodstuffs stored on farms makes opportunities for saving them correspondingly large. Following are common sources of food losses with suggestions for reducing them.

Fire—Remove inflammable rubbish, plow fireguards, use care with matches, lanterns, and stoves. Supplement these safety measures with fire fighting equipment kept in a definite place for instant use. In brief, consider a farm as a food munition establishment.

Shelter—Prevent spoilage and deterioration by putting all foodstuffs possible under adequate shelter. Full utilization of storage space and prompt repair of roofs help greatly in preventing food losses. By sheltering foodstuffs on farms conservation is effected at the source.

Rats and pests—Regard rats and similar pests seriously, as the direct enemy of starving humanity. Exclude them with concrete floors and destroy their breeding places. Rats must not eat holes in our bulwarks of national defense.

Stock losses—More than a million tons of our food exports must comprise meats, fats, dairy products, and poultry products. The quantity of this class of food depends largely on comfortable housing and the care which animals receive. Needless exposure and irregular attention may result in reduced production and mortality. Thorough farm conservation demands that live stock be kept comfortable and in healthy condition, thereby securing maximum results from the feed consumed.

In complying with these suggestions, and extending them to cover additional sources of loss, farmers are asked to consider this program necessary until next harvest, even should peace come before that time. Besides feeding ourselves, the United States is pledged to feed the Allies and we must also supply the people in territory now being recovered from German dominion. We must realize that peace will bring no additional food but instead increased obligations. Poland, the Balkans, and other parts of Europe now isolated from relief will clamor for a share of our present and future reserves.

Thus strict conservation in all foods and feeds stored on farms is imperative in addition to the food program for homes and public eating places. Compliance with these requests will enable the United States to fulfill present obligations and be ready for new responsibilities.—U. S. FOOD ADMINISTRATION.

The soy bean does not require a well-drained soil for its best development, although it will not succeed where water stands for any considerable length of time. Swamp and peat soils, after being drained and limed, have usually been found to produce this crop very well. Soy beans will thrive on soils that are too acid for the successful culture of red clover.

Fight with Concrete

¶ The way is open

The War Industries Board recognizes farm buildings as necessary to increased food production. No permit is needed for a farm improvement not exceeding $1,000 in cost.

¶ Concrete is the way

Bull's-eye hits against fire, rot, disease, rats, cyclones, expensive upkeep and insurance, are fired by such concrete weapons as *feeding floors* and *barnyard pavements, milkhouses, hog houses, manure pits granaries, fruit and vegetable storage cellars and dipping vats*

¶ You build once only with Concrete

You save labor transportation, and with one stroke increase production and defeat waste.

Put up that necessary building now Cold weather need not stop you.

Write for Bulletins 11 and 137, which will tell you how you can use spare hours to

fight with concrete

PORTLAND CEMENT ASSOCIATION

Offices at

Atlanta, Chicago, Dallas, Denver, Detroit, Helena, Indianapolis, Kansas City, Milwaukee, Minneapolis, Washington, New York, Parkersburg, Pittsburgh, Salt Lake C, Seattle

CONCRETE FOR PERMANENC

W.S.S. WAR SAVINGS STAMPS ISSUED BY THE UNITED STATES GOVERNMENT

Where is the Bran?

(Continued from first page.)

ates Army Quartermaster Depart-ent is an extensive buyer of bran for s thousands of horses and mules on e battle fronts of Europe and at ntonments in this country. And, it ould be remembered, when Uncle m needs a few cars of bran, there is dickering over taking a quantity flour. The mill is advised of e government's needs, and the bran soon forthcoming. Even where a ill has its bran output sold up for days, as is the case among prac-ally all mills today, government re-irements are given preference. ese requirements will continue rge at least for a year after peace signed.

It is more widely recognized now an ever that bran is selling at a ice today far under the level of ner feedstuffs. For example, in Kan-s City the bulk price of bran per n is $22.26, while No. 1 alfalfa hay mmands $32 a ton. At the same ne, corn was selling at above $1.50 r bushel, oats at 70 cents a bushel, d barley above the $1 level. Other edstuffs might be mentioned, all of ich are selling at a far higher price an bran and shorts. When the price bran was fixed, that is, the maxi-m price at which mills may sell the als, alfalfa hay was worth $22 a n.

Bran in Mixed Feeds

The effect of the artificially low ice on the mill offals is, as previous-pointed out, an unprecedented de-nd. Breeders and feeders of horses d mules, who heretofore never gave nsideration to bran as a feed for uines, have been heavy buyers—ere they could obtain the feed. And erywhere the demand for bran and orts is greater than in normal pe-ds, that is, the low price of the feed s led many live stock producers to empt to reduce their purchases of ner commodities by increasing the ying of bran and shorts.

In order to correct that evil, the ited States Food Administration is empting to equalize distribution d to limit the consumption of bran d shorts to dairy interests, hog oducers, and poultry feeders. This cludes principally those feeders of e stock who were consumers of bran d shorts in normal periods, when e price was on a parity with hay, rn, oats, and other feedstuffs. This helping regular consumers to some tent.

There have been numerous com-ints among live stock interests that ur millers are selling their bran d shorts to manufacturers of mixed d products in large quantities, ther than sell in small lots to the iryman or hog producer. However, re is little truth in this statement. hile it is true that the commercial nufacturer of mixed feeds is eager purchase bran and shorts owing the low level of prices, he is obtain-only a very small quantity, if any all. Where the feed is sold to deal-, considerable flour is shipped in car, usually 60 per cent flour and per cent feed, or on a "50-50" basis. e mixed feed manufacturer has no d for the flour, while, on the other d, the dealer has an available out-. And with the present dull de-nd for flour and corresponding ur-t demand for feeds, the miller is ed in disposing of his flour by of-ing in mixed cars. So it is almost lish to believe that the mixed feed nufacturer is receiving straight s of bran and shorts from mills.

ecast of Good Supplies This Winter

After making a broad study of the eral feedstuff situation, the writer

(Continued on page 597)

To help Win the war

TODAY no American shrinks from any sacrifice of a business or personal nature which helps forge a link in the chain of victory. In the forging of one of these victory links the Priorities Division of the War Industries Board, Washington, D. C., has asked manufacturers of Composition Roofings and Shingles to limit the sale of their products to:—

The United States Government and its Allies.

War construction or non-war construction authorized by the War Industries Board.

Structures in which its use may be allowed by permit of the War Industries Board.

Building construction for essential uses and costing in the aggregate not more than $2,500.

Repairs and replacements on all old buildings.

The Standard Paint Company has gladly pledged itself to fully meet these requirements both in spirit and intent. Every one of our distributors of Ru-ber-oid or other of our roofing products has made the same pledge.

We place the program of



the War Industries Board before you, the ultimate consumer of composition roofing, in order that, knowing its provisions, you may more readily assist in carrying it out. Buy composition roofing for the purposes specified *only*. By so doing you will help win the war.

THE STANDARD PAINT COMPANY

Chicago New York Boston

MAKERS OF

RU-BER-OID ROOFING



For bedding most convenient and serviceable. Write for prices.

Defnet & Jagerson Supply Co., Neenah, Wis.

YOU KNOW! If you're an experienced grocer you know that the housewife demands butter with the rich golden shade—you know that DANDELION BRAND—the old reliable butter color—gives just the right shade.

BUT DO YOUR DAIRY CUSTOMERS KNOW IT?

Sell them DANDELION BRAND BUTTER COLOR. It means higher butter prices for both of you.



We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.

WELLS & RICHARDSON COMPANY, Burlington, Vermont.

Manufacturers of Dandelion Brand Butter Color



Dandelion Brand The color with Butter Color the golden shade

When writing advertisers please mention Hoard's Dairyman.

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Coming Events

Wisconsin Dairymen's Association meets at Menomonie, December 5 and 6. Secretary, P. C. Burchard, Ft. Atkinson, Wis.

National Farmers' Exposition, Dec. 6—14, Toledo, Ohio. Manager, H. V. Buelow, Toledo.

Michigan Dairymen's Association meets at Lansing, Dec. 3-5. Secretary, Martin Seidel, Bay City.

Farmers' National Congress meets in Jacksonville, Florida, December 3-6, 1918. President, J. H. Kimble, Port Deposit, Md.

Wisconsin Cheesemakers' Association meets Jan. 8—10, 1919, at Milwaukee. Secretary, J.

Dairy Day in Alabama

HOARD'S DAIRYMAN:—Dairying in Alabama is progressing far more rapidly than many people know about. Car load after car load of dairy cattle has been shipped into the state during the past year from Ohio and Tennessee. Creameries have been established in practically all sections of the state, and recently there was held at the College Creamery, Auburn, Alabama, the first annual Dairy Day. The idea was to get together the patrons and the prospective patrons of this creamery and have them spend the day inspecting it and see demonstrations in butter making, cottage cheese making, judging dairy cattle, etc. About 60 people were present, these coming from the three surrounding counties, which is the territory from which the College Creamery obtains cream.

The meeting was in charge of Mr. W. H. Eaton, assistant dairy husbandman of the Alabama Extension Service and U. S. Department of Agriculture. The program carried out was one of very special interest to dairymen. Very little time was taken up with formal talks, but demonstrations were the order of the day.

At noon a dairy products luncheon was served in the Creamery building under the supervision of Mrs. Bessie C. Moore, Home Demonstration Agent for Lee County. As its name indicates, this luncheon was composed almost entirely of dairy products, the menu consisting of cottage cheese sandwiches, cottage cheese croquettes, cottage cheese salad, sweet and butter milk, and ice cream. Ground peanuts were used with the cottage cheese in making the croquettes. Those present pronounced it one of the most delightful and palatable luncheons that they had ever had.

This was the first of what is proposed to be an annual or probably semi-annual occasion at the College Creamery. It is believed that these meetings are very valuable, both from the standpoint of information and in a social way. At this meeting orders were taken for a car load of dairy cattle to be bought and shipped in right soon by representatives of the Extension Service.

Alabama. L. A. NIVEN.

New York Butter Market

NEW YORK CITY, Nov 12:—While there is a considerable accumulation of under-grade butter on the market there is practically none scoring 92 or better available except as each day's receipts arrive. However, the percentage of such butter in the daily receipts is comparatively low. Many marks, which during summer months easily pass as extras or better, are now scoring 90 or lower. The most noticeable undesirable flavors in such butter are unclean, oily, and mild fishy. It is difficult for one to account for so much butter showing oily and fishy flavors but it is undoubtedly due to the usual laxity on part of the producer and creamery operator when cooler weather arrives. There is a feeling that it is not necessary to be so careful with milk products during fall and winter months. While theoretically that may be true, actual practice shows the quality of milk and its products to be much poorer during fall and winter than during the summer season. Greater care should be exercised by creamery operators at times when there is a tendency to be lax; creamery patrons should be persuaded to use greater care with their milk and cream; and the buttermaker should be much more critical of his butter than during the period of "grass" production.

Quotations on practically all grades of butter have advanced 2½c during the past week. While the main causes of the advance are the same as enumerated last week, viz., decreased receipts, increased consumptive demand, and scarcity of high grade butter, there is an additional factor which has had an effect on prices. That factor is a strike among the river tug-boat employees and truckmen. While that has been settled its effect has been and is still felt. It is expected by those whose experience in the markets warrants them to be competent authorities that the present high prices of butter will continue without much change throughout the winter.

On Wednesday of last week, extras (92 score) were quoted at 60c. On Thursday there was an advance of one cent and on Saturday the quotation of 61½@62c was established. On Monday the price became firm at 62c and today a further gain of a half cent was made leaving the quotation at 62½c. Additional quotations are: Higher scoring than extras (93 score or above), 63@63½c; firsts (88 to 91 score), 58½@62c; and seconds (83 to 87 score), 54½@58c. There is an active demand for unsalted butter and it is quoted at a differential of two cents over corresponding grades of salted butter.

W. B. LIVERANCE.



A CANADIAN CHAMPION

A new official record of 21,162 lbs. milk containing 704.7 lbs. fat for yearly production in the junior two-year-old division (Canadian Register) has just been completed by Colony Aaggie Pietertje, owned by Colony Farm, B. C. This makes her the Canadian champion junior two-year-old for the production of either milk or fat. She was sired by Aaggie Cornucopia Newman, and is out of Colony Dellah Korndyke that has a two-year-old record of 11,965 lbs. milk containing 428.8 lbs. fat.

The "Black Belt" of Alabama

HOARD'S DAIRYMAN:—I came to the "black belt" of Alabama to investigate and learn if all that I had heard of its advantages, for stock raising, dairying, and diversified farming are true. After going thoroughly over it, for two months, I find conditions far better than I expected. My only wonder is that they have not sooner become more generally known among northern stockmen.

First of all, the soil is naturally good and adapted to a variety of crops. Up to quite recently it has only been scratched—so to speak—not cultivated; the coming of northern farmers is already showing the effect of their methods and is waking southern farmers up to the possibilities.

The mild climate and ten months' growing season permit of two crops of grain, corn, and vegetables; two cuttings of Johnson grass and five of alfalfa; also twelve months of pasture.

Johnson grass when once set is perpetual, with one reseeding. Thes only needs turning and pulveri once in three years and will grow 2 to 3 tons per acre on good land makes better hay than timothy unlimited market for it at from $ to $25 per ton. Bermuda also is perpetual and affords nice pastur frost. If white clover is sown Bermuda sod, it comes on in the and makes good winter pas Johnson and Bermuda grow on kind of land. Alfalfa needs that v is impregnated with lime, whi found in nearly all of the "black l Sweet clover grows naturally or same class of land and affords pasture for cattle or hogs, or cellent hay if cut at proper Oats, wheat, or rye sown in the make good winter pasture and c harvested in time for corn the fo ing season.

Forty to sixty bushels of corn acre are grown on good land properly cultivated and twenty of silage per acre is not unu Velvet beans or cowpeas pla among the corn make a double cr high feeding value. Irish pot mature in time to be followe sweet potatoes, 250 to 300 bushe each are produced under good ditions. Peanuts grow in soil too for other crops. Velvet beans and nuts improve the land, because o nitrogen they impart to the soil

Because of cheap labor in the ing season, immense crops of can be grown profitably to fee cows and hogs.

Hogs pastured on alfalfa, Ber grass, or sweet clover make growth in summer and when tu into peanut and sweet potato f after the main crop has been t off, fatten fast on what is left, b addition of a limited amount of and velvet bean meal. Dairying hog raising can be carried on tog here at much less cost than in North, for the above reasons. Be of mild winters and cheap lu sanitary farm buildings cost less.

There is an unlimited marke all dairy products; modern cr eries are being built in many c In some cases, the proprietor order to increase the supply buy in the North and sell them at co credit, to be paid for in milk cream at Elgin prices. Until r years, Jerseys have been used a exclusively, but now Holsteins coming in considerable numbers becoming popular. Breeding of b ed hogs is very profitable. There unlimited demand because far are just realizing their value.

Deep wells—a large portion of overflow—afford an abundant s of soft water of even temperatur year round.

Good land, well located, ca bought at from $40 to $60 per because of ruin to cotton by the weevil, land that a few years ago not for sale at any price.

Alabama. GEO. E. BRO

Waukesha County Guerns Sell Well

The Waukesha County, Wisco Guernsey Breeders' Association s ingly has formed the habit of ing successful consignment This year, in the face of an unp dented labor shortage and very feed costs, they planned for a suc ful sale on Nov. 6 and 7, and held just that kind of a one.

The first day was given ove tirely to pure-bred females and a high class bulls. The 67 female fered brought a total of $22,22 average of $331; the 19 bulls

Sale Announcements

Nov. 22—Holsteins. Consignment Sale. M. L. Enright, East Grand Forks, Minn.
Nov. 26—Guernseys. Natoma Farm, Hinsdale, Ill.
Nov. 26—Guernseys. Milo D. Campbell, Coldwater, Mich.
Nov. 26—Guernseys. I. W. Schieber, Bucyrus, Ohio.
Nov. 26-27—Holsteins. Tri-county Holsteins breeders' second semi-annual sale at Dixon, Ill. Sales Mgr., E. M. Detweiler, Polo, Ill.
Nov. 27—Jerseys. G. H. Carter, Freeport, Ill.
Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 5—Holsteins. A. F. Wendlandt, Good Thunder, Minn. F. H. Everson, Sale Mgr., Lake Mills, Wis.
Dec. 6—Holsteins. Elliott Bros., Woodward, Iowa.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Cow Waters Herself



and Increases Milk Yield 15% to 20%

That's what happens when the cow has a Libbey Automatic WATER BOWL within reach.

Milk is 87% water and milch cows must have an abundance of water—whenever they want it, day and night—if they are to yield as much milk as they are capable of yielding. Cows that are watered at a trough two or three times a day never drink as much as they need, and the lack of water cuts down the milk supply. This is especially true in the winter, when a supply of water outdoors is so cold that the cows will not drink nearly as much as they need. In many herds, the cows produce only a small quantity of milk because they do not drink enough water.

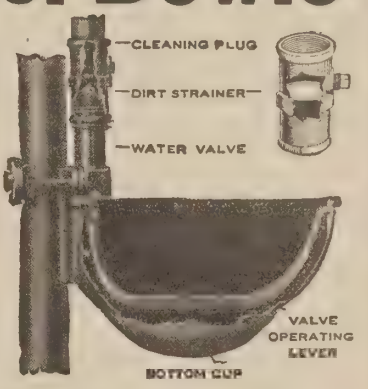
Every farmer who has installed Libbey Automatic Water Bowls in his stable, and reported accurate comparisons, before and afterward, has proven that they actually increase the milk supply from 15% to 20%. Some cows have shown an increase of as much as 4 pounds of milk per day.

Libbey Automatic Water Bowls

The Libbey Bowl is a wonderful improvement over all float tank systems. It is a new invention, having been on the market only three years, but in that time 50,000 Libbey Bowls have been sold.

Each Libbey Bowl is automatic — that is, it controls its own water supply and is operated entirely by the cow.
No float tank is required and bowl operates perfectly under any pressure.
Bowls may be placed at different heights and in any kind of stall or pen.
They cannot overflow and cannot get out of order.
No water is left in bowl to become stagnant or for animal to splash out and wet the stall.
No water can pass from one bowl to another, preventing the spread of contagious diseases.
It is the **only** automatic bowl that has a **dirt strainer protection for its valve,** which absolutely prevents any dirt in the water from hindering operation of valve.

It is the easiest to install, and costs the least of any bowl made.



WHAT THE FARMERS SAY:

11 Cows Gain 40 Pounds of Milk
Robert J. Plenty, Rice Lake, Wisconsin, wrote: "The Libbey Automatic Water Bowls are a money-maker and time and labor-saver. My 11 cows gained 40 pounds of milk in one day, after installing bowls. I would not be without the bowls for a good deal."

Libbey Bowl is Very Superior
Guy D. Power & Son, Pankhurst Farm, Auburn, N. Y., wrote: "The water bowls purchased of you in January are giving good satisfaction watering our herd of 54 milk Ayrshires and Holsteins. The Libbey Automatic Water Bowl is a very superior one and is of valuable aid to dairy farmers in increasing their milk yield."

Best He Has Ever Seen.
Alphonse LaBelle, Harris, Michigan, wrote: "I have been using the Libbey Bowls and the Libbey Stanchions for some time, and they are the best that I have seen. The Water bowls keep up the milk yield of the cows and the Stanchions are mighty comfortable on the cow's neck and handy for us to use, so I consider them both good, valuable equipments for any barn, and would not sell them for twice what I paid for them if I could not get more like them."

Libbey Litter Carriers and Stanchions

Libbey Litter Carriers are simple, strong and easily stand the hard knocks without getting out of order. "Lock" and "trip" always on the job. Made to fit any size or style of stable. Save manure; your farm needs it.
If interested in Carriers or Sanitary Steel Stanchions or Stalls, ask for General Catalog.
If interested in Water Bowls, ask for Water Bowl Book, also **free Daily Milk and Feed Record.**

C. A. LIBBEY COMPANY

100 Marion Street - Oshkosh, Wisconsin

How the Cow Operates

A little water always remains in bottom of bowl. When the animal is thirsty, it attempts to reach this water and pushes lever to one side, which opens the valve and lets in fresh water about as fast as the animal can drink. When the animal has had enough, it will raise its head, and this lever will swing back to its mid-position in the bowl and the valve will close, shutting off the water.

C. A. LIBBEY CO.,
100 Marion St., Oshkosh, Wis.

Please send me full information on subjects checked below:

Water Bowls..... Carriers..... Stanchions.....

Name.....
(7)

Town..... State.....

...d $252, and the entire 86 head so... for an average of $314. Eight a...mals sold for $500 or more and the te... highest in the sale averaged $752. T...nty-three of the buyers were from W...consin, three were from Illinois, a... there was one from each of the fo...wing: Nebraska, Mississippi, A...ama, Minnesota, Iowa, and On...ta..., Canada.

...far as number of animals pur...ed was concerned, L. D. Kellog of Il...ois was the heaviest buyer, tak...in 10 animals for an average of ov... $303. Fred Rueping, Wisconsin, p...hased six animals for an average p...e of $565. Mr. Rueping is a new co...ert to the Guernsey breed. His p...hases were made through Mr. C...s. L. Hill.

...e Bailey Falls Farm, Illinois, w... the largest consignor. They en...ed 15 animals which sold for an a...age of $348.

...igh honors in the price list went to ...ay King's May, a 4-year-old cow co...igned by Bailey Falls Farm. Her si... has 21 A. R. daughters, is by Imp. K...g of the May, and from Dolly B...m of Langwater with 632.34 lbs. fa... to her credit and two A. R. daugh...te... Her dam, Benton's Queen May, h... an A. R. record of 507.7 lbs. fat m...e as a 4-year-old and is a grand...da...ghter of Imp. King of the May. M... King's May herself is a splendid ty... of Guernsey cow with plenty of sc...e. She has an A. R. record of 3...21 lbs. fat made at 1 year, 10 m...ths, and at 3½ years made 348.25 lb... fat in 212 days. From the first s... was recognized as one of the fea...tt...s of the sale, and when she was b...ught into the ring there were pl...ty of buyers ready to bid. The co...est finally narrowed down to C...s. Marsh of Iowa and the Martin... Farms of Ontario, the latter tak...in the cow for $1,475.

...illian Bishop of Maple Hill, a 2-...-old heifer, recently fresh, was a...her of the good females offered. S... is a daughter of May King's V...ngue of Ingleside with a good list of A. R. daughters and from Lillian B...op II with an A. R. record of 649 lb... fat made as a 4-year-old. She w... consigned by Fruit Bros., Wis...in, and purchased for $1,000 by N...& A. G. Fisher, Nebraska.

...ut one bull sold for $1,000 or m...e. He was Superb of Edgemoor, a... eleven-month-old son of W. H. D...ee's famous herd sire, Itchen M... King, and dam that has been a p...e winner in the show ring as well as a producer, she having a three-...-old record of 796.52 lbs. fat.

...as. Murphy, manager of the Til... Farms, Wisconsin, and Chas. L. H... bidding for Mr. Rueping were ... after the calf and Mr. Hill did ... succeed in buying it until it ...hed $1,025.

...n the second day of the sale, grade ...s and pure-bred bulls, only, were ... Twenty-eight bulls were sold ... $3,100 and the 41 grade cows were ... for $6,130, an average of $149.51. ... highest priced grade cow was a ...-ar-old that went for $210.

...ailey, Love, and Benjamin did the ...ng. F. E. Fox, secretary of the ...ciation, managed the sale.

Racine County School of Agriculture

...he winter term of the Racine ...nty School of Agriculture and Do...tic Economy will open on Mon..., November 25th, and a special ...t course is offered to girls and ...s who enter at this time. It con...s of two winters' work of 16 ...ks each. All work offered is of a ... practical character. A full list ... work and a catalogue will be ...led to anyone requesting same from Supt. E. A. Polley, Rochester, Wisconsin.

The new dormitory for the use of students is nearly completed and will be ready for occupancy by Christmas. All students will room and board here and be under the supervision of a competent matron at all times. Room and board will be at cost, which will be less than it can be obtained for elsewhere. All modern conveniences will be supplied in the dormitory. Arrangements will be made to take care of students entering the winter term and desiring board, in temporary quarters until the new building is completed. E. A. POLLEY, Supt.

Not until shell-torn battlefields are turned into wheat fields will Europe cease to look to us for food.

L. P. Bailey & Sons Jersey Sale

L. P. Bailey and Sons, Ohio, were unfortunate with their October 26th sale in that their sale date chanced to come while the influenza epidemic was at its height, a fact that undoubtedly resulted in a very considerable loss to them. As it was, the cattle sold fairly well, the entire 80 animals bringing an average of $117, most of them being purchased by local buyers.

Thelia Captain, a 2-year-old bull, donated by Bailey and Sons to the Red Cross, topped the sale, selling for $510 and a second time for $200. He is by a grandson of Noble of Oakland and from a Register of Merit daughter of Pogis 49th of Hood Farm, and was, moreover, a winner at several state fairs last season.

Silver Marigold Aster, a 5-year-old cow with a 3-year-old record of 411.76 lbs. fat, was high priced female, going to C. H. Plumley, Ohio, for $400. The entire lot of 74 females sold for an average of $108, the 6 bulls for a $225 average.

Col. Perry did the selling.

Warts

I have a calf with a bunch on his shoulder as large as a quart dipper; it is black and rough like a wart. It is soft and seems to be just attached to the skin. Two smaller ones are coming on his back. Please tell me what this is and what to do for same.
Patten, Me. H. N. B.

Twist off the warts, or they will fall off after a time if you ligate them tightly with a fine cord, or put on some small rubber bands. Apply nitric acid to any wart that has not a narrow neck, first applying lard or vaseline freely to the sound skin.

EDITORIAL COMMENT

"If it were done when 'tis done, then 'twere well it were done quickly." Such was the decision of the military and commercial over-lords of Germany on that fateful summer day in 1914. Their greedy cupidity for power and wealth has finally been overthrown. Their rape of Belgium and the horrors committed in France and on the sea pled like "angels trumpet-tongued" against them. "And pity, like a naked new-born babe, striding the blast, or heaven's cherubin horsed upon the sightless couriers of the air, has blown the horrid deeds in every eye, that tears shall drown the wind. They had no spur to prick the sides of their intent, but only vaulting ambition, which o'erleaps itself and falls on the other."

Plans have been made and men are being engaged to help reorganize the agriculture of France. There has been formed under the auspices of the National War Council of the Y. M. C. A., "Army Overseas Educational Commission", which, working directly under the authority of General Pershing and of the Y. M. C. A. secretary in France, will undertake all the educational work among the American soldiers overseas during the war and particularly during the demobilization.

As we understand it, France has been divided into seven geographical regions and each region will have what is known as a Regional Director of Agricultural Education. In each region there will be employed agricultural specialists in such fields as soils and fertilizers, live stock production, farm management, etc. A number of speakers who can stay in the field practically all the time, addressing groups of men interested in agriculture, have been secured.

The plans are to select teachers from American officers and enlisted men to do the teaching, these men to receive training from those who have been selected from this country to carry on this educational enterprise.

KEEP THEM THERE

In "The Dairy Optimist" column of this week there is a splendid story for fathers and mothers. Learn from it and from the short letters of the junior dairymen that appear weekly what ownership and responsibility do for a boy. These are not only interesting reading, they are something more. They are to be read and acted upon, they go to the fundamentals of human nature. Give that boy a fair opportunity, be wise, be patient. Don't drive your boy from the farm, keep him there.

ORDER FERTILIZERS NOW

Those desiring fertilizers for next year's crop should order them now. It is to their advantage as well as to the government to place orders early for fertilizers. The farm labor situation is likely to be quite as acute this coming spring as it was last spring. It is therefore prudent that materials of every kind be purchased now, so that they may be taken to the farm and stored, ready for use next spring. This will save time next year when it is more valuable than during the winter, and permit the fertilizer companies to fill their orders. These institutions, as well as the farmer, are short of labor, but if their business can be spread out over a longer period they will be able to fill their orders. Last spring about 20 to 25% of the farmers ordering fertilizers were unable to get their orders filled because of the lack of labor and the congested railroads. Let us not make the mistake of last year, as the world needs all the food the American farmer will provide. There be will no danger of overproduction as no country in the world has a surplus of food; on the other hand, the grain bins are very low and every effort should be put forth to replenish them.

VITALITY AND HEALTH

The past few years we have published many articles which have shown the bad results of feeding animals faulty rations. Illustrations have been presented showing the effect upon growth and development of a ration lacking in essential substances. These lessons have brought useful information not only to those anxious to feed their animals properly but have also shown the importance of paying more attention to the diets of human beings. They have clearly revealed that it is the little things, the undetermined substances chemically, that effect growth and health of all animal life.

Dr. E. V. McCollum, who prepared a series of articles for us, has also written a book in which he discusses the information which he secured with animals of various kinds through many years of experimentation. It is published by The MacMillan Co. and is entitled "The Newer Knowledge of Nutrition". It discusses the use of food for the preservation of vitality and health.

Dairymen should be much interested in this book, for milk and its products are given unusual prominence. Their importance in human diets are clearly revealed.

OTIS TO FRANCE

Professor D. H. Otis of the Wisconsin College of Agriculture, who has been in charge of the Wisconsin farm management demonstration work, has been given a leave of absence to engage in his chosen field of work in France. Professor Otis expects to have charge of the men selected to do farm management work in the several agricultural districts of France and also to assist in selecting and training teachers from the American officers and enlisted men of the army.

The opportunity in this service is unique. Agriculture holds an important place in France and while much attention will be devoted to the teaching of technical agriculture, there will be a splendid opportunity to influence the soldiers in respect to their attitude toward the great economic and social questions of agriculture. Great changes are coming not only to the industries of the city but to agriculture as well. While this group of men goes forward to France to help reconstruct the agriculture there on a basis to meet new conditions, we may well consider plans to be adopted for improving the agricultural situation of our own country.

Professor Otis is well prepared to help organize the new agriculture of France, and may he gather information which will assist us when he returns.

REWARD FOR RIGHT PRACTICE

Mr. G. H. Clark of Washington, a subscriber of Hoard's Dairyman, has written us as follows: "October 26th I had an auction sale of 35 grade Holstein cows. They averaged $191.30 each. I bred them up in the last six years. Only four matured cows gave less than 10,000 lbs. of milk last year. This was my first attempt at farming. I read Hoard's Dairyman every week."

The experience of Mr. Clark shows what can be done with a pure-bred dairy bull. The prices which he received for his grade cows were not more than they were worth. The prices at which they sold brings forcibly to our understanding the value of good blood and argues strongly in favor of breeding all dairy cows to a pure-bred bull. Why dairymen should be content to continue with scrubs when the opportunity for breeding improved animals is so easy to take advantage of is difficult to understand. No man who breeds inferior animals is securing for himself or his family all the reward that is possible for him to obtain. The keeping and rearing of well bred animals not only brings a greater monetary reward but puts a deeper satisfaction into the work of the farm. We must ever keep in mind that enjoyment and satisfaction come to us very largely through the character of work we do.

VICTORY

Monday morning, November eleventh, our citizens were awakened from their slumbers by ringing bells and shrieking, whining whistles. These were pleasant sounds and the ears of every person were tuned to their notes. The President had announced that the armistice had been signed by Germany which was in effect an unconditional surrender. The welcome news spread like lightning to every home in our broad land and hearts leaped with joy and gladness, for it meant peace. The world has suffered pain, misery, and death for more than four years and the souls of men were heavy laden.

The news that hostilities were to be suspended was like the voice of the Master announcing "peace on earth and good will toward men". People gathered in the streets and public squares where bands played and paraded and where there was singing and speaking. Every living soul by dawn was doing something to show his exaltation over the ending of the war. Some laughed, some cried, some shouted, and some were silent. No matter what was done, it all expressed the joy of victory and the ending of a cruel, diabolical, devilish war.

In a true sense it was the celebration of victory and not of peace. But which ever way construed, it was a happy day for us and most of the people of earth. It was the greatest day the world has ever known, except one, and on that day Jesus Christ was born.

THANKSGIVING

We never had greater reasons for thanking our Creator for the rewards of harvest, and the blessings which this Thanksgiving has brought, than we have this year. Our country has been given a generous crop and the great world's conflict has ceased. And we are truly thankful for both.

For more than a year and a half we have shared our fortunes with the allies for the purpose of crushing autocracy. We not only sent soldiers and munitions across the sea, but also the food which was the one great need of Europe. The large supply of food which we sent seemed to call for a still larger supply. Appeals everywhere were made to our farmers to increase their crop production that food might be abundantly supplied, and they responded generously.

In this hour of victory we must not forget those who need a liberal portion of our food. The world is hungry and some nations are starving. We can do humanity no greater service or render ourselves a deeper satisfaction than to share our generous supply of food with them. We are indeed grateful that America is able to do this, and it is with thankfulness that we again approach the task. The ending of hostilities does not mean that we may return to our former wasteful practices of using food; it means, rather, that we must tighten our belts still more and supply a larger number of people with the necessities of life.

This thanksgiving not only affords the opportunity of returning thanks to the All Kind Provider for a victorious peace and for our generous harvest, but also to consecrate ourselves to render the needy nations of earth a still larger service. As we contemplate our gifts and our opportunities as we look upon the sacrifices of the past, we see ringing in our heart of hearts the immortal words of Lincoln: "It is rather for us to be here dedicated to the great task remaining before us—that from our honored dead we take increased devotion to the cause for which they gave the last full measure of devotion."

IMPROVING FEED LAWS

The New York State Food Commission is making an effort to strengthen the present laws regulating the manufacture and sale of animal feeding stuffs. Attempt was made some weeks ago to strengthen the national laws regulating feedstuffs through the Gore Amendment. We opposed this amendment not because there is not a necessity for better feed laws but because of its imperfections. As the amendment was drawn, it would neither provide the information which dairymen desire nor would it give them greater protection than the present feed laws.

We have gathered information from many sources regarding the feasibility of improving the state and federal laws governing the manufacture and sale of feeds. There seems to be no definite agreement as to how it should be done, but every communication expressed a desire for feed laws which will give more information to those buying feeds. One feed manufacturer suggested that the laws might be improved by requiring the percentage of all ingredients low in nutrients to be stated upon the sack. This particular manufacturer is making a mixed feed which contains 20% oat clippings, and informs its customers to this effect. The company is willing to put a label upon the sack that this feed contains 20% oat clippings. If the feed laws were amended to require the percentage of materials of low feeding value to be printed upon the sacks, the purchaser would receive all the information desired. It is our opinion that all worthless feed materials, such as rice hulls, buckwheat hulls, and cocoanut shells, etc., should be prohibited by law. These substances are worse than worthless.

There are those who favor labeling the proportions of ingredients used in a mixed feed upon the sack and also to require the digestible nutrients be stated. Those well informed hold that such a law would be unconstitutional. This judgment is based upon the rulings of the Supreme Court upon laws requiring patent medicine manufacturers to print upon their labels the proportions of the ingredients used in their medicines were unconstitutional.

It is also held that to state the digestible nutrients would be next to impossible because the mixtures of necessity must change to some extent. Even the different ingredients will var

composition. It would seem at the present time that all we can look forward to is a law which would require the feed manufacturer to state upon the sacks the percentage of feeds low in nutrients and to prohibit the use of worthless materials as an ingredient for a mixture.

Feeding Suggestions Wanted

Please make a balanced ration that would be easily made by our local farmers on their own farms, using the material which is plentiful here, and which would take that place usually occupied by prepared feeds of various kinds. We had an abundant crop of barley in this county this year, also a large crop of oats, and most of our dairymen have plenty of good corn silage. Some of the farmers have a quantity of clover hay or alfalfa, though it as not very plentiful, and a few have silage containing soy beans. Others have soy bean hay. What would be a good ration for a dairy cow, using corn silage, oats, and barley, and what would have to be added? How much should be fed? We will welcome any suggestions that you might make.

Green Co., Wis. J. W. S.

Barley is one of the cheapest feeds in Wisconsin this fall. It is nearly equal to corn for milk or pork production. Oats is a little superior to bran and it is costing a little more at the present time, but since bran is difficult to get, it is advisable to use oats as it is cheaper than most other feeds on the market. In suggesting combinations of meals to supplement the roughage that the farmers have in the community, we would use barley and oats liberally. It should be borne in mind, however, that corn can be substituted for barley or bran for oats.

A cow weighing 1,000 lbs. will consume about 30 lbs. of silage daily; some will require a little more, others less. In connection with the corn silage, we would feed each animal a liberal amount of dry roughage. Alfalfa, clover, and soy bean hay are far superior to timothy or corn stover. In the absence of these protein hays, like alfalfa, clover, and soy bean hay, it is necessary to provide a mixture richer in protein than oats and barley will provide. For a farmer having a high supply of either alfalfa, clover, or soy bean hay, a mixture, equal parts by weight, of barley and oats will supplement the roughage nicely. Feed about one pound of this mixture for each 3½ to 4 lbs. of milk produced, depending upon the physical condition of the cow and her flow of milk. If there is only enough of the high protein hays that it will be necessary to use the amount to five pounds daily, and that stover or timothy will have to be used to supplement the clover or alfalfa, then we would use the following mixture: 400 lbs. of ground barley, 300 lbs. of oats, and 100 lbs. of oil meal or cottonseed meal. If the farmer has no silage, then we would advise the use of oil meal although it costs a little more per ton.

For farmers with an abundance of silage, alfalfa, clover, or soy bean hay, we would not advise the feeding of any grains to any cows producing less than 18 lbs. of milk daily, unless they are very thin in flesh and it is desirable to put them in better physical condition. Where timothy hay is the only dry roughage to supplement the silage, we would then suggest a mixture of 300 lbs. of ground barley, 300 lbs. of ground oats, and 100 lbs. of gluten feed or dried distillers grains or brewers grains, and 100 lbs. of oil meal or cottonseed meal. We would advise the same mixture if the hay were clover and timothy. In all instances, we would feed about 1 lb. for each 3½ to 4 lbs. of milk produced. This means that if a cow produces 24 lbs. of milk daily, we would feed from 6 to 7 lbs. of the meal mixture.

It is well to provide the cows with an adequate supply of salt. One ounce a day may be fed in the grain portion of the ration, or it may be kept in a box where the cow has access to it at all times. Furthermore, supply an adequate amount of water for it means a larger flow of milk. Very often a cow does not receive enough water and her flow of milk is reduced from 5 to 10%.

It may be said, too, that a great many of our cows are unprofitable because the farmers try to produce milk on corn stover and on home-grown grains like barley, corn, and oats entirely. There is no possible way of supplying the cow with sufficient protein on these feeds, as no combination can be made of them which will supply an adequate amount of protein. Protein is the substance in milk which makes the casein in milk. Very often the farmer is feeding a liberal supply of home-grown grains and his ration costs him more than it should, but still the flows of milk of his cows are reduced because they need a pound or two apiece of some high protein feed like oil meal, cottonseed meal, gluten feed, distillers grains, or brewers grains. The feeder must bear in mind that there may be some little thing in the ration that is limiting the production of his herd.

Feeding Meal Portion of Ration on Silage

I have ten registered Holstein cows, partly heifers with first calf. The greater part of them have freshened during the month of October, and the rest of them will freshen during the next two weeks. They are all heavy milkers. My roughage consists of good corn ensilage, bean pods, and corn stover. I have no hay. I have about 370 bushels of oats and peas, about one-third peas; about 400 bushels of ear corn, and I have enough bran so that I could let each cow have from 2 to 3 lbs. per day for the next 60 days. I may be able to get more later. Other feeds are high in price. Unicorn is selling for $69 per ton. As stated before, my ensilage is of good quality containing a good amount of grain. Wouldn't it be a good plan to sell the corn which I have left and buy other feed, or would it be just as well to feed some corn in the ration? I can get cottonseed meal for $3.25 and Old Process oil meal for $3.35 per hundred pounds. I always have been feeding the grain with the ensilage. Do you consider this a good practice or is it better to feed both separate? I expect to raise all the heifer calves. Will the same ration do for the calves as well? I will feed them some skimmilk and clover and timothy mixed hay.

Vassar, Mich. F. J. L.

Since our inquirer does not have an abundant supply of good dry roughage, we would suggest using a greater amount of silage than usual. We believe cows could be fed about 35 to 40 lbs. daily and then supplement this with corn stover. Bean pods are not very nutritious and we would not advise feeding any considerable quantity of them.

A mixture consisting of 300 lbs. ground peas and oats, 200 lbs. corn meal, 200 lbs. bran, and 100 lbs. oil meal would go very nicely with the roughage. Feed about 1 pound of this mixture for each 3½ to 4 lbs. of milk produced.

It is quite common to feed the meal portion of the ration on the silage. We consider this a good practice, especially if the meal is a little heavy. This method is preferred by some dairymen even though the meal mixture is light and some claim that they get better results by feeding the meal in this way. We do not have any definite information indicating whether there is any great advantage, but we feel certain there is no disadvantage under any condition.

It is quite possible that corn may be exchanged for barley. Barley has about the same feeding value as corn and may be used in its place. In Wisconsin, barley is considerably cheaper than corn and is being quite generally used for feeding cows this year.

Calves six or seven months old can be fed the same mixture of feeds as is provided for the cows, together with some silage and clover and timothy hay. For calves three or four weeks old and until they reach that many months, we believe that whole oats and bran mixed equal parts by weight would supplement the skimmilk and hay better than the ration suggested for the cows. Even mixing whole corn with these feeds would not be out of place. The young calf does better upon whole grain than when it is ground. After reaching the age of 5 to 6 months, the calf makes better use of its feed when ground.

Growing Sunflowers for Silage

I am told a man in Lewis Co., New York, grew an acre of sunflowers during past summer and in fall harvested them and put them in his silo the same as corn. What is your opinion of this practice? Have they good stock feeding value? Do you think they would make good silage? How much protein in them? When should they be planted, how cultivated, and when harvested?

Boonville, N. Y. B. A. C.

Sunflowers have not been used for silage for a sufficiently long period of time to establish just what the proper method of feeding and handling may be. At the Montana Experiment Station they first planted them in rows 3 feet apart, but later drilled them in rows 28 inches apart, using 20 pounds of seed per acre. In a general way, sunflowers should be planted and handled much as corn is handled. In some cases we have known of, sunflowers and corn were mixed and planted together, but sunflower seed should not be planted until the ground is warm and in good condition.

At the Montana Station, which is located at a somewhat high altitude where early frosts are prevalent, they first cut the sunflowers for silage when about 5% of the plants were in bloom, but before any seed or grain had really formed. Their next cutting was made shortly after frosts but the plants were no further advanced in maturity. Under New York conditions sunflowers would probably be cut into the silo at about the same time as corn.

The feeding value and composition of sunflowers was discussed in our issue of November 15. Although chemical analysis would seem to give a higher protein value to sunflowers than to corn, feeding trials thus far indicate that silage made from these two plants is equally valuable for milk production. This comparison was made, however, in a section where corn does not mature well. Where corn grows well it may be questionable whether sunflowers would be as valuable and wider experience is necessary.

Using Angus Bull on Guernseys

I have as many grade Guernsey cows (about 35) as I desire and not wishing to breed pure-breds, I am thinking of buying a Polled Angus bull so that I may raise the offspring to sell over the scales. Would you consider this a good proposition?

Long Prairie, Minn. W. W. B.

We see no objections to the use of an Angus bull providing it is not desired to continue to improve the dairy herd. However, if one is looking for increased dairy profits, it would be a most unfortunate system of breeding to adopt.

While the use of a beef bull will give progeny that may sell for a little more money than calves or steers from a Guernsey sire, yet this will not be sufficient to offset the dairy losses which are almost certain to follow. No breeder can stand still—he must either go forward or backward.

Our inquirer says he now has 35 head of grade cows. It is quite possible that these may all be very high producing animals, but this would be most unusual and it would be particularly unusual if some of them did not go backward next year and in the succeeding years. The influx of young animals of proper dairy ability is quite essential in maintaining the dairy production of the herd, to say nothing of increasing that production. It is reasonable to suppose that if a pure-bred Guernsey sire of good ability is used, his offspring will be superior to the grade animals which are now in the herd. It is in this manner that one can build up a more profitable herd, and profit is about what all men are looking for from their business.

Grind Barley for Hogs

I want to feed some barley to hogs with a self-feeder. Can I get the same results by feeding the barley whole and letting the hogs grind it themselves as I can by grinding it first?

I am feeding my cows ground barley and oats (2-1), about 1 lb. of ground feed to 4 or 5 of milk; also alfalfa once a day and corn in the bundle twice. Could I better the ration any to produce a greater amount of milk at a profit? I can get oil meal for $60 per ton and other feeds at around $45 to $50 per ton, such as gluten.

Grays Lake, Ill. L. B. C.

It is better to grind or roll barley fed to hogs. The berries of the barley are rather small and hard and for this reason do not give the same returns when fed whole as when ground or rolled.

For cows producing heavy flows of milk, from one-half to one pound of oil meal might be fed. Oil meal helps to keep the animal's digestion in good condition. If corn silage were available then we would not suggest oil meal, as the ration would be good without it.

We would suggest that if whole corn is being fed it would be more profitable to husk and grind the corn. Whole corn fed to cows or steers is not all utilized. About 20 to 23% of the corn will pass through the animal unused. In other words, there will be a waste of that much unless hogs follow the animals and this is not always practical in a dairy.

Ration with Clover and Silage

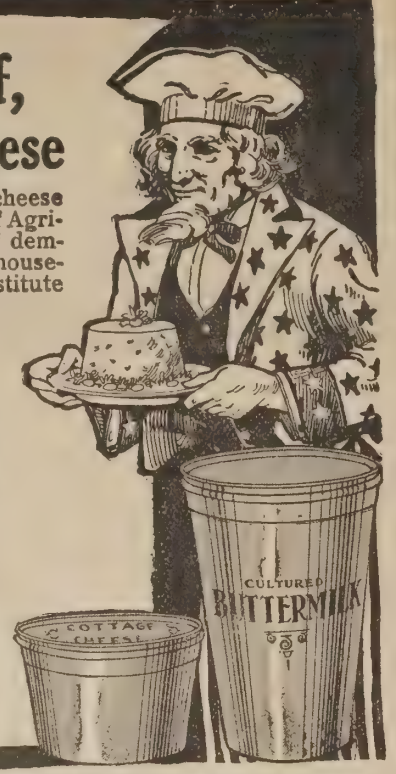
Kindly balance me a ration for milking cows with some of the following feeds: Gluten, cottonseed meal, hominy, corn meal, bran, middlings. For roughage we have clover hay and silage.

Erie, Penn. W. W. C.

We suggest that each cow receive 30 lbs. of corn silage daily. Some will require a little more, others less. In connection with this, let each animal have a liberal supply of clover hay. A mixture consisting of 400 lbs. hominy meal or corn chop, 300 lbs. bran, and 100 lbs. gluten feed will supplement nicely the silage and clover hay. Feed about 1 pound of this mixture for each 3½ to 4 lbs. of milk produced; that is, to a cow giving 24 lbs. of average testing milk, we would feed six to seven pounds of meal.

Uncle Sam, Chef, Serves Cottage Cheese

More than 50 ways of utilizing cottage cheese have been evolved in the U. S. Dept. of Agriculture laboratories. A little army of demonstrators has been sent out to show housewives how this nourishing meat substitute can be used in every course "from soup to nuts". Make *your* skim into cottage cheese and market it in



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Cheese

Have you ever stopped to think that cheese is milk in a very condensed form? Cheese is thought to be the oldest of the dairy products and the first form in which milk was preserved. It probably owes its origin to the accidental storing and ripening of sour milk curd.

At present cheese should be used extensively in our diet in place of meat. It is not only cheaper, but is more valuable as a food than is meat. For example, one pound of American cheese contains as much muscle-building material as one and one-half pounds of sirloin steak, furnishes almost twice as much energy as two pounds of sirloin steak, and costs half as much. It is easily kept and prepared for the table and has an appetizing flavor and lends itself to many ways of serving. One of the best ways to keep cut cheese is to wrap it in a slightly damp cloth, then in paper, and then kept in a cool place. Paraffin paper is also very satisfactory for wrapping. If cheese is kept in a covered dish, the air should not be entirely shut out, because in that case the cheese will mold more easily.

If properly cooked and sufficiently masticated, cheese is readily digested by the normal healthy person. By properly cooked cheese, I mean cheese cooked at a low temperature, below that of boiling water. If it is to be a boiled dish, the mixture should not be allowed to boil after the cheese is added; if it is to be a baked cheese dish, the mixture should be put into a baking dish which is set in hot water in the oven. The water should not boil. When cooked hard, cheese becomes stringy and tough, and cheese in this form is indigestible. When cooked at low temperature, cheese is soft and tender.

Cheese dishes are as delicious as they ase varied and numerous. We find use for cheese in soups, sandwiches, salads, pastries, and escalloped dishes, all serving as meat substitutes. When cheese forms the main dish in the meal, crisp vegetables and fruits should be served with it.

Welsh Rarebit

1 tablespoonful fat,
½ tablespoonful corn starch,
½ teaspoonful salt,
½ teaspoonful mustard,
½ teaspoonful paprika,
1 cup milk,
1 egg, beaten lightly,
½ cup soft cheese.

Make white sauce from first six ingredients. Remove from fire, add egg and cheese, and stir until cheese is melted. Serve on toast.

Many varieties of rarebit may be made, using the above for a basis and adding ½ cup of cooked cereal, such as rice, barley, and hominy.

Cheese Souffle

½ cup milk,
1 tablespoonful corn starch,
2 tablespoonfuls fat,
½ teaspoonful salt,
½ cup grated cheese,
3 eggs.

Make white sauce. Remove from fire, add cheese and beaten egg yolks, stir until cheese is melted. Cool slightly, add beaten egg whites. Pour into a greased baking dish; stand in hot water in slow oven 30 minutes.

Cheese Patties

1 cup milk,
2 tablespoonfuls corn starch,
3 tablespoonfuls fat,
½ teaspoonful salt,
½ teaspoonful paprika,
2 cups soft cheese,
2 egg yolks,
Bread crumbs.

Make white sauce, remove from fire, add beaten egg yolks and cheese; stir until cheese is melted. Cool and

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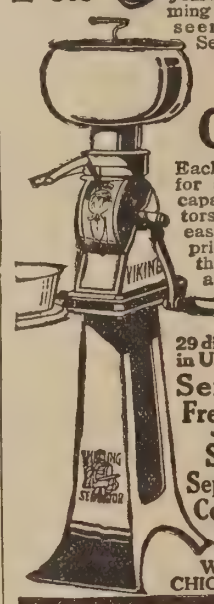


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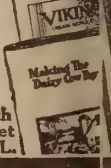
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pe. Dip in crumbs, egg and crumb
in. Fry in little fat.

Cheese Fondue

cup bread crumbs,
cup milk,
teaspoonful salt,
cup grated cheese,
eggs,
eparate eggs. Mix other ingredi-
s and beaten egg yolks. Cut and
l in beaten whites. Pour into
ased baking dish, place in oven in
an of hot water for about half an
r, or until the mixture sets.

Cheese Tapioca

tablespoonfuls tapioca,
cup water,
½ cup grated cheese,
tablespoonfuls fat,
¼ cup bread crumbs,
alt and pepper.
ook tapioca in water until trans-
ent, add fat, salt and cheese. Stir,
remove from fire. Line a greased
ing dish with bread crumbs, put
a layer of tapioca, then a layer of
mbs, until all are used. Bake in
derate oven about 20 minutes.

Cheese and Corn on Toast

½ cup tomato puree,
¼ cup corn,
tablespoonful fat,
ripe pimento,
teaspoonful salt,
½ teaspoonful paprika,
cups grated cheese,
beaten egg,
slices bread.
Mix and heat first six ingredients.
l cheese and beaten egg; remove
m fire at once, stir until cheese
lts. Pour mixture on toasted bread.
y place a poached egg on slice of
st. This is a very nutritious com-
ation.

Toasted Cheese Sandwiches

Put fairly thick slices of cheese be-
en two slices of bread and butter,
l toast the bread. This makes a
y delicious sandwich.

calloped Cauliflower With Cheese

Into a greased baking dish put lay-
of boiled cauliflower and cheese
ce, cover with bread crumbs, and
ke in moderate oven.
Cabbage may be escalloped in the
ne way and is very delicious.

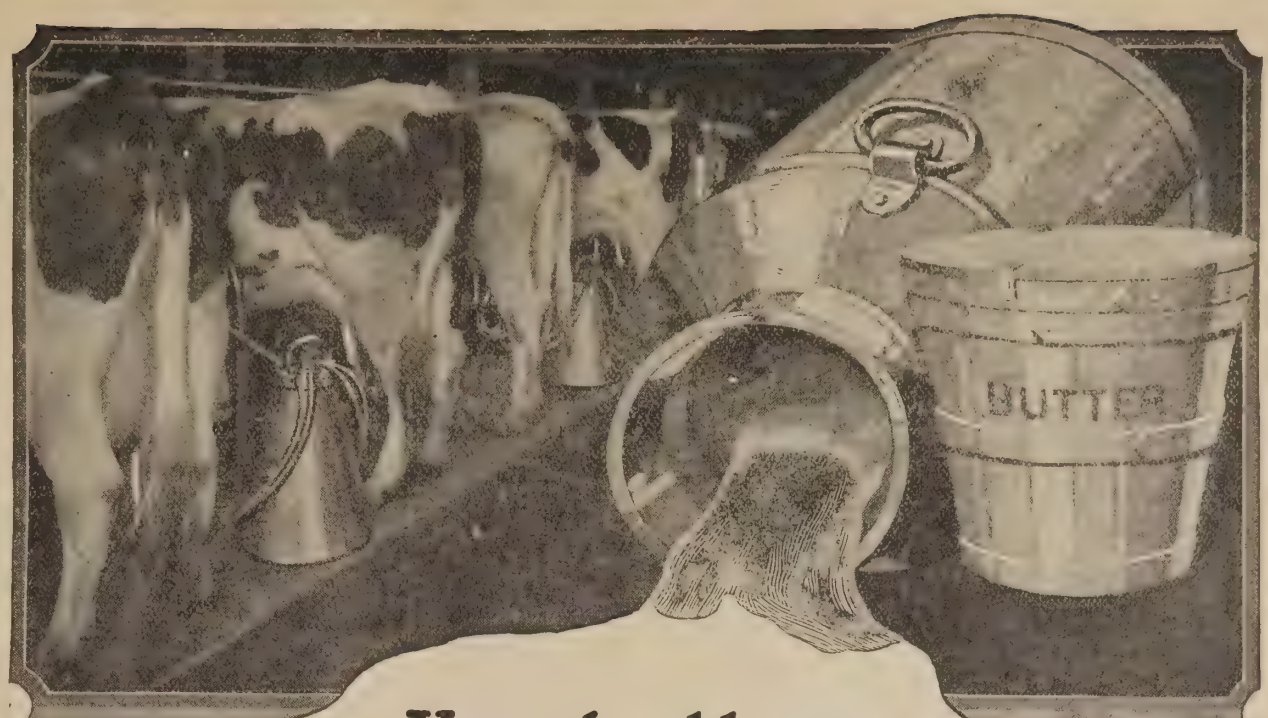
Scrambled Eggs With Cheese

3 eggs,
¼ cup milk,
½ pound grated cheese,
½ teaspoonful salt,
¼ teaspoonful pepper,
Pinch of nutmeg.
Beat eggs, add other ingredients,
ok over a slow fire, and stir con-
ntly, so the cheese will melt by the
ne the eggs are cooked.

Creamed Cheese and Eggs

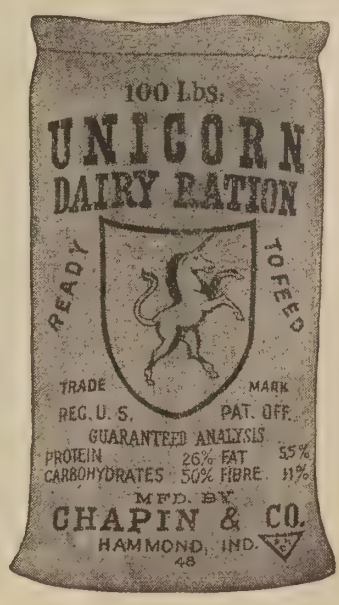
1 cup milk,
½ tablespoonful corn starch,
½ teaspoonful salt,
¼ cup grated cheese,
4 slices toast,
3 hard-boiled eggs.
Make white sauce, add cheese, re-
ve from fire, stir until cheese melts.
op egg whites and add to sauce,
ur over toast. Put yolks through
ve and sprinkle over the toast.
Cheese may be added to an egg
elet in several ways:
1. Serve an omelet with a cheese
uce.
2. Sprinkle grated cheese over an
elet before serving.
3. Grated cheese may be added to
e egg mixture before the omelet is
ked.—CHRISTINE FRANDSEN in The
yoming Farm Bulletin.

It is estimated by the Bureau of
rop Estimates that the number of
ock hogs September 1, 1918, was
,066,000, an increase of 4,848,000
a year.



You should use UNICORN DAIRY RATION

Because—it will make more milk and cut down your milk costs.



Because—you can save from 10 to 20% of your feed costs through the use of fewer pounds of grain per cow and the increase in milk or fat per cow.

Because—there is 10% more available food material in Unicorn than in any ration on the market.

Because—it saves labor and the mistakes of mixing and feeding. It is always uniform and reliable.

Because—Unicorn Dairy Ration is suitable for feeding alone, or can be fed with home-grown corn, oats or barley. Unicorn contains ample protein and may therefore be used either as a protein feed or as a complete ration.

Ask your dealer or write

CHAPIN & CO., Dept. Z, Chicago

The Man in the Tobacco Store Says



—it does beat all how men are taking to Real Gravely, now that they know it costs nothing extra to chew this class of tobacco. All you have to do is to get a man to take his first plug of Gravely. Let him get the pure, satisfying Gravely taste, and learn for himself how much longer the small Gravely chew stays with him than a big chew of ordinary plug.

• • • •

It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND

Real Gravely Chewing Plug

10¢ a pouch—*and worth it*

P-B GRAVELY TOBACCO CO., DANVILLE, VA.



Send for Calf Facts

DON'T feed milk to calves. Feeding high-priced human food to calves is *waste*. Mature calves early, big and healthy on Blatchford's Calf Meal at ¼ the cost of milk. The other ¾ is *clear profit* to you. Write for the facts today.

Blatchford's CALF MEAL

Write Today Send your name and address for pamphlet "How to Raise the Finest Calves on Little or no Milk". No obligation, it's free—write today.

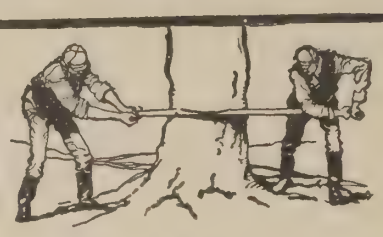
Blatchford Calf Meal Co.
Dept. 9548 Waukegan, Illinois

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Roup, colds, bowel troubles, sore head, limber neck, etc. At dealers or postpaid 75 cts. with 5 book Poultry Library. GEO. H. LEE CO., Dept. 425, OMAHA, NEB.

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When Writing to Advertisers, Mention Hoard's Dairyman

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SAWS AND TOOLS



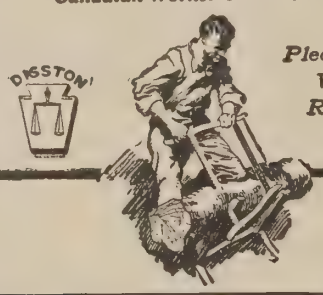
If You Can't Get Coal—
Burn Wood

Coal will be scarce this winter—and hard to get. Thousands will turn to wood for fuel. If you're a fore-handed man, invest now in a Disston Cross Cut Saw and a Disston Buck Saw for tree-felling and cutting into stove lengths. Disston Saws can't be beaten for quality. They're made right—from saw steel of our own manufacture. There's nothing "just like it." Disston Cross Cut and Buck Saws eat up the trees and the wood pile. Look for the Disston Trade Mark on the saw you buy. It means long life and workmanship at its best.

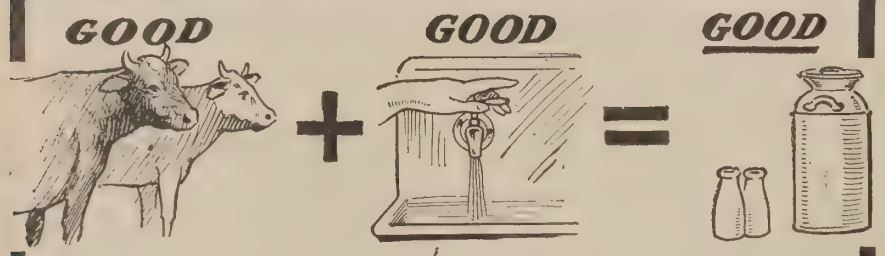
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Send for our booklet, "Disston Saws and Tools for the Farm"

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Pledge to Buy W. S. S. Regularly



and good milk means good Profits—for YOU! You have the good Cows. We can supply you with the

BETHALTO Water System

which will furnish abundant pure water, on tap, in your Dairy, Bathroom, Kitchen, Stables, Barnyard, Pastures, Garden—anywhere you want it—any time you want it—fresh from the very bottom of your Well or Cistern. Positively eliminates freezing troubles. Extremely simple, and stays in order. No trouble at all to install. You can install it, or we will.

Write to our Department H for free booklet.

SOUTHERN AUTO & MACHINERY CO., 116 Robert Avenue, St. Louis, Mo.

Water in the Stable a Nceessity



THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.



Cow Waters Herself

You must read about the new LIBBEY AUTOMATIC WATER BOWL for cows and horses—a wonderful improvement in barn watering. No float tank needed. Every bowl is automatic—controls its own water supply; can be placed any height and in any stall or pen. Most sanitary bowl sold. PREVENTS SPREAD OF CONTAGIOUS DISEASES. Increased milk yield quickly pays cost. Saves labor, saves feed. Write today. Also for Catalogue No. 9, if interested in stanchions, stalls, carriers, etc. Sent free.
C. A. LIBBEY CO., 195 Marion St., Oshkosh, Wis.

Principles in Breeding Pure-breds

(Continued from page 583)

been proven a most satisfactory investment. The calves are left with their dams anywhere from three days to three weeks, depending on whether we wish to test the dam or not. The cow is then taken away and the calf left in the same stall until broken to drink. It is then moved to a box stall where it stays about a month or so and then two calves are put together in one stall of larger size. The floor of this is of cement and cork brick. The frame and partitions are of wood. We have as much window space as possible and a skylight.

We feed milk to all the young calves three times daily and we are very careful about over-feeding. They also get good, sound clover hay and some grain—corn, bran, oats, and oil meal. All the hay and grain is fed by hand, not fork or shovel, and extra care is taken to guard against bad hay. It seems to mean sure death. After the calves are about four months old they get a little silage.

Establishing Friendly Relations With the Animals

The calves are all named at birth and treated as individuals. I believe in talking to them as much as possible. All our calves know their own names and their own stalls. I believe in emphasizing the individuality of each one of them as much as possible. Later in life, when the test cow is called on to go to the top of the list, or the bull to show at the National, this early training will count, and count big. Every great handler of cattle treats his animals as friends and equals. Success in the pure-bred business is impossible without that feeling in the organization.

My calf man has a simple remedy for scours that seems to work: A light dose of castor oil, followed by three feeds of boiled milk with an occasional raw egg.

When the heifers are six months old they are turned on pasture if it is spring, or moved to the horse barn if it be winter. In either case they spend the first winter in bunches of six to ten in a large box stall in the horse barn. They have plenty of hay and ensilage and about three pounds of grain each. They run out all day in all weathers. We generally feed a little long fodder in the field and bed on shredded fodder. The second winter they spend in bunches of about a dozen in the open heifer shed. Here they are fed as before, care being taken that the larger heifers do not impose on the smaller ones. We generally tie them up to feed grain and silage, and keep the hay rack full.

Our heifers are bred to freshen at from two years to thirty months the first time and at about 40 to 45 months the second time. All are given a record the first trip and are about 15 months between the first two calves. Afterwards we plan for a cow a year and always test those we feel will add to the reputation of the herd or some particular family.

When Records are Made

The herdsman, John Barehman, follows the method of treating each animal as an individual and his favorites will follow him all over the field. We have practically no set rules for feeding the test cows. We generally start the heifers on from six to eight pounds and raise them a pound a week until we think they are getting enough. We milk three times a day, but the night period is generally ten hours long, except in a few special cases where I have taken the night milking myself.

We believe in exercise for all the herd, not for the sake of record, but for the sake of the cow. All the two cows run out in a forty-acre lot the night, from the first of May until frost. And they go out every forenoon all the year round unless we happen to have a severe blizzard or a storm.

We have had six cows drop in calves each, three a dozen, and ones carrying her thirteenth calf besides having made three records, two of



GUERNSEY COW, CLARE OF POPLAR GROVE 3RD, AT 15 YEARS OF AGE
At 12 years she has a year's record of 13,170 lbs. milk, 568 lbs. fat in Class AA.
Owned by Louis McL. Merryman, Maryland

which are practically 700 pounds each.

In feeding the test cows we follow more or less the principles that have given others success. In 1914 I paid a visit to Anna Dean Farm and Messrs. Murphy and Gockerel were most kind in giving what information they could. Since then Mr. Gockel has visited us here at Gerar once and I have had the pleasure of spending the day with him several times at Pencoyd. Mr. Blake Arkcoll has been kind enough to help us several times and we more or less swear by his judgment.

While not making any very large records we have some of a little credit. Since 1912 we have had two half dozen first calf heifers make over 500 pounds fat, and one over 600. We now have four more on test that will do as well. In the older division of the Guernsey Advanced Registry we have the leader in DD, third cow in BB, eleventh in CC, and a former leader in AA. A twelve-year-old cow made 697 pounds fat and we have one in B that will make over 700 pounds.

Selling

The first and greatest principle in salesmanship of cattle is absolute honesty. Every customer should be treated as a future buyer rather than as a present sucker. One should spare no pains to maintain pleasant and cordial relations with his customers. There is no better advertisement than

satisfied customer and nothing can
you more harm than one with a
grievance. Remember, also, that you
are selling your personality as much
as your cattle and that no one who ex-
pects to make a success of breeding
pure-bred stock can do so by staying
at home. I feel sure that I can no
more afford to stay away from the
National, the annual meeting of the
club, and the big sales than I can af-
ford to give cows 300-pound fat rec-
ords that can make 500 pounds.

In the actual selling a thorough
knowledge of the blood lines of the
animals is very essential. Nothing
makes a worse impression than an
owner who does not know how his
animal is bred and, in many cases,
does not even know his animals. I
have seen sales made because a seller,
knowing the blood lines of his own
stock, and also of that of his custom-
er, could present arguments in favor
of certain crosses thus made possible.
On the other hand, I have seen ani-
mals of superb breeding sold for half
value because the seller was not post-
ed on breed history.

In conclusion, let me state that all
the money and knowledge in the world
will not make a man successful with



GUERNSEY BULL, CLARE'S PATENT KING, SON OF CLARE OF POPLAR GROVE 3RD
OWNED BY LOUIS McL. MERRYMAN, MARYLAND

pure-breds if his animals do not come
first all the time. And one without a
real love for animals can never hope
to make a success of it either.

Where is the Bran?

(Continued from page 589)

feels safe in forecasting a freer move-
ment of bran and shorts, and larger
available supplies in the present crop
year. But this change will not take
place over night; two or three months
or possibly a longer period will be re-
quired. Purchases of flour by the
United States Grain Corporation for
export to Europe are increasing each
week, according to Food Administra-
tion advices, while grain exports to
Europe are diminishing. It is un-
officially estimated that more than
30,000 barrels of flour are being pur-
chased for export each week by
the government grain corporation.
Should food officials decide to resume
the exporting of flour almost exclu-
sively, the practice in the last crop
year, the most helpful step toward
correcting the acute shortage prevail-
ing today would be accomplished. Also,
restricting sales of bran and shorts
to dairy producers, hog fatteners, and
poultrymen, and in requiring millers
and feed jobbers to distribute their
feed in such a manner that each state
receives the same proportion of the
miller's or jobber's shipments as it
received in the same period of 1917,
will eventually aid the market situa-
tion. Certainly, it is not altogether
just to allow live stock producers who
never gave consideration to the use
of mill offals as a feed, who turned
from the market when the price was
above the $40 level, to make large
purchases today because the price is
artificially low.

Declines in the corn market in the
last few weeks have amounted to ap-
proximately 50 cents a bushel; oats
have slumped; and the prices of other
feedstuffs have weakened as a result
of these recessions. Should the range
of prices of all feedstuffs decline
further, thus narrowing the margin
between mill feeds and other commod-
ities, lighter consumption of the offals
would result. However, the outlook
for lower prices is not bright, even
with the present international political
situation. The season of bullish rail-
road freight conditions is at hand.

Western ranges generally are in ex-
cellent condition, and recent rains in
the Southwest will make possible
grazing a month or two longer than
usual. These are important influences
which will have a tendency to "loosen"
the stringent shortage of bran and
shorts.

But dairymen who are hoping for a
return to normal conditions in the de-
mand and supply situation in the bran
and shorts trade should dispel such
notions. Peace will not enlarge the
supply greatly. It is a practical im-
possibility to effect a return to nor-
mal conditions in the mill feed trade
during the present crop year, or as
long as the fixed and artificially low
price continues in effect. But there
is more than a possibility of freer of-
ferings of offals within the next few
months.

Butterfat Price in Texas

HOARD'S DAIRYMAN:—The Falfur-
rius Jersey Dairy company of Texas,
which is owned by Ed. Lasater, is now
paying the farmers and dairymen of
that section 67 cents for butterfat.
This is said to be the highest price
ever paid for fat in Texas. In addi-
tion to its regular shipments, the
company is now shipping one thou-
sand pounds of butter daily to the
Quartermaster Department, Camp
Travis, for use of the soldiers. About
five hundred gallons of pure milk and
two hundred and fifty gallons of
skimmilk are also being sent to San
Antonio daily. The demand for Fal-
furrias butter exceeds the supply.

Texas. W. D. HORNADAY.

There is plenty of wood in the
eastern and northern states, millions
of cords of it uncut, ready to be
chopped.



"Sorry, but Dan's got my last pair of Lambertville Four Buckle Arctics"

"I may be able to get you some of the other Lambertville Footwear but no more Four Buckle Arctics or Short Boots can be had now. The Government's taking practically the entire output. If you run into an odd pair in any store, buy 'em quick.

"I know it's hard for you fellows who are used to Lambertvilles to wear anything else. But remember it's hard for me too. No others sell so quickly or bring me the same good will. Well, we'll all have to grin and bear it till the Government's demands grow less. Then, believe me, I'll have all the Lambertvilles you want."

If *your* dealer happens to have a pair of Lambertville Four Buckle Arctics or Boots of your size, buy them on sight. If he hasn't, don't blame him. And don't blame us. War orders must come first and for the time being we are powerless to supply our trade.

Your dealer wants to sell these goods just as much as you want to buy them. He knows they mean good business for him and satisfaction for you. He'll have a full line just as soon as we can give them to him and that will be as soon as this big Government demand lets up.

In the meantime make your old Lambertvilles go as far as possible. If you are forced to buy an inferior make, remember that your sacrifice is only temporary, for we promise to put your old reliable Lambertvilles back on the market at the earliest possible opportunity.

LAMBERTVILLE RUBBER COMPANY
Lambertville, New Jersey

An Unusual Opportunity to Buy 100 Head of Guaranteed Healthy, Registered Holsteins of Excellent Breeding and



585 ACRES OF FERTILE LAND

with 1000 feet of lake frontage in Waukesha County, Wisconsin, 18 miles from Milwaukee. Buildings and machinery modern and in good condition. 150 tons of fine alfalfa hay, 500 tons silage and other feed included, also I. H. C. Tractor and 3 ton truck. This proposition will be sold for one-half actual cost on easy terms on account of owners removal to New York.

J. G. HICKCOX, 418 E. NORTH AVE., MILWAUKEE, WISCONSIN.

PUBLIC AUCTION

Tuesday, Nov. 26th, 1918

At 9:00 A. M. Sharp.

30 Pure-bred and High Grade Guernsey Milk Cows
45 Pure-bred and High Grade Guernsey Bred and Open Heifers
1 Registered 4-year-old "May Rose" Guernsey Bull

The above females are of Governor of the Chene and other noted families.

180 Shoats 4 to 7 months old.
100 Pigs 6 to 8 weeks old.

15 Brood Sows, some bred, some open and some with litters.

The above hogs are grade Poland China and Duroc Jersey and all have been double treated against cholera.

100 - GRADE BREEDING EWES - 100

Take Chicago, Burlington & Quincy R. R. to Hinsdale, or Chicago & North-Western Ry., Chicago & Great Western, Illinois Central to Elmhurst, Illinois. Livery accomodations. Hinsdale and Elmhurst are 17 miles west of Chicago. Sale made necessary thru loss by fire October 14th of principal barns, hay and feed.

NATOMA FARM, HINSDALE, ILLINOIS.

GRAY & DIETER, AUCTIONEERS.

"I bring Better Butter Prices – because I keep Butter Better"
Paterson Parchment

More Profit From Butter

No matter how good *you* consider your butter, your *customer's* opinion governs the price you get for it. Butter is always fresher, sweeter, cleaner and more salable when it reaches your customer wrapped in

Paterson Pioneer Parchment Paper

And butter so protected from dirt, dust and bad odors, brings top market prices.

Paterson Parchment comes in rolls, sheets and circles to suit all methods of marketing.

Write for free samples and book, "Better Butter". Full of valuable information for every dairyman.

THE PATERSON PARCHMENT PAPER CO.
37 Eighth St.
Passaic,
N. J.

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"We are advertised by our loving friends"



Nellie M. Prophett, Bridgewater, Mass.

Mellin's Food

Mellin's Food is really an assurance of healthy, happy childhood and robust manhood, for proper feeding in infancy lays a foundation of good health upon which strong men are developed.

Send for a Free Trial Bottle of Mellin's Food and our book, "The Care and Feeding of Infants."

MELLIN'S FOOD COMPANY
BOSTON, MASS.

In writing advertisers please mention Hoard's Dairyman.

VETERINARY

Advice is given free in this department. Inquires must be signed by the writer, and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Abortion

Last year in the fall with two other men we bought a car of Holstein cows with first calf. After calving we put them to a 14-month-old bull. Three of the cows have come in again a few days before 7 months. The cows seem to be full size and all right. What will make them come in this way?
Clinton, S. C. A. B. B.

The cows probably are affected with the contagious abortion disease, but to determine that you should have a sample of blood from each cow tested at the state experiment station. Keep the affected cows away from heifers and unaffected cows and do not re-breed them sooner than six months from date of aborting. Meanwhile syringe out the vagina of each aborted cow once daily for ten days with lukewarm water containing a teaspoonful of coal tar disinfectant to the quart and repeat the treatment for two or three weeks before service. Also cleanse, disinfect, and whitewash the stable.

Loss of Milk Production

I have a registered Jersey cow seven years old that had a calf in June last year and gave for two months or more over four gallons milk regularly, then reduced a little gradually as her calf got older; this same cow had a calf the 14th of last month and has never given me over five quarts a day; I must add that I stopped milking this cow only about two to three weeks before her last calf and the cow apparently looks in good health and condition and under the same care as last year; what do you attribute the small quantity of milk to?
Delcambe, La. G. P. G.

Milking a cow too close to calving tends to lessen milk secretion after calving. Chill has a like effect, so does lack of nutritious feed during pregnancy so that the cow exhausts her reserves of nutrient material before calving.

Bull Pulled Ring Through Nose

Please advise me if you know of any way to handle a bull after he has pulled the ring through his nose. I have a young bull that is too valuable to kill and he is about the size to begin to be a little vicious.
Greensboro, N. C. J. F. H.

A hanging blinder suspended from the horns over the face and eyes helps in such cases and a couple of long chains attached to the nose band of a strong halter and allowed to trail upon the ground so that they will be stepped upon when the bull starts to run will also lessen danger. We shall be glad to hear from any owner who has successfully dealt with such a case.

Ringworm

How should I handle what they call scab on calves? I lost two calves on that account and came very nearly losing a couple more if I had not tended to them. I used kerosene and lard.
Kenyon, Minn. W. F. K.

Keep the spots saturated with sweet oil or cottonseed oil until it becomes possible to scrub them perfectly free from scabs and crusts, then apply tincture of iodine twice daily until well. Cleanse, disinfect, whitewash the stable and see that it is well lighted and ventilated. The vegetable parasite that causes ringworm grows on damp walls and woodwork as well as the skin.

Progress of Tick Eradication Shown

To show the progress of the tick-eradication work, the United States Department of Agriculture staged an exhibit at the Southern Land Congress held at Savannah, Ga., November 11 and 12. The exhibit showed that 1918 was a record year in freeing southern territory from the tick quarantine, 79,217 square miles being released. A map was included in the exhibit showing the territory originally in quarantine and the territory freed since it was established in 1906. Four field men of the department, who are employed in the tick-eradication work, and a representative from the Bureau of Animal Industry attended the congress.

Hold fast to that which is good. Keep your Liberty Bonds.

DAIRY MARKETS

CHICAGO, Ill., Nov. 14—Butter—Creamery, extras, 60½c; standards, 58@58½c; dairy, firsts, 55½@60c; seconds, 53@55c.
Eggs—Ordinary, 52@56c; firsts, 59@60c.
Cheese—Twins, 33@33½c; Young Americas, 35½@36c.

MILWAUKEE, Wis., Nov. 14—Butter—Creamery, tubs, 58½c; prints, 59c; extra firsts, 57c; firsts, 51c; dairy, fancy, 50c.
Eggs—Current receipts, returned, 54@55c; cases, new included, 53@54c; ordinary current receipts, 47@50c; dirties, 32@35c; checks, 29@31c; April, recandled, 43½@44c.
Cheese—Twins, 33c; Daisies, 35½c; Longhorns, 36c; fancy Brick, 33c; Limburger, new, 1 lb., 28c; Limburger, new, 2 lbs., 27c.

APPLETON, Wis. Nov. 12—Five factories offered 147 boxes cheese on the call board here. Of these 72 Twins sold at 33c; 75 Double Daisies at 34¾c.

SPRING GREEN, Wis., Nov. 12—Offerings of cheese on the Spring Green Dairy Board of Trade on Tuesday was 690 boxes of Single Daisy cheese. All sold at 35¼c.

NEW YORK, Nov. 14—Cheese—Firmer; state milk, common to specials, 26@33½c.
Butter—Firmer; receipts, 6,284 lbs.; creamery, extras, 63c; state dairy, tubs, 48@62½c; imitation creamery firsts, 40@45c.
Eggs—Firm; receipts, 7,904 cases; nearby white fancy, 92@96c; nearby mixed fancy, 60@70c; fresh firsts, 64@70c.

Absolute Dispersion

OF

"The Village Farm" Holsteins

Owned by A. F. Wendlandt, Good Thunder, Minn.
(14 miles from Mankato and 7 blocks from depot.)

Thursday, Dec. 5th, '18

45 Head Pure-bred Holsteins, First Class in Type and Breeding

Herd headed by Piebe Champion, No. 60577, a sire of more than ordinary merit, having 31 A. R. O. daughters. 18 of his daughters in this herd, also a number of young sons. Daughters of a Grandson of Sarcastic Lad. Most of the cows in milk have A. R. O. records. Herd not only well bred, but worthy of attention because of individuality and show qualities. Under State and Federal Test. Free from abortion and sold under a 90-day guarantee. For catalog apply to

A. F. Wendlandt, Prop., Good Thunder, Minn., or to F. H. Everson, Sale Mgr., Lake Mills, Wis.
Auctioneer:—Col. J. E. Mack.

FOR SALE
Brown Swiss Bull Calves
8-10 months old. Good individuals. Sired by a bull whose dam milked over 16000 pounds of milk. Priced to sell.
Hawthorn Farm, Hawthorn Farm P. O. Lake County, Illinois.

HEIFER CALF
Born November 9th, 1918.
Three-fourths white, a dandy in every respect. Sire, King Segis Pontiac Alcartra Lad (166569) a son of the $50,000 bull. Dam a good record daughter of King Colantha Pontiac Korndyke 76965. Priced to sell. Cedardale Stock Farms,
O. A. Thomas, - Rutland, Vermont.

SALE OF GUERNSEYS
BEACH FARM, Coldwater, Mich.
Because of serious feed shortage, and change of tenants and care takers, I shall sell Forty Head of my Pure-Bred Guernseys at Auction. The sale will be at the Beach Farm, City limits, Coldwater, commencing at one o'clock sharp, on Tuesday, November 26th. The buyer's choice of the herd will be sold, consisting of cows, heifers, calves and bulls of varying ages. Some of them imported. A rare chance. Easy terms,
MILO D. CAMPBELL

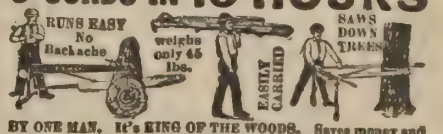
FOR SALE
Sons and Daughters of the Great May Rose Bull, Bell Buoy of Linda Vista (19430) A. R.
One daughter has made 476 lbs. fat and three others on test will go over 450 lbs. fat at 2 years. They have both production and type.
O. R. SCHWALEN, - ROBERTS, WIS.

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BURN KEROSENE



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Ready to Use
Arrange At Once for your WITTE Saw-Rig at Direct From Factory price. Earn Big Money. Made in sizes 4 to 22 H-P. To be sure of delivery, write for my latest, lowest offer today.—E. H. Witte, Pres.
WITTE ENGINE WORKS,
1647 Oakland Avenue, Kansas City, Mo.
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9 CORDS IN 10 HOURS



BY ONE MAN. It's KING OF THE WOODS. Saves money and backache. Send for FREE catalog No. B125 showing low price and latest improvements. First order gets agency.
Folding Sawing Machine Co., 161 West Harrison St., Chicago, Ill.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

One Boy's Experience with Chickens

Henry Huschke of New York, in writing an essay on his farm experiences, has something to say concerning his work with poultry that will interest other boys who are now in the poultry business or are thinking of starting a flock. He says:

"I have had the most fun with hens. Three years ago I bought a rickety incubator. I studied incubators in high school and soon fixed it up to the best of my ability. My mother then gave me 60 eggs and I started it off. It kept a good constant heat and seemed to work to perfection. I tested out ten eggs and when the final time came I had 35 fine chicks. I had my coop already made and by means of a borrowed hover I managed to raise 30 of them. I fed them Cornell rations throughout and in the fall I sold 15 young roasters. This paid my expenses up to that time and I had nine cents over. In the fall I built a coop with old lumber, only buying roofing and windows. By January the pullets started to lay. They layed excellently, probably due to the fact that I did just as Cornell advised. I fed them as they told me, I took care of them likewise, and in building the coop I made it as near as I could to their plans. The next winter I had 35 hens, as many as I had room for. But here ended my chicken career, as I went to high school and could not take care of them as I should. I mixed the feed, cleaned the pen, and kept account of everything but had no time to take care of them and feed them. My brother did this, but after a while got tired of it and wouldn't do it so I sold him my hard work for $50. He has now sold the entire stock of hens and made a handsome little profit, but he would have been better off had he kept them."

"Stockmen are Born and Not Made"

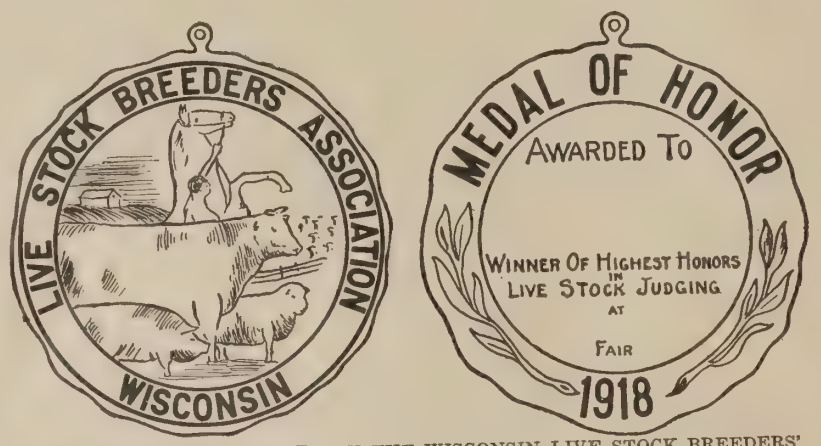
Any veteran stockman will tell you that. He will also tell you that the ranks of the boys and girls contain many a "born stockman", and that they must be found and developed if the success of the future live stock industry is to be assured. He has great confidence in these young people as prospective stockmen.

One of the most important and most essential phases of the work of the Wisconsin Live Stock Breeders' Association is to encourage "stockmanship" among Wisconsin boys and girls, and a new activity along this line has been launched this year. It is the county fair live stock judging contest.

These contests have been open to boys and girls, between the ages of ten and sixteen years, who have never attended an agricultural school. They have been required to judge three classes of live stock on exhibit at the fair—horses, beef or dairy cattle, and sheep or swine. Awards have been made according to the standing of contestants in placing each class and in giving the reasons for these placings. Sixty per cent has been allowed for the placing and forty per cent for the reasons. Thirty minutes are given for placing each class and then each contestant is called before a committee of judges to give his reasons orally. Twenty-five such contests have been held this year.

At each of the fairs the Wisconsin Live Stock Breeders' Association awards a gold medal to the boy showing the highest proficiency in the work. In addition to this prize, the fairs have offered attractive cash premiums, and many of them, through the local breeders' associations, are providing special prizes for proficiency in judging certain breeds of live stock.

A good stockman is, first of all, a good judge. Proper care in feeding is largely wasted upon animals of the wrong type and conformation. Training in live stock judging is, therefore, of the greatest importance. —WISCONSIN LIVE STOCK BREEDERS' ASSOCIATION.



FACES OF MEDAL AWARDED BY THE WISCONSIN LIVE STOCK BREEDERS' ASSOCIATION TO WINNERS IN THE LIVE STOCK JUDGING CONTESTS AT VARIOUS WISCONSIN COUNTY FAIRS THIS FALL

Stock Judging Contests

We are publishing this week an announcement of what the Wisconsin Live Stock Breeders' Association is doing to help Wisconsin junior farmers become better judges of live stock. This association is made up of the leading breeders of live stock in the state,—the men who really know how important the live stock business is to farmers and who should know more about it than any other group of men because they themselves are making it their chief business.

They realize that if any farmer is to be a successful breeder of stock whether dairy cattle or horses, he must be a good live stock judge. A true breeder, you know, is one who starts with the best he can get and by the use of the right sires keeps improving the productiveness and individuality of his herd. He has in his mind a picture of the ideal animal and he is trying to bring his herd up to that ideal. Certainly we cannot expect a man to be a good breeder if he does not know what a good animal is.

Now, you are a junior dairyman. We hope and expect that you will some day have dairy farms and good dairy herds of your own. We want you to be successful dairymen and breeders of dairy cattle, but in order to do that it is absolutely necessary that you learn to be a good judge of cattle. The accompanying article says that, "good stockmen are born, not made," which is perhaps true, but don't you depend on being born a stockman. Take every chance you get to learn more about stock and stock judging.

You don't have to live in Wisconsin to have an opportunity to enter stock judging contests. They are held in almost all sections of this country by breed and dairymen's associations and by the schools.

When men who know the business are willing to spend thousands of dollars on these contests so you can have a better training than they had, it's pretty good proof that they are worth while. Find out when such contests are held in your section and take part in the next one.

A Minnesota Calf Club Winner

Up at Ellendale, Minnesota, there were eleven boys and girls who joined a calf club last spring and all summer they have been working hard to raise their calves as well and as economically as they could. This fall a calf show was held to decide which calf was the best and when they were finally placed, a Holstein bull calf belonging to Vivian Randall, a little ten-year-old girl, was in first place.

Here is Vivian's story of how she accomplished this:

How I Grew My Calf

"King Segis, son of King Segis Pontiac 21st, was born Feb. 19, 1918. At the beginning of the contest he was one month and twelve days old. His weight April 1st was 143 pounds.

"During April he was fed 540 pounds of skimmilk, 20 pounds of ground oats, 3 pounds of oil meal, and 10 pounds of hay. His gain during April was 58 pounds, making his weight May 1st 201 pounds.

'For the month of May I gave him 775 pounds skimmilk, 15.5 pounds ground oats, 15.5 pounds ground corn, 15.5 pounds bran, 4.64 pounds oil meal, and 31 days pasture. For this month his gain was 62 pounds. June first the calf weighed 263 pounds.

"I fed him 750 pounds skimmilk, 17.5 lbs. ground oats, 17.5 lbs. ground corn, 17.5 lbs. bran, 6 lbs. oil meal, and 3 days pasture during June. His gain for this month was 86 lbs.

"The calf weighed 349 lbs. July 1st. He was fed 775 lbs. skimmilk, 37.2 lbs. ground oats, 37.2 lbs. ground corn, 37.2 lbs. bran, 6 lbs. oil meal, and 30 days pasture. For this month his gain was 79 lbs.

"His weight the first of August was 428 lbs. His feed for this month was 775 lb skimmilk, 62 lbs. ground oats, 62 lb bran, 8.2 lbs. oil meal, and 31 da pasture. For this month he gained 8 lbs.

"September 1st he was six month and eleven days old. He weighed 51 pounds, making a gain of 367 poun during the five months."



GLEN WATERSTRIPE OF NEW YORK AND HIS HOLST CALF. GLEN BELIEVES IN GETTING STARTED I THE DAIRY BUSINESS EARLY

Junior Letters

Hoard's Dairyman Juniors:—This is my fi letter. I am nine years old. I have learned milk this summer. My father has a threshi machine; we threshed 3,000 bushels of gra

We have 10 Guernsey cows. I have a Sh land pony 26 years old and he is afraid of tomobiles. I have lots of fun with him. name is Cub. He used to belong to my fat when he was a little boy. We raised 200 bu els of dandy potatoes this year. My grand dug the most of them with a fork and mam and grandma picked them up. We are working to help win the war. We all h some war savings stamps.

I have an uncle who has been over in Fra and is in the hospital in New Jersey now. expect him home on a furlough.

Wisconsin. Howard Wilford

Hoard's Dairyman Juniors:—I received y letter a few weeks ago and was pleased hear from you. I was pleased to see my le in print.

We are now milking 11 cows. We sold 2 our cows a few days ago. These were 2 D hams. We have only 3 Durhams left to When these are sold we will have an en herd of Holsteins.

My father has 26 little pigs now; 17 grade Poland-Chinas and 9 are pure-br They are only 3 days old. It sure was lu there was one red pig among our spring p

We have our corn cut and our silo fi The corn crop is good around here. I had beans stacked about a month ago. I hav stacks from about ¼ an acre. We thre 994 bushels of grain this year.

As my letter is getting long I will c wishing to hear from you.

Wisconsin. Fred Weine

Hoard's Dairyman Juniors:—I have negle to write for some time.

Our cow is nearly dry and its last ca doing well. In my last letter I said I had one pigeon but now I have three. They not had a chance to lay yet as I have only them a fortnight. My sister and I have a heifer calf and foal between us. Pure-fantail pigeons are selling at 4s a pair. are pure-bred ones. Werth's circus is co up here on the 24th and I am going to

The house is just going up on our farm. I am doing a little snaring this but have only caught two opposums. A skin last year brought about 6s. A ma this district shot a fox and he has his in his shop window. This year a possum brings about 3s. We get about 5 eggs a from 20 hens. Some of these are too you lay.

Well, it is time to go to bed now so I close. I wish a junior would write to My address is Kingaroy, Queensland, Aust D. You

Hoard's Dairyman Juniors:—One fine day my grandma and uncle came out and said that there was a calf down in the Papa went to see and there was a nice and they got her in the barn. I asked for the calf and he gave her to me. I le have its mother's milk for a long time. T fed her on skimmilk with a little corn in also gave her a bunch of alfalfa hay. I put her out on pasture with some others. dam is Golden Sam's Stub and her s

tha's Major. I am going to keep her as a
y cow.
sold my sow but I have one of her pigs.
'e are just through making molasses. We
e our silo full. We have very poor crops in
nessee this year.
like all my farm pets and take good care
hem. I like to live on a farm very much.
ave seen very few letters from Tennessee.
many of the juniors like to ride horses? I
two sisters and two brothers, but I am
oldest.
nnessee. Hazel Trent.

ard's Dairyman Juniors:—I have not
ten you for a long time. I am just get-
over the Spanish influenza now. Our
school was closed last Monday and I got
lu that day.
ir stock is getting along fine now. I have
t pigs which are about ready to sell and
sure look fine.
e are milking 14 cows now and get six
of milk per day.
mother is going to have a sale the 31st
is month so we won't have to milk long
we have our sale. We are going to move
rown Point then. I suppose I can't have
stock. Wish all the juniors good luck.
liana. Joe Benjamin.

ard's Dairyman Juniors:—I expect you
: I am not a junior any more but I am.
act I am wearing my fob here at school.
's the reason I am not writing with the
vriter.
took some cattle down to Studley to
to Kansas City yesterday. I shipped my
e Shorthorn. Her calf is sure a nice one
I sure am glad. It is a heifer. If I get
or her I will buy a bond. I have one $50
nd earned the money myself.
sister-in-law got a letter from my broth-
ho is in the navy His officer's uniform
$150.
e corn was a complete failure all over the
y. Papa is busy putting in wheat; the
hoppers are happy pulling it out. The
hopper poison takes care of a lot of
though. I stayed out of school for a
so papa could keep in wheat. I herded
in the cornstalks.
ll, will close as my letter is getting
ny. My address is Lucerne, Kansas.
Lloyd Mowry.

ard's Dairyman Juniors:—I thought I
write and tell you about my stock.
cow is growing fine and she will freshen
rst of March.
have a colt. It's the best one around this
ry and it's a bay.
m digging my potatoes. I dug one day
ot 26 bushels. I have about 50 more
s to dig. There will be about 115 bushels
threshed and we have 180 bushels of
heat and 530 bushels of oats. Well, I
that's all for this time.
York. Leroy Wright.

rd's Dairyman Juniors:—I have just be-
a junior. I received my fob, button, and
some time ago. My uncle is cutting his
now. We have six grade Jerseys. We
ive calves. Four of them we are going
. We have three heifers. We are going
to trade all our cows for Holsteins. We
t getting very much milk now. We have
11 acres of maize and about 10 acres of
corn. We are going to haul feed to-
w. If any of the juniors have had ex-
ce with watermelons, please write me.
ng the juniors good luck. My address is
09, Obar, New Mexico.
Allen Jeakins.

rd's Dairyman Juniors:—I did not have
to write before so I thought I would
now. Three of our cows are dry now so
have four to milk.
spring there was a big fire around the
y. It did not burn our place, but it
two or three other farms. It burned
our pasture fence and a lot of woods.
are digging our potatoes now. They are
big this year. We are getting quite a
them, too.
cows do not milk much now because
o not get much feed.
nesota. Gunard Eklund.

rd's Dairyman Juniors:—I have a
Jersey pig. My father bought her for
I bought it from him for $6.50. I had
60 chickens which I sold for nearly $50.
going to set some hens in the spring.
tley, Ill. Raymond Kelley.

rd's Dairyman Juniors:—Well, our pig
is over and I didn't get the prize I ex-
My pig came out fourth. The reason
started out with a scrub pig while the
had a pure-bred. If we have another
I am going to have the best bred pig
an be had in this neighborhood. My
has a milking machine, one double unit,
milk 20 cows. We have been using it
now for 16 months. I carry the milk
he barn to the milk house and I can
milking machine on some of the cows.
the milk to a condensery and get $2.50
lbs. of 4 per cent milk. I see in the
Dairyman where in Wisconsin or in
at they get a good deal more than that.
close for this time, wishing you all good
rnia. Lino Franscioni.

Key to Plan View

1—One-Piece Main Frame—Holds all shafts, bearings and gears in proper alignment.

2—Motor Set Crosswise—Eliminates bevel gears, worm friction or chain drive.

3—Hyatt Roller Bearings at all important places.

4.—Cut Steel Gearing in transmission.

5—All Cut Steel Gearing between crank shaft and gear box.

6—All Cut Steel Helical Timing Gears.

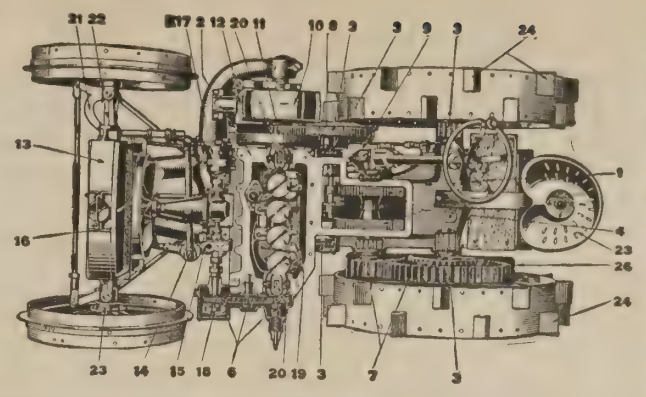
7—Forged Cut Steel Master Gear and Bull Pinion with differential (fully enclosed).

8—Oil-Tight Housing for all gears between crank shaft and transmission.

9—Worm and Sector Steering Gear, enclosed.

10—Clutch Pulley on crank shaft.

11—Fly Wheel—Next to main bearing (normal speed 1050 R. P. M.)



Key to Plan View

12—Brake for belt or road work.

13—Cast Frame, 5-piece, Army truck type, non-clogging Radiator.

14—Sylphon Thermostat.

15—Centrifugal Pump.

16—Spiral Gear-Driven Fan; gears enclosed.

17—Dust Proof High Tension Magneto.

18—Speed Governor, enclosed.

19—Pistons—Diameter 3¼ in. Stroke 5 in.

20—Main Crank Bearings, 2⅝ x 4½.

21—Steel Steering Knuckles.

22—Drop Forged Front Axle.

23—Dust Proof Hubs.

24—Detachable Tire Lugs—other styles furnished if ordered.

25—Spring Seat.

26—Dust Proof Housing for final drive.

Study This Chassis
of the Case 10-18 Kerosene Tractor

ABOVE we show a plan view of the Case 10-18, with an explanation of the details. Study this chassis—note its features.

In many ways, you will find the Case 10-18 far in advance of today's usual offerings. For instance, it is the first to offer a one-piece main frame with a four-cylinder motor, mounted cross-wise. This is merely one of the dozens of betterments. The one-piece frame casting constitutes a dust-proof housing for the rear axle, bull pinion shaft, transmission and the bearings for these parts.

This type of construction brings rigidity, reducing vibration, preventing disalignment. Power is conserved, while we multiply strength.

The belt pulley is mounted on engine crank shaft, doing away with bevel gears. It is part of the tractor—not an extra-cost accessory.

The Case Sylphon Thermostat insures complete combustion of gasoline or kerosene, and prevents raw fuel from passing by the pistons and diluting oil in the crank case.

The Radiator has a cast frame. The Core is copper—fin and tube non-clogging type.

A Case air-washer prevents grit or dust from getting into the cylinders.

These are but a few of the greatest advancements in tractor history. Case offers you today, NOW, what others will attempt later on.

The Case 10-18 is rated according to the conservative Case policy.

It develops nearly 14 horsepower on the drawbar and about 24 horsepower on the pulley. Thus we insure abundant reserve power.

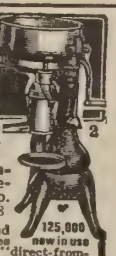
Our booklet and specifications point out dozens of other advancements, all of which demand your consideration before you buy.

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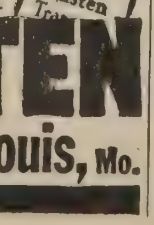


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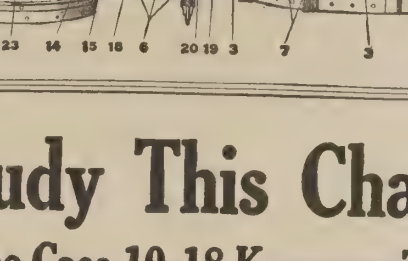
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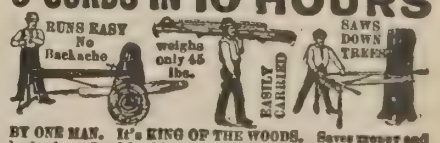
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For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

Four extra good registered Guernsey bulls for sale. Age 7 to 9 months, May Rose breeding, being sired by Langwater Frederick 22268, from dams with A. R. records 510 to 740 lbs. fat. Pedigrees and sale list. HOMER F. RUNDELL, Livingston, Wis. 15-tf

For Sale—High grade Holsteins, all ages. Choice springers a specialty. FRICK & HOESLY, New Glarus, Wis. 15-5

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

For Sale—Very choice Holstein and Guernsey calves, either sex, six weeks old, 95% purebred, $25 each delivered. LEWIS DUTCHER, Peary View Farm, Janesville, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Holstein springers—7 high grade heifers, coming three years old, to freshen soon. Send for photo. Price $100 each. Heifers at Lake Mills, Wis. Write ALBERT C. WOLLIN, Grove City, Pa. 16-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 16-tf

Four registered Holstein cows, springers, two ten-month-old bulls. C. F. DINEEN, Cedarburg, Wis. 16-3

Holstein grades—Sixty for sale. The best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minnesota. 16-4

150 high grade Holstein cows and heifers for sale. 35 well marked heifers, close up springers, ready now. 50 head to freshen in December. Also a number of young cows due to freshen in next three weeks. Don't wait to write. Come and see them. Special inducements on car lots. Will meet you by appointment at Libertyville, Highland Park, or Prairie View. EVERGREEN FARM, Prairie View, Ill. 16-3

Grade Holsteins—36 head, 2 years old, bred to 30-lb. bull, due to freshen in 30 days. Large and well marked. Write for particulars. H. P. CLEVENGER, Cuba, Ohio. 15-4

For Sale—10 heifer calves and 4 young bulls. Sire a grandson of King Segis. Through their dams they trace directly to Woodcrest Pietje, Colantha 4th's Johanna, and King of the Butter Kings, a son of Pontiac Rag Apple,—three of the best animals the breed has produced. Write for pedigrees and prices. AUSTIN FARMS, Windsor, Vt. 17-4

Being non-resident farmers unable to hire sufficient help we will sell our herd of 50 high grade Holsteins, all females, ages 6 months to 6 years; 25 milkers, mostly December and January springers. MARSH FARM, Ross, Minn. 17-2

Pure-bred Holstein bull calves for sale, Ormsby and Pontiac breeding. J. T. GALFORD, Ventura, Iowa. 17-2

Six grade Holstein heifers for sale, all bred. LOUIS BORNEMANN, Hilbert, Wis. 17-2

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

21-pound son of King Segis Pontiac Count, 4½ years old. His 21-pound half sister holds more world's records than any other cow. $500.00. Also 2-month-old son of this bull, $70.00. N. R. PEABODY, R. 6, New Richmond, Wis.

High grade Holstein calves $13.50 each crated. MAPLE LANE FARM, Cassadaga, N. Y. 18-tf

Registered Holstein heifer calves, 4 to 6 weeks old, sired by King Hengerveld Model Fayne Bawn No. 196342, dam's record 732 lbs. milk in 7 days, 28.5 lbs. butter in 7 days. Dams are daughters of King Pontiac DeKol No. 49088 and other equally well bred sires. Price, registered and crated, F. O. B. Cleveland, Ohio, $75. Satisfaction guaranteed. JOSEPH F. SCHMIT, Route 3, Brooklyn Station, Cleveland, Ohio. 18-4

For Sale—Three weeks old high grade Holstein heifer calves, $20 crated. YOHN'S STOCK FARM, Watertown, Wis. 18-4

For Sale—Bull calf dropped Sept. 15, 1918. Sarcastic Lad, Colantha 4th Johanna and Lord Netherland Cornucopia DeKol are conspicuous in his pedigree. Over half white. Good size. $75 crated f. o. b., Decatur, Ill. BARRACKMAN AND ROWE, R. 5.

STOCK FOR SALE

Holstein bull calves for sale. Nine head with some of the very best breeding that could be found in Wisconsin. All eligible to register. Can make prices that will surprise you. J. D. WOODWARD, LaMonte, Mo.

Holstein Bull Calf—Half brother to Grand Champion 1918 National Dairy Show. Reasonable price. ROHE BROTHERS, Osseo, Minnesota. 18-2

One February 24, 1916 Holstein bull for sale. Registered with better than 28 lbs. of butter in seven days on his mother's side and 31 lbs. on his father's side. Price $300. H. W. KELLER, Dallas Center, Ia. 18-4

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, six weeks old, 95 per cent pure-bred, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 16-tf

For Sale—Splendidly bred Guernsey bull, two years old. A bargain. Great A. R. ancestry. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

A real Guernsey herd bull 7 years old, $150, Imperial of Birchwood 19271. B. McADAM, Mosinee, Wis. 17-3

Registered 3-year-old Guernsey bull, grandson of Governor of Chene, dam Cherry of Lonepine, 400 lbs. fat at two years old. Price $200. R. D. BONNETT, R. 2, Levering, Mich.

Guernsey bulls 2 to 12 months, $40 to $100. Address WM. H. TITUS, R. 4, Janesville, Wis.

Guernsey, spring bull calves, registered. Glenwood and Rose breeding. Fifty, seventy-five and one hundred quarter each. GLYN SARGEANT, Long Prairie, Minn. 18-2

Registered Guernsey yearlings $75 to $125. Herd bull, fat record 714 to 857 lbs. Price $250. Five years old. HENRY ZIMMERMANN & SON, West Allis, Wis. 18-2

A. R. Guernsey cow just completed official record of 8,665.2 milk, 435.30 fat at 2 years. Will freshen soon. High class in every way. C. HULBURT, Peterboro, N. H.

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Registered Guernsey bull calf. Born Oct. 2, 1918. Sire, an Advanced Registry son of Golden Secret, one of the greatest of May Rose sires. Dam a high class young cow. Calf is a dandy. Price for immediate sale, $60.00. H. W. GRISWOLD, West Salem, Wis.

Jerseys—Choice bulls, service age, excellent blood lines. Will sell at reduced prices to make room. CLOVER VALLEY FARM, Medford, Wis. 16-3

For Sale—Registered Jersey bull calves, choice breeding and good individuals. REBER FARM, Fairfield, Illinois.

STOCK WANTED

Wanted—Several good, young, registered, Guernsey cows or heifers coming fresh this fall. F. W. MEYER, Barron, Wis. 13-6

Wanted—Ten to twenty registered Guernsey cows. Reliable man to care for them. Good salary, house and garden furnished. E. W. PHILO, West Palm Beach, Florida. 18-2

Wanted—A few good milkers, Guernseys or Jerseys, high testers. EARL HULSE, Center, Mo. 18-2

Wanted—10 or 15 young registered or grade Holsteins soon due. A. J. BLACK, Powell, O.

Wanted—Ten head of registered or high grade cows, fresh or springers. JOHN A. PETERMAN, Finlayson, Minn.

HORSES

For Sale—A pair of full blood Morgan colts, full sisters 2- and 3-year-olds. F. S. HALLADAY, Green Bay, Wis.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 17-4

SWINE

For Sale—400 stock pigs eight weeks old for $7 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 16-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

For Sale—Registered Poland-China boars. Reasonable prices. CHAS. W. O'NEILL, Bridgeport, Wis. 16-5

Large English Yorkshires, boars and sows ready for breeding. TIFF KENNELS, Brooklyn, Pa. 18-2

Hampshires, registered boars. March litter, fifty dollars. September, twenty dollars each. Big, husky ones, nice bands. Photos. GLYN SARGEANT, Long Prairie, Minn. 18-2

POULTRY

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 16-4

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Airedale pups 4 months old. Sire Champion Kootenai Chinook. Farmer's prices. TIFF KENNELS, Brooklyn, Pa. 18-2

GOATS

For Sale Cheap—50 Angora goats, the kind that clear the land of brush and weeds. J. J. JENNINGS, New London, Wis. 17-3

FEED BAGS

Notice—We have several shipments of bags that have arrived without tags or other means of identification. Anyone who has not received returns please write us at once. Present conditions make it impossible to guarantee prices on bags but will say to our regular shippers and others that we will pay the highest possible price for all good bags. Do not ship inferior stock at this time. LARIMER BAG COMPANY, Washington, D. C. 18-2

SEEDS

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.50 per 100 lbs.; sacks free. Prices on smaller amounts on request. At TRIANGLE RANCH, Cottonwood, S. D. 25-tf

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

A Splendid Spring Wheat for Sale—We offer for sale a limited quantity of the Blue Ribbon variety of spring wheat, only 70 bushels. Our record with this wheat is as follows: Last spring we sowed two bushels on two acres of land. The return, threshers' measures, was 76 bushels which grades uncleaned, 61 lbs. per bushel. We will sell this wheat well cleaned for seed for $3.00 per bushel. Bags furnished at 60 cents each. Order early to avoid delay by freight. W. D. HOARD, Prop., Fort Atkinson, Wis. 16-tf

WANT TO RENT

Wanted to Rent—By thoroughly experienced man, good small dairy farm, stocked with twelve to twenty pure-bred or high grade Holstein cows. Must be free from stone and wet land. Or will buy on the share payment plan. W. L. WAGGONER, Junction City, Wisconsin.

MACHINERY

For Sale—Complete pasteurizing outfit. Slightly used. Will sell for very low figure. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

For Sale—In excellent condition. One Hinman three-unit milking machine, $150.00. One 900-pound DeLaval steam turbine separator, $75.00. 30 Louden steel stanchions, $45.00. BEN H. AMES, Kaneville, Ill. 17-2

Wanted—Combined cheese and butter worker. Medium size Victor preferred. G. S. SICKER, Coshocton, Ohio.

For Sale—One-horse tread power, perfect condition. GEO. THOMAS, Wayville, N. Y.

For Sale—5-10 Avery tractor. COULTER BROS., R. 2, Charlevoix, Mich. 18-2

For Sale—Two-unit Sharples Milker cheap. G. A. RENNER, Camp Chase, Ohio.

For Sale—Hinman Milking Machine at a bargain. Having sold my dairy I will sell a 5-3 or a 2-unit machine in good condition complete with gas engine if wanted. Write me your needs. F. L. TOWNSEND, 120 Third St., Des Moines, Iowa.

For Sale—One 8-16 Rumely, new, 2-plow tractor—used as demonstrator. Closing out—sell for less than cost. Act quick to get this. Address BOX 617, Marengo, Ill. 18-3

For Sale—Double-unit Empire Milker equipped for 24 cows all complete in first class running condition. J. R. PETERS & SONS, R. 2, Liberty, Mo. 18-2

MISCELLANEOUS

Keep a herd record—Pocket Herd Book, renewable, good for ten years, 75 cents postpaid. W. C. WHEELER, Tully, N. Y. 17-4

Yes Sir, we have a special opportunity for you during spare time, an opportunity to do some good work in your neighborhood, for the betterment of dairy farming, that will pay you in cash for the effort you put forth. Write for our "Special Opportunity Getting Together" folder. Address HOARD'S DAIRYMAN, Fort Atkinson, Wis. 2-tf

FARMS FOR SALE

Booklet on request presenting facts by St. Commissioner of Agriculture describing Mazarn Valley in the Ozarks, ideal for dai ing and stock farming. Address MAZA VALLEY LAND COMPANY, 847 Cent Ave., Hot Springs, Arkansas. 1-t

For Sale—60,000 acres cutover land in nor ern Wisconsin. $20 up per acre, $10 down forty and $10 per month or balance payme extended, provided you do required amount work. We have a few eighties with buildi ready for use. To purchasers of these we rent teams and tools on community basis advance money for cow, pig and chick when you can supply feed; also grubstake during farming season providing you put tire time to developing your farm. TOM HAWK LAND CO., Box L, Tomahawk, W 7-t

If you wish a farm in the best grass sect of the south where alfalfa and all the clov including Red White, Alsike, Sweet, B Crimson and Japan grow to perfection, soy beans, cowpeas, peanuts, velvet be corn, oats, wheat, rye, and barley where have a creamery making fine butter and ing Elgin for butterfat, and where there is bovine tuberculosis nor cattle ticks; in a munity of northern farmers, write to H. GURLER, Macon, Miss. 25-t

Farms in the Mississippi Prairie Belt, alf and clovers. Corn, hay and live stock pr sition. Ideal climate, good neighbors, sch churches, good roads. Main line of railr Close to large markets. Write now. H. HANSEN, Macon, Miss. 11-t

For Sale—875 acres the best alfalfa, clover and hog farm in north Mississipi. acres in alfalfa and corn now; strong, b lime soil ten feet deep, good well and run water. Come and see the alfalfa and corn this farm now. Price $60. For quick Don't wait to write letters. Come and see crops on this land now. Will make terms. Ten years' time, 6 per cent. K. WISHART, Aberdeen, Miss. 15

Fine Farms and Land Cheap—120 acre acres clearing; large house, log barn, $1, 235 acres with buildings; 45 acres under p $5,600. 40 acres bushland $500. 80 a $1,000. 240 acres $3,000. Write for de to THE E. L. C. CO., D-M, Dept. 31, Me Wis. 17-

For Sale—108-acre farm 4 miles east of loit on the state line road. Well wat land is slightly rolling, good buildings. take larger farm in trade. JACOB ABBU R. 31, Beloit, Wis.

Farm for Sale—A high class farm 140 near Des Moines. Big barn, 2 silos, system, modern house. Just the place f a dairy or a man who knows the feeding Reasonable payment. Terms to suit resp ble buyer. Write owner. APPM. NO. 8, 6th Ave., Des Moines, Iowa.

177-acre Central West farm, $9,900; wit head of cattle, span horses, 4 hogs, pou manure spreader, new binder, mowing mac rake, buggies, harness, farming tools, wood, large amount oats, hay, wheat, potatoes, etc.; near large city. 90 acres f 35-cow, creek-watered, wire-fenced pasture timated 3,000 cords wood, 10,000 timber; apple trees, 20 plums, 12 pears, 8 cherries. Extra fine 10-room house, 3 barns, other buildings. $9,900 takes everything, only $ cash needed. Details page 72 Strout's logue, copy free, with other bargains states, many with stock, tools, crops. STROUT FARM AGENCY,, Dept. 3001, quette Bldg., Chicago, Ill.

We wouldn't offer the inducements we we were not sure you would like the co and prosper in Aitkin County, for we not want to see you dissatisfied. We more at stake than the dealer who sells for a profit. See how this is? It solve whole problem. You're safer, dealing wit Hadn't you better look into this? The ti ripe. ARNOLD, Land Agent, Rock I Railway, 154 Wolvin Bldg., Duluth, Minn

To Close an Estate—110-acre farm b fully located at Ithaca, New York, clo Cornell University. Excellent schooling leges, level, fertile soil. 6615 Dunham Cleveland, Ohio.

FARMS WANTED

Would you sell your farm, if you got price? Sell direct, no commissions. Pa lars free. CHARLES RENICH, Wood Ill. 1

FOR RENT

For Rent—240-acre stock farm. My of 240 acres; perfectly level; well fenced, buildings, 2 silos, 50 acres of alfalfa, 40 of clover; is for rent to a capable stock with small capital. Here is an opport for a good man to make big money. BEARDSLEY, Elkhart, Ind.

PARTNER WANTED

Dairyman only; southern Pennsylv certified milk farm. BOX 297, care H Dairyman.

PRINTING

Hoard's Dairyman Art Dept. designs letter head free. Just tell us your bre stock. Book of 5,000 Farm, Ranch and C names 25 cts. Ask for samples of letter envelopes, shipping tags, cards, milk t etc. Poor stationery is more of a d than a help. Address HOARD'S DAIRY Art Dept., Fort Atkinson, Wis.

HAY

Alfalfa hay for sale. Write or wire delivered prices. ALBERT MILLER & PANY, 192 North Clark Street, Chicag

CREAMERIES

Creamery, ice cream factory, wholesa retail butter store. Business this year 000. Lively town in growing Puget country. Butter trade greater than s Ice cream in season 200 gallons daily. ages of war make possible the purch this plant at great bargain. Sell or building. Unusual opportunity for live ery man. JOHN MILLS, Puyallup,



dvertising in this department is 5c per word. Remit in advance.

HELP WANTED

anted—Reliable, single man for barn work. ntered Holstein herd, modern equipment. be good dry hand milker. No boozers or ette fiend need apply. Wages $65 per h. MAXWELL FARMS, R. 1, Waterloo, . 18-2

anted—Married man on my dairy farm can do general farm work and willing to erate with my herdsman in caring for my nseys. Wife must be willing to board two men. State wages in first letter. H. C. MS, Algona, Iowa. 7-tf

anted—Man to help care for my herd Hol- and do general farming. Steady work right man. State wages and experience letter. H. R. LITTLE, Eldridge, N. D. 15-4

anted—A good chore man on a ranch in rnia. Good pay. Address BOX 290, care d's Dairyman. 16-6

nted—Correspondence from an experi- dairyman with his own help for a 30- lairy on a share basis. $6.00 per 100 lbs. ½ per cent milk. N. A. WATSON, Erie, a 16-4

nted—Capable, honest, energetic man, family, who understands feeding and care ttle and farming in all branches, to op- stock farm on salary and share of s. Farm stocked and well equipped. ted suburbs of thoroughly modern small fifteen thousand. Excellent opportunity man. State age, experience, references, . ALLEN HARRIS, Johnson City, 17-2

nted—Married or single man, white or d, to work on dairy farm. Both must le to milk and man to do general farm House, garden, milk and wood. State and how many in family. Transporta- refunded after six months' service. HWOOD FARM, Route 2, Coatesville, Pa. 17-4

nted—Dairyman to care for and milk to fifty cows. Use Hinman Milker. Pre- an with help sufficient to handle the Mild climate. Good wages to right man. D-ACRE FARM, Blackstone, Va. 17-2

nted—Woman to cook and keep house for on small dairy farm northern Ohio— to Cleveland. Modern house and con- it. Place now open. KEEWAYDIN S, Gates Mills, Ohio. 17-2

nted—Good milker and farmer, for 40- arm close in to city. Must be good fast , $50 per month and board. ROUTE X 61, Battle Creek, Mich. 17-2

nted—Manager for a new up-to-date cen- d milk plant and creamery in a city of Give salary, experience and references t letter. None except those having suc- experiences in handling a plant like eed apply. C. M. LONG, Sedalia, Mo. 17-2

lsman wanted for Holstein herd, also two milkers. High class place to work, provements. State salary expected, na- ty, experience and references. Address 26, Colver, Cambria Co., Pa. 17-2

lsman, who can operate milking ma- also two good dry hand milkers. $80 onth and board to proper men. No need apply. J. H. MILLNER, Norfolk, 17-2

ted—To contract, to milk, feed, and care cows. ROSEDALE DAIRY, Silver City, dexico. 17-3

ted at Once—Single man for dairy Holsteins and Guernseys. Milking over ws, producing high grade milk. Must dy and experienced man, also experi- man in the care of hogs and poultry. STEAD DAIRY FARMS, Salisbury, Md. 18-2

ted—Married man with small family, le man, to work on dairy farm. LEW- SHNELL, Livingston, Wis.

ted—Farm manager or working herds- experienced in modern farm methods, raising, and milk production. Would r either married or single man. Work ed with boys' school; a herd of twenty uernsey cattle; Protestant, Christian o tobacco; good salary; eight or ten om twelve to sixteen years of age as- milking, caring for stables, retailing etc. Address H. ROCHESTER, 2200 ire St., Quincy, Ill.

ed—A man with enough help to take e of 75 Holsteins, no other farm work. other men to board. Everything fur- and nothing short of year contract ed. Will pay for milking by the gal- RODUCERS' DAIRY, 2050 Humboldt, Colo. 18-3

ed—Competent single man as superin- on medium sized modern general farm in Chicago suburb. Pure-bred Holsteins rocs. This is a good opening for an te and practical man who wants to his position and opportunities. Good o the right man. Best of living condi- In answering state age, nationality and perience. Address BOX 306, care Dairyman. 18-tf

ed—Experienced man to farm 350 acres stern Ohio, capable of handling and in order up-to-date machinery, and g men. Have seven head of horses, y enough stock for farm use. Crops: rn, wheat, alfalfa, clover. Not over small family, and must be a worker no shifter. Reference required. Ad- OX 303, care Hoard's Dairyman, Fort n, Wis. 18-2

ed—An assistant herdsman; also a good farmer for field work. State ex- and wages. Address BOX 308, care Dairyman.

HELP WANTED

Wanted—A man to feed and milk 18 Jersey cows, feed and care for young stock, keep barn in a cleanly manner, do all dairy room work, deliver sweet cream ¾ miles to R. R. station by 8:12 a. m. except Sunday. A good comfortable, five-room house located convenient to barn. Barn moderniy equipped with steel stanchions, cement floors, over head feed carrier, electric lights and all cattle and feed under same roof except bull house. Milk room modern with power driven separator, water and steam boiler. Cigarette user, boozer or floater need not apply. House, milk, garden and truck patch furnished. Give wages and reference. JERSEY STOCK FARM, New Vienna, Ohio.

Wanted—Man for work on dairy and stock farm. Must be able to milk and do all kinds of farm work. Steady position, good wages. No smokers wanted. State age, nationality, experience. CORWIN FARMS, Rock Valley, Iowa.

Wanted—Working dairy foreman. Married or single. Draft exempt. Guernsey cattle, modern buildings. Must understand management of herd, breeding, feeding and raising of calves. Care of milk, keeping records. SUPT. BROOKLAWN FARMS, Morris Plains, N. J.

Wanted—Working foreman, experienced in dairying, hog raising and general farming. Wife to board help and raise poultry on shares. State experience and salary expected. J. H. BURR, St. Charles, Ill.

Married Herdsman—Must be experienced feeder and calf raiser and have knowledge of fitting and testing. One of the largest Holstein herds in the South. Modern equipment. Also want man to work in dairy. Mechanical milker used. Man with knowledge of sheep preferable. Furnish house, wood, milk, and garden to both men. State wages wanted in first letter. ROSEDALE FARM, Bertie P. O., Louisiana.

Wanted—A good dairyman who understands pure-bred cattle. In neighborhood Oconomowoc, Wis. Address BOX 301, care Hoard's Dairyman. 17-2

Wanted—Man, married or single, for work in Holstein dairy. Must be good, dry hand milker, able to milk fifteen or twenty cows. Your choice of either barn or milk room work. House, garden, fuel, milk. State expected wage and give references in first letter. Address BOX 304, care Hoard's Dairyman.

Wanted—A-1 dairy farm manager. We have 280 acres of fine level prairie land on which we will build a high class dairy barn and other dairy buildings and place on this farm 50 or 60 fine Holstein cows. TERRY DAIRY CO., 18th and Scott Streets, Little Rock, Ark.

Married man on dairy farm who can do general farm work and co-operate with my herdsman in making my farms a success. Our herd is headed by two bulls that have records better than thirty-four pounds and are bound to make a name for us. Under the guidance of my herdsman we expect to accomplish things in testing. Advancement to Supt. after we develop if competent. State all in first letter. Address BOX 310, care Hoard's Dairyman. 18-2

POSITIONS WANTED

Farm manager, thoroughly experienced, progressive, good executive. A. R. O. testing, fitting, care registered Holsteins. Machinery, gas engines, crops, etc. Can get results. First class proposition. Eastern states only. Age 29, college graduate, class 4C in draft. Married, no children. References exchanged. BOX 288, care Hoard's Dairyman. 16-3

Position Wanted—By a thoroughly proficient general farm and private estate manager of proven ability and exceptional record. Present position includes successful management of one of the most extensive and prominent private estates in Ohio. Well qualified in construction, improvements, reclamation of soils and animals. Address BOX 302, care Hoard's Dairyman. 17-2

Scotchman, single, 28, open for engagement anywhere, experienced cheesemaker and dairyman or herdsman. Tobacco and liquor abstainer. GEORGE HOGG, Lakeview, Mich.

Live wire dairy farm or estate manager of ability, energy and experience to get best results from any proposition properly stocked and equipped. A hustler and worker skilled in A. R. O. and R. of M. records, swine, poultry, orcharding, accounting, modern methods, machinery and crops. Can bring good man. Must have A-1 living conditions, accessible to schools for boys of high school age. $1,500 yearly with farm perquisites. BOX 307, care Hoard's Dairyman. 18-2

Cook—Widow, middle aged, wishes position as cook on modern farm. Only first class place considered. Have cooked on large farms. References from present employer. Address BOX 309, care Hoard's Dairyman.

Wanted—Position on dairy farm. Understand feeding and testing, also keeping of records. No booze or cigarettes. BOX 127, Gilmore City, Iowa.

Wanted—Position as manager of some paying proposition on salary and percentage basis. Registered stock, preferably Holsteins, anywhere in Massachusetts or Connecticut. Married, American, age 40, family, life experience, understand all farm machinery and tractors. State particulars fully. Address BOX 305, care Hoard's Dairyman.

Herdsman, single, first class milker and calf raiser, good buttermaker, eleven years' experience wishes position. ALFRED LINNIG, 1746 Sedgewik St., Chicago, Ill.

Wanted—March 1st, position assistant herdsman, modern dairy, preferably doing A. R. O. work, experienced dry hand milker, thoroughly understand cattle and hogs. American, married. Boy fifteen. No tobacco or booze. State salary. ALBERT BAILEY, Route 24, Camby, Ind.

Farm Manager—Energetic, scientific, reliable, desires position on large farm where ability is appreciated. Experienced in pure-bred stock, Advanced Registry, modern farming, machinery, orcharding, tree surgery, spraying, etc. Can manage farm economically and produce results. Strictly temperate. References excellent. Address BOX 311, care Hoard's Dairyman.

Oregon Dairy Council

HOARD'S DAIRYMAN:—Founded about three months ago as a temporary organization to help the dairy industry of the state, the Oregon Dairy Council has been so successful and has accomplished such a large amount of good work that it has decided to become permanent.

It is the aim of the council to continue its educational work, telling the consumer the food value of milk and all dairy products, encouraging the farmer and dairyman to retain his herds and helping him solve his feed and labor problems. In all the initial activities of the council along these lines ready response has been noticed. The press of the state has co-operated generously, giving to the dairy industry many thousands of dollars' worth of free space. The farm and trade journals have done their part and public officials and private organizations and individuals have assisted generally.

In all the work the council has sought to be helpful to the dairymen. The finances for the opening campaign were provided by a few generous creamery men who believed the dairy industry—one of Oregon's greatest—should be brought before the public in the right light. Lecturers gave their services and addresses were made before parent-teacher meetings and other gatherings. The school children throughout the state, through the co-operation of the state superintendent of schools, wrote essays on such subjects as "A Live Cow", "A Patriotic Factor", and "A Wise Farmer and His Dairy Cow". Recipes for the use of milk and milk products were published and were tried in the home economics departments of all schools.

The council in its efforts in behalf of the farmer sent a letter to every draft board in the state asking that the men necessary to the upkeep of farms and dairies be retained in their places by being put in deferred classification. The patriotism of the farmer, working early and late, was commended, but the council asked the draft boards to note that the farmer can not be expected to keep his farm producing food for the home folk and the soldiers if he has no helpers. Much practical good came from this effort. In the matter of feeds the Northwest was greatly hampered because of the great lack of mill products. Influence was brought to bear to get relief here, and here again the council scored success.

And so, with this record of wide publicity and good work well started, the council will go on, hoping to be a true benefit to the farmer and dairyman; hoping to show him wherein he has a chance to get the dollars that should come as his due for his great service to humanity and hoping, also, to so build up the industry that it will become a great economic asset; that herds may be improved and that the entire state, consumers as well as producers, may receive benefits. If the dairymen pull together and the public is fair minded this can be accomplished, the council feels.

Oregon. E. K. HOLMES.

Special Announcement

The seventh annual convention of the International Association of Dairy and Milk Inspectors, which was to have been held in October, has been postponed until December 9th, 10th, and 11th. The convention will be held at Hotel Sherman, Chicago, as originally planned. As the American Public Health Association will also hold its annual convention in Chicago during the same week, our members will have an opportunity to attend both conventions.

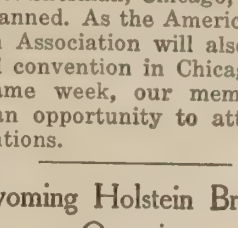
Wyoming Holstein Breeders Organize

The Star Valley dairymen of Lincoln County have started into the dairy business in real earnest. They have shown their interest in dairying by recently organizing the first dairy association in the state of Wyoming, the purpose of which is to promote the dairy industry through more systematic breeding, better feeding methods, improvement of shelter conditions, providing a summer range for heifers, co-operative buying and selling, and systematic advertising. The officers of this association, called the Star Valley Holstein-Friesian Association, are S. A. Draney, president; John Heap, 1st vice-president; Carl Erricson, 2nd vice-president; Chas. Wright, secretary-treasurer; and an executive committee consisting of A. Christensen, Thos. Blacker, and T. R. Hebdon.

The Star Valley people are wide awake to the possibilities of dairying. Silos are being built, cow testing associations are being organized, bull associations are being formed, and more and better live stock is being purchased. This is the leading dairy section in Wyoming, having over 5,000 dairy cows at the present time, nearly all being high grade Holsteins.

M. O. MAUGHAN, County Agent.

The ordinary washing of dairy utensils is not sufficient to insure freedom from bacteria. The only safe method of destroying in utensils germs which affect the hygienic and keeping qualities of milk and cream is by sterilization.



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Prevent tampering with your milk by sealing it with the

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The DACRO Crown protects your product from all contaminating agencies and guarantees your customers that your milk is as clean, pure and healthful when opened as when it left your dairy.

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This four-year-old is first of all healthy. Her record shows it. Her yearly production record is 30,230.2 lbs. milk and 1,111.56 lbs. butterfat. Surprising results are possible if a dairy cow's condition is kept perfect.



Go After Records Yourself

Production records of dairy cows are not just to read about—they are distinctly worth trying for, this year more than ever.

Try it this way: Pick out the cows from your dairy that are not producing as they should. Study their health, and try to improve it by proper treatment. There's real money in working this plan intelligently.

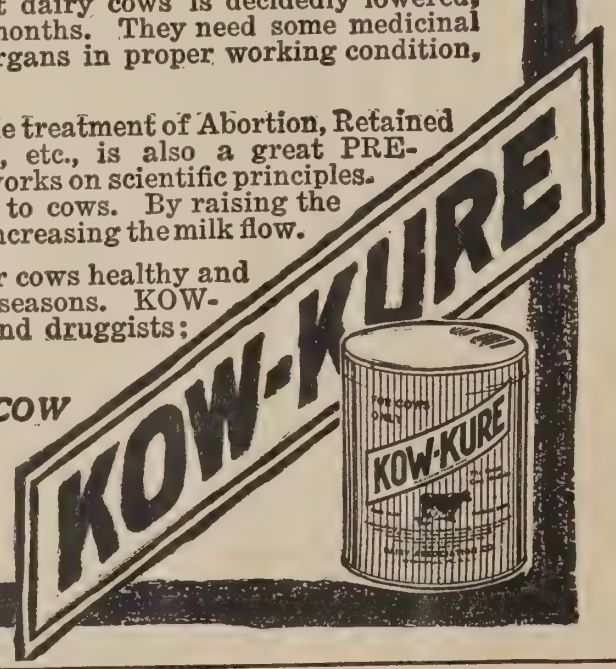
The fact is, the health condition of most dairy cows is decidedly lowered, especially during the winter and spring months. They need some medicinal aid to keep their digestive and genital organs in proper working condition, and to enable them to throw off disease.

KOW-KURE, besides being invaluable in the treatment of Abortion, Retained Afterbirth, Scours, Barrenness, Bunches, etc., is also a great PREVENTIVE of disease—a conditioner that works on scientific principles. It strikes at the seat of ailments peculiar to cows. By raising the health standard, it directly aids nature in increasing the milk flow.

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Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.
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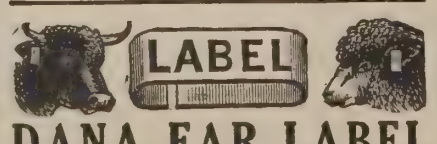
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Horns never grow if Hornstop is used early enough. Money back if not satisfactory. Our "Veterinary Adviser" Free if asked for.

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C. I. HOOD CO., Lowell, Mass.

When writing advertisers please mention Hoard's Dairyman.

New York Institute Workers Me

(Continued from page 584)

pected that there will be so great a d mand for cattle as some predict. Th I understand to be Dr. Warren's ide and it seems to me correct. I kno that some at the college, as elsewher do not agree to all of this.

Mating Swine

HOARD'S DAIRYMAN:—Novemb and December are the princi months in which sows mate. A Nove ber mating means a March litter a a December mating means an Ap litter. March is a good month for t pigs to come if proper preparatio are made to take care of them. P tection from the cold and dampne is the chief requirement. In sectio where the weather is cold until w along in the spring, April is a bet month than March for young pigs arrive and in case of the young s with her first litter I would rath have her farrow in May than in eit of the other months mentioned. T very pleasant weather of May and t green grass obtainable are all fav able to the young sow and this par ular May litter will come forward fast if not faster than if they w farrowed early in the spring wh weather conditions were not so m in their favor.

The average period of gestation the brood sow is 114 days. It ran from 112 to 116 days according to individuality and condition of the s Young sows in good breeding c dition do not usually go more than days, while old sows often to 116 days from the time of be served to farrowing. An old say which has been handed down is v near the mark, "three months, th weeks, and three days". It is easily remembered. It is better t the sow or sows be pure-bred, but h grades mated with a pure-bred will bring good pigs for meat p poses.

The period of oestrum in the br sow lasts about three days and if then served she will again show h in three weeks. If the sow is not with the sire during the first h period she should be watched th weeks later and if she is to be bre this time and is to be taken awa some good sire a suitable crate the purpose should be in readiness is not always well to take the so the boar on the first day of the h period. In doing so and taking sow away immediately after b served, as she should be, she may prove with pig. It is better to wa day and present the sow to the n on the second or third day, but a only one service and take the away. One service is better than or more. The pigs will be stro and the chances of insured se are just as good if not better tha the sow were allowed to remain the boar over night or for two d Three weeks after service the should be sharply watched to se she comes in heat again. If she she must of course be presented to sire. After the sow has been se she should be shut up in a pen a from other hogs for a couple of and fed sparingly. Sometimes the is tardy in showing an inclination the male. In a case of this kin heat making food such as corn sh be withheld from her and oat largely fed. A thick mush mad crushed oats and whole milk or s skimmilk makes the best feed th know of to bring sows into he always mark down the date which a sow is bred, then I when to look for the pigs to a and can be prepared to take good of them.

Illinois. A. O. CHOA

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productiveness in age makes the Brown Swiss Supreme.
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R SALE:—A 14-month-old bull, well-n, good individual. *By sire* out of an A. am with 16,500 lbs. milk, 650 lbs. fat. of a dam weighing 1,600 lbs., which has d 75 lbs. a day. Priced for sale.
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ly high class, well bred animals from a and healthy herd offered for sale. More 100 head to choose from and our 20 years' ience is back of every one. Write us now.
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Closing Out of Red Poll Herd
sisting of Herd Bull, seven years old; four and six heifers, all bred; one two-year-old red, two heifer calves, one bull calf. Selling ke room for Holsteins.
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40 head of splendid females—
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Daughters of Proctor Knott IV and ddy's Best included. Write for es list just off the press.
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wonderful bargains we offered in Berkshires so quickly taken advantage of that we have not a boar of serviceable age for sale and only a few sows, weighing 250 to 300 lbs. bred for their first cond litter and a limited number of unbred fall Our stock is right and our price is right. Write ay for complete information. Remember—first first served—the quicker your order is placed the the selection to choose from.
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The Future of the Creamery

There are discouraging periods in the life of any business. Such periods seemingly come at frequent intervals in the creamery business. With some creameries the condition seems to be chronic, while to some well managed, properly located plants it seldom applies. About a year ago the outlook for many creameries was not particularly bright. War conditions had created an inflated demand for condensed milk and plants to manufacture that product at practically every point where sufficient milk was available to warrant the operation of a condensery. Many creameries were seriously considering the closing of their doors without a struggle. In addition to the problem of condensery competition nature nearly dealt the creamery industry a knockout blow in many sections by sending early frosts, thereby preventing the maturing of corn and making it necessary for many farmers to sell their cows. On top of all, the coal situation was bad and transportation was the poorest known in modern times.

Conditions, although bad, were not hopeless. The scarcity of coal crippled the condenseries and to add to their misfortune there were insufficient ships to carry their product to Europe. Instead of having an unlimited market and boundless space for expansion, as they had supposed, their market was restricted and expansion was impossible. Farmers, who had been among the first to leave their creameries to patronize the condensery, began again to send their milk and cream to the creamery. Transportation soon became better, enough coal was found to tide the creamery through the crisis, and conditions in general became fairly satisfactory. While the war lasts there will continue to be many problems that will have to be solved but as in all things persistence will find solutions for all such problems.

At present the future of the creamery industry looks bright indeed. There is an unlimited demand for butter and that demand will be intensified with the end of the war, which we hope is not far off. There will be greater home consumption but in addition the demand from across the ocean for high quality butter will be unlimited. It will, of necessity, take some time for those countries which have suffered so intensely because of the war to replace the live stock which has had to be sacrificed. This country will, even more than now, be looked to as the source of supply and our creameries should start at once to prepare for the demand that will come to them. Quality should be the watchword in making preparations for the after-war trade. Start to-day to prepare.—W. B. LIVERANCE, NEW YORK.

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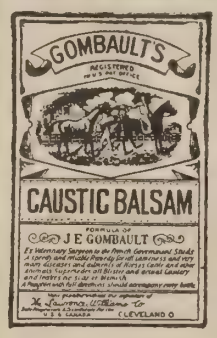
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Splendid-looking horses—otherwise sound—are being turned down because of some blemish that could be quickly cured with

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Learn how to detect the causes of non-breeding in animals; how to overcome and prevent sterility and abortion; how to eliminate scours, pneumonia and other diseases; how to breed animals artificially; how to select breeding animals; how to get the best results in breeding horses, cattle, sheep and swine. Complete course by mail.

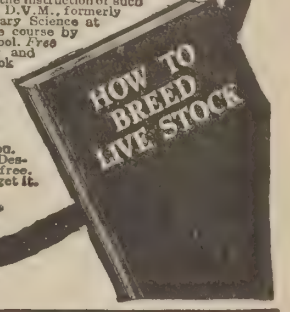
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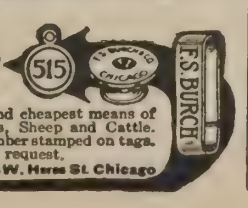
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Indespensable to all interested in Guernseys or improving their herds of dairy stock. Well gotten up. Full of pertinent facts. Giving latest records of production. With Hoard's Dairyman 1 year, $2.75.

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If you want to increase your dairy profits you need to know about the cows whose average production, under tests supervised by State Agricultural Colleges, is three times as great as the average of all dairy cows in the United States. Ask for the "Story of the Guernsey".

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Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props.**
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Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

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Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

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40 Registered Guernseys

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Cows and Heifers of the most fashionable breeding and fine individuals, all in their working clothes.

Will also sell 25 High Grade Guernsey and Holstein cows, either springers or fresh.

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Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL,**
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For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

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Young Guernsey Bulls

Sons of Langwater Royal Master (23663), who is the son of Imp. King of the May (9001). Get one of these splendid young bulls for your foundation. Herd is on the Accredited List of the state. Send for pedigree and price list, or better, come and see this excellent working herd. **M. H. McCallum, Mgr., Wernersville, Pa.**

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Production
Reproduction
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Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.

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GRASSLAND FARMS

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Young Bulls For Sale

Send For Price List.

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619 POUNDS FAT

is the average of our first nine Advanced Register Records

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carries this kind of blood. Dropped Aug.8,1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175.

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His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

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For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

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No more to spare from 1918 importations. Place your order early for heifers from 1919 importations.

Several high class bulls for sale from A. R. cows, and sired by best bulls money can buy. Send for sale list.

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WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted,

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May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

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His Sire is May King's Vrangue of Ingleside, the May Rose sire whose first ten tested daughters averaged over 600 lbs. butterfat as 2-yr.-olds and 3-yr.-olds. **His Dam** is an imported cow now on test that will finish her year with at least 400 lbs. fat, milked twice daily. **The Bull** himself is a dandy—a calf that would show well in any ring. The right kind of a herd header to use.

Remember he's guaranteed to be right. Write me.

W. A. LAWSON, Rosendale, Wisconsin

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

ELDERWOOD GUERNSEY FARM

offers for sale a nicely marked bull dropped Nov. 2nd, 1917, whose dam, now on test will make over 300 lbs. fat at 2 years and whose grandam has a record of 424 lbs. fat at 4 years and whose great grandam has a record of 484 lbs. fat at 2 years. **Roy Burton, Eagle, Wis.**

"Homestead Farm" "Guernseys"

We are offering five *Grandsons* of *Nella Jay 4th* from two to seven months of age, all from A. R. cows or on test. They are all choice individuals, sired by the highest priced bull of the breed.

W. G. Jamison & Sons, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.

HOMER RUNDELL, LIVINGSTON, WISCONSIN.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place

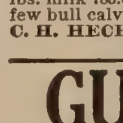
Sire: Jewel of Koshkonong Place A. R.

Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

Thorn Hill Guerns



If you want a well bred Guernsey Bull at reasonabl —May Rose and Glenwood st write me. I have always on hand, all my own breedi of A. R. Cows with records 650 pounds of fat. Also a few calves each year. Herd re tested for tuberculosis. **August Ziesing, Deer**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready f vice. Excellently bred. Exceptionally individuals. **Rock River Farms, Byr**
Medill McCormick, Owner. R. S. Hulce, S

PERGUE FARM GUERNSEYS

We are offering now several choice young whose dams are extra good producers. Our sto bines breeding and individuality. Also a few for sale. Prices exceedingly low. New list Farm located in Livingston Co. **Sass Bros., Stre**

Registered Guernse Bull For Sale

Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 His first two daughters to enter A. R. a 8,658.9 lbs. milk, 408.38 lbs. fat, Class sire, Prince Regent of Meadowbrook 15 R. by Holden IV 12179 (Sire of Che Edgewater, 732 lbs. fat, Class G) out of Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golde cret 52629. Out of a 450-lb. A. R. cow by en King of Arcady, a grandson of Imp. Secret 12899.

Price $100. For pedigree and photo wr

FOLLY FARM, LIBERTYVILLE

May King of Columbia No. 3

Our head sire is a double grandson of Barringto King No. 19312, purchased by U. S. Governme average records of his daughters with first calf exceed the average first calf records of daughte grandsire, Imp. May Rose King but also the first calf records of daughters of sons and othe sons of Imp. May Rose King. (See page 4 of G Breeders' Journal July 1, 1918.) For Sale—youn in calf to Columbia, also an occasional bull calf Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton,

Edgewater Far

Has been the home of such noted Guernseys, as of Edgewater, Miranda of Edgewater, White Edgewater, Imp. Queen Regent 4th, Imp. To Carteret, Miranda of Mapleton, Nellie Tostevin o ton 3rd, The Great Bull Imp. Holden 4th and mar noted animals. We are offering a few choi Calves. **F. G. Benham & Son, Canandaigua**

Harbor Hill Guerns

We Bred and Developed

The Breed's Champion Roll of Hono

Linden Girl of Harbor Hill 3rd A. R. 4651, 1 lbs. milk 785.89 lbs. fat Class CC. We c few bull calves carrying similar blood line

C. H. HECHLER, Superintendent, B
Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Reg. breeding for sale. Strong individua just as represented. Dams milking from 55 pounds daily. Could spare a few young

Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco
Ensenore, New York.

Pinehurst Guernseys Prod

with *farm care. 70 A. R. records* average *465* l The former home of *Glenwood Boy of Haddo* where *26 of his daughters* were bred, whose *A.* ords average *554 lbs. fat.* His daughter *Dairym Pinehurst* made *860* and *910 lbs. fat.* Present her *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co.



One JER$EY Starts a PROFIT HERD

One Jersey will prove the profit of the breed. She will prove her economy in feed. She will show a return in milk richness truly astonishing. (Vigorous in the hot South; Hardy in the cold North.) Get one Jersey and you will never be satisfied until you have more. Ask breeders for prices and pedigrees. Write us for Jersey information worth having. We have gathered it from men who know from experience. It's free to you.

THE AMERICAN JERSEY CATTLE CLUB 351 WEST 23rd STREET, NEW YORK CITY

lease Remember That

ers Crest Farms are in a position to furnish ou ith either matured bulls or bull calves, ro eavy producing dams and sired by bulls rho records are a credit to the breed.

N only are these calves and bulls bred ro high producing families but they are ro ly grown. In the first place, our Herd is bs tely free from all contagious diseases, av never had a case of tuberculosis or abor- on n our herd. Calves get their skimmilk nt they are at least a year old, plenty of ra and clover hay. A good start in life ca Success in the future, with both health nd rength combined.

W n you are looking for beauty, look for it n offspring of the Jersey Crest Farms ler Visitors always welcome.

er r Crest Farms, Oconto Falls, Wis.

rn Brae Jerseys

Bull calf dropped Dec. 5th, 1917 Si —*Ibsen's Chief 135749*, Majesty and al h breeding. His dam has a record of 636 s. oz. "Chief" won first as calf, yearling and ro ar-old, two championships and Gold ed *Dam:—Oxford's Majesty's Chance* 57 *16.* Now on test. Her dam is also a R. of . c . Other bull calves and bulls ready for gh ervice. Guaranteed to please.
H . A. PETERSON, Rosendale, Wis.

ILLCREST JERSEYS

W e me for descriptions and prices on sev- al ad of officially tested cows. Also bull ly out of tested dams. Address
O IE VANDERVORT, Tomah, Wis.

EY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. re oble Rozel 101785. Dam—Matilda's Mabel 234231— e ional Dairy Show winner—who in Association ri ade 708 lbs. butter. Mable's Noble King was 1st iz earling at Springfield. Guaranteed a breeder. ic 300 F. O. B. Lake Geneva. See him or write, D ILBERT, Lake Geneva, Wisconsin.

"he Hermitage" near Centreville, Maryland

u - bred Jerseys For Sale

R in blood of Raleighs, Eminents, Golden d Flying Fox, Mohican and Noble Oaklands. a Villiams, Owner. Edw. A. Nelker, Herdsman.

JERSEY BULLS

ll Farm is offering young bulls from 2 mos. to 18 os d, sired by Noble of Avranche 92571 and Golden ic Viscount 113344, both Imported sires. Will sell ea o make room. Write
R STUBLEY. BLACK EARTH, WIS.

ESTER MERIT JERSEY HERD

H , *Mona's Jacoba Premier* grandson: *Pogis 99th of* no *arm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; an aughter, *Jacoba Irene*, young stock; *St. Lambert* ec g for sale.
. GREEN & SON, ALBION, WIS.

HEIFER FOR SALE



A daughter of Trials Noble of Oakland who was grand champion at Wisconsin State fair 1918. His dam has a R. of M. record of 563 lbs. butter. The dam of this heifer May of Oak Grove has a R. of M. record of 334.41 lbs. butter as a 2-year-old, advance test 6.2%. Heifer was dropped April 22, 1917, is solid color, black tongue and switch and is bred to a R. of M. son of Eagle's Chief.

Oak Grove Jersey Farm, Wm. M. Knight, Eagle, Wis.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

READY FOR IMMEDIATE SERVICE

A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea, R. 2, Box 99, Baraboo, Wisconsin.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohoi.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order.
Ashland Farm Dairy, Inc.
ALTON PARK, TENN.

SOPHIE'S TORMENTOR JERSEYS

"Production" Our Watchword

BULL CALF FOR SALE

Our No. 252, dropped April 29, 1918; solid golden fawn with black tongue and switch; well grown for his age and an excellent individual in every respect.
SIRE—Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. 85% butter, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM—Van's Warden Lady 336390, an excellent individual of extremely good dairy type. Write for particulars.

FAIRVIEW FARMS, INC.,
R. L. PIKE, Genl. Mgr. P.O. Box 1404
ATLANTA, GA.

We Offer An Exceptional BULL CALF

Dropped in December 1917

Sired by Majesty Star out of a Register of Merit Dam. For particulars, address
FINCH FARM, - DAYTON, OHIO.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

MERIDALE JERSEYS

For Sale: Five grandsons of Spermfield Owl 57088. Two 1000-lb. cows close up in their pedigrees. Address

AYER & McKINNEY
300 Chestnut St., Philadelphia, Pa.

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over

700 Pounds of Butter in One Year

These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of

1132 Pounds of Butter in One Year

If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.

ROYCROFT FARM, SIDNAW, MICH.

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

AYRSHIRES

Are You Looking



for the husky kind?

Calves that start eating hay at one hour old, pasture and grain, with milk on the side for twelve or fourteen months. Calves from big, healthy cows that are producing milk and more calves every year.

We have that kind.

Young bulls, heifers, and bred females. Herd tuberculin tested for eight years.
ECHO FARM, Menomonie, Wis.



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

CRESTMONT FARM AYRSHIRES

Are offered in several choice bull calves. Handsomely marked, nearly all white, from tested cows in Advanced Registry. "Finlayston" and "Baron's Best of Bargenoch" breeding. Head your herd with these splendid animals at reasonable prices. W. H. Druckemiller, Sunbury, Pa.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicoha. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle.

DISPERSAL SALE

of Entire Herd of

40 Registered Jerseys 40

30 High Grade Jerseys 30

Wednesday, Nov. 27th, '18

Be sure and attend this sale as it is located just outside of the dairy district, and you can buy these Wonderful High Producing cows at the right prices. Sale under cover. Write for catalogue. Auto meets all trains.

G. H. CARTER, FREEPORT, ILLINOIS.

Edgar C. Eeels, Auctioneer.

13,036 lbs. MILK—720 lbs. FAT

average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped 20, 1918.
sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richf his dam, 15,147 lbs. milk, 875 lbs. fat.
dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. am made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

r Sale: Carload Registered Jersey Females

ecause we are over stocked we are offering for sale a carload of excellent Jersey cows and s, some fresh, the remainder due to freshen from time to time throughout the year. 15 of daughters of "The Warden", a Tormentor-Eminent bred bull from a R. M. dam and himith 33 daughters in the Register of Merit. 10 of them sired by "Pogiwarno", he a son of 75th of Hood Farm and from Lass 49th of Hood Farm with 488 lbs. fat to her credit in AA.
part of these females are now in the Register of Merit. All are bred for production and duality.
his is an exceptional opportunity. Write us at once or better still come and see what we fering.
BRONDALE FARM, EAST HARDWICK, VERMONT.

IROQUOIS FARM

AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

Wisconsin Ayrshire Breeders' Association

Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.
Jas. Van Etta, Lima Center, Wis. Adam Seitz, Waukesha, Wis.
Fred Tschudy & Sons, Monroe, Wis. Stephen Bull, Racine, Wis.
Bollig Bros., Black Earth, Wis. John DeMaster, Cedar Grove, Wis.
A. J. McNab, Secretary, Black River Falls, Wis.

Sir Inka Prilly Segis Albino

Born Dec. 3rd, 1917.

A Real Bull For Some Small Breeder.

IF YOU ARE A SMALL BREEDER or beginner in the Holstein business and in the market for a herd sire, here is one that is worthy of your best consideration.

JUST A YEAR OLD—Ready for service. He is well grown, a splendid individual with faultless topline and marked nearly all white. As an individual he will suit the most particular.

SIR INKA PRILLY SEGIS, his sire, is one of the famous sons of the great King Segis, who has proved himself to be one of the greatest, if not the greatest, transmitting sires of the breed.

THE DAM OF SIR INKA PRILLY SEGIS is Inka Prilly with a record of 30 lbs. in 7 days. She is from a 25-lb. daughter of old Prilly and sired by a grandson of this same famous foundation cow.

THE DAM OF SIR INKA PRILLY SEGIS ALBINO is Princess Douglas Urmagel, a 24-lb. four-year-old daughter of Sir Urmagel Burke, a full brother to the 35-lb. cow, Urma Burke, and from the 31-lb. cow, Urmagelsche 2d A.

PRINCESS DOUGLAS URMAGEL is from a 29-lb. four-year-old daughter of DeKol Beets Segis, another well known son of King Segis.

THE THREE NEAREST DAMS of this young bull average over 28 lbs. Two of them being only four-year-olds. His seven nearest dams average 26.93 and his eighteen nearest dams average 26.77.

HE CARRIES THE SAME RELATIONSHIP TO King Segis as Segis Fayne Johanna, the only 50-lb. cow, Fancher Farm Maxie, the world's champion heifer with 47 lbs., and Mabel Segis Korndyke, former champion four-year-old with 40.32 lbs.

HE CARRIES A DOUBLE CROSS of both King Segis and the famous foundation cow, Prilly,—both animals familiar to breeders from coast to coast.

AND WE ARE OFFERING this young bull to you for $650, guaranteed sound in every respect and tuberculin tested by Federal veterinarians.

IF YOU WANT HIM, do not wait to write but send us a wire instructing us to hold for you.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams. For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked .69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Qualit

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, M

Young Bulls From Yearly Record Dan

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official record 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Schr and other noted herds. These bulls are well marked, heavy bone, straight and large for their We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, M

The Greatest Bull on Eart

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Orm

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d j herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

His Six Nearest Dams Average 29.31 Lbs.

A beautiful son of KING KORNDYKE SADIE VALE 2 from 26-lb. dam who is a daughter of Prince Segis Korn from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One fr world's record dam in yearly division. Breeding, size, individuality and price that will your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

HARGROVE & ARNOLD HOLSTEINS

They have the yearly record kind. Dairymen and breeders who want bulls backed by yearly records, and who appreciate the 4% Holstein cow, had better write Hargrove & Arnold Holstein Co., Norwalk, Iowa. They are headquarters for high testing Holsteins, and they have on hand now just a few bulls bred along these lines. Come and see us.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.**

Registered Holstein Cows

Some to freshen soon. Also heifers and heifer calves and bulls. Very fine strain of good breeding. Non-tested dams. Prices right.

HENRY EICHACKER, - AKRON, IOWA.

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont**, the **First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

When writing advertisers please mention Hoard's Dairyman.

Only 3 Bulls Left For S

They are sons of Sir Johanna Piebe whose dam and full sister average 1030 lbs ter for 1 year and his 1st 3 daughters to fre as Jr. 2-year-olds, made 19, 20, and 23 lbs. 7 days. These are Dec. and Feb. calves and dams are good yearly record daughters of of the Pontiacs. Herd on Fed. Accredite

RAY MEEKER, MUNCIE, INDI

P. S. Meet me at the National Dairymen S

Service Bulls

5 bulls from 1 to 2 years old. One a son of tiac Korndyke. One a son of King Segis Po The others and several not of service ag grandsons of these two great sires. Also daughter of King of the Pontiacs and o Pontiac Korndyke. Priced to sell. Writ full information.

WM. N. OSBORNE, WANATAH,

"NO HORNS"

Naturally Polled Holstein-Friesian bull sired by a son of the **World's Record** senior 4- 1294.7 lbs. butter in 365 days, at $100 and up. Desc catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Sumn

Bull Calf, Born Jan. 6, 1

Sire—Colantha Johannn Champion 45674. 39 A daughters. Son of Colantha 4th's Johann lbs. butter in 7 days, 1,247.82 lbs. butter in 3 **Dam**—Emblagaard Colantha Mahomet 279872 antha Johanna Champion 45674. Record at 2 months, 9 days: Butter, 7 days, 14.67; milk butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 668 11 months. The price of this bull is exceeding We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, Mic

THE TRAVERSE HE

We have what you want in

BULL CALVES

the large, fine growthy type, guaranteed in every way. They are from high pro A. R. O. ancestors. Dams' records up to Write for pedigrees and quotations, about age desired.

Traverse City State Hospital, - Traverse City, M

The Pontiac He

"Where the Champions come fro

Offer Bull Calves sired by sons of *Korndyke, Hengerveld DeKol, Pontiac land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac,

Bloomingdale He

...HOLSTEINS...

For twenty-five years have been br large production and good individuality. Fayne Johanna, the first 50-lb. cow, is breeding and made her first 30-lb. record in our herd. Many of the large producer been bred here. Foundation stock a spec

A. A. Courtelyou, Somerville, New J

Holstein Breeders, Attention! Buy your bull young, 2 to 6 mos. old, good individuals, nicely from A. R. O. dams. Sire: King Segis De Kol Fa whose dam has 7-day A. R. O. butter record of 2 His grandsire is the sire of Segis Fayne Johan world's record butter cow for 7 days. 1 service sale. **C. I. Reamer, North Liberty, In**



Walcowis Ollie Hartog 240660.

re—Iowana Sir Ollie who is sire of Walwis Ollie Mooie, state record junior twoar-old for seven and thirty days. He is a n of the famous 31-pound cow, Ollie atson Prima Donna.

um—Groveland Korndyke Cornucopia—27 unds from 624 pounds milk in seven ys. Best day's milk, 101.5 pounds. A anddaughter of King of the Pontiacs and st prize winner as a three-year-old at e 1913 National Dairy Show.

lf is well grown, a very good individual d reasonably priced. Have other youngbulls for sale. Write or come and see us.

'alcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

ock River Valley Farm

Awarded

IRST PRIZE

In Wisconsin Dairy Cow Competition

e *Winner, Queen Juliana Dirkje,* produced ne year as a 3-year-old 1,021.72 lbs. but- (80% fat.) Over 30 yearly record cows in headed by Mutual Piebe DeKol.

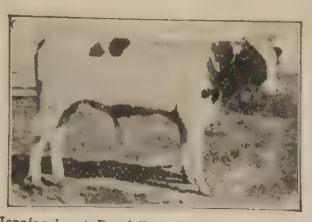
few young bull calves from these cows sired is bull for sale. (Herd tuberculin tested.)
N HETTS, FORT ATKINSON, WIS.

leveland Herd

ers Yearling Holstein bull from a 29.08-lb. r-old dam, that gave 100 lbs. milk in a day won $109 prize money in one year. Her is a 26.10-lb. cow. His sire is a 30-lb. grandf the $50,000 bull. He is evenly marked, a straight individual and ready for heavy ce. Price $500. If interested send for his ree. **H. R. Weiskopf, Cleveland, Wis.**

35.43-lb. Sire

. Born Feb. 1st, 1918. Dam has a record of nearly of butter 7 days. Best days milk 75 lbs. Bull is good individual especially high rump, half and color. Price $175.00 delivered. No. 2. Born Feb. 918. Dam has 20.20 lbs. at 4 years, second dam er 25 lbs. 7 days. A little more white than black. ually he's a dandy. Price $200 delivered. For r particulars and pedigree address
ANDERSON, - WHITEWATER, WIS.



Jenningshurst Beryl Rag Apple a 30.72-lb. son of Rag Apple Korndyke. Owned by Wm. F. Mielenz, Milwaukee.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to **W. L. BAIRD, Secretary, Waukesha, Wis.**

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write **MASONIC HOME FARM**
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A. R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Bonair Farm Foundation Herd For Sale

Owing to feed shortage we will sell any or all of our 30 producing females. Mostly line-bred Ormsbys with A. R. O. records up to 27 lbs. Due to freshen from now to Mar. 1st. Bred to Sir Korndyke Fytje Pietertje 132719 A. R. O. of dam 23.15 lbs. butter in 7 days and 18431 milk and 784 lbs. butter in 1 year at 2 years of age. He will also be sold. **C. J. Will, Templeton, Wis.**

Ready For Light Service

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

For Sale—Several Young Bulls

5 to 8 months old. Sired by a 30-lb. son of Rag Apple Korndyke, some are from A. R. O. dams and priced very reasonable. Wm. F. Mielenz, 312 First National Bank Bldg., Milwaukee, Wis.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old

out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. **Aitken Bros., Waukesha, Wis.**

SIR PIETERTJE ORMSBY MERCEDES 43rd heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull **Maplecrest King DeKol 2nd.** A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Need a Bull?

Write and ask us how to get the use of a good bull for two years, sired by a 34-lb. bull—KING SUPERBA, 176125, or PABST KING PONTIAC LAD 129298, and dams with 7-day and yearly records. **Dr. David Roberts Stock Farm, Waukesha, Wisconsin.**

KING SUPERBA

Those who did not meet his sons and daughters at the Wisconsin State Fair have seen by the report in agricultural papers how they took the firsts and Junior champion. Individually they are correct, from A. R. O. dams.
W. J. Mann & Sons, R. 1, B. 16, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

Mound City Farm GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.
Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

MAPLE LAWN DAIRY FARM 50 PURE-BRED HOLSTEINS 50

My Herd Sire, RAG APPLE PONTIAC is a bull of high class breeding. He is half brother to the famous $25,000 sire, *Rag Apple Korndyke 8th,* the sire of the $53.200 bull calf, the World's Champion 42-lb. 3½-year-old and the youngest 30-lb. heifer. He derives 43¾% of his blood from the noted Century sire, *Pontiac Korndyke,* the f the World's Champion 30-day butter producer and who has more 30, 36, and 40-lb. ters and 1,000-lb. year-record granddaughters than any other bull. He is a grandson of nly double century sire, *King of the Pontiacs,* who has more 40, 30, and 20-lb. daughters any other bull. He won first prize at the La Crosse, Wis., Fair this year and a daughter on first at the Wisconsin State Fair.

BOTH MALES AND FEMALES FOR SALE

ales of all ages. Some are springers and some are bred to the above sire. Some of the have A. R. O. records up to 27 lbs. in 7 days.
stock is of the most popular breeding, such as Korndyke, Pontiac, Hengerveld DeKol, Segis, Polkadot.
Calves at a Bargain; ages from 1 week to 7 months. Sired by *Sir Pontiac Wayne DeKol* grandson of *Sarcastic Lad,* the sire that won Championship at the World's Fair—and by *Segis Pontiac Polkadot 8th,* a grandson of *King Segis Pontiac* and *Johanna McKinley Segis.* te at once or come and see me. **W. W. QUACKENBUSH, West Salem, Wisconsin.**

A Bull That Will Suit You

s sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, ose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show ook first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
IDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. **Fond du Lac, Wisconsin.**

ST SALEM STOCK FARM

We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to years old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, ne of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 and 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot Well grown and nicely marked. This stock is priced to sell in single or car lots. Also offer ng stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, te us for just what you want in Holsteins or Polands. We can please you. Farm located n City Limits.
J. D. McDONALD, WEST SALEM, WISCONSIN.

R. O. Holstein

er to make room in our barns we ell a number of cows and heifers e backed by large official milk tter records. They are bred to
ONSIN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

Beet Tops Used for Ensilage

An additional value of $35 an acre has resulted from ensiling sugar-beet tops in Ventura County, Cal. Formerly the tops were sold in the field to cattle and sheep owners at about $2 an acre. The new utilization means a great saving in feed. The farm bureau in Ventura County is carrying on a silo campaign, and plans have been laid for the construction of a number of beet silos this year.—U. S. War Work Weekly.

HOLSTEINS



For Two Thousand Years

the people of Holland have been developing the Holstein-Friesian breed of dairy cattle. They have developeda breed that most economically turns large amounts of coarse fodder into valuable dairy products, and is valuable for beef purposes. Holstein-Friesian cows exceed all others in milk and butter production and return a greater profit upon the cost of their feed.

If interested in

HOLSTEIN CATTLE

Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEIN FEMALES

FOR SALE

to make room for

THE BABIES

Carnation Stock Farms

Oconomowoc, Wis., Box Q. Seattle, Wash.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

Lisle Farms Co.

Offer High Class

Holstein Bulls

Every dam with an A. R. O. or C. T. A. record. Herd tuberculin tested. Prices right.

Send Today for Bull Sale List.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West Chicago, on C. B. & Q. R. R.

FOR SALE

27 HEAD

Pure-bred and 15-16 Pure-bred Holstein Heifers

2 and 3 years old. Well marked. 18 head to be fresh soon. Sired by a 30-lb. bull and in calf to a 30-lb. bull. A very choice lot—all my own raising.

A. H. BOSWORTH, DIXON, ILL.

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Lakeside Herd

Best Bulls For the Money

State about amount to be invested, with quality required. I will describe the best for the amount. Large number of females to select from, all ages. Highest individuality, large production, best type, best udders are characteristics of Lakeside Herd. E. A. POWELL, Syracuse, N. Y.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

COMPLETE DISPERSION

of the Erinside Holstein Herd

Tuesday, December 10, '18

At Fort Atkinson, Wisconsin.

65 Registered Holsteins to Be Sold

Including 36 females of milking age, 35 with A. R. O. records from 12-lb. 2-year-olds to 31-lb. jr. 4-year-olds.

Part of them fresh, the others to freshen during fall and winter.

10 heifers and heifer calves. 8 bulls and bull calves up to 18 months old from A. R. O. dams. Write us today for a descriptive folder of the herd.

GORMLEY BROS., Props., R. 1, Fort Atkinson, Wis.

Pabst Bargains

No. 1—A 32.02-lb. grandson of King Pontiac Champion and Johanna McKinley Segis. This calf's sire is a 38.03-lb. bull that sold for $12,500 and his dam is a most promising young cow, having a Jr. 4-yr.-old record of 32.02 lbs. butter in 7 days.

No. 2—His sire is by King Pontiac Champion and out of Hengerveld Colanthus, the cow that sold for $3,500 at the last National Holstein Sale, and his dam is a 26.07-lb. cow having three very creditable A. R. O. daughters.

Here is a splendid opportunity to line up with the blood of King Pontiac Champion. Write for further particulars.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

$200.00

Buys a Grandson of King Korndyke Sadie Vale

King Sadie Korndyke Fayne No. 241601, born Dec. 18, 1917. A large well grown fellow, fine individual, in color largely white.

Sire:—King Korndyke Sadie Vale 18th, one of the best sons of King Korndyke Sadie Vale from a 31-lb. 4-yr.-old daughter of the great Sir Veeman Hengerveld.

Dam:—Crescent Cora Fayne. A. R. O. record as a senior 3-yr-old: Butter 22.07, milk 488.60; butter 30 days 86.18, milk 30 days 1,876.50. She is in my herd at present and a promising candidate for a large record in the future. PLEASANT HILL HERD, W. D. ROBENS, - POLAND, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. G. G. BURLINGAME, Cazenovia, N. Y.

Bulls—Bull

ALL AGES

Johanna and Ormsb Breeding.

Plenty of individuality. Unusu values. Satisfaction guarante or money refunded. Send f pedigrees and details.

PINEHURST DAIR
Sheboygan Falls, Wis.

For Sale—Registered Holstein

We still have left two young bulls, excellent bree one about eight months old, the other about eleven old, backed by splendid seven day as well as records. Also four beautiful heifers, two of them 18 months old, sired by Johanna King Segis the sire and out of a good A. R. O. dam. Another one thirteen months old, her dam a show cow; sired 30-lb. sire. Another one about a year old, granddter of the $15,000 Sire. Very classy stuff. Must se cause of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County
James McKone, Prop. William Lucia, Mgr.

Holstein Catt

In Carloads or Les

Ages ranging from 6 months to 8 years. phone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisc

YOUNG BULL FOR SA

I am now offering an excellent young bull dr February 27.

His Sire: A son of King Segis Pontiac Pol that has 100% the same breeding as K. S. P. Al and from one of the good daughters of Kor Wayne Paul De Kol. His Dam: Rosa Queen H De Kol, a 22.5 lb. junior, 4 year-old. This calf i grown and a remarkably fine individual.

A few other bulls up to 11 months old, and s females for sale. Every animal guaranteed.

HALSEY SEDGWICK, Limeridge,

HIGH GRAD HOLSTEIN

Calves, either sex, from heavy producers marked, 4 to 6 weeks olds, 15-16ths pure each, crated and shipped to your station. press and all charges paid here.

Highland View Place, - Whitewater,

$25 Holsteins $

We have thousands of satisfied customer we want you as one. Buy the best. weeks old, 15-16 pure, $25 crated. E paid. C. O. D. Write us for anything in

Dr. J. A. Roberts Stock Farms, Oconomowoc, Wi

Holstein Bull Calve

One 27-lb. dam at 3 years 4 mos. King of the P Hengerveld De Kol and Johanna breeding. 1 breeding and selecting a producing herd. Write ter come and see. M. F. Peck & Sons, Marshal

Holstein Bull Calves For

Well bred, well marked, good pedigree from one year down. Farmers' prices.

L. K. LUSE, SUPERIOR, WISCO



AUCTIONEE

For pure-bred livestock and farm sales. Write me before d on an auctioneer for your sale. dealing and satisfaction assured ences, State Bank of Honey Cree 25 head of pure-bred and gra steins, including herd bull, at K Farms, Oconomowoc, Wis., Sa Nov. 2nd. FRANK DRUM Honey Creek, Wis.

For An Auctione

and one that knows values of both

Pure-bred and Ordinary Live S

Write me for dates as I have 95 per cent sales in this section of country. Also se Estate at Auction.

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Holstein Pedigre

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Elliott Brothers Dispersion Sale

WATERLOO, IOWA, DECEMBER 6th, 1918

We Will Sell, Without Reserve, Our Entire Herd of 65 Registered A. R. O. Holsteins.
Eight Cows With Records from 30 to 32 lbs. Butter in Seven Days.
A Dozen Sons and Daughters of Cows With Records from 30 to 35.24 Pounds.



AALTJE WAYNE DEKOL 3RD, WEIGHT 1,950 LBS.
A. R. O. 31.97 LBS. BUTTER, 560 LBS. MILK 7 DAYS

This cow, her two daughters, one with 31.6 lbs. and one 23 lbs. at 26 mos., her full sister, a 30-lb. half sister and a 5-yr.-old son will be sold. Over half the offering are 50% same blood as this cow. Her sire has 13 A. R. O. daughters, 4 above 30 lbs.

A 32-lb. cow and her two daughters, one with 31.6 lbs. at 7 yrs., the other 22.98 lbs. 7 days at 26 mos. A 5-yr.-old, 30-lb. cow with 25-lb. 2-yr.-old daughter.

(1) Nearly half the offering consists of sons and daughters of, and cows in calf to, KING PIETERTJE ORMSBY PIEBE, THE GREATEST YEARLY RECORD SIRE IN THE WORLD. His dam and sire's dam average 1,312.39 lbs. butter and 29,641 lbs. milk 365 days. This makes him the highest record bull of any breed. Dams of these calves have records up to and over 31 lbs. butter A. R. O. Several fine herd bull prospects.

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(3) ORMSBY KORNDYKE LAD 7TH, the 3-yr.-old herd sire and a bull of remarkable breeding both for 7-day and 365-day records. His dam, 35.24 lbs. butter and 750 lbs. milk 7 days. His sire, Ormsby Korndyke Lad, is making a reputation second to no bull in the East with daughters producing above 30 lbs. at 3 and 4 yrs. and making world records in the 365-day and 8 months after calving divisions.

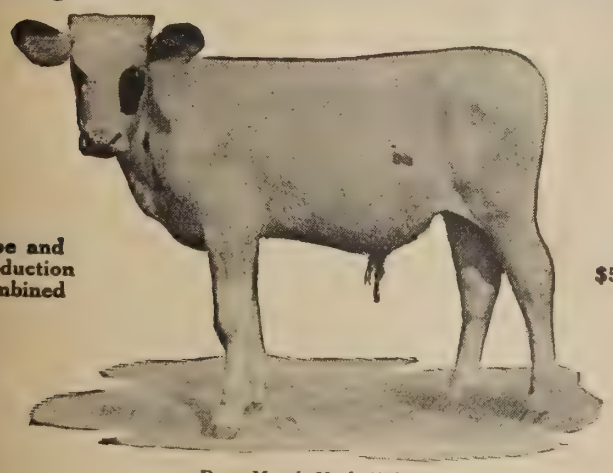
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Type and Production Combined

Price $500.00

Born March 22nd, 1918.

His sire is Royal Konigen, whose five nearest dams average, butter in seven days, 7.63 pounds.

His dam is one of the very best young cows in the herd and five of her near dams verage, butter in seven days, 27.62 lbs.

Ten (10) of the nearest dams of this calf average, butter in seven days, 32.62 lbs. le combines the blood lines of King Segis and that great foundation cow, Aaggie ornucopia Pauline, the first 34-lb. cow of the breed.

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Will also sell ten (10) extra well bred cows, ages 2 to 7 years; mostly 3-year-olds. hree (3) of them have splendid A. R. O. Records. Price $2,500, if the whole lot is aken. Write for further information.

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LAWN FARM, Sterling, Illinois.

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y of 80 High Grade producing Holsteins 1 to a pure-bred sire and will freshen be- c. I will crate and ship these calves for n 1 week old or will keep until older for week. This is your chance to improve iry with some well bred calves.

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A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. Albert R. T. Lillie, Supt., Arlington Heights, Illinois.

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25 Bulls—125 Females
Cows, Heifers and Calves

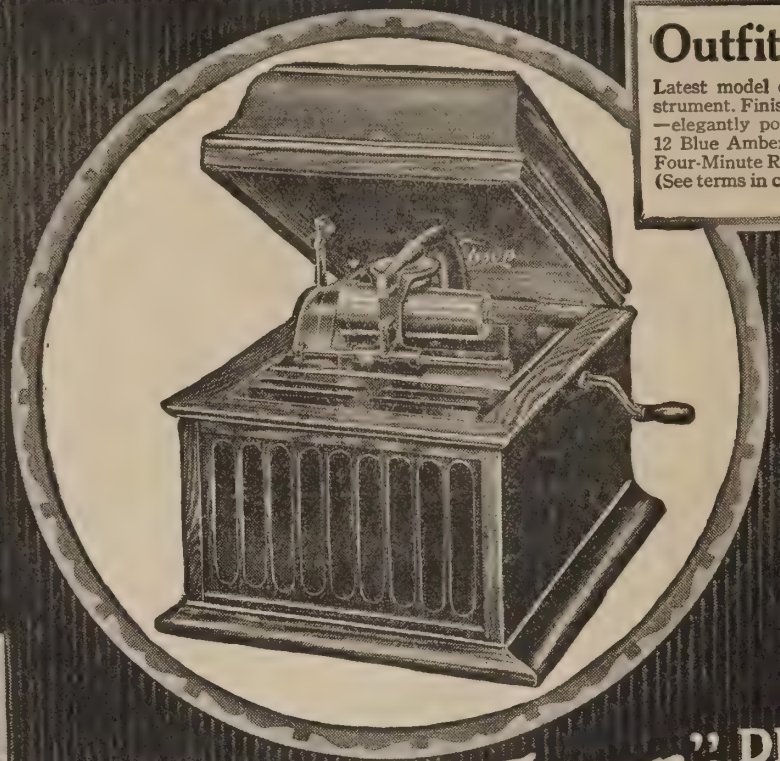
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Send for catalog to

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Of course, we do ***not*** want to ship an outfit to a person who can not afford to pay either cash or at least the easy payments (and when you get a free trial it must be understood that you can ***afford*** to keep it.) ***Yet,*** no one is ***under any obligations*** to keep an outfit if it is not entirely satisfactory. If it is not just what you want for your home, return it ***at our expense; you,*** not we, must judge what the Edison phonograph means to you and we accept your decision cheerfully and without question.

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Dear Mr. Babson:—As per your offer, I should like to hear Mr. Edison's wonderful new style phonograph with the new Diamond Stylus reproducer in my own home on free trial. Send me the outfit which I ha checked below, including the twelve Blue Amberol Indestructible Four-Minute Records which are part of the outfit. If I decide to keep the outfit, I will have the privilege of the rock-bottom price direct from you on yo special terms. I agree merely to take the outfit promptly from the depot, pay the small freight or express charges, and if I do not find it thoroughly satisfactory, I reserve the right to return the outfit at once at yo expense. Otherwise, I will send the first payment of $1.00 within forty-eight hours after the free trial or as soon as possible, in no case exceeding one week, and will make monthly payments thereafter of (*Che the square below to the left of the outfit which you wish to have us ship.*) The outfit is to remain your property until the last payment has been made. The 12 New Blue Amberol Indestructible Four-Minute Records a included with the outfit. (This offer is not open to anyone under 21 years of age. If you are under 21 ask your father, mother or guardian to fill in and sign this coupon for you.)

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How long a resident in your neighborhood and vicinity?.....If there is any possibility of changi

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI — FORT ATKINSON, WIS., NOVEMBER 29, 1918. — Number 19

California Dairy Adjustments

R. L. ADAMS, California College of Agriculture

[E dairyman is "up against it", is "afraid he will be up against it", "he isn't worried". The point of v depends upon operating condi-is. The man who is finding him-distinctly "up against the real g" is the typical commercial yman who, for the sake of a short l, is operating close to his market, consequently under conditions of l purchased at pre-ing high prices, of or hired in competi-with nearby indus-l activities, and elevated land val-

he man who fears l sledding is either ing his feed or is g his labor at wa-far in advance of t he formerly had ay. The man who nothing to worry it is the operator heap feed, with all most of his labor lied by his imme-e family.

here has been a l deal of talk about ming milk famine alifornia. One club an told me that years from now won't be enough produced to feed abies. Older chil-and grown-ups have to go with-So many un-able rumors and I guesses have going the rounds I took occasion to into the principal cts supplying the big cities of San isco and Los An-

a result of observations cover-istricts possessing 23,000 cows in providing market milk for cities, I am conservative in stat-at no wide-spread milk famine minent—nor, in fact, do I look ny serious curtailment in pro-n. It is certain that some s are bound to go out of busi-but these will be offset to a extent by two regulating condi-The first is the ability of many e dairy farmers to reorganize business in a way to make it productive; the second is the ility of drawing upon more re-districts which now produce but-, casein, and cheese.

Feed and Labor Price Advance

That advancing prices for feed and labor can cut down and in many cases wipe out the entire profit may be easily comprehended from the fact that for comparable periods of 1916, 1917, and 1918, prices for such concentrated feeds as cocoanut oil meal, dried beet pulp, rolled barley, alfalfa meal, and patent feeds, have advanced from an average of $21 for 1916, to $30 for 1917, and with another advance to $35 in 1918. Alfalfa hay—the mainstay of the dairyman—has risen in price from $12.46 in 1916, to $17.78 in 1917, and to $21.35 in 1918. Beans and middlings, on the other hand, dropped from an average of $42.50 in 1917 to $36 in 1918, due to the action of the Food Administration authorities, but as there is mighty little to be had the reduction hasn't proved to be much of a benefit.

Labor prices are reflected in the records of orders placed with the employment agencies. In San Francisco the average wage offered for milkers in 1917 was $45, while thus far for 1918 it is $60. The majority of 1917 orders called for men at from $35 to $55; in 1918 not a single order was placed under $40 and the range was from $60 to $75 inclusive.

Dilemma of Farmer Near the City

To illustrate how a man's opinion is determined by his point of view, here is an interview with a dairyman who operates under conditions of buying all his feed and hiring his labor in competition with nearby shipyards. He is located on land of high value because of its residential possibilities. I found him in a very pessimistic mood concerning the dairy business. To quote him:

"Where formerly I paid $70 to milkers and they would board themselves, I have just hired two men at $80 and $85 and I have to board them. The feed situation is the worst. I should say that compared with former conditions we are not getting more than 50% of as much or as good stuff. Within the last year my dairy has been cut down from 90 to 60 head.

"You can't blame men for trying to get all they can. Men do not like the dairy business. They want to work certain hours during the day and not have broken time, that is, the early morning and late afternoon work. We can meet the situation if we have feed prices, or if the price of our output is increased to meet the cost of production.

"I think the labor situation could probably be handled if a reciprocal arrangement were made with the counties of which our milkers are citizens so that they had to understand they would have to milk or fight—either here or elsewhere. Men sit around the card tables and won't leave them no matter how pressing the labor needs are.

"There are three elements in the dairy situation: feed prices, market prices, labor prices."

Since Jan. 1st of this year several herds have already gone to the butcher from this section, because their owners became weary of labor troubles and fighting the high cost of production. One man sold 120 cows from his Newark dairy to the butcher because his milkers left him without notice. A Centerville dairyman has disposed of his entire herd of 170 to be slaughtered. A Gilroy man has recently sold a herd of 70 because of dissatisfaction with the outlook of cheese. A Watsonville man is now offering his herd of 85 grade Holsteins because of feed prices.

Available Roughage Spells Profit

In contrast, however, consider Marin County, where much of San Francisco's milk is produced by cows pastured on rolling hills, with addition of alfalfa hay and some concentrates. Only the other day a large land owner who farms out 3,000 cows on a cash basis raised his tenant $1.00 per cow per year, a flat increase of 6 per cent. And he didn't have a single complaint! In telling of it, he added: "I might just as well have made it a dollar and a half—they'd have stood for it, they're making a barrel of money." In this same section a small group of responsible men, impressed with the benefits of co-operation, sent out an S. O. S. call to 700 dairymen for a meeting to discuss ways and means of bettering the dairyman's lot. Less than 2% responded to the call, and this handful showed very little interest.

I have hinted that some dairymen are liable to go under unless a re-

(Continued on page 638)



PAINTING SHOWN AT NATIONAL DAIRY SHOW BY KENTUCKY COLLEGE OF AGRICULTURE

This farm contained 225 acres with 30 acres devoted to corn for grain, 10 acres corn for silo, 7 acres corn for hogging down, 40 acres for wheat, 40 acres clover and mixed hay, 10 acres alfalfa hay, 30 acres rotation pasture, 45 acres permanent pasture, and 2 acres for garden and orchard. In addition to the figures shown in the illustration it is stated that the labor is performed by the owner, his son, one man hired by the year, and some day labor hired during the harvesting of crops. The barn is 36'x120' and the silo 14'x32'.

Hoard's Dairyman

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Entered at Fort Atkinson, Wis., as second class matter.

Warns Against Exposing Seed Corn to Fall Rains

"Favorable weather has been the friend of the careless farmer whose seed corn has been hanging on the south side of the barn or windmill," says H. W. Albertz, agronomist, after a field trip to many of the corn fields of Wisconsin. Owing to continued dry weather the corn cured well and there will be no trouble with germination if the corn is taken inside before the fall rains begin. This method of curing seed corn is not recommended, however, because we have a continued dry spell in the fall only about one year in ten.

"The usual reason for attempting outdoor curing is that, just after picking, the corn cures faster in the open air. Later in the season, when the corn should be removed, the farmer is busy with plowing, and when the fall rains come he feels that the corn should still remain in the open air to dry. Fall rains lower the germination of the corn very rapidly. The wet corn dries slowly or not at all during the cool days.

"Several excellent schemes have been devised by Wisconsin farmers for drying corn indoors. One Kenosha County farmer had each ear of corn hung separately in his shed, and because there seemed too little ventilation in the room, he installed at the end of the shed a fan operated by gasoline power.

"At least two years' supply of seed is being saved on most Wisconsin farms, but unless care is taken now in curing the seed, last year's experience with poor germination will be repeated. The corn is in splendid condition now, and the only way to be sure that it will germinate well next spring is to cure it right in the fall."—Wisconsin College of Agriculture.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Billy and the Moo-Moo

Time on time, I've found them, yonder,
In the barn or in the field,
Each one sort of growin' fonder
Of the other's love revealed.
In the cow's big eyes, a glimmer
That if set to words, might say:—
"Little chum of summer flowers,
Part of sunshine and of showers,
Youth is happy all the day!"

Just a kid, in jumpers, strolling
Through the farm's uncensored wealth.
Over realms of clover rolling,
With a heritage of health.
Then he spies a Holstein, grazing,
Underneath the apple trees,
And it's: "Moo-Moo, here's some grasses,"
While the drowsy hour passes,
These two, chumming, if you please.

When it's winter—winds a-blowing,
And the barn is snug and dry,
You will see a wee kid going
To his "pardner", by and by.
He will talk and sing and murmur
All the gossip of the farm,
While a Holstein, patient, mooing,
Seems to know that something's brewing;
Holds her fair head near his arm.

I am forced to wonder—maybe,
Cows and children have a way
For to talk—a Holstein-baby
Language that is theirs to say.
She will stop and look and listen,
He will tell her fairy tales,
Then she'll nod, and start to mooing
Watches all the stunts he's doing,
In amongst th' dairy pails.

"The trouble with Old Stingyman was, that he fed his cattle th' way he did his summer boarders—no wonder they fell behind."

Philosophy of the Oldest Dairyman

"If a stranger wants to pet th' cows and loves to be around 'em, and thinks they're mighty purty, then I'll trust that chap with all I've got."

"There are four sides to anything that's on the square. In th' dairy business it's milk, cream, butter, and cheese."

The Other Way About

"I see you are keeping a cow."

"Wrong, neighbor, wrong, she's keepin' me."

"I'm not one fer revenge," said Uncle Hiram Rhubarb, of Cloverdale Dairy, "but I hope that every German who cut down a tree in France will pass that way on a sweltering hot July afternoon, while he's lookin' fer shade."

Lightning, they say, never strikes twice in the same place. I reckon that's principally because, after it's struck, there ain't no same place left.

When Peace Comes

It may be so—I somehow feel
That when spring comes, with bloom and bud,
War shall have ceased to bare its steel,
Red poppies spring from Flanders' blood.
And I will like it very much—
The sense of relaxation sweet;
God's smile, soft as the springtime's touch
And violets swaying at my feet.

There never was a war so just:
So surely sacred in its creed,
And yet, man hastens back to dust
So soon, each hour of life we need.
We want the full span of the years
To glory in His fine, clean way
To know His sunshine, not our tears,
To live the fullness of His day.

For peace will bring my boy again,
And I will see him, rugged, brown,
A brave man, born of bitter pain,
Come marching back once more to town.
And we will watch the spring-time herd,
Go slowly to its clovered de'l,
Whilst apple blossoms, and a bird
Sing forth the tidings: "All is well!"

2 to 1

Advantage in buying a

DE LAVAL

NOW

Butter-fat is now worth twice as much as it was two or three years ago.

So is labor.

A De Laval saves both.

And never before was there so urgent reason for saving every ounce of butter-fat and every half-hour of time and labor.

A De Laval will now pay for itself in half the time, compared with former years.

Buy it now and it will save its cost in a few months.



See the nearest De Laval agent right away and le him show you what th De Laval will save fo you. If you do not kno the De Laval agent, writ direct for any desired in formation.

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50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER

Dairy Calf Club Movement

C. R. GEORGE, INDIANA

The dairying of future years will depend quite largely upon one essential consideration if the industry measure up to the constructive ght of our present day leaders in dairy world. First of all there be developed a generation of dairy farmers—super breeders super feeders—who can in turn the cattle from our present day s and develop more perfect ani- with still greater efficiency. it is that the betterment of our cows is an important factor in improvement and true it is that sire is half the herd" and ought e given high rank as influencing future of dairying.

it, may I ask, what would be of all these herds and their if we do not at the same time lop future herdsmen and breedo carry on the constructive lines reeding that are represented in ent day herds? Just think of this a moment and you will recall y instances where breeders have loped great herds only to have degenerate in the hands of a essor. Too often this has been of fathers and sons, especially e the boys have not had a real est in the affairs of the farm at age when their minds were deing and their ideals were being ied. In many instances the boys , however, been given a real ce. Their desire for ownership fulfilled in a calf or a cow of own which they paid for from savings or by their work; their t of competition and adventure realized when their own heifer pleted a year's record with 50 of butterfat more than the fae from their father's herd or they were given an opportunity how their good young things at county fair; and a desire to do er was created when at this same a neighbor farmer, or possibly oy, brought out a calf that stood d when the ribbons were tied by judge. Boys of this kind can y start where their fathers left nd continue the gradual improvet in the herds under their charge.

Developing Boys and Girls

early then the problem before dairy industry is a human prob- The dairymen and breeders of y are already made. Many good have been lost to the industry ugh lack of encouragement and rtunity and those that we have deviate but little from the methand practices which their early ing has dictated, be it good or . But those of the future are boys and girls today. They are in schools and on the farms and for the most part their dairy possibilities lie dormant. Little has been done to awaken their interest and cultivate their natural desires. Too often they are pouring over books of history and language that not only mean little to them but also tend to deaden their interest in all school work.

At just this stage in our dairy development the "Calf Club Movement" was started. It came to fill a real need and so well has this been done that it has come to stay. At first it was abused by those who mistook its real purpose. They tried it as a means of developing dairying in a new country after much the same fashion as land agents use newspapers and excursion trains to put across their deals. They forgot the boy and girl in their effort to get milk. They encouraged club members to buy calves, and then to sell them after a short period of ownership—a practice which brands one as a "cow dealer" rather than a breeder. Needless to say their method was a failure. But out of it grew a plan that is fundamentally right and is accomplishing real results. This plan called for a club that would continue over a period of from three to five years. The membership of the club was to buy calves, not to sell but to keep and to breed.

The basic idea of this new club was to develop boys and girls. Incidentally it brought good stock into the community, it demonstrated the results of good care and feeding, it interested the community in the keeping of records and the use of better sires and through these things it quickened a greater community interest in the dairy cow. But lest we forget, we repeat this was only incidental and decidedly subsidiary to the real purpose of the club.



THE FIVE BEST INDIVIDUALS

After the judging was over, the five best individuals posed for a picture. Robert and Carl Nelson (left) won 1st prize on individuality with their heifer, Imp. Boones Daisy. Miss Arena Van Huss stood fifth with her heifer but won first prize in the contest because of her good records and the excellent story of her work.



THE CALF THAT FATHER REJECTED

Lois Crane with her Imp. Boones White Rose of Crane Farm stood third on individuality. This heifer was rejected by the boy who drew her on the day of distribution because his father "would not give 50 cents for such a poor, skinny calf". The calf gained 183 lbs. in 115 days under the care of this little girl.



ARENA VAN HUSS AND HER PRIZE WINNING ERNSEY HEIFER. IMP. BOONES BLANCHLAND AISY, AT THE BOONE COUNTY CALF CLUB SHOW

The Indiana Plan

With these basic principles constantly in mind, a type of calf club has been developed in Indiana that is giving excellent results. The clubs are organized for a period of three years and during that time the members are continually competing for honors in three separate and distinct yearly contests. One contest covers the calf year and aims to teach and demonstrate the principles of good feeding and management of calves. The members keep a record of their rations and feed consumed as well as the growth and development of the calves. At the end of the year they write a story of their work and show their calf at the annual calf club show. Their standing in the contest is decided on the basis of the following scale of points:

Basis of Awards for First Year Contest

Individuality and condition of animal	40%
Methods of feeding; rations selected, amounts fed, and growth made	30%
Records and written story of the feeding, care, management, and cost of raising the calf	30%

The next contest covers the heifer year and involves in addition to good feeding and management the big problem of breeding the heifer to a worthy bull. At the close of this contest another club show is held and the following points are considered in judging the contest:

Basis of Awards for Second Year Contest

Individuality and condition of animal	40%
Methods of feeding; rations selected, amounts fed and growth made	20%
Individuality and breeding of bull to which the calf was bred	20%
Records and written story of the feeding, care, management, and cost of raising the heifer	20%

The third contest continues through the first lactation period and involves the keeping of feed and production records. When it starts the real show is on. Here it is that the boy whose heifer stood low on individuality gets an opportunity to prove his worth and here it is that the boy who ranked high in previous contests must do some skillful feeding to uphold his rank. And so they vie with each other throughout the year. As in a horse race, they forge ahead, fall behind, quicken their speed, sometimes they "break" and then "come back," and finally some one wins the race.

At the close of this contest the awards are made on the following basis:

Basis of Awards for Third Year Contest

Individuality and condition of animal	20%
Methods of feeding; rations selected, amounts fed, and growth made	25%
Production of milk and butterfat	30%
Records and written story of the feeding and care of the cow and the cost of producing milk	25%

How Club is Financed and Managed

A number of calf clubs organized on this basis are in successful operation in different parts of Indiana. All are financed by local bankers who put up the money for buying the calves and loan it to the members for one year with the privilege of renewing the notes for two additional years if necessary. Each club has a local leader or supervisor. He may be a county agent, a high school teacher, or other interested person but he acts as an advisor to the members and a leader in their organization. He is a very important and essential part of a successful calf club. To him the members make their monthly report and through him the club is connected with the boys' and girls' club movement in the state.

At the close of each year's contest a number of premiums are usually secured from local business interests. Whenever possible these are given as trips to the Purdue Short Course or State Dairy Association meeting so that the real purpose of the club—the development of boys and girls—may be more completely accomplished. Whenever money premiums are given it is best to specify that it is to be used to apply on the member's note at the bank.

Boone County Guernsey Club

The Boone County Guernsey Calf Club at Lebanon, Indiana, is a good example of what can be accomplished through a good, live calf club. This club is made up of twenty-seven boys and girls who secured as many purebred Guernsey calves that were imported from the Island of Guernsey last spring by Mr. C. L. Hill of Wisconsin. They were brought over especially for the boys and girls of this club. Mr. James P. Staley of the Farmers' State Bank agreed that their bank would finance the project. The membership was made up and a permanent club organization was formed before the calves arrived. Mr. Karl Snepp was chosen for president and Miss Arena Van Huss for secretary of the organization which will have meetings from time to time durthe winter months to discuss and study dairy problems and learn more about the Guernsey breed. The

(Continued on page 622)

Fitting Legumes into a Systematic Rotation

D. H. OTIS, Wisconsin College of Agriculture

THE most important legumes for the dairy farm are undoubtedly clover and alfalfa. We grow these legumes for two purposes, namely, for feed and for the fertilizing constituents. For feeding purposes we look upon the legumes as being the leading source of protein. The value of these two crops for their protein content in comparison with other roughage is shown as follows:

Feed	Yield per acre Tons	Digestible protein per ton Lbs.	Digestible protein per acre Lbs.
Timothy	1.5	56	84
Mixed hay	1.5	118	177
Corn silage	10.0	18	180
Red Clover	2.0	136	272
Alfalfa	4.0	220	880

From this table it will be noticed that red clover yields 136 lbs. digestible protein per ton, or nearly 2½ times as much as timothy. It yields over 50% more digestible protein than mixed hay. It is a better yielder than these hays, and consequently produces on an average 272 lbs. more

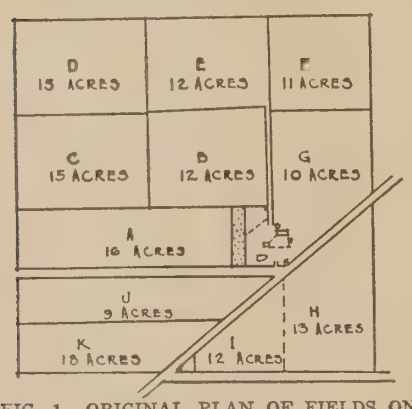


FIG. 1. ORIGINAL PLAN OF FIELDS ON FARM A

This farm consists of 160 acres, has 140 acres available for crops, and has no permanent pasture. The soil type is clay loam, and the topography is rolling.

digestible protein per acre than timothy, and 95 lbs. per acre more than mixed hay.

Clover has been recognized as an important factor in the cropping systems of our farms for a long period of time. It has a place on practically every Wisconsin farm, and any system that looks toward supplying the dairy farm with needed legumes should include clover as one of its principle factors.

It will be noticed from the table that alfalfa produces even more digestible protein than does red clover. The yield of digestible protein per ton is 220 lbs. as contrasted with 136 lbs. for red clover. Fortunately alfalfa is a heavier yielder. Our Agronomy Department at the University of Wisconsin estimates that 4 tons is a fair average yield. If it is possible to raise an average of 4 tons per acre, this would, with well cured alfalfa, amount to 880 lbs. of digestible protein per acre.

While the yield of digestible protein on a good alfalfa field is enormous, its value is still greater emphasized when we consider that a good quality of alfalfa analyzes on a par with bran, and to a considerable extent can be made to take the place of bran, as well as other grain feeds. Feeding trials at various experiment stations with dairy cows show that alfalfa can be made to take the place of at least one-half of the grain usually fed our dairy cows.

Mr. Math. Michels, former president of the Wisconsin Dairymen's Association, is one of Wisconsin's progressive farmers, and he has progressed so far that he is able to put his herd into the Advanced Registry with practically no grain—simply corn silage and alfalfa. Not all Wisconsin farmers are ready to admit that they can feed their cows successfully in this way. The results, however, that Mr. Michels has obtained are worthy of careful study, and there is no question but that if we

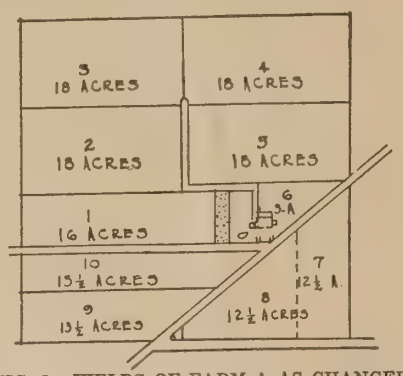


FIG. 2. FIELDS OF FARM A AS CHANGED TO PROVIDE A REGULAR AND SYSTEMATIC ROTATION

will grow alfalfa as he is growing it, that we can cut out a large slice from our expensive feed bills, as the nutrients needed by dairy cows can be produced more cheaply with alfalfa than with grain. Alfalfa is one of the weapons that we can successfully wield in our efforts to reduce the cost of producing milk.

Alfalfa is a more recent crop than red clover, and in some respects is more difficult to raise. Fortunately we are rapidly learning how to handle this crop successfully. I will not attempt to enumerate the various conditions such as inoculation, liming, preparation of seed bed, etc., that are essential to the successful growing of alfalfa. We have bulletins on this subject that can be had for the asking. What I wish to do is to show the importance of this crop and discuss how it can be made to fit in a regular and systematic rotation. This can best be done by taking a couple of actual farms and showing maps of these farms before and after planning a systematic rotation with a liberal allowance for legumes.

Figure 1 represents a map of farm A before attempting to provide for a systematic rotation. This farm is naturally well drained, and will lend itself at once to the prompt adoption of a rotation system. It will be noticed that the fields have already been laid out with considerable thought, and a rational though not definite system of rotating these fields has been practiced with very satisfactory results. The farm is badly cut up with roads and this fact must be carefully considered in remapping the farm.

The farm is producing market milk and cream and pure-bred dairy cattle. The owner desires to produce all the roughage needed and as much grain as possible. Fields D, E, and F of the original plan slope to the north, while fields C, B, and G slope less abruptly to the south. From 30 to 35 acres of corn are needed each year to furnish sufficient silage for 30 to 40 cows, and an equal number of heifers and calves. For this purpose the revision of the farm shown in Figure 2 was recommended, and adopted by the owner.

Field No. 1, north of the road, and fields 7, 8, 9, and 10, south of the road, are devoted to a five-year rotation. There need be no division of fences between 7 and 8, nor between 9 and 10.

The buildings are located north of the road. It is desirable, therefore, to have the rotation which furnishes the pasture on this side and within easy access from the barn. Fields 2, 3, 4, and 5 are arranged for a four-year clover rotation, in which provision is made for pasture. Unfortunately the slope of the land to the north in fields 3 and 4 necessitates the laying out of the fields in such a way that the long side of the field runs east and west. This is done so that the fields will be worked at right angles to the slope. Experience on this farm has demonstrated that this arrangement of the fields is imperative. Otherwise, it would be more convenient to have the fields run north and south. Field 6 is a small extra field, that can be used for special or supplementary crops or as paddocks for live stock.

The rotation plans and their adoption to existing conditions on the farm follow:

Farm A—Alfalfa Rotation

Year after revision	Field No. 1 16 A.	Field No. 7 13.5 A.	Field No. 8 13.5 A.	Field No. 9 12.5 A.	Field N 12.5
1st	(A) Grain seeded to clover and timothy	(B) Oats and peas	(C) Succotash	(4) Corn	(5) Grai to a
2nd	(B) Clover and timothy	(C) Oats and peas	(4) Corn	(5) Grain seeded to alfalfa	(1) Alfa
3rd	(C) Clover and timothy	(4) Corn	(5) Grain seeded to alfalfa	(1) Alfalfa	(2) Alfa
4th	(4) Corn	(5) Grain seeded to alfalfa	(1) Alfalfa	(2) Alfalfa	(3) Alfa
5th	(5) Grain seeded to alfalfa	(1) Alfalfa	(2) Alfalfa	(3) Alfalfa	(4) Corn
6th	(1) Alfalfa	(2) Alfalfa	(3) Alfalfa	(4) Corn	(5, Grai to a
7th	(2) Alfalfa	(3) Alfalfa	(4) Corn	(5) Grain seeded to alfalfa	(1) Alfa

From this rotation plan it will be noticed that it takes three years for field No. 1 to adjust itself to the rotation plan. It takes 2 years for field No. 7, but only one year for field 8. Fields 9 and 10 adjust themselves to the rotation plan at once. The owner of this farm has been successful in growing clover and timothy. He thinks he can grow alfalfa successfully. If it seems desirable to grow alfalfa less rapidly than indicated in this plan, clover and timothy seedings can be substituted for alfalfa seeding, and at the end of 2 years corn or any other annual crop can be substituted for what would have been a 3-year alfalfa rotation, and the field will again fit back into the alfalfa rotation plan. If desired a grain crop can be grown without seeding down, to be followed the next year with clover and timothy. This clover and timothy would then be ready to plow up at the time the rotation plan calls for corn.

for 3 years, when it can be plow and put into corn. In the third field No. 2 should be availabl pasture, but as it may be uns pasture alfalfa, a temporary can be placed in this field to se the alfalfa from the rest of the

Another illustration is giv Figure 3 of a farm where the desires to handle hogs as w dairy cattle.

This farm is well drained there is a draw that runs th fields E, G, and I. It may be des to leave a shallow run seeded to to carry off the surface water heavy rains. The residence, c house, and a shed designed t tobacco are located on one side road and the barns on the othe

The farm has been badly rur from renting. The owner is try build up and get started in the business, gradually working pure-bred dairy cattle. He des sell market cream some day, an ket milk. He desires to rai roughages and as much grain can. The map submitted in Fi shows a lay-out of the farm th make provision for the type of ing that the owner wishes to

Fortunately the land best a to alfalfa is located in the w Additional alfalfa land can cured at the north end of the The clover and pasture rota located so that any field is eas cessible from the lane, or fr wood and pasture lot, field 9. T pasture lots are conveniently near the barn and lane. Fields and 9 have very little tillabl and are retained for permane ture. These fields will be we

Farm A—Clover Rotation

Year after revision	Field No. 2 18 acres	Field No. 3 18 acres	Field No. 4 18 acres	Field N 18 acr
1st	(D) Alfalfa 8 A., Grain seeded to Clover 10 A.	(A) Clover and timothy hay 15 A., pasture 3 A.	(2) Pasture	(3) Corn
2nd	(A) Clover and timothy 10 A., alfalfa 8 A.	(2) Pasture	(3) Corn	(4) Grain see clover
3rd	(B) Alfalfa 8 A., pasture 10 A.	(3) Corn	(4) Grain seeded to clover	(1) Clover an timothy
4th	(3) Corn	(4) Grain seeded to clover	(1) Clover and timothy	(2) Pasture
5th	(4) Grain seeded to clover	(1) Clover and timothy	(2) Pasture	(3) Corn

If it were not for the alfalfa being already seeded in field No. 2, this rotation would fit completely into conditions existing on the farm. As it is, the alfalfa can be carried along

plied with water by a pipe ex along the hog pasture.

The following is submitte suitable plan for an alfalfa ro

(Continued on page 623)

Farm B—Alfalfa Rotation

Year after revision	Field No. 1 10 A.	Field No. 2 10 A.	Field No. 3 10 A.	Field No. 4 (A & B) 10 A.	Field 10
1st	(C) Corn 5 A., tobacco 5 A.	(4) Corn	(5) Grain seeded to alfalfa	(A) Peas and oats	(B) Gr ed
2nd	(D) Corn 5 A., tobacco 5 A.	(5) Grain seeded to alfalfa	(1) Alfalfa	(B) Grain seeded to clover	(C) Clo
3rd	(5) Grain seeded to alfalfa	(1) Alfalfa	(2) Alfalfa	(C) Clover	(4) Cor
4th	(1) Alfalfa	(2) Alfalfa	(3) Alfalfa	(4) Corn	(5) Gra ed
5th	(2) Alfalfa	(3) Alfalfa	(4) Corn	(5) Grain seeded to alfalfa	(1) Alf
6th	(3) Alfalfa	(4) Corn	(5) Grain seeded to alfalfa	(1) Alfalfa	(2) Alf

tarting with Pure-breds

THOS. W. BARNARD, Wisconsin

HEN I first started farming I had but little equipment save my love he game, a team, a couple of cows, ew tools, and a small farm. As so as possible I increased the cows o alf a dozen and devoted my major ts to feeding them. One of my test handicaps in starting was a e apple orchard which covered it half of the plow land on the n. To some people an orchard is thing of beauty and a joy for-", but to me it was one large ex-se. We gave it all the care and ntion we knew, co-operating with h Minnesota College of Agriculture two seasons in pruning, spraying,



BESSIE OF MENIE, AYRSHIRE COW OWNED BY THOS. W. BARNARD, WISCONSIN
e is one of the foundation cows in the herd he is building.

keting, cost of production, etc., the ledger balance was always us. It would freeze, or rain, or or do some other disastrous and reventable thing just at the time poil our crop nearly every year. course, we did harvest some good es, but never enough to make it h while.

the meantime I decided that an-r thing I could not afford was le or scrub cows. My calves were ntire loss and I figured that my production could be increased. original cows were very good. in particular, a grade Ayrshire d "Pansy", was a wonder. Had been a full blood and been given l blood" care, her name would go n in history. I have often wished I knew her sire. She was a ect type of Ayrshire cow weigh-about 1,400 lbs., with an immense el and udder. Her sire must be , along with so many other bulls hat sad requiem of "had we but vn they 'might have been' great." s generally the case with grades—rossed, her heifer calves all fell short of their mother's perfection. first venture in pure-bred stock six Jersey heifers. They were heifers and are undoubtedly do-their share today, but we didn't that they were filling our bill as as something else might. I have ys contended that cows were a matter of individuality and than breed, and I don't want to any reflection on the Jerseys, but experience was that they re-



TTLE BESSIE OF ARGYLE HAS AN A. R. RECORD OF 10,000 LBS. MILK, 400 LBS. FAT
NED BY THOS. W. BARNARD, WISCONSIN

quired particular care and rather choice feed, although perhaps not so much of the latter as my present animals.

My requirements were more milk, a lower test, and animals that could stand hardship. After carefully studying all the breeds I decided that the Ayrshire came as close to what I wanted as anything could, and my subsequent experience has been most satisfying. My cows eat and relish anything that is put before them in the way of feed and turn out a large flow of fine, yellow 4 per cent milk with what seems to me a minimum of waste. They are mostly head, neck, barrel, and udder with but little in the way of legs; just enough for proper locomotion. I always figured that cows get most of their feed from the floor or ground and never could see much use for long legs. Their only use is as a camouflage for small cows in making them pass for big ones. After selling my Jerseys I bought an Ayrshire cow. And right here I want to say that I consider this the proper way to get started in pure-bred cattle. Of course, if one has a large herd of grades and no bull to breed to, he will need a bull also. There are those who say that it is better and cheaper to buy heifers and raise them. I can't see it that way. At best a calf is a gamble; maybe she'll grow up to suit our fancy, maybe not. There are lots of good cows for sale at very reasonable prices, prices that seem to me to be far cheaper than you can get the same quality for in a calf. And then you must wait a couple of years; two years of feeding, care, and a long chance.

A little while ago there was a discussion in the Dairyman by a subscriber who bought some Holstein cows and was "stung". This, of course, will happen in "the best regulated families", but it seems to me that if a man is any judge of cows at all he is more apt to be "stung" on a calf than on a mature cow. I have known of instances where heifers of choice pedigree have sold as high as $1,000, only to develop into large chunks of beef, with no more milk than the commonest scrub. One item that is being emphasized now is the susceptibility of heifers to abortion, a very malignant and little understood disease on which there is no law or test in force; an ideal place to get caught, perhaps innocently, perhaps not. In purchasing a cow that has had two or three good calves one can be reasonably sure that she will go on repeating. An extra precaution is to notice the calf crop of the herd; is it normal?

Another point is that of enthusiasm and interest. It is very fine for the boys and girls to raise calves, but father may buy a calf and forget it. Later, when he comes to look for a fine, full blood cow he'll say: "Shucks, that runt, no better than what I've got." He'll either quit full bloods, or try another breed with good prospects of the same success. Now, if he buys a cow that is well grown, good looking, and bred to a good bull, from a man who has a clean reputation, he has a cow that is right with him. She must be milked, there is soon a calf to be raised, and it is a going concern from the start. The hardest part is over—getting started. Another interest booster is to test your cow. There are lots of good ones untested.



FOUNDATION STOCK OF THE AYRSHIRE HERD BEING BRED BY THOS. W. BARNARD, WISCONSIN

My original cow had just dropped her third calf and had reached a maximum production of 16 lbs. per day when I bought her. Not much, you'll say, but I was young, foolish, and "wise". She was straight as a line, had a middle like a moving van, a nice, soft hide and udder—everything but the milk. Her owner felt about the same way that I did about her, without any hope, so he sold her cheap. That year she attained a flow of 20 lbs.; the next, 38 lbs.; and the next, she hung around 60 lbs. for some time, all on two milkings a day and just ordinary good farm care. Her main diet has always been corn fodder, hay, and pasture, silage part of one year, and very little grain. She is abnormal in the amount of milk she will turn out and the fine condition she will keep in without seeming to need or care for grain. Her average test is about 4.3 per cent. Her calves return her purchase price nearly every year and all the time she helps to swell the cream check. At present I am raising her son, "Echo James", to head my herd. He is sired by a son of Bessie of Menie, my best cow, and combines the good qualities of his dam and sire's dam. I expect great things from him and his family. I have his mother, grandmother, aunt, and half-sister in the herd. He has been pronounced by several who should know as one of the typyest bulls they have seen. This shows what can be done with faith and a cow.

I later purchased three dry cows and a heifer. I haven't yet had the opportunity I would like to give my cows real records. My best production to date has been this year. Little Bessie of Argyle reached a maximum production of 77 lbs. a day. Her record for May was 2,253 lbs. milk containing 85.6 lbs. fat, at ten years old. For the four months since freshening she has averaged over 65 lbs. fat a month, mostly on two milkings a day. Any of my aged cows will do nearly as well and I am sure some of them much better. From now on they will have more chance.

My herd is beginning to take on a real form and purpose and while I have had many hard pulls and disappointing experiences, the road ahead should be smoother. I expect the coming calves to show the type and uniformity the last few have shown. When they begin to line up like this it makes the game worth while. I certainly believe in keeping pure-bred stock of all kinds where breeding is carried on to any extent.

The tuberculin test is indispensable nowadays and I have always had my stock tested annually or oftener, although no suspicious animal has ever been found. In raising my young stock I like to give them plenty of milk, oats, hay, and exercise, pushing them along just as fast as possible. In the group showing part of the herd the white heifer on the right is only ten months old while to all appearances she is a regular cow. My bull, Echo James, weighed nearly 600 lbs. at six months old. Such stock is never hard to sell and makes satisfied customers.

Fertility of the soil should be assured for wheat by following the best practice of soil enrichment in each section of the country.

The Automobile and the Farmer

"Do you know that right now there are 5,000,000 motor vehicles in use in the United States, or one to every twenty persons? In these cars, twenty-five million people, one-fourth of the population, could be transported 100 miles or more in a single day." This remarkable statement is made by John N. Willys in a recent analysis of the 1917 sales of Overland cars. The investigation showed 90% of the automobile use was for business purposes. It also disclosed the fact that the American farmer, who comprises 33.2% of the population, bought 53.1% of the automobiles sold last year.

In explanation of the popularity of the automobile on the farm, Mr. Willys says: "The farmer is buying automobiles because they have done more to lighten labor and change his entire plan of living and doing business than any other invention since the harvesting machine. In harvest time a needed repair no longer delays the farmer. His son, daughter, or wife quickly goes to town and returns with the needed part in so short a time that the delay is negligible. But think of the change it has wrought in his daily life. Pass these machines on the way to and from the city markets, loaded with butter, eggs, produce, and perishable products. The automobile has made the farm 30 miles from town, with the use of the motor-car, as valuable as the one 5 miles away that depends upon the horse."

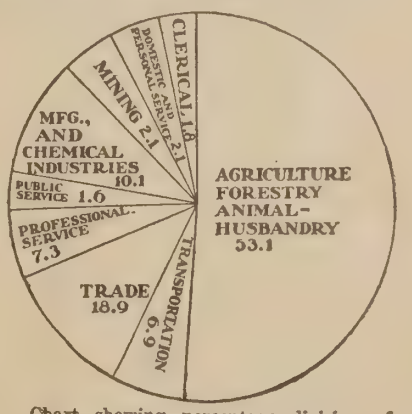


Chart showing percentage division of automobile ownership in various occupations in the United States as disclosed in the analysis of the 1917 sales of Overland automobiles. Approximately one-third of our population is credited as rural, yet these people purchased over half of the 1917 output of this make of car.

We had realized the growing use of the automobile upon farms, particularly these past few months in our attendance at farm meetings in remote farm districts. We have found the school yard and the plot of ground around the town hall filled with autos and there was scarcely a trace of the patient horse or the spanking team that only a few years ago was so familiar a sight and, indeed, the only means of conveyance available. However, we had scarcely realized that the farmer had so wonderfully outstripped the city man in the adoption of the automobile, yet reason tells us this must necessarily be so, for the farmer has practical use for the car and realizes more fully than his city cousin its value for both business and pleasure.

How to Use a Cow Testing Association

NOEL NEGLEY, WISCONSIN

THE fellow who bought a $30 suit and left it in the closet for the moths to eat did not know how to "use" a suit. It's the same way with the dairyman who invests $30 a year in a cow testing association and never looks into his herd record or takes any special interest in the work.

Of course, before a man can wear a suit, he has to buy it, and before a dairyman can get any good out of a cow testing association he has to be a member, and almost every live dairyman who has the opportunity is a member or expects to join as soon as an association can be organized in his community.

When a man puts $30 a year into an association he does it not to help anyone else, but to help himself. It is neither charity nor expense; it is an investment upon which he expects to get good returns. He is not getting something for nothing, but simply joining with 25 other men so that the service he gets costs him less. And what he gets for his money depends very much upon each man and his tester.

Some dairymen think that when they have paid their fees they have done all that is necessary, and association benefits should come pouring in. They may get $30 worth of good out of it, but if they "used" the association right they ought to get $300 out of their investment.

The secret of the whole matter, any successful member will tell you, is simply this—"Pay your fees promptly and then see to it that you get your money's worth." Your tester is not sleeping in 30 different beds and eating in 30 different homes a month simply because he loves you. He wants his pay and he wants to give you service.

Get Acquainted With Your Herd

Through his monthly visits the cow tester gives you in the herd book a written introduction to each of your cows. You will find that sometimes you have been entertaining an angel unawares, and sometimes a devil.

You will learn that you have been feeding some of your cows too heavily and others not enough. Weighing each cow's milk daily will take but little time and will enable you to feed economically and keep in touch with each cow. Daily milk sheets are furnished free to the members.

Keep up enough nerve to sell the cow that has already been with you but yet has proved herself unprofitable at the pail. Sentiment should not interfere with business in such a deal. Get the family interested in the kind of a cow that will make a profit rather than one that has a pretty hide. Use nerve enough, too, to buy feed for those cows that will make a profit on it even though it seems "out of sight".

Co-operate in Buying Feed

The reason why there are 26 members in an association rather than only one or two is because in some things 26 men can do better together than each by himself. This is often true in the matter of feed buying. Get together and buy what feed is necessary in carload lots, paying cash for it and taking it directly out of the car. Maximum prices have been placed on mill feeds and there is no saving in waiting until later. This late in the fall there will probably be no difficulty in storing feed for the rest of the winter. Get your orders in now so you can get your share, for if you don't and we have a winter like we had last year you probably will not get any.

Association members have an excellent opportunity to co-operate in the use of good bulls. In small herds bull service is very expensive, especially so when the bull must be sold at beef prices at the end of two years. The tester can arrange to exchange sires among members, thus avoiding the sacrifice, at beef prices, of a good bull, and the purchasing of another at a long price. If you secure a bull from among the members of your association you have the chance of seeing what the heifers are like both in regard to type and production. The monthly report of association work which is sent to the tester each month contains a list of cattle for sale and exchange from all the associations.

Get Acquainted

Many dairymen live close together but hardly know each other. Association picnics give one a good opportunity to have a good time and to enjoy the company of his neighbors. The winter meetings held monthly or as often as desired give an opportunity to discuss interesting topics or to hear some outside speaker. Take the whole family, too. They often get more good from it than does the dairyman. You often do not fully appreciate the excellent qualities in your neighbors until you really know them. You will learn something, too, every time you meet to discuss topics of interest to you, for there is no one who is so full of knowledge that he cannot learn something from some one else.

Sell Cattle at Higher Prices

Cows with good association records are wanted at prices well above those without records. Any surplus cows for sale should be reported to the tester and in any advertisements the records should be given. Yet, unless one is going out of the business, he should not sell his best cows even though the price be tempting, for if the cows are worth a large price to someone else they are worth about the same to you. Nor should you be too quick to condemn a cow as unprofitble as the result of one or two tests. Give her a good chance to make good before letting her go.

More value is being placed on yearly records made under normal conditions than on seven-day or other short time records in which the cow is forced to do her best.

The Register of Production was established to give publicity to the records of good cows and to stimulate interest in the breeding and care of animals that can make as much as a pound of fat a day for the year. Already over two hundred cows have been registered. See if you cannot so breed and care for your herd that you will have a number to qualify for this honor each year. For details ask your tester.

The cow testing association is worth just what you and the tester make it worth. We will secure as good a tester for you as we can find, for we are anxious that every association should have a good tester. Yet, regardless of the excellence of your tester you will not be "using" the association rightly and the association will not amount to much unless you take interest in your own business and work the association for all the benefits you can get out of it. It is yours; make of it what you will.—From Wisconsin Bankers' Farm Bulletin No. 63.



THE NEW $35,000 SALE PAVILION AT FOND DU LAC, WIS., OWNED BY THE HOLSTEIN BREEDERS' SALE CO., A COMPANY IN WHICH THE STOCK IS HELD BY LEADING HOLSTEIN BREEDERS THROUGHOUT CENTRAL WISCONSIN

This is at present probably the most complete sale pavilion in the country. Practically the entire first floor is used to house the cattle. The sale room which is in the center of the building on the second floor, is a large one and is provided with comfortable chairs for spectators and buyers instead of the usual bleacher seats. In addition the building includes a spacious dining room, kitchen, and sleeping rooms for the men who take care of the cattle.

Things County Agents Are Doing in Wisconsin

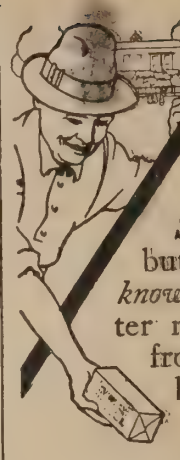
Early in the season, county agricultural agents were requested to make seed corn surveys. Owing to the unfavorable condition of weather during summer and early fall last year, it was found that only about six per cent of the crop matured well enough so it could be used for seed. There were only 50,000 bushels of good Wisconsin seed corn in sight or about one-eighth of the quantity required to seed the normal acreage of the state.

County agents got busy assisting farmers wherever possible by advising how to store, dry, and save the corn properly after harvested. In one county the county agent through his service and advice saved the farmers 5,000 bushels of good corn that otherwise would have been fed and lost for seed purposes. In still another county the bankers co-operated with the county agent and furnished money to farmers without interest with which to buy seed corn. Despite the fact that it was a poor corn year and that there was a shortage of seed corn in the state, Wisconsin planted 1,780,000 acres, nearly its normal acreage, and the corn crop this year is an exceptionally good one.

Make Potato Survey

In the potato growing section of the state, county agents make surveys to ascertain potato acreage that would be planted to this crop in the spring of 1918. In view of the fact that the 1917 crop had been an unusually large one and prices had taken a sudden slump in the spring of the year, it was, therefore, feared that the acreage planted would be considerably reduced. However, through the diligence of the county agents in encouraging farmers to keep up their acreage, nearly full acreage was planted and the crop this year is estimated to yield from 25 to 30 million bushels.

During the past year out of fifteen prizes awarded at the state potato show, the county agent counties were



Does M
Housew
Demand
Your Butte

She is the judge butter value. *knows* sweet, clean b ter must be protec from dirt, dust bad odors. And *she is too glad* to extra for good butter wrap or covered with

Paterson Pionee
Parchment Pape

It is *worth* more. Y brand stamped on it stands *quality*. She learns to dem it by name. *You profit.*

Made in rolls, sheets circles, to suit all method marketing.

Write for free samples and book "Better Butter". It points the way to better butter prices and bigger business.

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"Get a WITTE
Wood Sawing Outf
Cash or
BURN KEROSENE



NOW
HELP SAVE C
Arrange At Once fo
Ready to Use
WITTE Saw-Rig at
From Factory price. Earn Big Money.
in sizes 4 to 22 H-P. To be sure of delivery,
for my latest, lowest offer today.—E. H. Witte
WITTE ENGINE WORKS,
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Give you
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ANTI-COW-KICKE
Save your temper, your
your milk. Does not exci
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ing heifers, cows with
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Put on or off in
onds. Guarante
be an absolutel
fect anti-kicke
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ble for cow, horse or mule
$1.15 Postage extra. We
lbs. Send for it today, wh
need it you won't have t
DAIRY EQUIPMENT CO
Dept. H. Topeka, K

led eleven, and six of these were rst highest on the list.

ilo Survey Reveals Growth

surveys were made in nearly all counties of the state and it was that about one-third of the rs in the state owned and made f silos. Particularly is this true e farmers of the southern half e state. The northern section is rapidly forging to the front in iry industry and it has resulted arge increase of silos on farms. stimated that 15,000 silos were in the state during the period of This came largely as a result of systematic campaign put on gh the county agents.

'ork Production Stimulated

en the call came for the produc- f more pork as a war emergen- rveys were made in sections of ate where hogs are raised. The y agents, through the direction e Agricultural Extension Ser- immediately urged farmers to one more litter of pigs,—to , breed, and feed them properly. spite of the fact that there was a ge of feed corn and that a large er of brood sows and other hogs sold and shipped to neighboring where corn was more plentiful, has been an increase of seven ent in hog production in the over the preceding year.

Grain Yields Increased

gely through the efforts of the y agricultural agents, an in- of 128 per cent in spring wheat ge has been made. There 333,000 acres of wheat grown in ate and from all reports the to- eld of wheat this year will be 2⅓ times what it was the last before the war started.

orts were also made to maintain rease the acreage of other farm The acreage increase as com- with same crops last year is as s: Barley 18 per cent, oats 4 nt, rye 4 per cent, and substan- ncreases in acreage were also in other farm crops.

More Sugar Beets Planted

en the call came for more sugar, ar emergency this spring, a sys- ic campaign for a larger acreage gar beets was put on by the coun- nts under the direction of the ultural Extension Service, in ies where sugar beets are grown ably. It resulted in an increased ge of 25 per cent over last year.

s Add to Farm Labor Supply

en the problem for additional labor came up this year, steps immediately taken by the coun- nts in co-operation with the Council of Defense in making of the situation. Owing to the ds made by the war and indus- of farm help, and to meet this the United States Boys' Work- Reserve was organized. The t single supply of possible farm would come from the high s of the states. 16,000 young anging in ages from 14 to 21 employed.

eal was made to the boy's pa- m, emphasizing the existing ng food situation. Boys went ms Friday afternoons and Sat- s. In most cases farmers took interest in the boys. On the the boy farm labor was quite ctory. However, the labor sit- this year was short, but not The outlook for farm labor ear is exceeding short and much rom this source is anticipated.

Other Interesting Work

one grain growing county the agricultural agent last year 17% oats in fields affected with This spring he conducted oat smut treatment demonstrations all over the county; 40,952 bushels were so treated. Where the seeds were treated only trace of smut was found; in untreated, as high as 18% of the oats were affected. The prevention of the disease in this case alone meant a saving of over $5,000 at present price of oats.

In another county farmers were in the habit of purchasing feed for live stock individually, but the county agricultural agent succeeded in getting the farmers to co-operate and purchase their feed in suitable quantities. In a very short time he saved the farmers $630 in the purchase of feed.

In still another county 3,500 bushels of good seed corn have been saved and taken care of by farmers last fall through the advice of the county agent. He instructed them how to select seed corn, how to store and to fire-dry properly.

One county agent says with regard to his organization work: "Eight Local Councils of Defense have been organized. Agricultural committee in each of these councils consists of a chairman and two members of each school district, making a total membership of 250." Barberry eradication, feed and crop surveys, state and county fair exhibits are among the things more recently handled with much satisfaction.

The following is a brief summary of what a county agent accomplished from June 4, 1917, to June 4, 1918: 1,000 acres of swamp land was properly tiled under direction of county agent, 27 new pure-bred bulls were placed on farms, 23 new barns with proper system of ventilation were built. Over 200 silos were constructed. Three cow testing associations were formed, 180 tons of lime were secured by farmers and spread on acid soils. The wheat crop was trebled and much pedigreed grain was seeded. Bee, potato, and live stock associations were formed and are now running smoothly. A carload of certified seed potatoes was used to replace scrub potatoes for planting. 5,000 bushels of oats were treated for smut. Two carloads of fertilizer were ordered co-operatively and the fertilizer properly applied. 400 young men attended winter short course.

It is also significant that the 38 members who had been against the county agent now are with him and unanimously agreed to allow him $600 aditional expense money. They engaged an office assistant for him. They also supplied him with a complete office equipment. Many other favors are now being shown the county agent that were not possible a year ago.

Wisconsin. A. W. HOPKINS.

National Dairy Union Finances

Balance on hand Oct. 1, 1918	$4,037.51
Total receipts	123.36
	$4,160.87
Total disbursements	356.85
Balance on hand Nov. 1, 1918	$3,804.02

This is to certify, I have today audited the books for S. B. Shilling, treasurer of the National Dairy Union, and find the receipts from Oct. 1, 1918 to Oct. 31, 1918, to be $123.36, and the amount paid for out of which he holds vouchers, the sum of $356.85, leaving a balance on hand Nov. 1, 1918 of $3804.02.

F. P. COLYER, Auditor.

Live stock reporters of the Bureau of Crop Estimates had on their farms 2.1 per cent less cattle, 2.4 per cent more hogs, and 1.2 per cent less sheep on September 1 than on August 1, 1918. Of the total cattle reported, 51.7 per cent were cows and heifers over 1 year old, 26.2 per cent were steers and bulls, and 22.1 were calves.



If Bossy Could Talk She'd Say—

"I did my dernedst, and gave milk rich in cream, but there he goes losing a lot of t with a separator that hasn't any sense!"

It isn't sensible for a separator to waste your cream when you turn *below speed*—yet that is what happens with *every* fixed feed separator.

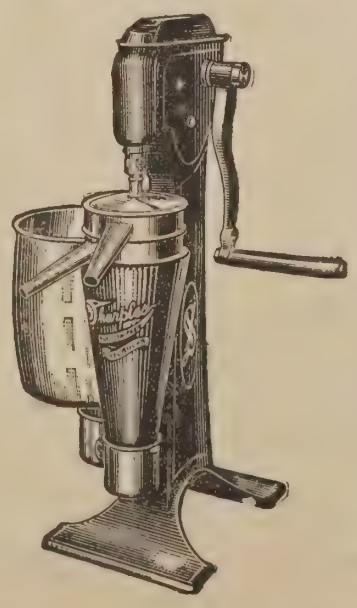
The sensible thing for Bossy's owner to do is to use a Sharples Suction-feed Separator—it *skims clean at any speed.*

There are thousands of cows, part of whose contribution to the wealth of the nation and the individual is *wasted* by fixed-feed separators.

But if Bossy's owner uses

SHARPLES
SUCTION-FEED
CREAM SEPARATOR

there is no possible chance of wasting cream through imperfect separation. The Sharples skims clean at any speed. This is not true of any other separator. Even though the proper separating speed is marked on the handle, tests show that 95% of all separators are turned too slow. That means cream loss—but not with a Sharples. Your muscle does not control the clean skimming—the patented suction-feed guards that. It is in the nature of an insurance policy. It *insures* profits.



Add to clean skimming the advantages of easy cleaning (only one piece in bowl—no discs); uniform thickness of cream; knee-low supply tank and you can understand why there are over a million Sharples users. Write for catalog to nearest office, addressing Dept. 10.

THE SHARPLES SEPARATOR CO.

WEST CHESTER, PA.

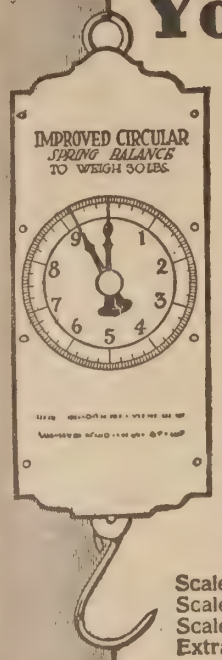
Sharples Milkers—used on half a million cows daily.

Branches: Chicago San Francisco Toronto

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Pail Balancing Scale

Direct to You For $2.85



JUST the thing to determine the yield of each cow. Especially popular with cream handlers who weigh the cream as collected at the different farms.

On the dial of this scale is a loose indicator which can be adjusted and set by a thumb screw, at the O mark so as to balance the weight of the pail. Thus, the net weight of the milk is shown.

Two Record Blanks Furnished Free

with each scale. These blanks contain the record of two milkings a day for one week for 14 cows.

Three Capacities

Scales, 30 lbs. capacity, by 1-20 lb. each	$2.85
Scales, 60 lbs. capacity, by 1-10 lb. each	3.60
Scales, 120 lbs. capacity, by 1-5 lb. each	5.80
Extra Records • • net per doz.	.15

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Creamery Package Mfg. Company
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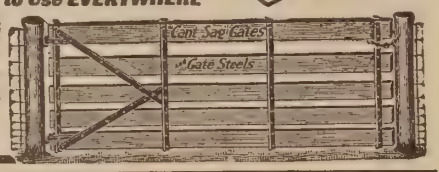
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Just send me your name and address. I will mail you my big new Gate Book free—postpaid. Quotes prices lower than it costs you to build homemade all wood gates. Can't-Sag Gates are the only farm gates that are

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Always hang straight and true. Never sag, drag or warp or twist out of shape. No nails used. No wood joints. Every board double bolted between eight angle steel uprights. Self-locking hinges—won't injure stock—easily repaired—outlast several all wood, steel, wire or gas pipe gates. Cost less than any other gates you can build or buy. Nearly a million now in use. Write for free Catalog today.

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ROWE MFG. CO., 91 Adams St., Galesburg, Ill.



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are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalog and prices mailed free. Ask for them. Address Wilcox & Harvey Mfg. Co., 568 W. Randolph St., Chicago, Ill.

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H. A. Moyer, Syracuse, N. Y.

The Present World Food Situatio

AT a special conference of Federal Food Administrators held shortly before his departure for Europe, Mr. Hoover discussed the work accomplished and told of the pressing world food problems presented by the collapse of the war. There are 100,000,000 people that are close to starvation and in want. Europe has been devastated and is now in the throes of a social revolution that will be intensified if food is not forthcoming.

How to meet this situation was the burden of Mr. Hoover's speech and he devoted himself largely to a survey of the world's available food supplies. He estimates that until the next harvest there is sufficient supplies of wheat and rye, as also of beans, peas, rice, beef, sugar, and coffee. He finds, however, that there is a shortage of three million tons of high protein dairy feeds and a shortage of about three billion pounds of fats, such as pork products, dairy products, and vegetable oils. Of all these foods, except possibly protein feeds, we have, he says, a sufficiency for our own people and in many of them large surpluses. The United States will be in position to furnish twenty million tons of foods of all kinds for export against our pre-war exports of one-third this amount.

The matters of particular interest to dairy farmers are contained in the following extracts from Mr. Hoover's address:

"We can export, together with other surplus countries, an apparent sufficiency of the coarse grains for feeding purposes, that is, of oats, barley, and corn. On the other hand, there is a world shortage of high protein feeds, that is, the wheat feeds, the seed and bean meals, upon which the dairy production of the world, and particularly of Europe, so considerably depend. This shortage extends to the United States, and, in our case, is due largely to the necessary diversion of cottonseed meal to use as fertilizers and, to some degree, to our shortage in wheat mill feeds, due to our hitherto reduced use of wheat flour. This latter will be somewhat corrected by the elimination of substitutes in our bread. Thus the change in world conditions should somewhat ameliorate our dairy feed situation.

"The shortage in protein feeds directly contributes to the world's shortage in the supply of fats. If we examine the position of the dairy products, the pork products, and the vegetable oils, we find that in every item there is a shortage in the needed supplies for the whole world, although we are estimating with economy the export possibilities of the United States in all these products at over four billion pounds, of which from three to three and one-half billion comprise pork products. This world fat shortage is due primarily to the fact that Europe has been steadily under-feeding its dairy herds, has made steady inroads into its herds of hogs during the war, and to the fact that there has been a great degeneration in the production of vegetable oils in certain regions, owing to the inability to secure shipping.

"Of our export possibilities in fats, the largest item is pork products. Here again we have a right to congratulate ourselves as to the policies pursued in the administration of food supplies in the United States by the Department of Agriculture and the Food Administration. If you consider that we have reasonable promise of ability through increased production and conservation to export seven times as much products as our pre-war average and if you consider the vital importance of this extra contribution in fats in this new war against famine, we are justified today in every act in the stimulation of production of this commodity. While cannot supply the world's full ficiency we have ameliorated it enormously.

"As you will recollect, eight months ago, when we had to de our food policies, we stated that only hope of a sufficient product of fats and meat for the world eit in peace or war, lay in the stimu tion of production of the Ameri hog. In that direction we could tain results in twelve months, whe as in any other direction, years wo be required for expansion of fat p duction. The American farmer responded to a remarkable deg In order to assure this change in ricultural courses we promised farmer a fair return on his hogs, far as our control of export or gave us the power. It is our dut make this undertaking good.

"Yet, with all our supplies, world will be far deficient in its mal supply of fats for two or th years at least. Our internal po with regard to this group of com dities must therefore be one tow intensest economy in consumptio we are to carry out our high pur of furnishing food to a famine str en world.

"Policies of conservation req great care and guidance. For stance, for the next 30 to 60 there is barely enough shipping our shores to take care of our cur production of pork products, and storage is deficient. Later on w ships are available, we will need upon our people for great sacri On the other hand, the shortag our supply of dairy products is t so acute that we are compelle now limit the export of this pro Dairy products are vital to the pr tion of child life throughout world that we should immediatel duce our unnecessarily large sumption of butter and conde milk.

"This being the new world situa in food, created by the collapse o war, the prime changes in our po on today's outlook can be sum ized:

"That we may now advantage abandon the use of substitutes i wheat bread; that we will stil quire economy and eliminatio waste in its consumption; that fo present we need conservation in ter and condensed milk; that mately we must extend this to a fats. We can contemplate, a most, maintaining fully three po per month of sugar per perso household sugar and on the pr outlook, and we can by the a bility of Java sugars to Europe at once to relax more restraint sugar pending some change in E policies.

"There is one policy which c change, and that is the vital nec to simple living; to economy consumption for commodities or less substitute for each other. must realize that the spectre of ine abroad now haunts the abun of our table at home.

"At this moment Germany ha alone sucked the food and an from all those masses of peopl has dominated and left them sta but she has left behind her a wreckage of social institutions this mass of people is now confr with engulfment in absolute ana If we value our own safety an social organization of the world, value the preservation of civiliz itself, we cannot sit idly by an the growth of this cancer i world's vitals. Famine is the m of anarchy. From the inabili

nents to secure food for their
l grows revolution and chaos.
n ability to supply their people
stability of government and
eat of anarchy. Did we put it
igher plane than our interests
protection of our institutions,
t bestir ourselves in solution of this problem. There are millions of people now liberated from the German yoke for whose interests we have now fought and bled for the last eighteen months. We dare not neglect any measure which enables them to return to health, to self-support, and to their national life."

Progress of World Feeding from the United States

following table shows the increase over normal in exports of foodstuffs
United States since it became the food reservoir for the world on ac-
f the war:

	Total Exports				
	3 Pre-war Average	1916—1917 Fiscal year	1917—1918 Fiscal year	July 1917 to Sept. 30, 1917	July 1918 to Sept. 30, 1918
Products, lbs.	186,375,372	405,427,417	565,462,445	93,962,477	171,986,147
Products, lbs.	996,230,627	1,498,302,713	1,691,437,435	196,256,750	540,946,324
y Products, lbs.	26,037,790	351,958,336	590,798,274	130,071,165	161,245,029
etable Oils, lbs.	332,430,537	206,708,490	151,029,893	27,719,553	26,026,701
ins, bus.	183,777,331	395,140,238	349,123,235*	66,383,084	121,668,823
ar, lbs.	621,745,507	3,084,390,281	2,149,787,050	1,108,559,519	1,065,398,247

arvest 1917—1918 was 200,217,333 bushels below the average of the three previous years.

Price Again Boosted in New York City

D'S DAIRYMAN:—All grades of
old in New York City have
dvanced one cent a quart in
ouncement sent out by the
Food Board on November 13.
the new schedule the price
the highest peak it has at-
since the war began. It is the
advance the Federal Food
has allowed within fourteen
t represents an increase of 7
er quart within the past two
nd of 3 cents per quart since
ber of this year.
r before in any similar period
e has the price of milk ad-
so quickly in New York City.
lowing table gives a compari-
the price of bottled milk, de-
within the past two years:

	Nov. 1916	Sept. 1918	Nov. 14 1918
quarts	12c	16c	19c
pints		9c	12c
quarts	10c	14c	17c
pints	6c	8c	11c

reason for the newest and un-
nted advance in prices of the
ades of milk lies in the fact,
deral Food Board announced,
e distributors had been forced
pt increased labor costs on No-
6, 1918. This increase in wa-
ounted approximately one cent
.
Federal Food Board's state-
ays: "The cost records now
le show that the milk dealers
o profits in the month of Oc-
1918. Due to the added cost
r, they will make no profits in
ber with another cent added
consumer's price. The milk
for the first twelve days of
nth have sustained losses."
advanced burden in milk price
New York is called upon to
evidently has the approval of
deral Food Administration at
gton, D. C. On October 28th,
r, when the dairy farmers
lemanding higher milk prices
would mean increased retail
Food Administrator Hoover
telegram to the president of
irymen's League at New York
n which he said:
ir demands, which will result
ent milk, I consider are based
ttempt to profiteer and will re-
on the dairymen by decreased
iption. This decrease in con-
on will come from the poor
n of the city to whom milk is

retail grocers, who handle
ilk in New York City, believe
w advance will enable them to
re loose milk to their custom-
any of the dealers are glad
movement made by the Federal
oard and are putting into their
e boxes as many cans of loose
hey can possibly secure.
J. Dillon is authority for the statement that the big milk companies will profit to the extent of $384,000 for the balance of the month through the milk raise, and Stanley Mills, office manager of the Dairymen's League, vouches for the allegation that the dairymen will gain nothing. Mr. Dillon said he could see no reason for the new milk raise. He blamed the present situation on the system of distribution, which he said would continue as long as the consumers of milk and other dairy products would stand for it. He added that as things are now conducted the claim is that it costs twice as much to distribute milk as it does to produce it. Mr. Dillon said:

"Loose milk can be distributed for 3 cents a quart above the dairy farmer's price. That would bring it to the people of the city for 11½ cents per quart instead of 14 cents, as it is now.

"Bottle milk can be distributed for 5 cents a quart. That would make it retail here for 13½ cents a quart, instead of 17 cents, or for poor people who are forced to buy in pints, 22 cents.

"It now costs $1.37 to take a can of milk from the car to the store door and collect the money for it. A man could get rich performing that service for 20 cents a can."

New York. A. H. KOLBE.

Minnesota's Agricultural Program

Minnesota is perhaps the first state in the Union to have ready a well-defined agricultural program to meet the new food conditions of the world. A. D. Wilson, federal food administrator for Minnesota, who also is director of agricultural extension in the state, has issued a call to all the people to regard the period from December 2 to 7 as "Farm Bureau Membership Week" in Minnesota. The purpose of "Farm Bureau Membership Week" is three-fold. The world is calling upon the United States for its food. This call must be met. The present farm bureau in Minnesota has an enrollment of some 30,000 members. There are, however, 160,000 farmers in the state. Every farmer in the United States will want to play as big a part in the reconstruction of the world as their sons have played in making that world worth the reconstructing. To do this means well organized effort. The "new" farm bureau, it is the hope, may "be considered not alone as an organization to aid the work of the county agent." Instead it is the desire that it may "be understood as becoming the officially organized agency or institution, educational in character, for co-operating with state and nation in meeting agricultural needs and in planning, administering, and directing all phases of extension work in agriculture and home economics in the county."



Happy Feeds Happy Stock

Successful feeders lay great stress on the contentment of their livestock, otherwise their animals are lacking in strength and vigor. The feeds which produce strong, vigorous animals may be fittingly named

The Happy Feeds

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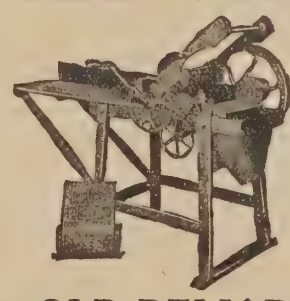
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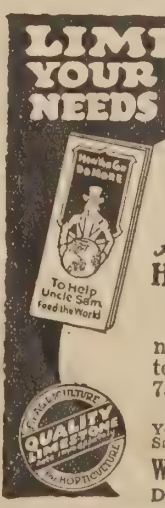


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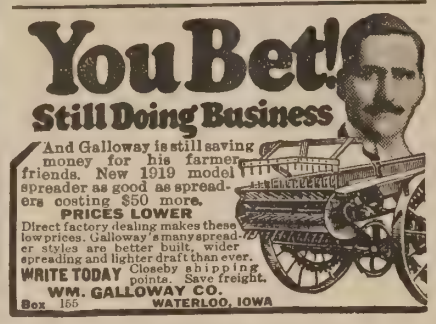
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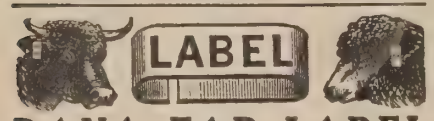


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WITH SANITARY BOTTLED MILK SYSTEMS

Dairy Calf Club Movement

(Continued from page 615)

calves were distributed to the club members on the sixth of July at an average age of nine months and an average weight of 234 pounds. They were in very thin condition, having been raised on the Island where feed was scarce and having been on the way across for over two months' time. A large and enthusiastic meeting was held in connection with the distribution and those present were addressed by A. J. Glover of Hoard's Dairyman, E. A. Onsrud of the American Guernsey Breeders' Association, and M. E. Foley of the Indiana State Council of Defense. It was announced that a fall show would be held when the calves were about one year old and that some good premiums would be offered to the winners. They went home with the determination to come back with the best calf in the lot.

On Wednesday, October 30th, the first annual calf club show was held. Twenty of the twenty-seven calves were lined up for the contest and a nice lot they were compared with the calves which they took home less than four months before. Their weights show that they made an average of 143 lbs. in 115 days. Some of them were primped and clipped and shined as though veteran showmen had coached the work. Mr. Hill made a special trip to the show to tie the ribbons and before leaving he made the statement that not more than two calves showed any indications of not having had the very best of feed and care. Certainly this was quite a compliment to these junior Guernsey breeders who will be a big factor in the future Guernsey history of Boone county.

Making the Awards

While they were being lined up and placed on individuality, the records and story turned in by each member were graded and the final standing in the contest awards were anxiously awaited. There at the head of the line were two Nelson brothers with a good daughter of Primrose Brilliant of the Gree that had been adjudged the best individual in the lot. Would they win first place in the final awards? Next to them stood the Barker Boy with Imported Boone's Dairymaid, a deep middled calf with good size. Third in the line was the seven-year-old Crane girl with a calf that was rejected by the boy who drew her at the time of distribution because his father "would not give fifty cents for such a poor, skinny calf" and the discouraged boy went away leaving the calf tied to the hitch rack. Eighteen other boys and girls each holding a place in the line-up were anxiously awaiting the returns with the hope that they might get a higher rank in the final awards.

And then came the fateful decision from C. E. McClure, the county agent who is the local leader in charge of the club. He announced that Miss Arena Van Huss, whose calf had stood in fifth place, was the winner and a cheer went up over the fact that a girl had outwitted the boys and won the $25 prize and a copy of Mr. Hill's book, "The Guernsey Breed", which he gave as a premium. The second prize went to Noble Croin whose calf had stood fourth place as an individual; then came Arthur Van Huss, a brother of the girl who won first and so on down the line the fifteen prize awards were announced. The two brothers whose calf stood first had not kept their records as they should and had to be content with 8th prize in the contest, but no doubt their records from now on will be better and they will make a strong showing with their showy heifer next year. And so it goes. Each one is already looking forward to next year. They have ready started on their records another lot of liberal prizes been promised by local business n

Interest in the Guernsey busines Boone County is at high tide as a sult of this club. Not only ha gripped the club members and st ed them to think about dairy p lems and the breeding of Guern but it has interested their fath mothers, brothers, grandpare their neighbors as well, and, in f two or three entire sections of county. Several good Guernsey h have been bought since the started and two or three of the thers of club members are alre interested in getting some pure-h heifers, and so the results of the are beginning to show. Boys girls are being developed into da men and breeders. The communit taking a big and active interest only time can tell the many th that the Boone County Calf Club accomplish.

Exports of Meats and Fat Increase

Comparative exports of six g groups of staple foods from United States show a trend of co tions of unusual interest to An can farmers. According to the U Food Administration, exports of products during July, August, September of this year were than three times as great as du the same months in 1917. Export beef and dairy products during same period showed increases nearly double the former amo Comparative figures for the pr pal classes of food products follo

	Total Exports	
Classes of food	July, Aug., Sept.—1917	July, Sept.-
Beef products, lbs.	93,962,477	171,9
Pork products, lbs.	196,256,750	538,6
Dairy products, lbs.	130,071,165	161,2
Vegetable oils, lbs.	27,719,553	28,0
Grains, bus.	66,383,084	121,6
Sugar (includes Cuban), lbs.	1,108,559,519	1,065,3

It will be observed that only i case of vegetable oils and sugar exports been slightly less. The Administration calls special atte to foreign need for animal fats. S America produces hogs and products only in small amounts the United States must expect to ply these important nutrients several years at least.

The chief limiting factors, in dling the huge quantities of foo quired for exports, are transp tion, terminal and shipping facil and in the case of live ani slaughtering and packing equip for taking care of large market as fast as received. It is impo for farmers to clearly unders that with large production there be rational marketing if stab prices are to be maintained and avoided.

The part which conservation play in the food program is lik obvious. To provide by July 1, the 20 million tons of food for seas shipment, a steady conserv in American homes is essential. quantity of food is 75 per cent than we shipped last year and come from a harvest scarcel large. In general there is a market for all staple foods wit increasing demand for animal ucts.

Farmers of long vision will r nize that erratic prices, market and local increase in reserves be of temporary character, and conservation, which enables the ed States to fulfill its food ple means continued foreign trad American farm products.—U. FOOD ADMINISTRATION.

itting Legumes into a Systematic Rotation

(Continued from page 616)

It will be noticed that on this farm bacco is to be grown for two years a cash crop. In this plan it will ke at least 3 years for field No. 1 to djust itself to the rotation for fields and 4, 2 years for field 5, fields 2 nd 3 adjust themselves readily to e rotation the first year. The following has been worked out as a suitble clover rotation:

Farm B—Clover Rota.ion

Year after evision	Field No. 6 10 acres	Field No. 7 10 acres	Field No. 10 10 acres	Field No. 11 10 acres
1st	(4) Grain seeded to clover	(A) Peas and oats	(B) Pasture 2 A., corn 7 A.	(3) Corn
2nd	(1) Clover and timothy	(B) Succotash or barley	(3) Corn	(4) Grain seeded to clover
3rd	(2) Pasture	(3) Corn	(4) Grain seeded to clover	(1) Clover and timothy
4th	(3) Corn	(4) Grain seeded to clover	(1) Clover and timothy	(2) Pasture
5th	(4) Grain seeded to clover	(1) Clover and timothy	(2) Pasture	(3) Corn
6th	(1) Clover and timothy	(2) Pasture	(3) Corn	(4) Grain seeded to clover

Part of field No. 10 (2 acres) was grass the preceding year, and is etained for pasture purposes. The alance of the field is put into corn. his field reaches the regular rotaon the second year. Field 7 reuires 2 years to reach the regular otation, while the other fields adjust emselves to the rotation the first ear.

The following is submitted as a uitable hog pasture rotation:

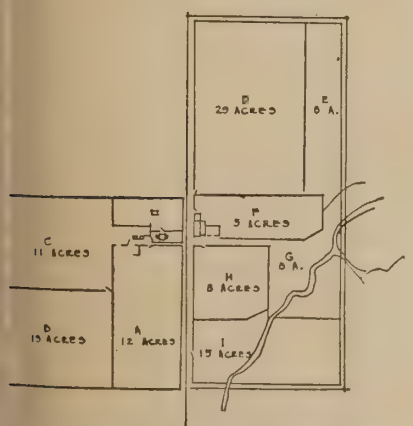
Farm B—Hog Pasture Rotation

Year after evision	Field No. 12 2 acres	Field No. 13 2 acres	Field No. 14 2 acres	Field No. 15 2 acres
1st	(A) Succotash	(2) Corn	(3) Oats and peas or rape	(4) Grain seeded to clover
2nd	(2) Corn	(3) Oats and peas or rape	(4) Grain seeded to clover	(1) Clover
3rd	(3) Oats and peas or rape	(4) Grain seeded to clover	(1) Clover	(2) Corn
4th	(4) Grain seeded to clover	(1) Clover	(2) Corn	(3) Oats and peas or rape
5th	(1) Clover	(2) Corn	(3) Oats and peas or rape	(4) Grain seeded to clover

Three of the four fields adjust emselves to the rotation at once. ield No. 12, which would normally e put into clover, is put into succoish as a substitute for the clover op the first year.

It will be noticed that substitute ops are represented by letters and egular crops by figures. While ese plans provide for definite crops in each field each year, it must be borne in mind that weather and other conditions may come in to upset the best laid plans. However, these rotation plans can be adjusted to meet most any condition. If, for instance, alfalfa kills out two years ahead of time, it is possible to substitute clover. If alfalfa or clover kills out one year ahead of time, it is possible to substitute peas or oats, or any other annual crop, thus making it possible for the fields to come into the regular rotation again soon.

The mapping out of the farm and making provision for definite and systematic rotation, gives the farm manager a vision of his job, that projects well into the future. Having this vision the manager will study his proposition not simply from this year's standpoint, but from the standpoint of several years to come, and to this end will make his plans for his fields and cropping system so as to obtain the maximum results. In these plans legumes play a most important factor in the final results, and our aims should ever be to keep our fields into as large an amount of legumes as the farm can use. The success of the dairy farm apparently hinges on the successful production of leguminous crops for use in feeding dairy cattle.



IG. 3. FARM B AS THE FIELDS WERE ORIGINALLY LAID OUT

This farm has 120 acres, 8.7 acres being in ermanent pasture and woods and 98 acres lapted to field crops. The soil type is clay am and the topography is rolling.

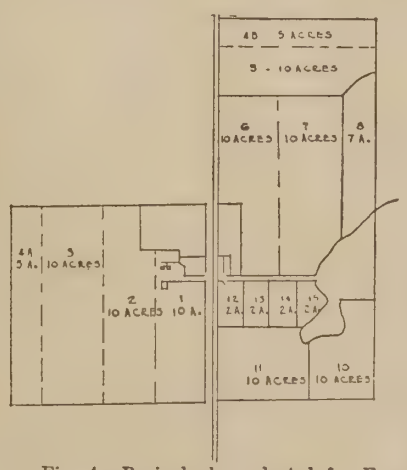


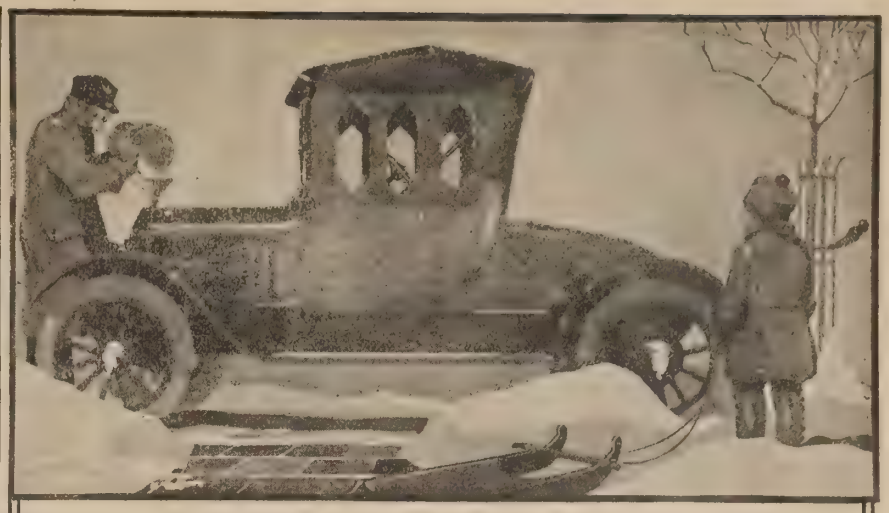
Fig. 4. Revised plan adopted for Farm B, which provides for a systematic and regular rotation for a dairy farmer carrying hogs.

Visconsin Holstein Meeting and Sale

At a recent meeting of the Board f Directors of the Wisconsin Holein Breeders' Association it was deded to hold the next annual meeting f that association at Fond du Lac, Vis., March 11 and on March 12 and 3 to hold a consignment sale of the est representatives from Wisconsin olstein herds. F. H. Everson of ake Mills was elected sale manager.

Price of Farm Horse

The average price of a farm horse in the United States, all ages included, declined from $145 in 1910 to $131 in 1916. In 1917 the average price went up to $132, but in 1918 the fall was resumed and the average price became $128. In 1910 the price of a farm horse averaged about 240 per cent higher than the price of a cow; now a horse averages only 50 per cent higher.



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Johnson's Freeze-Proof is the logical anti-freeze preparation to use in automobiles, trucks, tractors, gas and stationary engines, and electro lighting and heating plants. It is inexpensive—does not evaporate—is non-inflammable—easy to use—and guaranteed. It is much more dependable than alcohol as there is no evaporation.

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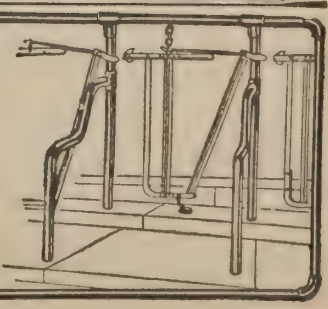
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each piece packed in a pouch

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$7.60 Buys this Harris Sanitary Cow Stall



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Coming Events

National Farmers' Exposition, Dec. 6—14, Toledo, Ohio. Manager, H. V. Buelow, Toledo.

Michigan Dairymen's Association meets at Lansing, Dec. 3-5. Secretary, Martin Seidel, Bay City.

Farmers' National Congress meets in Jacksonville, Florida, December 3-6, 1918. President, J. H. Kimble, Port Deposit, Md.

W. D. Hoard

It is with deep sorrow that we announce the death of our co-worker, W. D. Hoard, Senior Editor and founder of Hoard's Dairyman. The passing away of this great man was on Friday, November 22nd, at 9:30 a. m. We are unable at this time to give to our readers a review of his work and his life, as the last forms of our paper close on Friday morning. Next week we shall give our readers a rather full account of his career.

National Dairy Council Meeting

The after-the-war reconstruction period is going to call for some vigorous constructive work on the part of the dairy industry so that this great source of food may occupy the place it merits in the new world's commerce regulations.

It is therefore very timely that the national associations, organized for the purpose of carrying forward educational and upbuilding movements for the industry, should bring together the men of clear thinking and constructive ideas to take counsel together as to what should be done in the interest of this great industry.

The National Dairy Council has, with these thoughts in mind, called its adjourned annual meeting at the offices of the Association in Chicago, at 130 North Wells Street, for ten o'clock on the morning of December 5th.

The National Dairy Association, in conformity with its by-laws, will hold its regular annual meeting at the offices of the Association, 130 North Wells Street, Chicago, on Friday, December 6th, at 10:00 A. M., and it is sincerely hoped that the men of the industry who feel a responsibility in it will attend both of these meetings, even though they may not directly belong as yet to either of these organizations, but all members are particularly urged either to attend in person or see that their proxies are in the hands of some one whom they consider competent and sufficiently interested to properly represent them and the industry.—W. E. SKINNER, Secretary.

New York Butter Market

NEW YORK CITY, NOV. 19:—Never before in the history of the dairy industry has the value to creameries of high quality production been more emphasized than at the present time. While quotations may indicate that there may be a considerable demand for under-grade butter actual facts do not bear out that supposition. There are great quantities of firsts on the market that can be bought for 59c but there are no extras or higher scoring butter available that can be bought for anything under the top quotations for those grades. The creamery which has placed emphasis on quality is surely reaping the benefit of its efforts toward high grade production. If the farmer could but visit a butter market, especially at this season of the year, he would be thoroughly convinced that he should do his share, in co-operation with the creamery, to produce a butter that will score as a high quality product. He would realize that any effort he put forth to produce a good cream would be paid for several times in the better price that would be received for the butter by the creamery.

Since last week Tuesday quotations on extras and higher scoring butter have advanced a full cent. The advance was made on Wednesday and Monday. The closing days of last week witnessed a weakened market but it quickly regained its strength on Monday and indications are that we may expect still further advances, especially on high grade butter. However, weaknesses develop very quickly on the market with prices as they are at present and one can not predict what the future may bring forth with any degree of certainty. There is an insufficient supply of unsalted butter and better grades of it are selling to exceptional advantage. The quoted differential in price of unsalted butter over corresponding grades of salted is two cents but certain high quality lots are bringing even more than that. Quotations on various grades of butter at the close today were as follows: Extras (92 score), 63½c; higher scoring than extras (93 score or better), 64@64½c; firsts (88 to 91 score), 58½@63c; and seconds (83 to 87 score), 55@ 58c.

There are considerable quantities of butter in the market which show marked metallic flavor. As metallic flavor is due to the dissolution of metalic particles in milk or cream, it is very essential that creamery patrons keep their cream cans as free from rust as possible as rust dissolves very readily in milk or cream and a metallic flavor is thereby transmitted to butter which is made from them. W. B. LIVERANCE.

Conservation Week—Dec. 1-7

To bring before the American people in a forcible manner the need for saving food and sharing it with the allies and liberated nations, the Food Administration has named December 1-7 as Conservation Week. Conservation is vital to the relief of stricken Europe. Our harvest season has come and gone and whatever food is exported must come from our surplus and from our savings, very largely the latter. Certain foods such as meats, fats, and dairy products, it is true, are produced throughout the year but even these depend largely on feeds and fodder, supplies of which are limited and cannot be replenished until another harvest.

The original pledge made by the Food Administration in behalf of the people of the United States was 17½ million tons of food to be shipped overseas by July 1, 1919. This amount of food is 50 per cent greater than last year. With Belgium and France liberated and millions in south central Europe clamoring for food, the United States is now undertaking to increase its exports from 17½ to 20 million tons. The Mediterranean Sea routes are now sufficiently safe for bringing wheat from India and Australia, hence our exports will consist largely of fats, meats, and feed. Feed is essential for milk production of which the stricken nations are in critical need.

Conservation week as planned will include a message from Mr. Hoover to the people through churches, fraternal bodies, clubs, schools, posters, window displays, and the press. An effort will be made to warn of the serious results abroad if we fail to heed the requests for continued conservation. Food, we are reminded, is the only effective weapon with which to combat famine still threatening hungry millions. And never has there been so great an opportunity for women and children as well as men to show their true spirit of democracy in sending relief by daily acts of food saving.

Conservation week is intended also to impress upon every one that stopping hostilities or even the ultimate signing of peace terms produces no extra food and that human lives will continue to be sacrificed unless food is saved in this country and properly distributed among those who have pitifully little or none.—U. S. FOOD ADMINISTRATION.

War Industries Board Lifts Bars on Building

The following is extracted from a circular issued by the Priorities Division, War Industries Board, November 12.

Construction projects falling within the following classifications are approved, and no permits or licenses will be required therefore:

All farm and ranch buildings, structures, or improvements.

The construction, maintenance, improvement, or development by federal, state, or municipal authorities of highways, roads, boulevards, bridges, streets, parks, and playgrounds.

The construction, extension, improvement, maintenance, or repair of any public utility including water supply systems, sewer systems, lig and power facilities, and street a interurban railways.

The construction, extension, repairs of all irrigation and dra age projects.

The construction, alterations, extensions of, or repairs or additi to, plants engaged principally in p ducing, milling, refining, preservi refrigerating, or storing foods feeds.

The construction of new or alterations or extensions of ex ing school houses, churches, hospit and federal, state, or municipal bu ings involving a cost not exceed $25,000.

The construction of new buildi not embraced in any of the forego classifications or repairs on buildi involving a cost not exceeding $10,

Buildings begun prior to Sept ber 3, 1918, where a substantial tion of the building has already constructed.

All limitations on the productio building materials, including cem are removed. The War Indust Board will, as far as practica assist industries in producing terials, fuel, transportation, and l to enable them to increase their o ations to normal limits as rapidl conditions may warrant.

Precedence must be given to activities as will tend to stimulate production of foods and feeds, of of natural gas, of oil, and its prod of textiles and clothing and of erals.

Green County Holstein Sa

Green County, Wisconsin, "Switzerland of America", is and been for years one of the fore dairy sections of this country. moreover a Holstein center, but very recently the Holstein bree of that section had done but litt advertise their cattle. A year they held their first consignment which was fairly successful. year on Oct. 30 and 31 a second was held with considerably bette sults.

Ninety-eight animals were sol $17,160 or an average of $176 Thirty-eight of them were bulls brought $5,175 and the 56 fe averaged $209. The highest p animal in the sale was a 30-lb. ling bull sired by a 3,659-lb. s King Segis Pontiac Alcartra. was consigned by Baltz Hoesley purchased by Frank Duncan, consin, for $480. The highest p female was a 5-year-old cow fro herd of Otto Zimmerli that wen $420.

These figures in themselves ar large. In fact they are low pared with many Holstein sales there are several things to be sidered in this connection. I first place this is but the second sale ever held in that county. sale itself included too many bulls of ordinary breeding and untested dams, as well as a many young heifers. Moreover, few of the females sold had an ords at all. It was, in short, a s good, growthy, registered Hol and as such was a success.

Eells, Hellen, and Shaw di selling with J. G. Voss in the Chris. Tochterman managed the

Although the average acrea sugar cane per farm outside of isiana is quite small, this crop generally grown in some of the ern states that the total acreag an entire state may be surpri large. In Georgia, for instance cane patch per farm is only two of an acre, according to an est by the Bureau of Crop Estimate yet the estimated total acreage state is 67,300.

Sale Announcements

Dec. 3-4—Holsteins. The Pure-bred Live Stock Sales Co. of Brattleboro, Vermont, Inc.
Dec. 3, '18—Holsteins. Carl Krumrey, Plymouth, Wis.
Dec. 5—Holsteins. A. F. Wendlandt, Good Thunder, Minn. F. H. Everson, Sale Mgr., Lake Mills, Wis.
Dec. 6—Holsteins. Elliott Bros., Woodward, Iowa.
Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Dec. 14—Jerseys. D. V. Vandiver, Columbia, Mo.
Jan. 7, '19—Holsteins. Rock Brook Farms Dispersion at So. Omaha, Neb. H. C. Glissmann, Sta. B., Omaha, Neb.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Get Ready for the Tester

HOARD'S DAIRYMAN:—I am done th testing so far as I know and so at I write will not be a bid for con- niences for myself. But other men and possibly it will be women too— il be out to dairy farms for testing s winter and I want to tell of some ngs that are for the owner's and tester's good. I have been test- off and on for about 4 years and eel that I know what some farms k.

In the first place a tester lives in a t case. Part of the time his work ps him about 2 days at a place, ugh there are many 7- and 30-day ords made with one tester on the). When he comes to your house member that he can not carry per- als as he could if he traveled with runk and was going to stay for a v weeks. Make him at home instead making him feel as if he were mpany. Most dairymen do. A few n't.

As to the work he does, give him the t chance you can. This seems like ing everything for the tester and hing from him. However, you will be losing by this. Everything you to make the work easier and quick- is appreciated.

Have some certain place in the ry room or cellar of your house or the house itself for the tester to rk. Have enough shelf room so t he can keep his sample bottles re and have enough of the bottles he can save samples from two or ee milkings before making a test ecessary. When you milk a cow 3 4 times a day it is not necessary or e saving to test out every milking soon as the sample is taken. Give shelf room for the composite bot- s and his glassware and a place the case that carries his outfit so cats and dogs can't tip it over and sh a lot of expensive glassware. at will be to your advantage as l as his because a serious accident ht hold his work up for quite a nber of days while new glassware s coming to him.

hen have some place where he can p milk and water and do his hing of bottles. A sink is about handiest place and if you have a ry house or room you will be fixed this. I have had to do all this k on a few boards laid across the ling tank or on a plank in a cor- of the woodhouse and I know t hard work it is to do a job right. e a mixture of some sort for hing sample bottles and milk test les that will really clean. Wyan- te or something similar should be re the tester can find it. Provide e kind of a bottle or pitcher for sulphuric acid. Many dairymen ect it to be poured from a gallon , or something just as clumsy, into acid measure that the tester uses. any dairymen have sample bot- that are picked up around the n, such as ketchup bottles, olive les, and mason fruit jars. Some e no tops and some are cracked leaky. You get your samples at barn and while you turn around et another one the cat has her in a sample jar. If it has set a hour the top of the sample is e creamy and the test is not what hould be. There is nothing quite handy, as far as my experience , as the regular half pint milk les with paper caps. These bot- are easy to wash and wash right. y don't cost as much as you might k either.

is to the dairyman's interest to e heat where the tester works. columns must be kept warm if test is to be right. With a lack of water and a warm room to work here is a tendency to be a little k about temperatures and that ns a loss for the owner. Fat con- ts with cold just as lard does in a can after it cools. So avoid any chance of this as a little contraction may easily mean a tenth of a per cent or more. Hot water is worth while in getting the sample from the barn ready for the testing bottles if the weather is cool or cold. Enough cream will easily stick to the sides of the sample bottles to make quite a difference in the test. By setting the sample bottles in warm water for a few minutes this cream will not stick to the sides and you will get it in the test.

Ohio. EARL ROGERS.

Apple Blossom of Indian Creek

Apple Blossom of Indian Creek 32757, an eight-year-old Guernsey owned by H. P. Hamilton, Wisconsin, recently completed a record of 14,107.8 pounds milk and 702.57 pounds fat, carrying a calf 275 days of her testing period.

This record qualifies her to the title of champion cow in Class AA, and replaces Benton's Lady Chesterbrook of Ingleside 28672, whose record was exceeded by 11.88 pounds of butterfat.

The oldest daughter of Apple Blossom of Indian Creek 32757, Ruth of Two Rivers 54059, holds fourth place in the two and one-half-year-old division of the double letter class, with a record of 9,521.6 pounds of milk and 500.88 pounds fat. Another daughter, Mary Jane of Two Rivers 69068, freshened in August, when less than two years old, and is producing over thirty-five pounds of milk a day with ordinary feed and care. Diantha of Two Rivers 52328, another cow in the herd, recently qualified for second place in the three-and-one-half-year-old division of the double letter class with a record of 12,189.6 pounds of milk and 584.61 pounds of butterfat.



GUERNSEY COW, APPLE BLOSSOM OF INDIAN CREEK
Year's record: Milk, 14,107.8 lbs.; fat, 702.57 lbs.
OWNED BY H. P. HAMILTON, WISCONSIN

Apple Blossom of Indian Creek 32757 was sired by Imp. Royal Governor's Rodeo 11792, a grandson of Governor of the Chene 1297 P. S. Her dam was Alexia 3d 21852, a cow that never was tested for the Advanced Register.

She commenced her test on August 14, 1917, after dropping twin calves on August 13, and it was only nine days after finishing her test that she dropped another bull calf. In thirteen months and nine days, this cow produced three calves worth from $100 to $250 each. Her own value increased several hundred dollars through her successful test and she produced over 7,000 quarts of milk which sold at ten cents per quart.

Deducting liberally from the total of these earnings for care and maintenance a sum remains equal to the earning capacity of a salaried man of no mean ability. Since September 9, 1914, a little less than four years, this cow has given her owners three heifer calves and three bull calves.

The fine record made by this cow of local breeding with approximately no large Advanced Register records back of her for several generations, illustrates forcibly the inherent production qualities of the Guernsey breed.—AMERICAN GUERNSEY CATTLE CLUB.

Courses in Tractor Operation

The Wisconsin College of Agriculture will offer two courses in tractor operation and repair this winter. The first course begins December 2 and lasts for three weeks. The second course begins January 6 and lasts for four weeks.

Ten tractors have been secured from different manufacturers for demonstrational purposes. Each student will have plenty of time to run each tractor. There will also be work in repairing tractors as well as stationary gasoline engines.

The courses are intended for middle aged men for training in tractor operation to relieve the labor shortage on the farm. Last year 75 men, some of them 50 years old, took the course. For a circular outlining the courses in detail, write to E. R. Jones, Department of Agricultural Engineering, Madison, Wisconsin.

Dairy Cattle in Texas

HOARD'S DAIRYMAN:—Practically all of the larger systems of railway in Texas have joined with many banks and farmers in the movement to bring about an increase of the dairy industry of this state by purchasing on behalf of farmers registered dairy cows in northern states and creating nucleus of dairy herds along their respective lines. One of the latest of these shipments arrived in Texas a few days ago and the cows were distributed along the Missouri, Kansas, and Texas. The shipment consisted of 45 head of registered Holstein cows and heifers and five good grade cows.

In the distribution of the cattle over Texas, one carload of thirty heifers and two bulls went to Williamson County. It is said there is little activity in dairying there at present. Eleven head of the cows will go to Teague, four to Hillsboro, and two to Denison.

For one of the best cows, $425 was paid. The average price for the entire shipment was approximately $200. Bankers in Georgetown, Williamson County, are back of the move, considering dairy cattle an excellent investment. In the other counties, bankers also showed interest in the plan, but many individuals did not need the assistance of bankers in financing their investment.

"By placing these high grade and pure-bred cattle in the hands of intelligent farmers and dairymen it will not be long before Texas will be a factor in the dairy industry," said Mr. R. R. Walker, agricultural agent for the Missouri, Kansas, and Texas R. R. "Texas can become the greatest state in dairying on account of nearly ideal conditions but there are two predominating factors to be reckoned with before she can proceed rapidly, first elimination of the tick, and second, she must grow her own feedstuff. Further importations will be placed as soon as possible along the lines represented by the Industrial Department of the Missouri, Kansas, and Texas Railway as this department is active in encouraging better agriculture and more and better live stock. Some of the other roads have made importations previously and will secure more as early as possible."

Texas. W. D. HORNADAY.

Second Brattleboro Ayrshire Sale

The second annual sale of Ayrshire stock held under the auspices of the Pure-bred Live Stock Sales Co. Inc. of Vermont, was held in Brattleboro, Tuesday, November 12th; 46 head being consigned by Hunter Bros. of Ontario; Gilbert McMillan, Quebec; Wm. Gibson, Ontario; D. M. Henderson, Ohio; Wendover Farms, New Jersey; Weymouth Farms, Massachusetts; E. J. Fletcher, New Hampshire; Middlesex Meadows Farm, Massachusetts; Geo. H. Dunsmore, Vermont; and South Farm, Ohio.

The 46 head averaged $274. The highest price paid was $1,050 for the imported heifer, Auchenbainzie Lady Daisy Bell 46830, consigned by Peter B. Bradley, Weymouth Farms, Massachusetts, and purchased by Geo. W. Stockwell, Massachusetts. Miss Hughina, a two-year-old heifer consigned by Hunter Bros., Ontario, was purchased by Peter B. Bradley for $750. The same breeder secured another of the Hunter entries in Sturdy Jean, a five-year-old cow, for $670. Wendover's two entries averaged $425. D. M. Henderson, Ohio, H. A. Moses, Peter B. Bradley, Weymouth Farms, W. E. Brigham, L. H. Severance, and Geo. R. Wales, all of Massachusetts, were prominent purchasers.

The following animals were sold for over $300:

Geo. W. Stockwell, Massachusetts	
Auchenbainzie Lady Daisy Bell	$1,050
D. M. Henderson, Ohio	
Steel Kilbowie	$300
Imp. Lessnessock Dora	325
Auchenbrain Union Jack	300
Imp. Blackbyres Rosie 4th	350
W. Newton, Massachusetts	
Imp. Friendlesshead Missie 5th	$345
H. A. Moses, Massachusetts	
Ladas Nancy	$400
Spicy Violet of South Farm	350
Favorite Foxy of South Farm	400
Spicy Miss Lorne of South Farm	355
L. H. Severance, Massachusetts	
Midland's Finlayston's Sloth	$435
South Farm, Ohio	
Ryanogue White Silk	$410
Geo. Grant, Connecticut	
Spotty of the Pines	$325
Peter B. Bradley, Massachusetts	
Springburn Rose 2d	$400
Miss Hughina	750
Sturdy Jean	670
Wendover Farms, New Jersey	
Blink Bonnie of Elmshade	$400

The evening previous to the sale some forty Ayrshire breeders and friends enjoyed a social get together banquet in the Brooks House, Brattleboro. After a splendid dinner, Mr. Capmann of the Holstein Association on behalf of the Brattleboro Board of Trade, welcomed the breeders to the state and then called on Mr. L. E. Ortiz of Wendover Farms, New Jersey, to officiate as toastmaster of the evening. A number of breeders and friends were called upon and a social evening was spent.—J. G. WATSON, Secretary Ayrshire Breeders' Ass'n.

Stumps occupy valuable land; foster the growth of weeds, since in order to keep the land in their vicinity clean much hard labor is necessary; mar the appearance of otherwise smooth fields, and hence reduce the selling price of a farm; furnish shelter for harmful insects and animals; and prevent the efficient use of modern machinery.

EDITORIAL COMMENT

It is generally held by those well informed upon the agricultural conditions of the world that there is going to be a good demand for farm products of all kinds. There is some conflict of statements as to the amount of wheat in the world. Some hold that there are several hundred million bushels in Australia and others, that there are less than 150,000,000 bushels and that some of this will not be fit for human food. Some claim India has more than a hundred million bushels of wheat ready for export and others claim less than 50,000,000. It would seem there must be a reasonable supply of wheat in the world or the Food Administration would not have restored the white loaf so soon, for most people were quite contented with using 20% substitute.

It is certain that there is going to be a splendid demand for dairy products of all kinds. Effort is already being made to secure a greater amount of butter for Europe. The present prices of butter are more nearly in keeping with the advanced prices of other farm products than they have been since the war started and we believe this will be a factor in stimulating larger production in what is commonly termed the home dairies. Without doubt, the creamery patron will feed his cows and care for them better, thus increasing their production. It is not a difficult matter through liberal feeding and good care to increase the production of our herds at least 20%. Even if this is done, there will be no surplus of dairy products. We are advised that milk consumption in October was larger in some cities than at any other time in our history. It is our opinion that people are beginning to appreciate the importance and food value of dairy products. This, together with the world shortage, is going to make a splendid market for years to come.

BUY A BULL

No dairy farmer should hesitate now to purchase a pure-bred dairy bull. Improved blood has always been a splendid investment, but the world's shortage of dairy products and the increasing demand for good dairy cows makes the investment more inviting than ever. Hoover informs us there is a world shortage of fats and milk. The shortage of fats amounts to three billion pounds and it would require 1,500,000 cows, with a production of 200 lbs. of fat per cow a year, to produce that amount of fat.

There is no question but that the demand for improved cows, cows capable of producing 250 to 300 lbs. of fat in a year, will be in larger demand in the future than they ever have been in the past. Cow testing associations are increasing rapidly and these organizations are revealing to the farmer the fallacy of keeping poor cows. The farmer who is raising high grade cows will find a ready market for them and at good prices. Good grades now are selling for $150 to $225 apiece. Further, the grade herd is returning a larger profit at the pail. A farmer who has not purchased a pure-bred bull to head his herd is losing money and will never be in position to take advantage of a grade cow market. Nondescript cows will not sell within $50 to $100 of as much as the grade.

For an absolute sure investment and a large rate of interest, nothing can beat a pure-bred dairy bull.

FARMERS' WEEK

Those engaged in planning courses for Farmers' Week at our many colleges of agriculture this coming winter are already giving attention to this work. It is fully realized that we are to face new conditions in this country and that the course of study must be arranged to meet them. Some of the nations of Europe have been giving much serious consideration in laying plans for conducting their industries when peace is declared. As a nation, we have been very wasteful of both food and clothing. The world shortage of these materials has brought us a new conception of our duty and has led us to understand that to be saving is not miserly or unbecoming to an American citizen. Necessity is the most effective teacher. The world shortage of food and clothing makes it a necessity for us to save and to plan how we may make the best use of what this country produces and how we can produce more to relieve the suffering peoples of earth.

We are pleased to see the courses of study in our colleges of agriculture shape themselves to be helpful in alleviating the suffering in the world and it is our hope that the farmers and their sons and daughters will lay plans to attend the farmers' short courses this winter so that they may secure a deeper conception of the relationship of agriculture to the progress and comfort of the world.

BOY RESERVES

Considerable farm work was done last year by the Boy Reserves, an organization which includes boys from the ages of 16 to 20. The appeals made by government officials caused many boys in the cities to volunteer their services to the farmers of this country. Some of them had farm experience, others had some training in school, and others went as raw recruits.

On a whole, these boys did well and only a small percentage of them failed. It is estimated that 250,000 boys gave their help to the farmers last summer and it is the hope to increase this number at least 250,000 the coming year. The Director of the Boys' Working Reserve estimates that in Michigan alone 7,000,000 lbs. of sugar were added to the world's supply by the work of the Boys' Reserve, as the farmers of this state were unable to secure help and were contemplating plowing under their crop of sugar beets.

Systematic effort is being put forth to teach these boys some of the rudiments in agricultural practice, so they may be of more service to the farmer at the very beginning of next spring's work. These boys are not as capable as those raised on the farm, but we must commend their spirit of being willing to go to the farm when there was such need of labor. The very fact that a larger percentage of them made good indicates the sincerity of their purpose.

COST OF MARKETING

Recently a consumer desired some northern grown rutabagas and had a sackful shipped by express, a distance of about 250 miles. This consumer asked that the bill for the rutabagas be sent him and that they be forwarded by express collect. The rutabagas came with the express charges of $1.19. The producer wrote to the consumer as follows:

"You say it is embarrassing to you to receive those rutabagas for nothing and you want me to charge you for them, but how do you suppose I would size myself up if I were to send you a bill for 13c which is all the roots I sent you would bring on the market up here?"

The middleman is blamed for adding considerable expense to farm products and extremists advocate his elimination. This is not the solution of the marketing problem. There was no middleman in the transaction cited, but the consumer demanded an expensive way of marketing and bought the rutabagas a long distance from his home. Rutabagas could have been shipped the same distance by freight in carload lots which would not cost, wholesale, more than 75 cents per hundred or about that per sack. If a carload had been shipped by freight the consumer could have purchased them from a middleman for at least $1 per hundred and this would be 32 cents per hundred cheaper than it cost to get 100 lbs. direct from the farm to the consumer by express.

In considering what the consumer pays for his products and what the farmer receives we must consider the labor expended in getting the farm products to the consumer. We may well consider, too, the desirability of buying farm products produced near the home of the consumer. If a consumer in New York ordered his potatoes from a producer in Idaho the cost of delivering them would be far more than the producer would receive. It would not mean that the express or the freight charges were too high or that the persons handling the potatoes made too large a profit.

In this simple and unusual way of marketing rutabagas there is illustrated clearly and well a fact that must be considered in all marketing problems. The express charges were not excessive considering the sackful of rutabagas were sent over three different railroads and delivered to the consumer's home. It was a direct service from the producer to the consumer yet the producer received but 13 cents for which the consumer paid $1.32. The crux of the whole situation lies in the fact that the consumer demanded a large service and this he is doing in many instances. In attempting to solve our marketing problems and to secure a larger portion of the consumer's dollar for the producer we must bear this fact in mind.

NEIGHBORS GETTING TOGETHE

This in essence is the soul of the movement community betterment in the country and from radiates larger practical benefits to the individu better farm living conditions, and a better m hood and womanhood. When conceived on the ba of an "uplift", efforts to accomplish these ends v never succeed; but in Massachusetts they have sought to organize rural communities by a pre ranged plan, but they have gone out to learn the people themselves and then to aid them in self improvement by their own community. A several years of experience in being taught, Massachusetts College of Agriculture deems time right for publishing the results of its v along these lines and offering a plan of operat This it has done in a bulletin entitled, "Mobiliz the Rural Community", by E. L. Morgan.

"It ought to be stated just as strongly as po ble," says President Butterfield in his introduct to this bulletin, "that this work is not in the ture of an 'up-lift'. It is not even 'social' in narrower sense. It is simply a method of orga zation by which we seek to assist the town to br into co-operation all the agencies, individuals, institutions in the community, in order to get full measure of capacity of the town at work veloping the community, industrially, socially, in every other way. The work has fully as muc do with the so-called 'practical' or business pha of agricultural development as it has with other. Indeed, its principal achievements are in practical field. We believed from the beginn that the local community should be built up to fullest possibilities; that it should study its make its own plans for its highest developm gain the co-operation of all its people to carry this plan. This sort of organized effort we bel is the key to rural progress everywhere."

With this sort of an introduction one can on with assurance that he will not meet with maudlin sentimentalist who would go out into poor, ignorant country to "uplift" it out of its s and degradation. A movement conceived and moted as an uplift, even when the idea itself have value, is at once condemned as futile by e person well informed concerning farmers and riculture. The farmer is rightfully suspicious the self-appointed, smug custodian of his welf and his independence holds in righteous conte this kind of mendicant charity.

The bulletin fulfills its introduction, and scope is further explained in the further qu tion from President Butterfield's introductio follows:

"The 'community idea' is not a new concep This bulletin is simply the story of the facts an outline of the principles and advice that grown out of the experience of nine years of s and effort in applying the idea to the rural t of the state. This effort has been, however, merely an experiment. It has been also a de stration, because it has been a real success. W lieve that not only is the main idea sound, but the methods suggested are sound. Of course, must be adapted to various communities. No communities can work exactly in the same wa

What we particularly enjoy in this bulleti that the author keeps his feet on the ground, does not soar off into the misty heights and cl beyond the ken of his reader. The plan has ceeded in Massachusetts, which is its best re mendation.

Suggestions on Curing First Crop Alfa

I have had a very marked degree of succe growing alfalfa but have met with desperate ure in making good hay, especially with the cutting. My farm is located near the northern of the lower peninsula of Michigan and is tically surrounded by water. The atmosphe therefore cooler and more moist than in places are. The first cutting of alfalfa is alwa monster, and usually takes place in rather coo unsettled weather. The second cutting has in my experience exceeded one-half that of first and usually takes place in warm, dry wea

I have never yet had any trouble in harve the second cutting no matter how I go at it, b spite of all the scientific precautions and adv can apply, I have never yet been able to away the first cutting in a first class manne have both heard and read of so many diff methods of haying that there actually seems more methods than there are animals to ea hay. I have tried out both extremes with failu

In the summer of 1917 I cut the hay one then raked and cocked it the following after After all my hay was cocked, a wet spell s which lasted about two weeks. It was just enough during this time so we couldn't mana store any of it away. About one-third of this

s covered with hay caps, but hay caps simply de matters worse instead of better, as the hay ler the caps was quite moldy near the bottom ile the others were much less affected with mold. en the unsettled weather cleared away we ead this hay out thin so as to thoroughly dry ore storing. In spite of this, less than one-third hay was good hay—none first class, while one- d was so moldy, brittle, and brown as to make y a poor quality bedding.

ast summer I cut the hay one day, raked it in ner small windrows the next afternoon, and on following day I turned the windrows and then led it in, using the hay loader in loading. The ther last summer was the most favorable hay- weather I have ever seen. There was no rain at and during most of the nights there wasn't any to speak of on the ground. My hired man said t this was the nicest hay he had ever seen put barn and it surely appeared to be in a perfect dition for storing. As far as we could observe, hay didn't seem to heat very much, but in time eemed to lose considerable of its bright green r and to become somewhat dry and brittle on . A few days ago I made a cut through the cen- of the mow and found for a considerable dis- e from the center that the hay was quite brown ead of green in color. I am mailing you a sam- of this. Is very much of the feeding value of h hay lost? It doesn't seem to be either moldy ery dusty.

low what puzzles me is this: If a person can't e his hay in cocks without running at least a risk of it being more or less spoiled by rain, if it is stored away by some "hurry up" meth- it will to some extent spoil anyway, what is the thing to do?

have spent a great deal of thought on this sub- and have devised several schemes which I will lain for your approval or disapproval:

—In order to save labor and losses through rain gure on cutting my alfalfa on one day. The t day I will rake it in windrows, and on the owing day haul it from the field. Instead of ing this in the barn, I am thinking of fixing a stacking devise whereby I can make a long, n, and very narrow stack near the barn. In a stack the hay ought to cure very rapidly at the same time not be very badly affected by s. When this is properly cured I can use a fork to drag this into the mow, which would e very quick work of the job.

—Another method I have thought would be ctical is to haul about two loads into the mow, ling it off well. Then build a triangular tube zontally across the long way of the mow to in about 5 or 6 feet of each end. This tube can uilt of three long poles held apart at short in- als by short pieces of boards so that the tube measure about 3 feet on each side. After this been put in place, put the remainder of the hay op of this. As soon as sufficient hay has been ed away to warrant it, attach the blower of a ge cutter to this tube and force a constant cur- of air through the hay until it is dried. A ll gas engine ought to furnish sufficient power this purpose. It seems to me that this would be ry quick and efficient means of drying the hay use, as soon as the hay would commence to , the air current would be warmed and its ng power increased. What do you think of this od? Would there be any danger of spontane- combustion?

—Another method I have thought practical is ake vertical shafts through the mow for the to circulate through. My stable is underneath mow so it would be easy to arrange this. About many of these should be required for a mow y 30 feet?

any of the readers of your paper have had any al experience with my suggestions, I shall be too well pleased to read of their experiences in paper.

orthport, Mich. H. W.

part of the trouble in curing hay under hay may possibly be due to the fact that our in- er did not move the cocks of hay frequently and not take the opportunity of opening them up n the weather was propitious. Of course, one ot secure a good quality of hay when it is nec- ry to leave it in the field for as long as three s. However, we have known of cases where a fair quality of hay was secured when the cocks properly made and moved occasionally so as ot only provide against too great spoiling at ottom but also to avoid the smothering out of lfalfa underneath.

e sample of alfalfa hay which was sent us of excellent quality. Indeed, most feeders of prefer the brown alfalfa to the more fashion- pea green variety, the process of fermenta- or heat to which it has been subjected tending ake the hay more palatable and stock enjoy it more. Doubtless this hay has lost some of its ng value but it is quite possible that its in- ed palatability will more than offset this loss. ave seen no figures giving what the actual loss tal nutrients may be but we apprehend that, l for pound, the brown hay would contain as nutrients as the pea green hay and it may be quite possible that the digestibility of the hay has been somewhat increased by the process of fermentation through which it has passed.

The suggestion as to curing the hay in a long, narrow stack might work out all right but we see no special advantage in this. A better method of curing is to spread the hay over the entire barn floor and not use a cutting to fill up a single bay. This is the method followed by Mr. Michels of Wisconsin and he has found it very desirable. It is more than likely that the extra handling incident to drawing the hay into the barn would more than offset any possible saving which might occur in the stacking of the hay.

The system of admitting air to the hay so as to assist in curing has been tried out by several farmers in somewhat similar ways, but it has not been found either practical or desirable. In fact, it is held by many men that this system is more likely to cause spontaneous combustion and spoilage. Hay which is highly heated will not burn except as it may have sufficient air (oxygen) to make combustion possible. This is indicated by the fact that occasionally a mow of hay will show a quite large burned area in the center but the fire kills itself out through its failure to secure sufficient oxygen to burn. Indeed, there is some danger in opening up a mow that has commenced to heat as in this way the air gets to it and combustion may take place.

Judging from the sample sent us we would consider the handling of the crop this year as being very successful, and we know of no better methods than those used thus far. If other readers have succeeded with other methods we would be glad to publish their experience.

Ration for Cows and Calves

Please balance a ration of the following feeds: Oats, $.C9 per bu.; barley, $1.00 per bu.; gluten, $58 per ton; oil meal, $62; cottonseed meal, $64. I have good corn silage and mixed clover and timothy hay for roughage. Also a meal for calves as the prepared calf meal is quite expensive.

Franksville, Wis. W. H. T.

Feed each cow daily about 30 lbs. of corn silage and all the mixed clover and timothy hay she will consume without waste. A mixture consisting of 400 lbs. ground barley, 300 lbs. ground oats, and 100 lbs. gluten feed or oil meal would supplement the roughage very nicely. Feed about one pound of this mixture for each 3½ to 4 lbs. of milk produced.

For calves about six months of age feed the mixture we have suggested for the cows. For younger calves, a mixture of whole oats, corn, and bran would be very acceptable. The young calf will eat whole oats and corn and do better on them than when ground. After they reach six months of age or thereabouts, it is better to feed the meal to them ground. Also, give the older calves opportunity to eat corn silage and keep before them a liberal supply of hay. It is well to remember that a calf also needs a liberal supply of water and salt.

Apple Pomace as Fertilizer—Alfalfa on Sandy Soil

We have a cider mill located five miles from us which has an accumulation of six or eight years of apple pulp. What value has it as a fertilizer?

We want to raise alfalfa. Can we raise it on light sand?

Would you advise turning rye under for fertilizer?

Temperance, Mich R. H. C.

We have no information on the fertilizing value of apple pomace or are we advised as to what its effect upon the soil may be. We believe that material of this kind would scarcely pay the expense of hauling for five miles. According to analysis it is worth about one-third the value of stable manure, but possibly the accumulation of several years would contain less moisture and would, therefore, have a somewhat higher fertility content.

The turning under of green rye for fertilizer is not a highly profitable method of farm management and we would much rather prefer the use of some legume. Vetch seems to be particularly adapted to sandy soils and possibly it may give better results than some of the other legumes. Unless there is some special object in view, we apprehend that the better practice would be to harvest the rye as grain, relying on some other legume crop to supply the necessary green manure.

Alfalfa requires a fertile soil in order to make its best growth. It will do well in a long range of soils, from rather heavy clay to sandy loam, but we are somewhat inclined to doubt whether success will follow attempting to grow it upon very loose and sandy ground. For this kind of soil sweet clover or the common red clover will probably produce better results.

If somewhat further and complete information is desired on the growing of alfalfa we would suggest reading the booklet, "Alfalfa", which was prepared by L. F. Graber, Secretary of the Wisconsin Alfalfa Order. Our book department will be pleased to supply this upon receipt of its regular price, 70 cents.

Wisconsin Tubercular Laws

I would like to know what the law is in regard to cattle that react to the tuberculin test. What compensation is paid by the state, and how is the value of the animal set?

Clinton Junction, Wis. F. S. S.

The present Wisconsin laws provide that the owner of reacting cattle will receive no compensation unless he tests his entire herd or agrees to retest shortly after the reacting animal is discovered. The appraisal limit is now fixed at $200, and for each animal condemned the owner will be paid fifty per cent of the appraised value without regard to the nature or extent of the tubercular lesions. This is a vital change from the previous law under which compensation was based according to the extent of the disease in the animal and the appraisal limit was $100. In making the appraisal the value is fixed according to the condition in which the animal is found at the time of appraisal, but in no case is the appraisal to exceed $200.

In general practice the appraisal is made by a representative of the State Live Stock Sanitary Board and the owner of the animal. That is, if a certain animal has been found tubercular, the state veterinarian is notified and one of his staff agrees with the owner as to the proper appraisal value of the animal, and settlement is then made on the basis of one-half this value. Should there be any disagreement, then recourse may be had to the provision of the law which provides notice to a justice of peace who secures the aid of three competent men to make the appraisal, which shall be final. We are informed, however, that owners have seldom found it necessary to make this appeal and that the Live Stock Sanitary Board will be found thoroughly willing to co-operate where there is no attempt to exert undue or improper influence.

There is no provision in the present law which makes any distinction between pure-bred and grade cattle, but it is reasonable to expect that most pure-bred cattle will be appraised very close to the $200 limit, whereas grade cattle will vary according to the market conditions. It must also be remembered that no compensation is paid for condemned animals unless the entire herd is tested. This provision is to insure that tuberculosis will be eventually cleaned up in the various herds of the state.

Ration With Alfalfa and Silage

Please help me balance a ration for my Holstein cows. For roughage I have corn silage, with all the ears left on, alfalfa, oat straw, and corn fodder. I have bran, oil meal, oats, and corn.

Waupaca, Wis. O. P.

We would let each cow have daily about 30 lbs. of corn silage and all the alfalfa hay she would care to eat up clean, and give her some of the corn fodder to pick over, using what she leaves for bedding.

A mixture consisting of 400 lbs. ground corn, 200 lbs. ground oats, and 200 lbs. bran will supplement the hay and the silage nicely. To cows giving moderate flows of milk, that is, from 20 to 30 lbs., we would feed 1 pound of this mixture for each 4 lbs. of milk produced. To cows giving more than 30 lbs., it would be well to feed from one-half to one pound of oil meal. Cows giving less than 18 pounds of milk can do their work upon corn silage and alfalfa hay alone.

Width of Cow Stall

How far apart should the cows be fastened when tied with tie chains?

Hawk Point, Mo. B. M. W.

The width of a standard cow stall is 3½ feet and we see no reason for varying this when the cows are tied with chains. For smaller animals the width is occasionally cut down to less than this, but it is scarcely desirable to do so except for special stalls for young stock alone. Cows even in the same breed often vary considerably in size and it is more convenient to maintain the standard width of 3½ feet, which is sufficient for even the larger dairy cows.

Highest Yields of Jerseys

THE American Jersey Cattle Club reports that up to September 30, 1918, there was a total of 10[illegible]7 cows entered in the Jersey Record of Merit, or Advanced Registry as it is called by the other breeds. These cows averaged 7,876 lbs. milk containing [illegible] lbs. fat, with an average test of 5.36 per cent fat. There were 3,712 two-year-olds that averaged 6,598 lbs. milk containing 357 lbs. fat; 1,755 three-year-olds that averaged 7,585 lbs. milk containing 411 lbs. fat; 1,338 four-year-olds averaged 8,493 lbs. milk containing 460 lbs. fat; and 6,522 five-year-olds averaged 9,133 lbs. milk containing 483 lbs. fat.

The best ten two-year-old Jerseys averaged 11,991 lbs. milk containing 709 lbs. fat; the best ten 3-year-olds averaged 13,977 lbs. milk containing 809 lbs. fat; the best ten four-year-olds averaged 14,874 lbs. milk containing 869 lbs. fat; and the best ten five-year-olds averaged 16,269 lbs. milk containing 948 lbs. fat.

The best five records on September 30, 1918, in year's tests at various ages were as follows:

and H. R. Number of Cow	Milk Lbs.	Per cent of fat	Butterfat Lbs.
Class 1.—Cows Under Two Years			
[illegible]y Farce 298177	14,260.0	4.46	635.7
[illegible]s 64th of Hood Farm 266735	9,830.3	6.17	606.6
[illegible]t. Mawes Beauty 295047	10,239.0	5.73	586.9
St. Mawes Susy Olga 341308	9,976.1	5.73	571.2
King's Golden Diploma 252638	9,749.4	5.73	559.0
Class 2.—Cows Two and Under Two and One-half Years			
Pearly Exile of St. Lambert 205101	12,345.5	6.61	816.1
Sophie's Bertha 313238	13,242.8	5.82	771.1
Lass 66th of Hood Farm 271896	14,513.1	4.96	720.5
Old Man's Darling 2d 319617	10,431.1	6.66	694.4
Sophie's Dolly Dimple 348582	10,813.9	6.38	689.7
Class 3.—Cows Two and One-half and Under Three Years			
Irene's Cherry 285828	12,562.7	5.97	749.9
Lad's Lady Riotress Irene 279715	12,307.8	5.37	660.8
Lass 73d of Hood Farm 277540	10,953.4	6.02	659.4
Ioa Queen 333655	11,239.3	5.76	647.37
Nutwood Figgis 328160	10,406.2	6.07	631.74
Class 4.—Cows Three and Under Three and One-half Years			
Viva La France 319616	12,744.8	7.00	892.63
Sophie's Bertha 313238	14,954.2	5.55	829.5
Sophie's Charity 314359	11,850.2	6.34	751.69
Goldie's Nehalem Beauty 283330	12,367.7	6.07	750.5
St. Mawes Beauty 295047	12,515.6	5.98	747.9
Class 5.—Cows Three and One-half and Under Four Years			
Lass 66th of Hood Farm 271896	17,793.7	5.11	910.6
Lady's Silken Glow 313311	13,305.0	6.63	882.5
Eminent's Foxy Belle 304982	14,920.6	5.47	816.65
Lass 83d of Hood Farm 289023	14,524.2	5.31	760.9
Figgis 97th of Hood Farm 273502	14,796.9	5.07	750.6
Class 6.—Cows Four and Under Four and One-half Years			
Sophie's Adora 299594	15,852.2	5.60	888.0
Jap's Sayda's Baroness 321895	14,438.3	6.00	866.78
Successful Queen 278743	16,389.3	5.20	852.7
Lass 64th of Hood Farm 266735	13,444.6	6.03	817.7
Interested Jap's Santa 292928	13,308.5	6.05	805.72
Class 7.—Cows Four and One-half and Under Five Years			
Olympia's Fern 252060	16,147.8	5.81	937.8
Goldie's Nehalem Beauty 283330	15,323.5	5.91	904.91
Sophie's Bertha 313238	16,102.1	5.44	875.41
Sophie 19th of Hood Farm 189748	14,373.2	5.95	854.9
Rosaire's Olga 4th's Pride 179509	14,104.9	5.93	837.0
Class 8.—Cows Five Years and Over			
Sophie 19th of Hood Farm 189748	17,557.8	5.69	999.1
Spermfield Owl's Eva 193934	16,457.4	6.04	993.3
Eminent's Bess 209719	18,783.0	5.13	962.8
Dosoris Park Lily 233783	16,728.1	5.72	957.4
Jacoba Irene 146443	17,253.2	5.52	953.0

Waukesha Holsteins Sell Very Well

Last fall most of the buyers and spectators at the Waukesha County, Wisconsin, Holstein Breeders' Consignment Sale were not at all comfortable. The weather was cold and the salamanders used to heat the sale tent were productive of very much more smoke than heat. This year their sale pavilion, one of the best, was completed and helped to insure a successful sale.

The sale this year was one of good cattle and included some of the best that have been offered this fall in the middle west. More than that, a very large majority of the animals were in the best of sale shape so that there was every reason for a successful sale.

One hundred seventeen animals were sold for an average of $302, going to buyers from Minnesota, Nebraska, Illinois, and Wisconsin. John Winkler of Wisconsin was the heaviest buyer taking thirteen animals at an average price of $310, this in addition to being one of the two men who purchased the highest priced bull, mentioned below.

The largest consignment was from the Carnation Stock Farm. They sold 20 animals for $7,670, an average price of $383 per head.

Three animals sold for $1,000 or more and one of them, King Pontiac Boon Artis, a 30-lb., 2-year-old son of King of the Pontiacs, topped the sale at $2,700, the highest price ever paid for an animal at any Waukesha County Holstein Sale. The fact that he was a son of King of the Pontiacs and from a 30.43-lb. daughter of Artis DeKol Walker, was in itself enough to interest men on the lookout for a herd sire, and when such breeding was combined with splendid individuality, his sale at a good figure was assured. The bull was consigned by Mr. George Schuster and purchased by John Winkler and Fred Weifenbach, Wisconsin.

Another of the good bulls of the sale was Carnation Prince Elba, a 10-month-old calf consigned by the Carnation Stock Farm. He was a 31.35-lb. son of Beauty Pietertje Prince and was, moreover, an exceptionally good individual. He was purchased by the Norris Farm Camp, Wisconsin.

Pabst Korndyke Barnard, a 30.73-lb. son of Mr. Pabst's famous 38-lb. herd sire, Korndyke Segis Johanna, was the third of the high priced bulls in the sale. He was consigned by the Pabst Stock Farm and purchased by G. P. Hoesley, Wisconsin, for $1,450.

The highest priced female in the sale was a 5-year-old untested cow, a splendid individual, consigned by W. G. Wright and purchased by Robt. Winkler, Wisconsin, for $560.

Haeger, Mack, and Love did the selling with S. T. Wood in the box. W. L. Baird, Secretary of the Association, managed the sale.

Following is a complete list of all animals selling for $200 of more, prices, and buyers of the same:

Sommers Canning Co., Minnesota	
Ashburn Segis Canary Maid	$275
Brookline Johanna McKinley Beets	425
Flossy Ormsby of Sunny Brook	425
Colantha Johanna of Elmcourt	325
Ollie Peterson, Wisconsin	
Ashburn Segis Ormsby Aaggie	$200
Johanna Buckeye Queen	310
Elm Court Johanna Zipsy	315
David F. Evans, Wisconsin	
Ashburn Pontiac Ormsby Pearl	$260
Martin Holcomb, Wisconsin	
Ashburn Dora Hengerveld Ormsby	$230
Frank A. Lund, Wisconsin	
Ashburn Hengerveld Queen	$350
W. E. Bussewitz, Wisconsin	
Ashburn Dora Aaggie Ormsby	$500
J. V. Bopp, Wisconsin	
Ashburn Pontiac Ormsby Agnes	$240
Beta Hengerveld Colantha	405
Bonair Babe Ormsby	230
DeFreule Englewood Van Beers	315
Beauty Pietertje Lady Errant	235
Colantha Segis Constance	490
G. P. Hoesley, Wisconsin	
Pabst Korndyke Barnard	$1,450
Burke Bros., Wisconsin	
No. 12	$450
D. M. Hildebrand, Nebraska	
Beauty Pietertje Mamie Segis	$420
Goldie Cornucopia Hengerveld	435
G. E. Vincent, Wisconsin	
Carnation Segis Beauty	$400
P. Vander Ploeg and A. Asengo, Wisconsin	
Carnation Korndyke Ormsby	$335
John Winkler, Wisconsin	
Rosaline Ormsby	$250
Swartz White Head	205
Siempje Burke	510
Johanna Grace DeColantha	350
Madison Gladys 2d	300
Barbetta Hengerveld Segis	300
Bonair Beechwood Ormsby 3rd	400
Bonair Jessie Ormsby	265
Nellie Victor Idlewild 4th	305
Glenwood Jewel Pontiac	225
Kate Spray Johanna 4th	380
No. 32	200
Pasma Ormsby Pietertje	350
Prairie Glen Stock Farm, Illinois	
Lady Johanna McKinley Beets	$260
Flossmor Canary Aaggie 2d	325
Norris Farm Camp, Wisconsin	
Carnation Prince Elba	$1,600
Ira Gettleman, Wisconsin	
Beauty Pietertje Ormsby Wartena	$300
John Spitzer & Son, Wisconsin	
Jessie Homestead Mercedes	$265
Piebe Parthenea Ormsby	245
F. F. Poe, Wisconsin	
Segis Daisy Faliesin	$200
Baird Bros., Wisconsin	
Jessie Mutual Fobes	$200
Willard Porter, Wisconsin	
Elm Court Pontiac Ormsby	205
J. B. Harten, Wisconsin	
Prince Cana Pietertje Mason	$210
Wm. Koester, Wisconsin	
Princess Eva Pearl	$250
John Winkler and Fred Weifenbach, Wisconsin	
King Pontiac Boone Artis	$2,700
Roy Henderson, Wisconsin	
Johanna De Pauline Skylark	$240
Colantha De Paul 3d	215
Mrs. Anna Reiss & Sons, Wisconsin	
May Dinkje Van Beers	$300
DeFreule Pearl of the Dairy Joe	225
Millrant Bros., Wisconsin	
Bertie Piebe DeKol 2d	$280
Canary Homestead Cornucopia	315
H. K. Vose, Illinois	
De Freule Aaggie Cornucopia	$260
H. E. Dickinson, Wisconsin	
Pearl De Kol Piebe	$535
Howard Johanna De Kol Piebe	460
Taylor & Northey, Wisconsin	
Glenwood Texal Segis	$350
Dusky Fobes Ormsby	285
Bonair Pontiac Ormsby	245
George F. Comings, Wisconsin	
Bairdland Sir Creamelle Pershing	$275
George McDowell & Sons, Wisconsin	
Bairdland Sir Creamelle Champion	$250
Stewart Bros., Wisconsin	
Bairdland Hengerveld Walker	$335
M. C. Kronemann, Minnesota	
Bairdland Pontiac Polkadot	$540
Wm. Basting, Wisconsin	
Western Princess Daisy 4th	$280
A. G. Koch, Wisconsin	
Bonair Springvale Pet Ormsby	$290
Albert Steinke, Wisconsin	
Bonair Heinse Ormsby 2d	$350
Francis Hood, Wisconsin	
Bonair Martha Ormsby	$310
F. A. Buth, Wisconsin	
Diana Hengerveld Segis	$305
Minnie Duchess Skylark Ormsby	340
Robert Winkler, Wisconsin	
Christina Segis Hengerveld	$275
Christina Hengerveld Segis	300
Daisy Johanna Skylark Ormsby	625
Mutual Ormsby	560
Johanna Longfield Friend	300
R. W. Reed, Wisconsin	
Bessie DeKol Sarcastic	$300
Dr. E. W. Maechtle, Wisconsin	
Aaggie of Maple Lane 2d	$360
Miss Johanna Pledge 2d	410
Canary Homestead Cornucopia	315
Henry Paul, Wisconsin	
Nockdair King Superba Violet	$260
Dibble & Hall, Wisconsin	
Nockdair King Superba Midland	$340
Paul W. Gerritt, Wisconsin	
Madrigal Johanna Aaggie 2d	$200

Whipping Twenty Per Cent Cream

The new order of the United State Food Administrator limiting the richness of cream to 20% butterfa makes it necessary for our wome folks to revise some of their method of whipping cream.

Whether or not cream needs to b whipped is not the question which wish to discuss, but assuming tha many households and possibly restau rants and hotels may wish to us whipped cream, a few suggestions i regard to whipping cream testin 20% butterfat may be helpful.

It has been taught, and the teach ing has been founded on practical r sults, that there are at least thre factors that are important in whi ping cream. These are the richnes the age, and the temperature of t cream. A fourth point has in rece years contributed to the successf whipping of cream and this point h reduced somewhat the importance the other three. The fourth point an improvement in the applianc used for whipping cream.

The old fashioned wire globe whi ping device which was revolv around a vertical shaft by means of support which is held by one ha while the other is used to turn t crank, has been greatly improved.

Some of these new successful ute sils resemble a small turbine wat wheel and others are simply a f piece of tin punched full of ho which is revolved rapidly in a shall dish in which the cream is whipped.

By using these modern cream wh pers, I have today made some tri with whipping cream containing 2 fat. This cream was pasteurized holding it at a temperature of 150 for twenty minutes and then coo and then placed in cans which w set in a tank containing water 50°F. After this cream had stood this temperature of 50°F. for twe hours a portion of it was whipped four minutes by using one of modern cream whipping applian

Another trial with the same cre was made by warming it up to 70 and then whipping it. In this c the cream churned instead whipped. Churning was also noti when a cream testing 23% warmed up to 70°F. and t whipped.

This cream testing 20% was t held at 50°F. for a further perio 24 hours and whipped. The re obtained was a little more satis tory than that whipped after cream was only 20 hours old. A t portion of the same cream was another 24 hours, making it 68 h old after pasteurizing, and this 2 cream whipped in an entirely s factory way.

These trials demonstrated what been observed many times, that necessary to cool the cream as as the dish and the cream-whip appliance a sufficiently long tim an ice box or cold water to brin three of these adjuncts to the cr whipping process to a temperatu 50°F. or lower. By careful atte to these points it is possible to cream testing 20% fat even thou is only 24 hours old. The cream tained, however, is not quite so s factory as that made by whip 20% cream which is 48 to 60 h old.

The age of the cream helps in ing it whip provided the ageing i tained by holding it at a tempera of 50°F or lower.

E. H. FARRINGT
Wisconsin College of Agricultu

The National Commission on Standards will hold a meeting in cago on December 8th, the day ceding the meeting of the Ame Public Health Association.



Save time when feeding

MORE MILK THE JAMES WAY

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Mor-Milk
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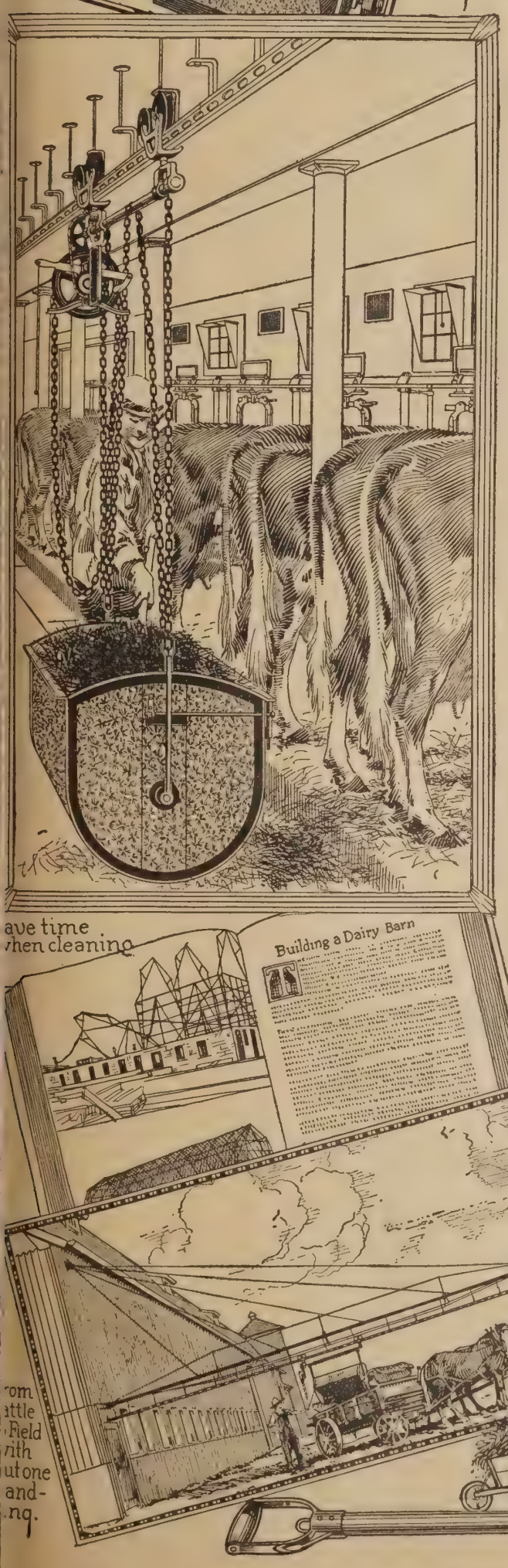
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Save time on watering cows Do away with tank heater bother

$20.00 Extra Per Cow

A recent investigation in 25 herds where milk records are kept disclosed the fact that James Drinking Cups increased the milk yield an average of 2½ lbs. per cow per day; saved $2.50 on labor and 49c on fuel per cow each winter—a total increased profit of more than $20 per cow during the winter. The drinking cup outfits cost less than $5.00 per cow on the average, showing a profit of 400%.



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—James Equipment—
Saves Barn Work

James MOR-MILK labor saving Barn Equipment makes the barn work easy. The light running James Carriers make chore time almost playtime, turning the disagreeable task that heretofore has been shirked by all the help, into a job that boys enjoy.

James Carriers pay a profit of 25 per cent or more a year.

James Scrapers make quick work of cleaning up cement floors; the James Stanchions keep the stalls clean, by lining up the cows at the rear, so that manure falls in the gutter and not on the standing platform; and the James Swinging Sure-stop saves time and trouble. The James Feed Truck or Feed Carrier saves much walking to and from feed rooms,—makes unnecessary the lifting of heavy baskets of feed.

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not only save time—cows have fresh water before them day and night—but they do away with the nuisance of tending bothersome tank heaters in blizzardy weather; save fuel expense; and make more milk.

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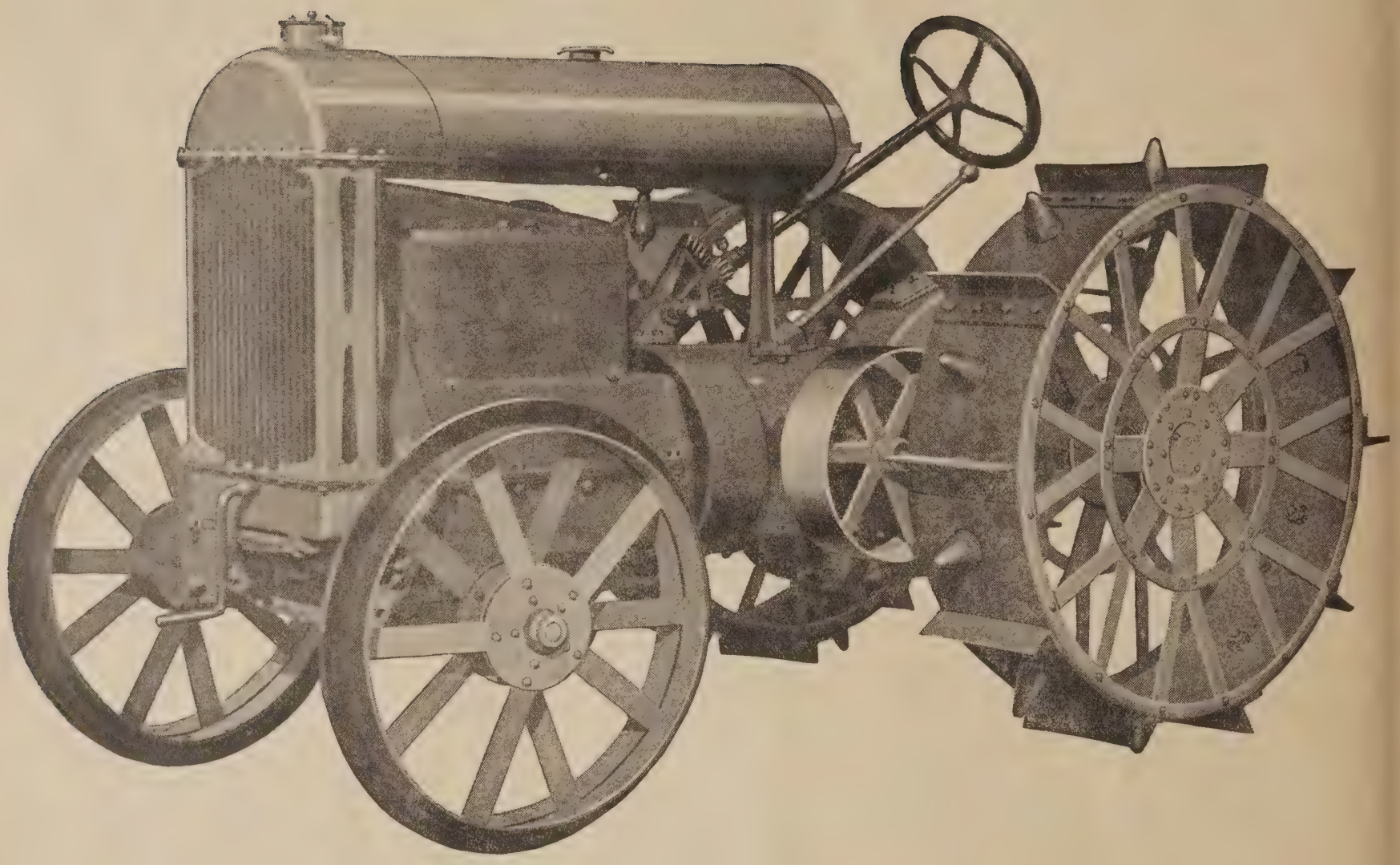
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Complete with Automatic Control and Power Take-Off

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THE SAMSON *(Model M)* **is a powerful, rugged TRACTOR, capable of pulling two 14 inch plows at all times—three 14 inch plows under favorable conditions.**

THE SAMSON *(Model M)* **is the most tractor for the money in the world.**

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THE SAMSON TRACTOR COMPANY is a division of General Motors Corporation, manufacturers of the Buick, Cadillac, Chevrolet, Oldsmobile and Oakland motor cars—all quality products.

THE SAMSON *(Model M)* **is a *quality* tractor.**

If interested write for descriptive circular and method of allotment and distribution.

PANY, Janesville, Wisconsin

Walworth County Holstein Sale

For the past year or two, Walworth Co., Wisconsin, breeders have held their consignment sales under canvas and an uncomfortable time the buyers had of it if the weather was bad, as it often was. This year, however, they succeeded in getting the management of their county fair to build a good judging pavilion which would at the same time serve as a sale pavilion and on Nov. 7 the first sale was held in the new building.

Eighty-four animals were sold for $13,785, an average of $164 with $370 the top price. The prices generally were low, which while it was both a disappointment and a loss to the consignors, was an excellent advertisement for the sale, since certainly every buyer should be a satisfied one.

Mack, Beaumont, and Wiswell did the selling with J. G. Voss, sale manager, in the box.

Following is a list of animals selling for $100 or more, prices, and buyers:

A. M. Schmidt, Illinois	
Kayewood Master Pontiac	$260
April Lady Fayne	215
Johanna Leland Girl	200
John M. Schmitt, Illinois	
Liand Colanthus	$210
Lady Rag Apple 2d	220
S. A. Hunt, Wisconsin	
Rollingdale Alcartra Boy	$250
W. E. Dane, Wisconsin	
Kayewood Princess Johanna	$350
Sommers Canning Co., Minnesota	
Kayewood Dora Johanna	$275
A. W. P. Pearl Perfection 2d	$335
John Voss, Wisconsin	
Canary Ormsby Mercedes 2d	$165
L. H. Gapen, Wisconsin	
Pinehurst Clothilde	$325
Superba Johanna Buckeye	200
Piebe Gem DeKol Beets 2d	215
Princess Johanna Walker Prilly	140
Rollingdale Model Homestead	160
Rollingdale Model Canary Ward	160
Ray Beers, Wisconsin	
K. S. P. Pearl	$340
Oak Lodge Walker Alma	370
No. 55	160
A. D. Cormic, Illinois	
Rollingdale Pontiac Beets	$190
Theo. Schindelmeier, Illinois	
Forisy Pietertje Johanna DeKol	$200
Minta Pearl DeKol	210
No. 46	105
W. H. Hill, Wisconsin	
Aaggie Mercedes Model Pearl	$255
Lady Jessie Gem Inka	225
Ellsdale Sarcastic Beauty	220
Hattie Carlotta Pontiac Artis	100
Minta Bessie DeKol	245
W. E. Gilbert, Wisconsin	
Rollingdale Johanna Beauty	$200
George P. Peck, Wisconsin	
Model Canary DeKol	$200
Happy Home Edith Ormsby 3d	145
J. S. Crites, Wisconsin	
Model Rose Johanna	$185
Edith Gem Beets 2d	145
J. H. Steffen, Wisconsin	
Miss Johanna Pet Pontiac	$140
Fred M. Turner, Illinois	
Happy Home Mildred Korndyke 2d	$200
F. A. Swoboda, Wisconsin	
Jessie Burke Ormsby	$100
No. 25	145
Robert Minshall, Wisconsin	
Hattie Korndyke Pontiac DeKol	$110
Lake View Walker Fobes	165
Ellsdale Beauty DeKol	215
Clifford Wiswell, Wisconsin	
Daisy Mercedes Abbekerk DeKol 2d	$125
Dawson & Dryer, Wisconsin	
Daisy Korndyke Abberkerk DeKol	$105
N. Dickinson & Son, Wisconsin	
Happy Home Gem Beets 2d	$100
R. J. Weter, Wisconsin	
Happy Home Edith Ormsby 2d	$220
Happy Home Johanna 2d	135
No. 63	115
Will Dopke, Wisconsin	
No. 38	$120
F. Earle Palmer, Wisconsin	
Ellsdale Colantha	$245
Beechwood Piebe Mechthilde DeKol 3d	280
Burton Fairchild, Wisconsin	
DeKol Spring Brook	$190
Homestafa Beauty Belle Walker	150
George L. Hemingway, Wisconsin	
Elva Fobes Mutual DeKol	$190
John A. Miller, Wisconsin	
Homstafa Inka Pietertje	$225
No. 69	210
Wm. Dowse, Wisconsin	
No. 51	$210
W. A. Woodrich, Illinois	
No. 56	$200
Paul Henning, Illinois	
Sir Korndyke Dahlman DeKol	$205
C. Randolph, Wisconsin	
Ensign Korndyke Pet DeKol	$145
Alex Buchanen, Wisconsin	
Lady Rag Apple	$240
J. E. Krause, Wisconsin	
Sir Mercedes Hengerveld Segis 31st	$240
Jas. P. Torrey, Wisconsin	
Colantha Ormsby Johanna	$150
Dodge County Insane Asylum, Wisconsin	
Aaggie Johanna Mercedes	$125
E. E. Potter, Wisconsin	
Rollingdale Homestead Battels	$120
Ganz Bros., Illinois	
Sir Longfield Johanna Lad	$190

VETERINARY

Advice is given free in this department. Inquires must be signed by the writer, and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Depraved Appetite

I have sixteen head of cattle and the most of them chew sticks and bones or any kind of rubbish and there seems to be something they want that they are not getting. They have had all the salt they want and have been out on good pasture. They have clover pasture and will go right out of the clover and look around for something else and are losing flesh. They have been grained with barley and oats.

Mayville, Mich. R. W.

Feed oats and wheat bran and twice daily add one ounce of bicarbonate of soda. The cows crave some ingredient lacking in this feed. The above treatment often proves remedial. If it does not in these cases, mix bonemeal or precipitated phosphate of lime in the feed, starting with two teaspoonfuls daily twice and increasing the amount if found necessary.

Disinfectant—Barrenness

Would like your advice on following questions: What is the best disinfectant to be used for irrigating herd sire before and after service; also the best instrument to be used? What is the best treatment for barren cows?

Fort Smith, Ark. W. F. W.

It is common to use a one per cent solution of coal tar disinfectant, or similar solution of hypochlorite of soda, or a quarter per cent solution for the cleansing and disinfecting of the sheath and penis of the bull. A fountain springe and hard rubber nozzle serve for the purpose.

There is no certain remedy for barrenness as the causes are many and different, but it always is well to have a trained veterinarian massage the ovaries, by way of the rectum, two or three times at intervals of a week and he should also open the mouth of the womb if abnormally closed, or treat the womb if pus or mummified fetus is present.

Abnormal Milk

Please tell me why a cow appearing in good health should give milk that tastes salty. After the milk sets for a while it appears to be kind of watery and chalky. She has been tested for tuberculosis and found all right.

Stevensville, Mont. F. M.

Let a sample of milk from each quarter into a separate vessel to determine whether the abnormal milk is given by one quarter or all of them. Garget would be a likely cause, but sometimes such conditions in milk are not blamable to the cow but to bacteria in milk utensils that are imperfectly sterilized or to impure washing water, or to dust in the setting place. Write again if the trouble persists after you have more perfectly sterilized the utensils. If garget is present, treat according to directions often given here.

DAIRY MARKETS

CHICAGO, Nov. 21—Butter—Creamery, extras, 63@63½c; standards, 60¼@60½c; dairy, firsts, 60@62½c; seconds, 64@66½c.

Eggs—Ordinary, 54@58c; firsts, 63@64½c.

Cheese—Twins, 34@34½c; Young Americas, 36½@36¾c.

MILWAUKEE, Wis., Nov. 21—Butter—Creamery, tubs, 60½c; prints, 61c; extra firsts, 59c; firsts, 52c; dairy, fancy, 50c; poor, 22@23c.

Eggs—Current receipts, returned, 58@59c; cases, new included, 57@58c; ordinary current receipts, 47@50c; dirties, 32@35c; checks, 29@31c; April, recandled, 44½@45c.

Cheese—Twins, 34c; Daisies, 35¼c; Longhorns, 36c; fancy Brick, 33c; Limburger, new, 1 lb., 28c; Limburger, new, 2 lbs., 27c.

NEW YORK, Nov. 21—Cheese—Firm; state milk, common to specials, 26@36c; skims, common to specials, 10@26c.

Butter—Firm; receipts, 6,024 lbs.; creamery, extras, 64½c; state dairy, tubs, 42@43½c; imitation creamery, prints, 44@45c.

Eggs—Steady; receipts, 10,993 cases; nearby white fancy, 88@92c; nearby mixed fancy, 62@72c; fresh firsts, 64@72c.

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

Are You a Progressive, Humane, Twentieth Century Dairyman?

If so, you are not satisfied to have your cows suffering the discomforts of concrete to stand or to lie on. The bedding is wet part of the time and the concrete causes swollen knees, diseased hoofs, loss of quarters and generally saps the vitality of the animal.

You can avoid and overcome these losses of vitality by installing the *Standard Open Work Stable Floor* which is sanitary, comfortable, adjustable to length of animal and can be installed at a moderate cost. Write for particulars to the *Standard Open Work Stable Floor Co., Niles, O.*

(TESTIMONIAL)

The Standard Open Work Stable Floor Co., Niles, Ohio: This is to advise we are well pleased with the Standard Open Work Floor which is installed in our barn. It has cut down the amount of bedding required by 50% since the cows do not lie on concrete at all and are always clean, dry and comfortable.

We have some yearling heifers standing on these floors which have been adjusted to their lengths by removing a few blocks and they keep as clean as the cows. Anyone who has tried it knows how disagreeably dirty a young animal becomes when put in an ordinary cow stall.

Signed, BROWNWOOD FARMS, N. Bloomfield, Ohio.

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Edgar D. Rose Farm Agency, Trust Bldg., Binghamton, N.Y.

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Our purchase of the entire milking herd of Willowmoor Farm, Redmond, Wash., is the major event of this decade in Ayrshire history.

This is a herd of show individuals backed by the world's greatest consistent production; a herd that has bred more world's record cows than any other and which now holds more world's records than any other. It is the greatest collection of record production Ayrshire cows in the world today.

In offering Ayrshires of all ages from this herd, we divide our wonderful heritage with you. If you want the best, write today

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Martinsville, Ind. Preston, Kans. Axial, Colo.

Address all correspondence to the General Offices, 100 So. Michigan Ave., Chicago.

Why Not Buy Colantha Aaggie Perfection

whose dam produced 13.8 fat in seven days and 450 pounds butter in ten months, for your herd sire? Write for price and pedigree.

J. DIEDRICH, - SUMNER, IOWA.

ONE REGISTERED Brown Swiss Bull FOR SALE

Large bone, straight back and good color. An all-round No. 1 calf. Seven months old. Price $125.00. **J. F. Bundy & Son, Lyons, Nebraska.**

FOR SALE

Special Imported Young Guernsey Cows. Advanced Registry Dams. Few choice bulls. State Accredited Herd.

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HANDY SHIPPERT MILKER

Hand Power or Engine Power

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The Shippert is the only milker with the Valv Milk Chamber (no leaks—no loss—flowing m ways in sight). **It is also the only** milker (exce pipe line machines costing vastly more and req twice the H. P.) that **gives the cows teats a plete** rest when the milk is not actually flowin

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This book is an **education** on milking machine shows you how to save time and money—h choose exactly the right model for your par needs! WRITE TODAY! ADDRESS:

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. . . STATEMENT OF . . .

The Ownership, Management, Circulatio required by the Act of Congress of Aug.

—OF—

Hoard's Dairym

Published weekly at Fort Atkinson, for October 1, 1918.

State of Wisconsin, County of Jeffers

Before me, a Notary Public in and State and county aforesaid, personal peared Frank W. Hoard, who, having be sworn according to law, deposes and sa he is the business manager of the Dairyman and that the following is, best of his knowledge and belief, a true ment of the ownership, management, the aforesaid publication for the date in the above caption, required by the August 24, 1912, embodied in sectio Postal Laws and Regulations, printed reverse of this form to wit:

1. That the names and addresses of t lisher, editor, managing editor, and b managers are:

Publisher W. D. Hoard & S Fort Atkinson, Wis.

Editor W. D. Ft. Atkinson, Wis.

Managing Editor A. J. Fort Atkinson, Wis.

Business Manager F. W. Fort Atkinson, Wis.

2. That the owners are: W. D. H Sons Co., Fort Atkinson, Wis.; W. D. Fort Atkinson, Wis.; A. R. Hoard, F kinson, Wis.; H. L. Hoard, Fort At Wis.; F. W. Hoard, Fort Atkinson, Wis.

3. That the known bondholders, mort and other security holders owning or 1 per cent or more of total amount of mortgages, or other securities are: No

4. That the two paragraphs next abo ing the names of the owners, stockh and security holders, if any, contain n the list of stockholders and security hol they appear upon the books of the c but also, in cases where the stockholder curity holder appears upon the books company as trustee or in any other fi relation, the name of the person or c tion for whom such trustee is acting, is also that the said two paragraphs statements embracing affiant's full kn and belief as to the circumstances and tions under which stockholders and holders who do not appear upon the b the company as trustees, hold stock curities in a capacity other than tha bona fide owner; and this affiant has son to believe that any other person, tion, or corporation has any interest di indirect in the said stock, bonds, or ot curities than as so stated by him.

Signed, Frank W. Hoard, Business M

Sworn to and subscribed before n 20th day of November, 1918.

[SEAL] Signed S. R. Jones, Notary P (My commission expires Aug.



Cloverlawn Johanna Pi

His five nearest dams average 1,070 lbs. of b 23,809 lbs. of milk a year. Highest yearly recor of the world 2 years old or over. Choice young from our large yearly record cows for sale. 125 29 yearly record cows. State exactly what you

JOHN PULS, - HARTFORD, WISCO



When Joseph Was Down In Eqypt

—he interpreted Pharaoh's dream and was made ruler over all the lands. Then, with unparalleled foresight, he began to fortify the country against the long famine he knew was sure to come.

You know the story—how he gathered up all the food in the seven plenteous years and how "all countries came into Egypt to Joseph for to buy corn."

But you have the advantage over Joseph. There were no silos in his day. He could store *only the grain*, but you—with a modern, up-to-date Kalamazoo Silo—can store the *complete* corn plant. Also oats, peas, pea-cannery waste, soy beans, clover (if mixed with corn) and sugar beet tops—thereby insuring a perpetual, year 'round pasture of sweet, succulent, palatable feed for your stock.

Kalamazoo

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"THE WORLD'S STANDARD"

are the result of over twenty-eight years study and experience in silo construction. They are absolutely right in design, material and workmanship, and will keep silage in *perfect* condition indefinitely.

Glazed Tile Silos

Made of such lasting materials that they truly can be said to last forever—without paint or repairs. The blocks are of special hollow-type design and are absolutely fire-proof, frost-proof, storm-proof, moisture-proof, decay-proof, acid-proof, and vermin-proof.

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Quickly and easily erected. Shipped ready to be set up. Have simple, safe anchor system, continuous doors, galvanized steel door frames and many other *exclusive* Kalamazoo features.

Your choice of four famous time-defying woods.

Get Posted—NOW

The time to investigate the silo proposition is *before* you purchase. You can't afford to take chances with your silo money, so write today for our illustrated, descriptive catalog and price list. We offer *special inducements to early buyers* and *easy terms* for those who prefer to pay for the silo out of the profit it earns.

DEALERS—We want responsible representatives in every locality. Write for our special proposition to dealers and full particulars of our plan that actually gets the business.

KALAMAZOO TANK & SILO CO.
Dept. 233 Kalamazoo, Mich.

1818

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Two Common Fur Bearers

The Muskrat

One of the very commonest of fur bearing animals in this country is the muskrat, and if you do any trapping at all this winter, as many of you will, the muskrat is almost certain to be one of the animals you try for. They are found in almost all sections of our country as well as in southern Canada, and are especially numerous in the marshes of some of the Atlantic coast states.

The muskrat is a small animal, 13 to 16 inches from the tip of its nose to the base of its tail, with brown fur that shades into a gray, ashy color underneath. Although sometimes seen in the day time it is a nocturnal animal. Its food consists chiefly of grass, roots, grain, and vegetables with an occasional clam, particularly when other food is scarce, As a rule, you will find them living along sluggish streams and on marshy ponds where there is plenty of grass and flags, the roots of which form one of their chief foods.



CANADIAN PATTERN STRETCHING BOARDS—(From Science of Trapping Published by A. R. Harding, St. Louis.)

All of you have seen their dome shaped homes made of reeds and rushes held together with mud. The entrances to these dwellings are at the bottom, under water. In one, often live eight or ten muskrats. You can very often see dozens of these houses in a single marsh, but you seldom see one along a stream. The muskrats there live in holes in the banks, their entrances being under water.

As mentioned elsewhere, muskrat fur is not at its best until midwinter although those furs taken during the fall and early spring are salable, and if there is a small stream near your home, you may want to start your trapping at once. One of the most common ways of trapping these bank rats is to find their slides along the bank and set a trap at the foot of the slide, two or three inches under water. For this purpose and in fact for all your trapping of muskrats, minks, or skunks, No. 1 or 1½ steel traps will prove very satisfactory. These traps set under water need not be covered.

Still another good way is to find their holes in the bank and set a trap in the entrance, staking or fastening it in deep water.

In all of your trapping for muskrats, set the stake the full length of the trap chain out into deep water so the animal will drown, otherwise it is very likely to twist off the foot and escape.

In his book on the "Science of Trapping", E. Kreps gives the following method for trapping rats in a pond or slough where there are a large number of them: "Get a board about 12 inches wide and sixteen feet long and nail strips across it, arranging them in pairs just far enough apart to let a trap set between. A board of this size will hold six or eight traps. The traps may be stapled to the edge of the board and some small pieces of bait scattered the entire length. The traps should be covered with dirt or dead grass. Attach a rope to one end of the board and anchor it in the water where the muskrats are sure to find it."

So far we haven't mentioned trapping around the houses in the winter. One way of doing this is to cut a hole in the side of the house and set the trap inside, closing the hole again to prevent the regular entrance from freezing.

Corn, sweet apples, carrots, or parsnips make good muskrat bait.

The Skunk

There's another and very common fur bearing animal that you can profitably trap. There is an excellent demand for skunk skins these days, the market price for them is good, and the actual trapping of them need not prove unpleasant if you are fairly careful.

A good many of you have had more or less experience in trapping skunks and know that about the best way to catch them is to set a trap at the mouth of their den, no bait being necessary. Set the trap just inside the entrance with the jaws set lengthwise of the hole. You do not need to be very careful about covering the trap, and as we just said bait is not necessary. However, it is not at all a bad idea to put a small piece of tainted meat just inside the den entrance. If you don't find a den, dig a hole under an old stump, put a bait inside, and set your trap directly in front, covered with loose dirt.

So much for the actual trapping. The next thing is taking care of him after he is caught. This is a job that most of us do not fancy although, if properly done, it need not prove so very unpleasant.

When your trap is staked, approach it slowly, carrying a good, strong, 6 foot club ready to strike. Advance slowly avoiding any sudden movements. If the skunk starts to raise its tail as if to throw its scent, stand still until it drops it again, then continue to walk slowly towards it until within striking distance. A quick, hard, blow to break its back will finish things nicely. Another good way to kill a trapped skunk is to shoot it in the middle of the back with a 22 rifle.

If the fur of the skunk does become scented Kreps advises smoking it to remove the disagreeable odor. He suggests building a small brush fire and throwing on an armful of evergreen boughs to make a dense smoke. If you hold the animal in the smoke for about five minutes, being careful not to singe its hair, most of the undesirable scent will be gone.

Handling Furs

You haven't finished your job after you have caught an animal. In fact, the actual work has only just begun. The trapping part is, for the average fe"ow, good fun; handling the fur is more like work. It is, however, very necessary that you do this work well, else you might better never have started trapping at all. A good fur badly removed and poorly dried or cured is worth less on the market than a poorer fur, well handled.

In this connection we cannot give you better directions than to quote from Mr. Kreps' book which we have previously referred to:

"There are two ways of skinning fur-bearing animals, namely, 'casing' and skinning 'open'. The weasel, mink, marten, fisher, fox, opossum, muskrat, civet, skunk, and wild cat should be cased.

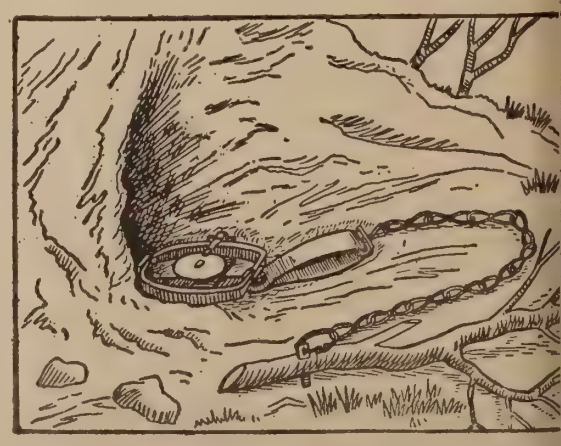
"To remove a skin by this plan, cut it loose around the feet and rip down the back of the hind legs, to and around the vent. Peel the skin carefully from the hind legs and skin the tail by slipping a split stick over the bone, when by gripping the stick with the right hand with the bone of the tail between the second and third fingers and holding the animal with the left hand, the skin may be stripped off easily. Draw the skin downward from the body keeping it as clean of flesh and fat as possible. To facilitate this process the animal may be suspended from the limb of a tree or other projection by looping a strong cord around the hind legs after they have been skinned. The skin should be drawn from the front legs and when the ears are reached they should be cut off, cutting downward toward the head. The skin should be cut loose around the eyes and nose and it will then be in the form of a long pocket, fur side in."

In the case of the muskrat, of course, the tail need not be skinned.

After the skin is removed clean it of all burs, mud, or blood. The next thing is to flesh it, that is, remove the flesh and fat that may have been left on the inside after skinning. For this purpose have a tapering board with the edges smooth and slightly rounded. Draw the skin over it, flesh side out, and scrape the flesh and fat off with a blunt instrument such as a hatchet. Be very careful not to damage the skin in any way in doing this.

The next thing is to stretch the fur. For this purpose you need stretching boards similar to those shown in the illustration. These particular ones are the Canadian pattern and most of them you will note are in three pieces. Some trappers use one piece boards similar to that one for muskrats. Use some soft wood to make yours. The lumber from an old dry-goods box will do very well, but whatever you use, be sure to plane it smooth. For mink make the boards 2 to 3 feet long and 3 to 4½ inches wide; for skunk let the board be about 6 inches wide at the shoulder and 7 inches at the base, and about 30 inches long. For muskrat make them about 2 feet long, 5 to 6 inches wide at the base, and about 4½ inches wide at the shoulder.

Stretch the skin flesh side out as soon as they are fleshed. Let them dry in a cool, airy place, and as soon as dry enough to prevent wrinkling or stretching, take them down.


TRAP SET IN CORRECT POSITION AT ENTRANCE DEN, JAWS LENGTHWISE.—(From Science of Trappi A. R. Harding, St. Louis, Publisher.)

The next thing, and a very im tant one, is to sell them. Write to or more large fur houses and t will not only quote you prices, but request will, no doubt, give you di tions as to how to pack your furs shipment.

When to trap

Just when should you begin y trapping? First of all that depe upon the trapping laws of your state, a copy of which you can ea get from your state capitol. The r consideration is the condition of fur. Don't start too early in the son when the fur is not of good n ketable quality. It simply mean waste for which there is no exc

Skunk furs are prime in the no ern states toward the end of Octo farther south, toward the end of vember. They depreciate about middle of March.

Mink is best during November the end of January in the north in December and January in south. During February the fur gins to depreciate.

Muskrat is fair in the fall w trapping is the easiest. The best however, is taken in the period f midwinter to March. A good co tion may be expected in the north to about June first and to April in the south, but in some states least, game laws prohibit trapp so late in the season.

Opossum in the north becomes p toward the middle of November remains good until March. In south it is at its best from Decem to February.

If you are after raccoon in north states, you will find the fur p about November first and in the s a little later.

Fox is usually prime in north territory from the first of Noven until the middle of March. For south the latter part of Novembe the middle of March brings the furs.

Make Your Fun Pay a Pro

All summer you were busy e helping your father or with own work,—in most cases both. this season and until next spr school will claim a good deal of time and in addition, of co chores always have to be done m ing and evening. But even most fellows can find time for a l fun.

Now, for a good many of you t is a way to make your good time you a profit. Almost every fe

s to trap and practically every or dairyman has had some expece along that line. Last winter e a number of juniors made their s earn at least part of their ding money and some did even er than that.

ne nice thing about trapping is you don't need to spend much ey in getting started. A few good s, some stretching frames, and a wledge of fur bearing animals how to handle furs will start you very nicely. The first, if you do already have them, can be purased from the nearest hardware e for from 25 or 30 cents to 75 s each; the second you can buy or e yourself; and the third you can ly get by doing some interesting ling and by using your eyes.

loreover, in practically every lo- ty you will find some animals se fur is marketable at a good e, a particularly good one this son when all kinds of furs are ing high. Those who have done e trapping before will no doubt be again this winter and if you never e tried it, do so, and you may be prised at the good results you e.

Junior Letters

oard's Dairyman Juniors:—I have been busy and neglected to write to you for a time. We are now filling silo. We had 40 s of corn and will have a good deal left from the silo. I go to school most of the but the schools are closed on account of Spanish Influenza. I am in the third year school now.

e had about 60 acres of grain and have two settings yet to thresh and have shed one setting. We have about 150 head attle. My heifer and calf are doing nicely. e have 78 pigs and we will sell them in t a month. We will butcher 6 or 8 of them I think we will kill a beef.

isconsin. Hayden Simmons.

oard's Dairyman Juniors:—I received your r some time ago. Our high school started it 4 weeks ago. I like to go to high school well. This week we have no school be- e the grippe has attacked a great many le in Monroe. I hope I can go to school n next week. I take up four studies now: bra, English, Civic Biology, and Domestic nce.

ast week we filled our silo the last time. brother, our friend, and I were in the silo afternoon and it certainly kept us busy. ay we filled a silo for our neighbor. Our filler works fine, so does the tractor. er is very busy every day. We have nearll our corn cut. It is very dry around here. haven't had a good rain for the last 2 ths; it rained about 30 minutes here to-

ur cows have had nothing to eat in the ure for a long time. We have been feeding or less all summer; we are now feeding fa hay and silage.

e will soon have the electric lights ready use. The house is wired and most of the tres put in place, but the plant is not here I can hardly wait until it comes. We going to have it in the barn, house, horse , granary, and silo.

e have a cow that has freshened the sectime and does not give more milk than of the heifers. She is fleshy and in the ning is sometimes bloated to a small ex- and she doesn't get any more feed than of the other cows. Papa is planning to or butcher her. If our yearlings turn out we will have plenty of cows without her.

isconsin. Emma Haef.

oard's Dairyman Juniors:—I have not ten to you since last spring. I milk a cow y night and morning. We now have ten , 6 heifers, and 1 bull. My brother and I a pure-bred heifer which my father gave We have not dug our potatoes yet or cut corn. We had about 35 tons of hay this about 15 tons less than last year. Our are doing fine. We feed them 7 quarts of feed meal a day. I am going to trap for ks next month. I read the junior page y week and think it great.

assachusetts. Frank Joslin.

oard's Dairyman Juniors—We have got 32 pigs. The first litter is learning to eat We feed them separated milk with a pail round barley and oats. My heifer is fine in good condition. I sent an exhibit to the and got second prize on cabbage. It is dry out here but we are getting rain now. pe the pasture starts to grow again. We milking three cows now. They give 70 lbs. y.

ashington. Alfred Gastineoo.

oard's Dairyman Juniors:—My heifer is ing nice and big. She will have a calf in mber. My brother has a camera and he took a picture of it and me and I will send you one of them if it got all right.

We just finished sowing wheat; we put in about 40 acres.

I have a brother in the army. He has been in the army for 6 months and likes it all right. Well, I guess I will quit for this time, wishing the juniors good luck. If the juniors want to write to me my address is Barnett, Ill., R. R. 1. Arnold Fonke.

Hoard's Dairyman Juniors:—I received your letter some time ago but haven't had time to write until now. You ask what kind of pasture our pigs were running on. It has six different kinds of grass that father seeded last spring. My brother's name is Paul. Paul and I sold our pigs. We got 16c a pound for them. My pig brought $15.20 and Paul's pig brought $14.40. You ask if our colt is a driver. It is a saddler, trotter, and Percheron. It will be a good driver when it gets older. You also ask if Paul and I tested our corn. We tested all the corn that we planted on our farm. The drouth injured the corn very much here. In some places the corn burned up. Paul and I sold our corn for $11.25. I own one war saving stamp and am going to get one more. I am gathering walnuts, hickory nuts, and peach seeds for the Red Cross. The walnut trees around here are loaded with walnuts. I am going to buy a sheep with my pig money. I live on an 80-acre farm 1¼ miles from a brick school house. I am 10 years old and am in the sixth grade. The state superintendent shut down the schools on account of the influenza. Wishing the juniors good luck.

Missouri. Wayne Doughty.



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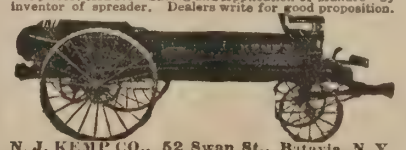
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STOCK FOR SALE

Registered Holsteins. Last spring we bought 3 heifers as foundation for a registered herd. Consisting of 1 3-year-old heifer now in milk and will be sold, guaranteed safe in calf to a 40-lb. bull. She is a fine individual. A February King Segis Pontiac heifer—a beauty—out of a 20-lb. 2-year-old dam. She would be a prize winner at the shows. An April heifer, best of breeding, growthy and the right type. These are the selections of an experienced breeder and are now offered account sale of farm and stock. For particulars address W. M. HARRIS, Prairie View, Ill.

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

Registered and high grade Holsteins. We have a very choice car of high grade springers four to seven years old at from $100 to $130. OAKGROVE FARMS, Oxford, Wis. 19-3

For Sale—High grade Holsteins, all ages. Choice springers a specialty. FRICK & HOESLY, New Glarus, Wis. 15-5

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Holstein springers—7 high grade heifers, coming three years old, to freshen soon. Send for photo. Price $100 each. Heifers at Lake Mills, Wis. Write ALBERT C. WOLLIN, Grove City, Pa. 16-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 16-tf

Holstein grades—Sixty for sale. The best young cows and big heifers could find. Fresh or due this fall. PAUL JOHNSON, South St. Paul, Minnesota. 16-4

For Sale—10 heifer calves and 4 young bulls. Sire a grandson of King Segis. Through their dams they trace directly to Woodcrest Pietje, Colantha 4th's Johanna, and King of the Butter Kings, a son of Pontiac Rag Apple,—three of the best animals the breed has produced. Write for pedigrees and prices. AUSTIN FARMS, Windsor, Vt. 17-4

High grade Holstein calves $13.50 each crated. MAPLE LANE FARM, Cassadaga, N. Y. 18-tf

Registered Holstein heifer calves, 4 to 6 weeks old, sired by King Hengerveld Model Fayne Bawn No. 196342, dam's record 732 lbs. milk in 7 days, 28.5 lbs. butter in 7 days. Dams are daughters of King Pontiac DeKol No. 49088 and other equally well bred sires. Price, registered and crated, F. O. B. Cleveland, Ohio, $75. Satisfaction guaranteed. JOSEPH F. SCHMIT, Route 3, Brooklyn Station, Cleveland, Ohio. 18-4

For Sale—Three weeks old high grade Holstein heifer calves, $20 crated. YOHN'S STOCK FARM, Watertown, Wis. 18-4

Holstein Bull Calf—Half brother to Grand Champion 1918 National Dairy Show. Reasonable price. ROHE BROTHERS, Osseo, Minnesota. 18-2

One February 24, 1916 Holstein bull for sale. Registered with better than 28 lbs. of butter in seven days on his mother's side and 31 lbs. on his father's side. Price $300. H. W. KELLER, Dallas Center, Ia. 18-4

For Sale—Nicely marked, serviceable, Holstein bull, $125.00. REDDELIEN, North Lake, Wis. 19-2

Herd Sire for Sale—Traces directly to Hengerveld DeKol through both sire and dam. His dam and sire's dam have records averaging 20.95 lbs. butter in 7 days, 866.65 lbs. in 1 year. His dam was highest yearly record cow in Missouri for several years. Bull is 7 years old. Guaranteed sound and right. Price $300. EASTERN ARKANSAS DEMONSTRATION FARM, Blackton, Ark.

For Sale—Holstein bull three months old, weight 300 pounds. Dam, 16.8, sire 29.3 butterfat. Price $85 until December 10, 1918. MARTEN OAKS FARM, Barrington, Ill.

For Sale—Registered Holstein bulls ready for service. Tuberculin tested. Our breeding. S. E. JONES, Watertown, Wis. 19-8

Registered Holsteins, two extra good bulls, 25- and 31-lb. dams, record bull calves. 14 bred heifers, 10 good cows. D. H. BRINKMAN, Sheldon, Iowa. 19-2

For Sale—Good high grade heifer calves $22 crated. W. A. STRAUSS, R. 5, Watertown, Wis. 19-2

STOCK FOR SALE

Registered Holstein bull calves from A. R. O. dams for sale. No. 1—2 months old, ½ white, three nearest dams average 7 days, butter 24.0 lbs., milk 496.0 lbs., 365 days, butter 671.0, milk 15,208.0 made at 2 years, 3 years and 10 years of age. No. 2—2 months old, 4-5 white, records almost the same as No. 1. No. 3—7 months old, 2-5 white. Dam and sire's dam average 7 days, butter 24.3 lbs., milk 520.0 lbs. Price $100 each. Others cheaper. All straight and right. Herd tuberculin tested. W. H. GARDNER, Solon Mills, Ill. 19-2

Registered Holsteins—Ten heifers, year and half old, bred, 25-lb. sire $150; 8 heifers, nine months old, $100; young cows, freshen in January, bred to 25- to 32-pound sires, $250; baby bull and serviceable bulls, $50-$75 if sold soon. Some A. R. O. 65 to pick from. FRANK STAFFEN, Howard City, Michigan.

Dispersal Sale—Thursday, December 12th, my entire herd of 50 registered and high grade Holsteins: 30 cows, 20 heifers and 2 bulls. Also my entire dairy equipment. CARL REDDING, Angola, Ind. 19-2

Two well bred, registered Holstein bull calves from our best cows, ⅞ white. Price $35 each. HOWARD CHAFIN, Elkhorn, Wis.

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. W. D. Hoard, Proprietor, Fort Atkinson, Wis. 22-tf

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Four extra good registered Guernsey bulls for sale. Age 7 to 9 months, May Rose breeding, being sired by Langwater Frederick 22268, from dams with A. R. records 510 to 740 lbs. fat. Pedigrees and sale list. HOMER F. RUNDELL, Livingston, Wis. 15-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, high grades, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 19-tf

For Sale—Splendidly bred Guernsey bull, two years old. A bargain. Great A. R. ancestry. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

A real Guernsey herd bull 7 years old, $150, Imperial of Birchwood 19271. B. McADAM, Mosinee, Wis. 17-3

Guernsey, spring bull calves, registered. Glenwood and Rose breeding. Fifty, seventy-five and one hundred quarter each. GLYN SARGEANT, Long Prairie, Minn. 18-2

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Proven Guernsey sire—Seven nearest relatives average seven hundred sixteen fat. Championship quality. Write for descriptive matter. BEMIS AND SARGEANT, Long Prairie, Minn. 19-2

Registered Guernsey bull calf. Born Sept. 12, 1918. Sire an Advanced Registry son of Golden Secret, one of the greatest of May Rose sires. Dam, a high class young cow. Calf is a good one. Price for immediate sale, $50.00. H. W. GRISWOLD, West Salem, Wis.

Pure-bred Guernsey bull, five years old, Masher's Sequel blood. Proved sire, $500. M. H. HOPSON, Kent, Conn.

Three registered Guernsey bulls for sale, sired by Langwater Frederick and Dairymaid Glenwood of Pinehurst 3rd and from A. R. dams; 740 lbs., 529 lbs., and 510 lbs. fat. Sale list. HOMER F. RUNDELL, Livingston, Wis. 19-tf

For Sale—Sons and daughters of the great May Rose bull, Bell Buoy of Linda Vista (19430) A. R. One daughter has made 476 lbs. fat and three others on test will go over 450 lbs. fat at 2 years. They have both production and type. O. R. SCHWALEN, Roberts, Wis. 19-tf

STOCK FOR SALE

For Sale—Registered Jersey bull calf, born September 21, 1918. Well bred, and a promising individual. Price $40.00. B. A. MARKHAM, Angola, Ind.

Shortage help and feed—Must sell Ayrshires by Willowmoor Robin Hood 8th one to three years old. Also August Lassie bulls from imported and A. R. dams. G. H. CONVERSE, Woodville, New York.

STOCK WANTED

Wanted—Ten to twenty registered Guernsey cows. Reliable man to care for them. Good salary, house and garden furnished. E. W. PHILO, West Palm Beach, Florida. 18-2

Wanted—A few good milkers, Guernseys or Jerseys, high testers. EARL HULSE, Center, Mo. 18-2

Wanted—Twenty large type pure-bred or high grade Holstein springers to freshen in about thirty days, about three to five years old, subject federal tuberculin test and 60 days retest. Give weight, pedigree, price, and full description in first letter. Also want bull Pontiac or Korndyke breeding. E. C. MILLER, R. 2, Fairburn, Ga.

Wanted—Pure-bred Holstein bull 15 to 30 months old. Must be well bred and good individual. White predominating. Send pedigree and price to W. C. C., 409 Islington St., Toledo, Ohio.

Wanted—Registered Holstein bull calf 6 to 10 months old. State price delivered. W. M. GUEST, R. 1, Clermont, Ga.

Wanted—A bull about ready for service with a record of 30 lbs. or better. Must be a good individual and well bred. Send pedigree, price and picture in first letter. Location no obstacle. H. H. STIYER, Box 697, Nampa, Idaho.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 17-4

SWINE

For Sale—400 stock pigs eight weeks old for $7 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 16-tf

Shamrock Ridge Big Type O. I. C. swine. AUG. NEITZEL, Bloomer, Wis. 26-tf

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Large English Yorkshires, boars and sows ready for breeding. TIFF KENNELS, Brooklyn, Pa. 18-2

Hampshires, registered boars. March litter, fifty dollars. September, twenty dollars each. Big, husky ones, nice bands. Photos. GLYN SARGEANT, Long Prairie, Minn. 18-2

Large type registered Chester Whites. Cash or bonds. ARTHUR ROBERTS, West Bend, Wis.

Berkshires—Choicely bred, registered April, 1918 pigs; breeding stock, both sexes, reasonable prices. QUINEILO FARMS, 297 East Water, Milwaukee, Wis. 19-2

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For Sale or Trade—For young cattle, 3 grade stallions coming 2, 5 and 10 years old. Valuation $1,000. MARTIN T. BANE, Dana, Ill.

POULTRY

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 16-4

Pure-bred rose comb Rhode Island Red cockerels with size, shape, color; from winter layers; $3.00 each. Also single comb Brown Leghorns. $2.25 each. HAROLD STUTSMAN, Mt. Sterling, Ill.

White Rock Cockerels, heavy boned, laying strain, $2.50. GEORGE KLEIN, Webster City, Iowa. 19-2

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

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For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Airedale pups 4 months old. Sire Champion Kootenai Chinook. Farmer's prices. TIFF KENNELS, Brooklyn, Pa. 18-2

GOATS

For Sale Cheap—50 Angora goats, the kind that clear the land of brush and weeds. J. J. JENNINGS, New London, Wis. 17-3

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Farm Wanted—Have party owning $3,500 cash, very fine 8-room bungalow and two-family flat. Stock and crops must go with farm. WALTER MILLER, 320 Brumder Building, Milwaukee.

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Wanted—Farmer to handle our seed and feed in the Eastern states. GROWERS' ASSOCIATION, Perrysburg, Ohio.

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Booklet on request presenting facts by S Commissioner of Agriculture describing Mazarn Valley in the Ozarks, ideal for da ing and stock farming. Address MAZA VALLEY LAND COMPANY, 847 Cen Ave., Hot Springs, Arkansas. 1-

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If you wish a farm in the best grass sec of the south where alfalfa and all the clo including Red White, Alsike, Sweet, Crimson and Japan grow to perfection, soy beans, cowpeas, peanuts, velvet be corn, oats, wheat, rye, and barley where have a creamery making fine butter and ing Elgin for butterfat, and where there bovine tuberculosis nor cattle ticks; in a munity of northern farmers, write to H GURLER, Macon, Miss. 25-

Farms in the Mississippi Prairie Belt, al and clovers. Corn, hay and live stock p sition. Ideal climate, good neighbors, sch churches, good roads. Main line of rail Close to large markets. Write now. H HANSEN, Macon, Miss. 11-

Fine Farms and Land Cheap—120 acre acres clearing; large house, log barn, $1 235 acres with buildings; 45 acres under $5,600. 40 acres bushland $500. 80 $1,000. 240 acres $3,000. Write for de to THE E. L. C. CO., D-M, Dept. 31, Me Wis. 17

If Homeseekers will write me for par lars of the unequaled advantages of the " belt" of Alabama, I will describe a lis desirable farms suitable for all kinds of and stock, especially dairying and hog b ing: 80 acres to 500 at $35.00 to $60.0 easy terms. GEO. E. BROWN, Unionto Alabama. 19

Dairy and Grain Farm—316 acres, loading station; splendid improveme equipped for dairy purposes. Price only per acre. Write for full description; fre scriptive booklet. MANSFIELD COMPA Ottawa, Kansas. 1

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1125-acre improved dairy, cotton and farm. Artesian well, 2-story $5,000 barn. gravel road, 4 miles of Baton Rouge. B. E. PERKINS, 210½ Third St., Baton R La.

Ideal Farm Home—165 acres well impr 3 miles Nashville, fine oiled pike, lays pe deep rich soil, 75 bushels corn per acre, watered, excellent neighborhood, modern equipment. Cheap at $225.00 per acre. terms. Might take clear land up to $15,0 as part payment. T. E. HALE, Route 3, ville, Tenn. 1

140 acres $3,500, including 13 cows, stock. Bull, horse, poultry, mowing ma horse rake, grain drill, plows, cultivator, row, wagons, long list tools, 40 cords stove wood, 50 bu. potatoes, 125 bu. oat bu. apples, 30 tons hay, etc. On good mail, telephone, 2½ miles town, high s churches, creamery. 75 acres machine-w clover loam tillage, 60 acres spring-wa pasture, plenty wood, timber, fruit. 8- house, running water, big basement poultry house, etc. To settle quickly takes all, only $1,500 cash needed. D page 34 Strout's Big Catalogue bargai states, many with stock, tools, crops for fortable winter, copy free. E. A. STR FARM AGENCY, Dept. 3001, Marquette Chicago.

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For Sale—Complete pasteurizing Slightly used. Will sell for very low f TRUMAN W. BROPHY, 81 E. Madison Chicago. 1

New Tornado ensilage cutter. 2 sets k 50 feet blower pipe, 30-foot distributor. one silo. Having gone out of business, sacrifice this cutter. J. R. BROWN & Gapland, Md.

For Sale—5-10 Avery tractor. COU BROS., R. 2, Charlevoix, Mich. 1

For Sale—One 8-16 Rumely, new, 2 tractor—used as demonstrator. Closing sell for less than cost. Act quick to get Address BOX 617, Marengo, Ill. 1

For Sale—Double-unit Empire equipped for 24 cows all complete in class running condition. J. R. PETE SONS, R. 2, Liberty, Mo. 1

For Sale—Three-unit Hinman milking chine, A-1 condition, used three weeks. sold. Price $200.00. HOWARD EVANS, Claire, Mich. 1

For Sale—Just disposed entire dairy $150.00 takes four-unit Hinman Milker. short time. W. MAXWELL, Topeka, Ka

For Sale—Official milking machine. complete single units, with extra pail. set of teat cups, installation for twenty cows, forty feet of shafting, pulleys. Used seven months. First check of $115 complete outfit. M. C. LARSON, Rou Northfield, Minn.

Farm is sold. Must sell 2 Empire d units with partition pails. Used 1 yea cylinder air pump, vacuum tank. Pipe complete for 56 stanchions. All in first condition. W. M. HARRIS, Prairie View

Having gone out of the dairy busines offer our three single-unit Calf-Way M used 4 months, perfect working condi pump, 230 feet pipe line, 26 stanchion vacuum gauge and tank, 3 H. P. Asso engine. Will sacrifice. J. R. BROWN & Gapland, Md.

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ntion Farmers—Buy your Grimm alfalfa Holgrimson and Lyman strains direct grower. Will furnish affidavits showing story. Purity test 99.39. Price $42.50 00 lbs.; sacks free. Prices on smaller ts on request. At TRIANGLE RANCH, wood, S. D. 25-tf

k Hills non-irrigated alfalfa seed, very variety. Write for sample and price. ERS' ALFALFA SEED CO., Rapid City, Dakota. 15-tf

plendid Spring Wheat for Sale—We offer e a limited quantity of the Blue Ribbon of spring wheat, only 70 bushels. Our with this wheat is as follows: Last we sowed two bushels on two acres of The return, threshers' measures, was 76 s which grades uncleaned, 61 lbs. per . We will sell this wheat well cleaned ed for $3.00 per bushel. Bags furnished cents each. Order early to avoid delay ight. W. D. HOARD, Prop., Fort At- , Wis. 16-tf

WANT TO RENT

ted to Rent—Furnished farm, on shares, ienced stockman and dairyman. HEIN, athrop Ave., River Forest, Ill.

HAY

lfa hay for sale. Write or wire us for ed prices. ALBERT MILLER & COM- ', 192 North Clark Street, Chicago, Ill. 26-tf

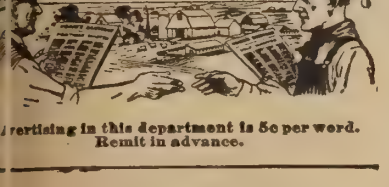
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MISCELLANEOUS

e Guinea Pigs for us. We supply stock, tories need thousands. Big money and nd inexpensive to raise. Particulars and ten cents. DR. J. A. ROBERTS' LAB- ORIES, Oconomowoc, Wis. 19-tf

p a herd record—Pocket Herd Book, re- ble, good for ten years, 75 cents postpaid. WHEELER, Tully, N. Y. 17-4

Sir, we have a special opportunity for uring spare time, an opportunity to do good work in your neighborhood, for tterment of dairy farming, that will pay cash for the effort you put forth. Write ur "Special Opportunity Getting To- " folder. Address HOARD'S DAIRY- Fort Atkinson, Wis. 2-tf



rtising in this department is 5c per word. Remit in advance.

HELP WANTED

nted—Herdsman, reliable and efficient. sey herd, Sharples Milker, Louden equip- $75 and perquisites to start. GAYOSO M, Memphis, Tenn.

HELP WANTED

Wanted—A good chore man on a ranch in California. Good pay. Address BOX 290, care Hoard's Dairyman. 16-6

Wanted—Correspondence from an experienced dairyman with his own help for a 30-cow dairy on a share basis. $6.00 per 100 lbs. for 3½ per cent milk. N. A. WATSON, Erie, Pa. 16-4

Wanted—Married or single man, white or colored, to work on dairy farm. Both must be able to milk and man to do general farm work. House, garden, milk and wood. State wages and how many in family. Transportation refunded after six months' service. BIRCHWOOD FARM, Route 2, Coatesville, Pa. 17-4

Wanted—To contract, to milk, feed, and care for 65 cows. ROSEDALE DAIRY, Silver City, New Mexico. 17-3

Wanted at Once—Single man for dairy barn, Holsteins and Guernseys. Milking over 100 cows, producing high grade milk. Must be steady and experienced man, also experienced man in the care of hogs and poultry. HOMESTEAD DAIRY FARMS, Salisbury, Md. 18-2

Wanted—Reliable, single man for barn work. Registered Holstein herd, modern equipment. Must be good dry hand milker. No boozers or cigarette fiend need apply. Wages $65 per month. MAXWELL FARMS, R. 1, Waterloo, Iowa. 18-2

Wanted—Competent single man as superintendent on medium sized modern general farm located in Chicago suburb. Pure-bred Holsteins and Durocs. This is a good opening for an up-to-date and practical man who wants to improve his position and opportunities. Good wages to the right man. Best of living conditions. In answering state age, nationality and late experience. Address BOX 306, care Hoard's Dairyman. 18-tf

Wanted—Experienced man to farm 350 acres northwestern Ohio, capable of handling and keeping in order up-to-date machinery, and managing men. Have seven head of horses, and only enough stock for farm use. Crops: oats, corn, wheat, alfalfa, clover. Not over 42 years, small family, and must be a worker self and no shifter. Reference required. Address BOX 303, care Hoard's Dairyman, Fort Atkinson, Wis. 18-2

Married man on dairy farm who can do general farm work and co-operate with my herdsman in making my farms a success. Our herd is headed by two bulls that have records better than thirty-four pounds and are bound to make a name for us. Under the guidance of my herdsman we expect to accomplish things in testing. Advancement to Supt. after we develop if competent. State all in first letter. Address BOX 310, care Hoard's Dairyman. 18-2

Herdsman Wanted—Single, to take care of herd of registered Holsteins. Write fully, state wages. MARINETTE COUNTY ASYLUM, Peshtigo, Wis.

Wanted—Working foreman on large farm. One who is willing to work and can handle men, wife to board from 5 to 10 men. Good living quarters furnished. House has all modern conveniences. Must have references. State wages expected in letter of application. HAWTHORN FARM, Hawthorn Farm P. O., Lake County, Illinois. 19-4

HELP WANTED

Wanted—Herdsman. Married man; must be good caretaker and able to get results in A. R. O. work. Small herd of extra good Holsteins, modern barns. Address, stating age, experience and wages expected, to W. H. MACE, Cortland, N. Y. 19-2

Wanted—Married couple, no children; man to help milk, take charge of dairy room, bottle and deliver milk. Ford truck used for delivering; wife to help with housework, must be good cook, neat and clean about work. Man must be good dry hand milker and know how to handle and deliver milk. Steady work for the right kind of people. Wages $70 per month, everything furnished. Give full particulars with references first letter. Position open at once. Address BOX 312, care Hoard's Dairyman. 19-2

Wanted—Young man, between 26 and 30 years old, with experience in cattle business and who has a capital close to $10,000 and wishes to become partner to a man who has a real live business in selling and exporting cattle. RIVERDALE FARMS, Oconomowoc, Wis.

Wanted—Man who can successfully and economically raise calves and feed dairy cows profitably. Everything modern, herd consists of 100 head Jerseys. Applicant must be strictly sober, married, and agreeable. Salary first year $100 per month with house and garden, together with a bonus at the end of the first year if results are satisfactory. Location at the foot of famous Lookout Mountain in Tennessee. Climate moderate, very healthful. Address ASHLAND FARM DAIRY INC., Alton Park, Tenn.

Wanted—Dairyman and herdsman; both must be high class men; northern New Jersey; married or single; thoroughly qualified to manage registered cattle; modern equipment; highest quality milk; must understand breeding and feeding and raising of calves, keeping records and management of men. BROOKLAWN FARMS, Morris Plains, New Jersey.

Wants experienced man to take charge of fifteen registered Holstein cows. Milk, feed, test cows and raise calves. Keep daily records. For particulars write L. E. ERWIN, Honey Grove, Texas.

Wanted—Married man, no children. Man take charge of herd registered Red Polled cattle. Man to milk 10 to 12 cows and feed herd. Also look after small herd hogs. Wife to cook for family. Permanent job and good home for right couple. Or would hire single man. Give experience, reference and salary wanted first letter. OAK GROVE STOCK FARM, Cluster Springs, Va.

Wanted—Farm manager or working herdsman, experienced in modern farm methods, stock raising, and milk production. Would consider either married or single man. Work connected with boys' school; a herd of twenty fine Guernsey cattle; Protestant, Christian man; no tobacco; good salary; eight or ten boys from twelve to sixteen years of age assist in milking, caring for stables, retailing milk, etc. Address H. ROCHESTER, 2200 Hampshire St., Quincy, Ill.

Wanted—Man for dairy work, good milker and teamster. Steady job. $65.00 month and board. Please state age and experience and send reference. S. J. BURGESS, Helena, Montana.

HELP WANTED

Wanted—Single young man or strong boy as choresman on a high class gentleman's estate. Only a good milker, neat, orderly and willing, need apply. $60.00 a month, board and room, (no washing). Address SUPERINTENDENT, Clairview Estate, 575 Lake Shore Road, Grosse Pointe, Detroit, Mich.

Wanted—Farm foreman for 200-acre dairy and stock farm near Detroit. Must understand general farming and all modern farm tools. State experience, number in family, ages, and salary expected with house, board, and fuel furnished. Wife must cook for six men. DEEP-RUN STOCK FARM, Birmingham, Mich. 19-2

Wanted—Single man, good milker and caretaker. Milk 10 cows and do general farm work. No boozer. State full particulars and wages first letter. Address BOX 315, care Hoard's Dairyman.

Wanted—Married, capable, herdsman understanding care of registered Holsteins, milking with Empire milking machine, feeding for A. R. O. tests. Modern barn, modern home. Write for particulars. CHAS. F. SPRAGUE, Lima, Ohio.

Wanted—A man with enough help to take nice care of 75 Holsteins, no other farm work. A few other men to board. Everything furnished and nothing short of year contract considered. Will pay for milking by the gallon. PRODUCERS' DAIRY, 2050 Humboldt, Denver, Colo. 18-3

POSITIONS WANTED

Live wire dairy farm or estate manager of ability, energy and experience to get best results from any proposition properly stocked and equipped. A hustler and worker skilled in A. R. O. and R. of M. records, swine, poultry, orcharding, accounting, modern methods, machinery and crops. Can bring good man. Must have A-1 living conditions, accessible to schools for boys of high school age. $1,500 yearly with farm perquisites. BOX 307, care Hoard's Dairyman. 18-2

Married man wants position January 1st with large herd, or will take charge of entire farm. No children, understand A. R. and record work, no booze, tobacco, some university training. Excellent reference. State particulars. Address BOX 314, care Hoard's Dairyman.

Wanted—A position on dairy farm. Experienced with milking machine. $55 expected. Use neither liquor nor tobacco in any form. LEO SMITH, Burnett, Wis. 19-2

Position wanted as dairyman. Life experience in dairy farming. Can milk 9 to 10 cows per hour by hand. Married, no children, wife is good milker, good milking machine operator, some experience with gas engines. Can treat common diseases among cattle. Age 29. If we are what you are looking for, let us hear from you at once. Address BOX 316, care Hoard's Dairyman, Fort Atkinson, Wis.

Do you want a herdsman, farm foreman, assistant on farm, greenhouse men, tractor men, or farm help? We have young men trained in our school, competent to fill these positions next spring. State full details including wages. BERNARD OSTROLENK, National Farm School, Farm School, Pa. 20-spl

The Plowing Contest

he plowing contest which is the occasion of the year with our ch friends is slowly coming into r in this country, and the locali- where contests have been held so well pleased with them that are invariably repeating them y year.

et us look for a moment at a typi- Scotch plowing contest, and see if sn't something we can copy more rersally and profit generally there- Imagine a crisp October day, a typical of our Indian summer s, and by early forenoon the peo- from all the countryside for s around begin to gather decked in holiday attire, for the plowing est is one of the most important, ot the most important occasion of year for the farmers.

he magnificent teams of Clydes all groomed immaculately and be- ed with roses and ribbons. The her of the harness glistens, and s polished over the oil, and the intings are burnished until they as bright as mirrors, for prizes offered for the best groomed ns and the best kept harness. The ns have been trained for days, sibly weeks, for the event.

he plows are all most carefully rpened and scoured, and each con- ant has tried out his plow and t carefully adjusted it prior to day of the contest, for he knows t it is impossible to do even a fair of plowing unless the plow is very efully set and adjusted to the m, and no adjusting is allowed ing the contest.

here is a great deal of friendly alry and joshing among contest- s and especially among the help- ers and the crowd, much inspecting and discussion of plows as to whether there is enough "suck" for this particular land and whether the coulter will cut a clean furrow through the turf, sod being invariably used for plowing contests.

The plowmen, frequently as many as thirty of them, all line up at the ends of their various one-half acre plots and at a signal the contest is on, in a way like a race, yet a very slow one, for the making of the back furrow which consists of two very shallow three cornered furrows turned with their lower corners just meeting, is a most particular job and an art that is not learned in a day or a month. As a matter of fact, before a man can pass as a plowman in Scotland he must serve an apprenticeship at the job. There are cries of "Hold on there, Jock, hold in to the left a wee bit", from the helpers who stand at the end of the furrows and keep a sharp lookout for the least bit of a curve in the line of furrow. The helper also takes the plow and team at one end and drives across the end to rest the plowman and give him an opportunity to see the work of the others. The work is quite tiresome for the plowman walks or rather hops along with one foot in the furrow and one up on the land, braced against any swerving of the plow, and his eye never leaves the end of the furrow ahead of him. The result of all this work is a job of plowing that is a sight to see. The furrow is usually about 7 or 8 inches wide, instead of 12 or 14 inches as in this country, by 6 or 7 inches deep. The line of the furows stick straight up as square be stretched, and the corners of the furrows stick straight up as a square and true as if molded in clay, with not a break from one end to the other, truly the work of a master plowman.

A medal is usually given to the winner and several smaller prizes, commonly cash, are given to the next in rank along with prizes to the best groomed teams and the best cared for harness.

The good fellowship and friendly rivalry brought out by the plowing contest is something that any community will be better for, and occasions when the farmer can come out and demonstrate his ability as a master workman, for master workman he undoubtedly is, are few and far between.

The writer had the good fortune to be present recently at the 5th annual Taylor County, Wisconsin, Plowing Contest, and the interest shown by those people up in that great new country that is just being cleared, was a sure indication of the good that is sure to come from the plowing contest.

R. A. Kolb, the county agent, who inaugurated the plowing contest in Taylor county, has also combined with it a small, strictly agricultural fair, and plans to have brief talks on timely subjects such as cultural methods for some crop that may have given trouble that particular season; a talk on soils by one of the Experiment Station men who is particularly well acquainted with the types of soil in that country, or other subjects as seem advisable.

There were seven contestants in the Taylor County, Wisconsin, Plowing Contest this year. The first prize was won by Wm. Kapszukiewicz, and the second by Louis Fortin. The prizes given at the Taylor County Plowing Contest are usually live stock or farm implements. This year a pure-bred Holstein bull, donated by the bankers of the county, was given as a first prize, and a Tamworth boar for a second prize, with pieces of farm machinery for other prizes. The giving of such prizes as these is to be recommended over cash prizes as they help in a very real way in building up the live stock of the community which, together with the rivalry and good fellowship of the contest, makes it an occasion long to be remembered.—F. W. DUFFEE.

Cattle and sheep in Scotland remained practically unchanged in number last June compared with June, 1917, according to the agricultural returns, but swine declined 4 per cent on account of diminished feeding stuffs.

J. M. Evvard, head of the Swine Experimental work at Ames, Iowa, has conducted some of the most extensive and practical hog experiments in the country. Some of his recent practical suggestions regarding fall pigs are as follows:

Feed both sow and litter well from the start to build flesh for winter.

Give plenty of good water and warm it in the winter time.

Keep fall pigs in warm, ventilated house.

Keep houses well bedded. This means bedding must be changed fairly often.

Place self-feeders within house so pigs will not have to go out in the cold to eat.

Confine pigs in small quarters and do not allow them to run over the farm.

Keep pigs free from lice, mange, and worms. Crude oil is good to prevent mange and kill lice. Santonin will get the worms. Give constant and careful attention to pigs.

(U. S. OFFICIAL WAR FILMS)

President Wilson says:

(in a letter written from the White House under date of September 16th)

"It was one of the most remarkable and one of the most satisfactory portrayals that we had seen of the great task which America has performed with such enthusiasm and in a fashion which cannot leave the results in doubt."

You have *read* about the war. You have *thought* about the war—and *talked* about it. You have cheered the boys who left your town to serve Uncle Sam.

Now you are going to *see* the war—as clearly as if you were over there yourself. You are going to understand America's part in the war, as no amount of reading, thinking, talking or cheering can possibly make you understand it!

"America's Answer" takes you right into the heart of the world conflict, and shows you how these American boys, we are so proud of, are helping to wipe out the cruel canker that is eating into the vitals of mankind.

The war becomes a real issue—the "official reports" in the newspapers are suddenly translated into actions that lift you bodily from your seat and make you cheer yourself hoarse.

You women who have men folks in France will specially welcome this opportunity to see "America's Answer." A Washington woman spoke for all the women of this nation when she said, "If they only would stop long enough for one to scan the faces, I feel sure that I would see my boy."

"America's Answer" is the greatest war picture ever shown on the screen. You can't afford to miss it.

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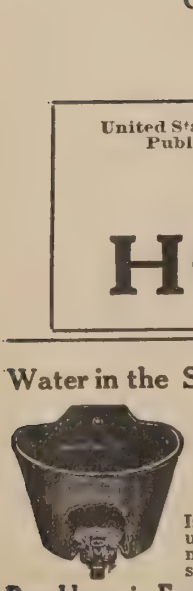
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R. R. Howell & Co., 4 Malcolm Ave. S. E., Minneapolis, Minn.

California Dairy Adjustments

(Continued from first page.)

duction takes place in feed and la costs, or a higher price is forthc ing for their product. I have noted that many dairymen enough elasticity in their organi tion to provide ways for self pre vation. One or two of the more standing instances are of value showing what the exercise of matter can do.

Same Feed to Fewer Cows Increa Production

William F. Lagrange is manage 20,000 acres of hay, grain, and crops. He is running 1,200 d cows. As this ranch is primarily cerned in producing war essentia asked Mr. Lagrange how the was affecting his business.

"Our biggest trouble," he said, loss of our best tenants by the dr Ranch help has been heavily dr upon in our district and we forced to reorganize our business

Asking him as to how he inter to reorganize, Mr. Lagrange plained:

"Well, for one thing I am plan on cutting each tenant down to string of cows. This will cut us f a total of 1,200 to 800, and will la ly make up for our loss of labor.

"Moreover, we shall weed out tubercular and boarder cows, s thing we ought to have done a time ago, so that the total profits not be reduced a cent."

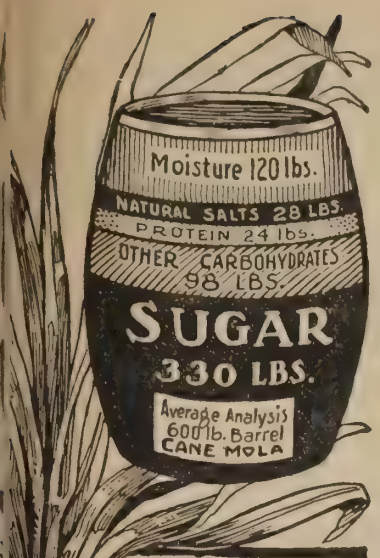
This naturally raised the ques "That's all right from the standp of the company's pocketbook, but about reduction of total output, s thing rather important to the cou as a whole?" The reply was: " matter of fact, we won't cut d production at all. I find that by ducing the number of cows my will go farther and I shall have concentrates per cow, both of w will increase the production per to a point so my total will be wh is now, especially as we plan t into the whole milk market ins of selling butterfat and feeding skimmilk to the hogs."

Tractors Release Feed for Co

Tractors are going in on e hand. In some cases mistakes ar ing made in the choice of the type or the right size of tractor, even in buying a tractor at all, b the whole, substitution of machi is along sane and logical lines. man has bought a small tracto plow all the grain, carrots, beets, and corn lands for his tenants, of whom he has a large ber, leaving nothing but the see cultivation, and harvest to be by his tenants. He charges a flat for plowing. He figures that tractor in plowing and doing heavy work on 1,200 acres does with about fifteen horses. The formerly consumed by this work will admit an equal number of tional cows to his dairies, and th increase the output of food prod

J. A. Sullivan has partly over the difficulty and high cost atte the getting of milkers by cullin herd more closely and utilizing less profitable cows as mothers beef calves. By visiting neighb dairies he picked calves at $5 them on these cows, later fini the calves on roughage, alfalfa ture, and hay. He makes pro his calves sufficient to pay hi continuing to keep the cows, wh normal times will pay for their and keep, and a reasonable prof sides; but during times of high and costly labor these cows c justify themselves in the mi string.

Fred Howard has rearrange feeding scheme to pasture his



Sweeten Up Your Roughage!

Stock Will Greedily Eat It.

For economy's sake use Cane Mola, a pure 100% sugar-cane molasses, on straw, corn stover, old hay, etc., or mix it with grain. It improves appetite—aids digestion. Dry, untempting food becomes appetizing and pleasing to taste. Besides the food value of Cane Mola in itself is exceedingly high—in fact, superior to corn.

CANE MOLA

makes all kinds of home grown coarse feeds palatable and desirable. The sugar and natural salt mean rapid, healthier growth of stock. Cows yield 15 to 25% more milk.

Feeding Costs Reduced to a Minimum

Practice real conservation. Don't give your stock expensive prepared feeds. Keep your animals in prime condition always. No digestive disturbances — no colic. Use plenty of Cane Mola—you can afford to, and the results will be highly satisfying. Endorsed by government experiment stations.

Cane Mola is sold in 600-lb. barrels, or smaller sizes if desired. Tell us what roughage you have available. We will send you our booklet and expert advice on economical feeding. Write us today.

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more closely and in rotation, with a view to permitting some natural reseeding to take place. His plan is to rebuild his resources in the way of natural feed. When pasturing he feeds down very closely to force the cattle to eat up everything, and especially the weeds, so that these cannot reseed to the exclusion of better feeds. By holding off stock from a portion of his range until the feed is mature and then pasturing heavily, he gives all plants a chance to seed. The tramping of the cattle covers the seed. This system involves fencing, as fields must be available to provide feed during the early growing season, at the optimum time of growth (when the plants are in blossom), and when the plants have completed seeding; while one portion is left entirely without stock—a self-seeding reserve and absolute seed proposition pure and simple.

Domingo Grossi and His Milker

Of all the attempts to conserve labor the case of Domingo Grossi is hard to beat. It is of interest because it is an outstanding example; it is not a prescription for wide application. Mr. Grossi prior to Feb. 24th hired 5 milkers to care for his herd of about 100 milking animals. On that day he put in three double-unit milking machines. Since then his daughter, a buxom lass of 15, has with the machines handled all the milking, 3:30 a. m. and 3:30 p. m., day in and day out. The stripping is done by Mr. Grossi and six brothers and sisters all younger than Miss Grossi. The seventh child—a 2-year-old, has not taken hold as yet, although the 4-year-old takes his turn with the others. It is some sight to see this little tad almost buried from view under the flanks of a brindle cow! I might add that no coercion is practiced—the children take to dairying as ducklings to water. It's typical of the Swiss. Only one hired man is now retained. I doubt if this example can be duplicated in California or elsewhere; as most hired operators will only handle 60 cows, it is evident that Miss Grossi is easily replacing $100 worth of man power. Twenty-seven of Grossi's neighbors have lately put in the same machine. Even the Portugese and Swiss have turned to them to aid in meeting a difficult situation.

Barrenness

One of our tenants has a Holstein heifer, two years old, that does not breed and he thinks she is going to be barren. What can you suggest?

Knoxville, Ill. I. J. L.

There is no certain remedy for barrenness, as the causes are many and different. The contagious abortion disease is the most common cause. On general principles it would be well to have a trained veterinarian massage the ovaries a few times by way of the rectum. This should be done once a week and its purpose is to break down cysts, sometimes the cause of barrenness. He may also have to treat the womb. Meanwhile inject into the vagina two or three times a week lukewarm water containing a heaping teaspoonful of pure phosphate of soda to the quart.

About 24 per cent of the entire hay crop is baled, it is estimated by the crop reporters of the Bureau of Crop Estimates. It is expected that 18,600,000 bales of cultivated hay and 2,488,000 bales of wild hay will be baled from this year's crop.

Lump Jaw

The farmer's old reliable treatment for Lump Jaw in cattle.

Fleming's Actinoform

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A book of 197 pages and 67 illustrations. It is FREE.
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Don't Keep and Feed A Barren Cow

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Success is Practically Certain.

Hood Farm Breeding Powder is really

A Marvelous Preparation.

It restores the reproductive functions.

It corrects the irregularity of cows and heifers that do not come in season.

It removes the irritation and restores the organs to normal condition in cows that are constantly in season.

It is antiseptic, soothing and healing.
It does NOT harm a cow or heifer.
It does NOT cause straining.
It is easily procured, easily administered, AND ECONOMICAL.

Order today, mentioning this paper.

Prices, prepaid, $1.15, $2.75 and $5. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75.
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ABORTION IN CATTLE
PREVENTED AND CURED PERMANENTLY
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Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

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120 GRADE HOLSTEINS 120

will be sold

December 5th, '18

At Brighton, Ill.

The Sale Will Include 40 Aged Cows

some of them with calves by side and practically all of them heavy in calf.

40 Heavy Springers—
carrying their second to fourth calves.

20 Heifers—
heavy in calf to good pure-bred bulls.

20 Open Heifers—
short yearlings.

In addition two very good pure-bred bulls will be sold. Both of them are ready for heavy service, one of them 2 years old, the other nearly two. Both are rich in the blood of King Segis and Homestead Jr. De Kol.

REMEMBER—These cows are all thrifty, high grades. Most of them have been chosen from the best dairy herds of New York and Wisconsin. All are bred to good registered bulls.

This is an exceptional opportunity to buy good ones and at your own price.

For further information, write

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Brighton is on the Chicago & Alton R. R. and on the C. B. & Q., 40 miles from St. Louis and 60 miles from Springfield, Ill.

Fattening Hogs

HOARD'S DAIRYMAN:—In putting fat on a hog one day's poor feeding will more than offset two days of good feeding. Corn is a mighty fine feed for the purpose of fat making but it is a mistake to rely wholly upon it. I have known some to feed their hogs entirely on corn and after a while the animals were "burned out" and not gaining a bit. Their appetite and digestion were impaired and the animals came to a "standstill" and it was a good while before they overcame the backset. Corn is one of our best fattening feeds; in fact, we may consider it the best, but unless we feed it as we should we are not going to get the best results from it. When hogs have not been used to corn at every feed or have not had any for a long time it should be fed in small quantities at first, gradually increasing the amount as the animals become used to it until they are on full feed.

I never feed my hogs very much corn until about four weeks before they are to be slaughtered. Then I keep corn before them all the time and in addition I supply them with mill feeds, alfalfa, and clover hay steamed until tender, turnips, artichokes, peas, and, in fact, any kinds of foods that will put fat on them and make wholesome meat. A variety of feed will put fat on a hog more quickly and cheaply than any single kind. It does not take long to fatten a hog if it is given a variety of wholesome feeds and the meat is well streaked. juicy, and tender and weighs well in the scale.

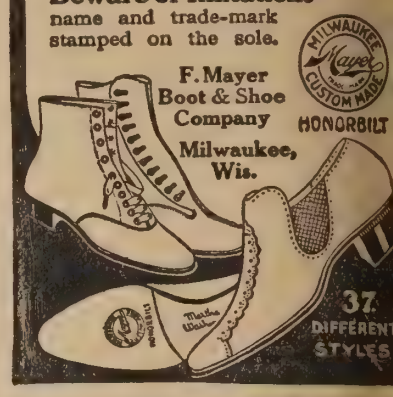
The cost of meat depends upon the cost of the feed consumed by the hogs. Anything that cheapens the cost of the feed makes the meat cost less if it is not done at the expense of the health of the animals. No one who wants to put fat on the hog at the least expense and in the shortest time is going to compel the animal to stand in a pen with his feet six inches deep in mud and filth. Clean pens and clean surroundings are too important to be neglected. I give my hogs a good deal of skimmilk and buttermilk in the sloppy portion of their ration. I know there is no better or cheaper feed than such milk, but no matter if the animals do get plenty of milk they want clear water to drink just the same. Three times a day I give my hogs all the clear water they will drink at each time and when the weather is cold I warm the water enough to take the chill off before giving it to them. I also warm the sloppy portion of their feed in cold weather. Warming the water and the feed is a little trouble, but I am sure it pays to do so. Charcoal, ashes, and salt help to keep the hogs in a good, thrifty condition, and then they make better gains. My plan is to mix a quantity of these and keep the mixture before the animals all the time. Every fall every farmer should fatten enough hogs to supply the family with meat and lard for a year. These products can be grown much cheaper than they can be purchased from the butcher or the merchant.

Illinois. A. O. CHOATE.

Genuine comfort if you ask for and get—

Mayer Martha Washington Comfort Shoes

Beware of Imitations— name and trade-mark stamped on the sole.



FROM A. R. O. COWS

For Sale—Two Registered Holstein Bulls ready for vice this winter. Dams are persistent milkers with g Cow Testing Association yearly records; and also A. O. records 20.86 lbs. and 26.39 lbs. butter respectiv They possess a showy appearance, a straight top l color of one is almost white and the other is half and h Sired by Sir Ormsby Hengerveld Segis, a half brothe Sir Ormsby Skylark, who is the only bull havin daughter that has produced over 1500 lbs. butter in year. A son of the great Sir Ormsby Hengerveld De who has four 30-lb. daughters, including the forr world's champion, Pietertje Maid Ormsby 35.55 lbs. further information write or see us.
KAPLAN BROTHERS, 23, Owatonna, Minnes

Ear Tags FOR STOCK 515 F.S. BURCH CHICAGO

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags Catalog mailed free on request.
F. S. Burch & Co., 156 W. Huron St. Chicago

SWINE

Cedar Crest Farm Berkshir
Cholera Immune

The wonderful bargains we offered in Berksh were so quickly taken advantage of that we have n single boar of serviceable age for sale and only a brood sows, weighing 250 to 300 lbs. bred for their or second litter and a limited number of unbred gilts. Our stock is right and our price is right. W us today for complete information. Remember—come first served—the quicker your order is placed better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa

POLAND CHINA

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Ha
Herd boars and farm boars, open gilts, shipped when bred, sired by 3 Grand Ch pion boars. Boars and gilts not rela Raised without corn, and IMMUNE. Tell what you want. We can please you. Ma pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, W

FOR SALE
REGISTERED
Duroc Jersey Boa
$50.00 to $75.00
Will Ship on Approval.
McCanna's Edgewood Stock Farm, Burlington, Wisco

Kilehurst Farm
DUROCS OF QUALITY
We have a limited number of choice Spring Boars Gilts left. Order now. Prices right. We will s you. Kilehurst Farm, Elwyn F. Bradley, Manager, Momence,

PILLING CATTLE INSTRUMENTS *Easy to use* Best Made Last Longest

Your dealer's stock has probably been exhausted during the war while the Pilling Factory was working 100% on Government contracts for surgical instruments for our troops in France. But before Spring we will be able to supply dealers who order early. To be sure of getting the genuine Pilling Instruments put in your order *now.*



FREE BOOK—48 pages; shows treatment for milk fever, bloat, garget, hard milkers, etc.

G. P. Pilling & Son Co., 2215 Arch St., Philadelphia, Pa.

Case No. 2 contain $3 milk fever outfit an 8 other "Easy to use Cattle Instrument $15 VALUE complete wi "Easy to use" directio for $10 PREPAID.

The Business End of a JERSEY

HE business end of a Jersey is the udder. It's a money-making machine. One of the marvels of nature. Automatic and sure! The Jersey does not dulterate her own milk. She gets the utmost nutriment from the least feed. ne gives it to you in milk richer in butter fat than that produced by any other reed. Hundreds of farmers who started with one Jersey now have herds bringing them a continuous income iat makes them independent of crop conditions. The facts about Jerseys will surprise you. We send them REE. Write to breeders for prices and pedigrees.

HE AMERICAN JERSEY CATTLE CLUB 351 West 23rd Street, New York City

conomic Worth of Boys

economic worth of the United Boys' Working Reserve is in- d in a report published by the ia State Council of Defense states that during the vacation this summer Indiana members Reserve earned $1,111,722 pro- food and munitions. Reports d by employers indicate that boys raised enough food to feed soldiers for one year and 6,055 ve boys worked a total of 7 days.—RICHARD HATTON, Di- of Publicity, U. S. Boys' Work- eserve.

Jersey Cattle Notes

week ending Nov. 15, 1918. er of animals registered: bulls, ows, 504; total, 639. Number of ers recorded: bulls, 135; cows, otal, 650.

JERSEYS

WE OFFER

ree Young Island Bred Cows

in the blood of Oxford Lad, Oxford , Gamboge's Knight and Golden Maid's —which we are pricing attractively. e carrying calves, sired by sons of Ox- d and Royal Majesty and will freshen the winter. Address

FARM, - DAYTON, OHIO.

LLED JERSEYS

ers' names and Spillman's "Inheritance Poll Character in Cattle" mailed free. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.

olden Sunset JERSEYS

ave a few elegant young bulls nearly or service at $100.00 each. The famous elle-Golden Rosebays.

anis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

re now offering sons and daugh- of our great FINANCIAL- HETTE Butter Bred Bull. s, $75, $100, $125, express id. Checks must accompany

Ashland Farm Dairy, Inc. ALTON PARK, TENN.

BULL FOR SALE

Island bred and ready for service. Dropped March 18th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 642.92 lbs. butter. Write for particulars or come and see him.

OAK GROVE JERSEY FARM,
W. M. KNIGHT, EAGLE, WISCONSIN.

Burn Brae Jerseys

Bull calf dropped Dec. 5th, 1917

Sire:—Ibsen's Chief 135749, Majesty and Raleigh breeding. His dam has a record of 636 lbs. 10 oz. "Chief" won first as calf, yearling and two-year-old, two championships and Gold Medal. *Dam:—Oxford's Majesty's Chance 357046.* Now on test. Her dam is also a R. of M. cow. Other bull calves and bulls ready for light service. Guaranteed to please.

CHAS. A. PETERSON, Rosendale, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address

ROLLIE VANDERVORT, Tomah, Wis.

JERSEY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write,

G. D. GILBERT, Lake Geneva, Wisconsin.

"The Hermitage" near Centreville, Maryland

Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.

Susan Williams, Owner. Edw. A. Nelker, Herdsman.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write

FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.

R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE

A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea R. 2, Box 99, Baraboo, Wisconsin.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.

J. Q. EMERY AND SON, - Edgerton, Wis.

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over

700 Pounds of Butter in One Year

These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of

1132 Pounds of Butter in One Year

If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.

ROTCROFT FARM, SIOUX AU, MICH.

SOPHIE'S TORMENTOR JERSEYS

"Production" Our Watchword

BULL CALF FOR SALE

Our No. 252, dropped April 29, 1918; solid golden fawn with black tongue and switch; well grown for his age and an excellent individual in every respect.

SIRE—Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. 85% butter, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.

DAM—Van's Warden Lady 336390, an excellent individual of extremely good dairy type. Write for particulars.

FAIRVIEW FARMS, INC.,
R. L. PIKE, Genl. Mgr. P.O. Box 1404
ATLANTA, GA.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

FOR SALE

17 JERSEY COWS—
from 2 to 8 years old.

2 Jersey Bulls, 1 year old. 3 Jersey Calves, heifers, 6 mos. old. All Registered.

V. C. ARMES, GOWANDA, NEW YORK.

RED POLLED

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old; four cows and six heifers, all bred; one two-year-old not bred, two heifer calves, one bull calf. Selling to make room for Holsteins.

RICHLAND COUNTY ASYLUM FARM,
Chas. W. Snyder, Supt., Richland Center, Wis.

AYRSHIRES



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES
AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.

E. R. McCONNELL, - Wellington, Ohio.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.

J. W. CLISE, Redmond, Wash. (Near Seattle

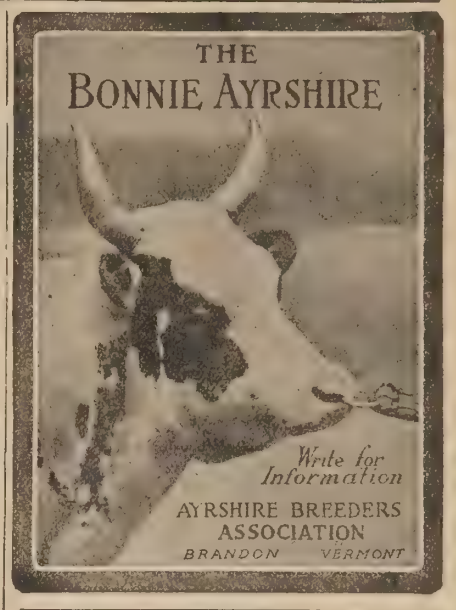
Wineland Farm Jerseys

Big Milkers—Prize Winners.

100 Head - - 100 Head

A few for sale.

H. C. YOUNG, 33 and O Sts., Lincoln, Neb.



Are You Looking?



We can see in the above calves a chance for some one to get a good cow or a herd sire cheap. They are from stock that makes them well worth raising and keeping as well as buying. Our specialties are size and type.

ECHO FARM,
Thos. W. Barnard, Menomonie, Wis.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.

FRED TSCHUDY & SONS, MONROE, WIS.

Cresmont Farm AYRSHIRES

Are offered in choice bull calves, cows, and heifers. "Finlayston", and "Baron's Best of Bargenoch" breeding. We have what you want at reasonable prices.

W. H. DRUCKEMILLER, Sunbury, Pa.

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicoka. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.

PENSHURST FARM, NARBERTH, PA.

Ridgewood Farms

WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr.

PUBLIC SALE

60 PURE-BRED JERSEYS 60

Most of them are fresh or to be fresh this winter. Also a few xcellent grade Jerseys.

SATURDAY, DECEMBER 14th, 1918

Daniel Boone Tavern Hotel headquarters. Automobiles will neet all out of town buyers.

Write B. C. Settles, Palmyra, Mo., for Catalog.

Col. Perry, Auctioneer of Columbus, Ohio. D. V. Vandiver, Owner, Columbia, Mo.

,036 lbs. MILK—720 lbs. FAT

average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped 0, 1918.

sire is Sibley's Interested Prince, R. of M., who is transmitting the production and rich- his dam, 15,147 lbs. milk, 875 lbs. fat.

lam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. m made 10,926 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

IROQUOIS FARM

AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.

F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

The state of Kansas has purchased in Vermont two carloads of Ayrshire cows which are to be used as a foundation herd at one of their state institutions. The shipment consisted of 44 Ayrshire cows, a part of which were pure-bred and registered, and the rest high grades.

GUERNSEYS

Tabulations made by the U. S. Department of Agriculture show that the average income over cost of feed from one cow that produces 450 lbs. fat is equal to the average income over cost of feed from 20 cows that produce 100 lbs. each. The average of all official Guernsey records is 450 lbs. fat. Learn more about these profitable cows. Ask for our free booklet "The Story of the Guernsey".

The American Guernsey Cattle Club
Box H Peterboro, N. H.

UPLAND FARMS
Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. **F. P. Frazier & Son, Props. W. K. Hepburn, Supt.**

Albamont Guernseys
Headed by
Don Diavolo of Linda Vista the Great $10,000 Bull

Choicest young bulls and several heifers for sale at reasonable prices.

U. S. Bureau Animal Industry Health certificate with all animals over 6 mos. old.

J. C. HAARTZ, 10 High St., Boston, Mass.

Greenway Farm Guernseys
WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm
325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM
Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

Young Cows, Heifers and Bulls

from the greatest prize-winning herd of the Guernsey breed, at reasonable prices. My catalogue tells what you want, or come and see. **L. V. AXTELL, Old Homestead Farm, Perry, Ohio.**

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

Belle Alto Farms
Young Guernsey Bulls

Sons of Langwater Royal Master (23663), who is the son of Imp. King of the May (9001). Get one of these splendid young bulls for your foundation. Herd is on the Accredited List of the state. Send for pedigree and price list, or better, come and see this excellent working herd. **M. H. McCallum, Mgr., Wernersville, Pa.**

GRASSLAND FARMS
Offers several exceptionally choice
Young Bulls For Sale
Send For Price List.
Taconic, Litchfield Co., Conn. (C.N.E.R.R.

619 POUNDS FAT
is the average of our first nine Advanced Register Records
FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175.

Full particulars and pedigree from

Falcon's Flight Farms, Litchfield, Conn.

N. B.—No contagious abortion in over five years; no tuberculosis.

EDGEMOOR FARM
Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred
May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516 09 lbs. fat.
17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

GUERNSEY - BULLS - CALVES
PRICES THAT WILL INTEREST YOU.
"McLERAN OF MINN. WRENSHALL"

IOWANOLA GUERNSEYS
Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

TILDEN FARMS
GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Mound City Farm
GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.

Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

FOR SALE
Sons and Daughters of the Great May Rose Bull, Bell Buoy of Linda Vista (19430) A. R.

One daughter has made 476 lbs. fat and three others on test will go over 450 lbs. fat at 2 years. They have both production and type.

O. R. SCHWALEN, ROBERTS, WIS.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the
WISCONSIN ACCREDITED LIST
by the State Live Stock Sanitary Board and to the
NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in ser bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd has b established for 26 years and is one of the oldest in Waukesha County. Write or come and what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd in county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted, M

PARK FARM
May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

Elderwood Guernsey Farm
Offers For Sale the Following Pure-bred Animals

1 2-yr.-old heifer just fresh, whose dam is an A. R. cow with a record of 389 lbs. fat at 2 years.

1 heifer calf and bulls up to 10 mos. old from A. R. dams. **Roy Burton, Eagle, Wisconsin.**

We Are Offering 2 Registered Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by **"Pencoyd's Golden May Secret"** (39626) a son of **Nella Jay 4th.**

W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.

HOMER RUNDELL, LIVINGSTON, WISCONSIN.

KOSHKONONG PLACE
GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

GERAR GUERNSEYS
Production Reproduction Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.

Louis McL. Merryman, Cockeysville, Md.

Thorn Hill Guernsey



If you want a well bred yo Guernsey Bull at reasonable p —May Rose and Glenwood strai write me. I have always sev on hand, all my own breeding, of A. R. Cows with records u 650 pounds of fat. Also a few he calves each year. Herd regul tested for tuberculosis. **August Ziesing, Deerfield**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for vice. Excellently bred. Exceptionally individuals. **Rock River Farms, Byron,** Medill McCormick, Owner. R. S. Hulce, Supt

PERGUE FARM GUERNSEYS

We are offering now several choice young whose dams are extra good producers. Our stock bines breeding and individuality. Also a few fe for sale. Prices exceedingly low. New list re Farm located in Livingston Co. **Saas Bros., Streato**

Registered Guernsey Bull For Sale
Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A His first two daughters to enter A. R. ave 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. sire, Prince Regent of Meadowbrook 1596 R. by Holden IV 12179 (Sire of Cherr Edgewater, 732 lbs. fat, Class G) out of Q Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golden cret 52629. Out of a 450-lb. A. R. cow by en King of Arcady, a grandson of Imp. G Secret 12899.

Price $100. For pedigree and photo writ **FOLLY FARM, LIBERTYVILLE,**

May King of Columbia No. 345

Our head sire is a double grandson of Barrington King No. 19312, purchased by U. S. Government. average records of his daughters with first calf no exceed the average first calf records of daughters grandsire, Imp. May Rose King but also the av first calf records of daughters of sons and other sons of Imp. May Rose King. (See page 4 of Gue Breeders' Journal July 1, 1918.) For Sale—young in calf to Columbia, also an occasional bull calf b Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, Ne

Edgewater Farm

Has been the home of such noted Guernseys, as C of Edgewater, Miranda of Edgewater, White Wi Edgewater, Imp. Queen Regent 4th, Imp. Tops Carteret, Miranda of Mapleton, Nellie Tostevin of M ton 3rd, The Great Bull Imp. Holden 4th and many noted animals. We are offering a few choice Calves. **F. G. Benham & Son, Canandaigua,**

Harbor Hill Guernse
We Bred and Developed
The Breed's Champion Roll of Honor

Linden Girl of Harbor Hill 3rd A. R. 4651, 15 lbs. milk 785.89 lbs. fat Class CC. We of few bull calves carrying similar blood lines **C. H. HECHLER, Superintendent, Bo Roslyn, New York.**

GUERNSEYS

Choice young bulls of exceptionally good Reg. breeding for sale. Strong individuals just as represented. Dams milking from 55 pounds daily. Could spare a few young Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco L Ensenore, New York.

Pinehurst Guernseys Prod

with *farm care. 70 A. R. records* average *465* lb The former home of *Glenwood Boy of Haddon* where *26 of his daughters* were bred, whose *A.* ords average *554 lbs. fat.* His daughter *Dairym Pinehurst* made *860* and *910 lbs. fat.* Present herd *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New



Walcowis Ollie Hartog 240660.

Sire—Iowana Sir Ollie who is sire of Walcowis Ollie Mooie, state record junior two-year-old for seven and thirty days. He is a son of the famous 31-pound cow, Ollie Watson Prima Donna.

Dam—Groveland Korndyke Cornucopia—27 pounds from 624 pounds milk in seven days. Best day's milk, 101.5 pounds. A granddaughter of King of the Pontiacs and first prize winner as a three-year-old at the 1913 National Dairy Show.

Calf is well grown, a very good individual and reasonably priced. Have other young-er bulls for sale. Write or come and see us.

Walcowis Farms, Lake Geneva, Wis.
N. Dickinson & Son.

ock River Valley Farm

Awarded

IRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced one year as a 3-year-old 1,021.72 lbs. but-, (80% fat.) Over 30 yearly record cows in d headed by Mutual Piebe DeKol.
A few young bull calves from these cows sired this bull for sale. (Herd tuberculin tested.)
HN HETTS, FORT ATKINSON, WIS.

Cleveland Herd

ffers Yearling Holstein bull from a 29.08-lb. ear-old dam, that gave 100 lbs. milk in a day i won $109 prize money in one year. Her n is a 26 10-lb. cow. His sire is a 30-lb. grand-. of the $50,000 bull. He is evenly marked, a , straight individual and ready for heavy vice. Price $500. If interested send for his igree. H. R. Weiskopf, Cleveland, Wis.

y 35.43-lb. Sire

. 1. Born Feb. 1st, 1918. Dam has a record of nearly s. of butter 7 days. Best days milk 75 lbs. Bull is a good individual especially high rump, half and in color. Price $175.00 delivered. No. 2. Born Feb. , 1918. Dam has 20.20 lbs. at 4 years, second dam over 25 lbs. 7 days. A little more white than black. vidually he's a dandy. Price $200 delivered. For her particulars and pedigree address
M. ANDERSON, - WHITEWATER, WIS.

25 Holsteins $25

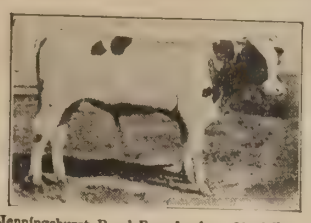
have thousands of satisfied customers and want you as one. Buy the best. Five eks old, 15-16 pure, $25 crated. Express d. C. O. D. Write us for anything in cattle.
J. A. Roberts Stock Farms, Oconomowoc, Wisconsin.

Holstein Bull Calves

e 27 lb. dam at 3 years 4 mos. King of the Pontiacs, gerveld De Kol and Johanna breeding. 19 years ding and selecting a producing herd. Write or bet-come and see. M. F. Peck & Sons, Marshall, Wis.

olstein Bull Calves For Sale

Well bred, well marked, good pedigree; ages m one year down. Farmers' prices.
K. LUSE, SUPERIOR, WISCONSIN.



Jenningshurst Beryl Rag Apple a 30.72-lb. son of Rag Apple Korndyke. Owned by Wm. F. Mielenz, Milwaukee.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown.
Write MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A. R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Bonair Farm Foundation Herd For Sale

Owing to feed shortage we will sell any or all of our 30 producing females. Mostly line-bred Ormsbys with A. R. O. records up to 27 lbs. Due to freshen from now to Mar. 1st. Bred to Sir Korndyke Fytje Pietertje 132719 A. R. O. of dam 23.15 lbs. butter in 7 days and 18431 milk and 784 lbs. butter in 1 year at 2 years of age. He will also be sold. O. J. Will, Templeton, Wis.

Ready For Light Service

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

For Sale—Several Young Bulls

5 to 8 months old. Sired by a 30-lb. son of Rag Apple Korndyke, some are from A. R. O. dams and priced very reasonable. Wm. F. Mielenz, 312 First National Bank Bldg., Milwaukee, Wis.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old

out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. Aitken Bros., Waukesha, Wis.

SIR PIETERTJE ORMSBY MERCEDES 43rd

heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull Maplecrest King DeKol 2nd. A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Need a Bull?

Write and ask us how to get the use of a good bull for two years, sired by a 34-lb. bull—KING SUPERBA, 176125, or PABST KING PONTIAC LAD 129298, and dams with 7-day and yearly records. Dr. David Roberts Stock Farm, Waukesha, Wisconsin.

KING SUPERBA

Those who did not meet his sons and daughters at the Wisconsin State Fair have seen by the report in agricultural papers how they took the firsts and Junior champion. Individually they are correct, from A. R. O. dams.
W. J. Mann & Sons, R. 1, B. 16, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. His Dams: Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4 year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

Holstein Cattle In Carloads or Less

Ages ranging from 6 months to 8 years. Telephone, 491 East Troy Exchange.
JOHN MURPHY, R. 27, Eagle, Wisconsin

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna Col. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show —took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is ed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been ng for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
YSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

EST SALEM STOCK FARM

We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to t years old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, one of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 ers and 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot Well grown and nicely marked. This stock is priced to sell in single or car lots. Also offer ding stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, write us for just what you want in Holsteins or Polands. We can please you. Farm located t in City Limits.
J. D. McDONALD, WEST SALEM, WISCONSIN.

. R. O. Holstein

rder to make room in our barns we t sell a number of cows and heifers are backed by large official milk butter records. They are bred to SCONSIN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

BROWN SWISS

FOR SALE

Brown Swiss Bull Calves

8-10 months old. Good individuals. Sired by a bull whose dam milked over 16000 pounds of milk. Priced to sell.

Hawthorn Farm, Hawthorn Farm P. O. Lake County, Illinois.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

HOLSTEINS

Holstein Bulls

A large assortment of well marked, good individuals from A. R. O. Dams. Sired by

Johanna McKinley Segis (44367)

Beauty Pietertje Prince (56435)

Carnation Stock Farms

Oconomowoc, Wis., Box Q. Seattle, Wash.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.



Holsteins In America

The Holstein-Friesian breed of dairy cattle has been established in this country nearly 50 years and has made good from the Atlantic to the Pacific. The breed has been used to improve the dairy qualities of the cattle of Europe. It is in demand also in Canada, Mexico, Australia, New Zealand, South Africa, Japan, Argentine, Central America, and other countries, and holds all records for largest yield of milk and butter. They are large, strong, vigorous, prolific, and productive cattle, and succeed under all climates and conditions.

If interested in **HOLSTEIN CATTLE** Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

10% Discount for December

On account of not being able to complete our new calf stable this fall, we have decided to sell our young bull calves at a *10%* reduction during the month of *December* in order to relieve our present congested quarters.

Here is an opportunity to purchase some great young sons of the noted KING PONTIAC CHAMPION and KORNDYKE SEGIS JOHANNA at unusually low figures. Send for our price list.

PABST STOCK FARM

Dept. A, Oconomowoc, Wis.

Bulls—Bulls

ALL AGES

Johanna and Ormsby Breeding.

Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY

Sheboygan Falls, Wis.

For Sale—Registered Holsteins

We still have left two young bulls, excellent breeding, one about eight months old, the other about eleven mos. old, backed by splendid seven day as well as yearly records. Also four beautiful heifers, two of them about 18 months old, sired by Johanna King Segis the 40-lb. sire and out of a good A. R. O. dam. Another one about thirteen months old, her dam a show cow; sired by a 30-lb. sire. Another one about a year old, granddaughter of the $15,000 Sire. Very classy stuff. Must sell because of shortage of feed. Breeders, not dealers.

Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis. James McKone, Prop. William Lucia, Mgr.

Lisle Farms Co.

Offer High Class

Holstein Bulls

Every dam with an A. R. O. or C. T. A. record. Herd tuberculin tested. Prices right.

Send Today for Bull Sale List.

H. C. Barker, Herd Mgr., Lisle, Illinois.

Farm 25 miles West Chicago, on C. B. & Q. R. R.

The Next Consignment Sale

of the Pure-bred Live Stock Sales Co.

AT BRATTLEBORO, VERMONT

Tuesday and Wednesday, Dec. 3-4

will consist of upwards of 150 head of choice Holstein-Friesian cattle from herds of leading breeders.

The World War is over and there will be a tremendous demand for cattle. Europe has been depleted of cattle and NOW is the time to prepare to meet this great demand.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. **G. G. BURLINGAME, Cazenovia, N. Y.**

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. **E. A. POWELL,**

904 W. Genesee St., Syracuse, New York.

REGISTERED HOLSTEINS

25 cows due to freshen soon.

25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

FOR SALE

27 HEAD

Pure-bred and 15-16 Pure-bred Holstein Heifers

2 and 3 years old. Well marked. 18 head to be fresh soon. Sired by a 30-lb. bull and in calf to a 30-lb. bull. A very choice lot—all my own raising.

A. H. BOSWORTH, DIXON, ILL.

BULLS

Send For Our Free Bull Calf

price list with a lot of choicely bred bulls on it at bargain prices or if interested in females ask for our female list.

WOODLAWN FARM, STERLING, ILL.

Buffalo Creek Farm

OFFERS A SON OF

Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. **Albert R. T. Lillie, Supt., Arlington Heights, Illinois.**

A Chance to Buy a Son of K Korndyke Sadie Vale

At less than half his value, because dark in color. $400.00 buys King Kor Segis Johanna Ormsby, born Aug. 17, He is a large growthy fellow and a fine vidual. His dam and sire's dam average 35 lbs. butter in 7 days. Sire:—King dyke Sadie Vale, regarded as the greates of his generation. His daughters, still ers, are making wonderful milk and butte ords. One K. K. S. V. Topsy made ov lbs. butter as a 3-yr.-old. He also has other 3-yr.-olds with records over 30 lbs. two 4-yr.-olds over 30 lbs. He is the si the youngest 29-lb. heifer of the breed. —Anna Johanna Ormsby, A. R. O. reco follows, butter 7 days 29.35, 30 days 122.3 She is one of the best daughters of Sadie Sir Ormsby. Thus this young Bull has a ble cross of old Sadie Vale Concordia.

W. D. ROBENS, POLAND, NEW YO

A Rare Chan

To secure a few choice

Grade Holstein Co

Just fresh and due within a few These cows were selected to furnish milk famous summer hotel which is soon turned into a Government Hospital. The a very fine lot and will be sold in numb suit the buyer. There are only a few o kind in New York State. Wire your a Don't wait to correspond.

River Meadow Farms, Portlandville,

A SON OF KING OF THE PONTIA

The World's Greatest Proven Sire

For $350

This is half his value—but his colo against him, as he is nearly all black. was born in August, is a splendid indi ual, and is out of a 19-lb. 3-yr.-old. D miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N

BULL CALI

Dam's Record (3 yr.) 23.63 lbs.
Sire's Dam's Record 34.56 lbs.
Seven Dams Average 29 lbs.

Calf born April 6th, 1918. Fine indiv beautifully marked. Write for photo an pedigree. Delivered express prepaid any in U. S. A. Price $250.00.

HARRY L. BENEDICT,

R. D. No. 1, East Syracuse, New

M. & P. Holst Bull Calves

Sired by a bull whose 10 nearest dams age 29.20 lbs. of butter in 7 days. Price and up. Send for pedigree today.

MARKHAM & PUFFER, - AVON,

At Laurel, Mississi

40—HEAD—40

of high class grades and pure-bred reg Holstein cattle, all ages, males and fe some are fresh, some to freshen soon. for quick sale. For further informatio prices write **H. H. Wickwire at Laurel** or write him at Hubbardsville, N.



AUCTIONEE

For pure-bred livestock and farm sales. Write me before on an auctioneer for your sale. dealing and satisfaction assured ences, State Bank of Honey Cree 25 head of pure-bred and gra steins, including herd bull, at K Farms, Oconomowoc, Wis., Sa Nov. 2nd. **FRANK DRUM Honey Creek, Wis.**

For An Auctione

and one that knows values of both

Pure-bred and Ordinary Live S

Write me for dates as I have 95 per cent sales in this section of country. Also se Estate at Auction.

F. H. HEMBROOK, - Chetek, Wis

Holstein Pedigre

To Holstein breeders who appreciate p ness and accuracy in pedigree work, th *consin Live Stock Advertising Co.* will a genuine service.

We make a specialty of *sale catalogs* price is $2.50 a page including pedigree f of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. 413-14-15-16 Pioneer Bldg., Madison

PEDIGREES Holstein pedigrees com by experts from one of the est and most complete systems in the cou

Sale Catalogs Printed **Live Stock Printing La Grange, Illino**

Elliott Brothers Dispersion Sale

65 Registered A. R. O. Holsteins

Sale to Be Held at Dairy Cattle Congress Sale Pavilion

Waterloo, Iowa, Friday, Dec. 6th, 10 A. M.



AALTJE WAYNE DEKOL 3RD, WEIGHT 1,950 LBS.
A. R. O. 31.97 LBS. BUTTER, 560 LBS. MILK 7 DAYS

This cow, her two daughters, one with 31.6 lbs. and one 23 lbs. at 26 mos., her full sister, a 30-lb. half sister and a 5-yr.-old son will be sold. Over half the offering are 50% same blood as this cow. Her sire has 13 A. R. O. daughters, 4 above 30 lbs.

8 Cows With Records Above 30 Pounds Butter in 7 Days

the greatest lot of large record cows ever sold by one firm in the central west. 3-year-olds with ***24 to 26 lbs.; 22 and 23-lb. two-year-olds.***

A 35-lb. herd bull: Dam 115 lbs. milk 1 day. Four ***Ormsby Bred Bull Calves*** from a world record sire and large record dams.

Fifteen granddaughters of ***Queen Piebe Mercedes,*** world record 4-year-old, ***1389 lbs. butter*** 1 year and the only heifer that ever made over ***30,230 lbs. milk 365 days.***

Remember, their ***Individuality*** is on a par with their ***Breeding.***

Tuberculin tested and sold with a 60-day guarantee.

Entire herd goes as we are leaving the state.

S. T. Wood in the box.
Haeger and Tellier, Auctioneers.

ELLIOTT BROS., WOODWARD, IOWA

ABSOLUTE DISPERSION

"The Village Farm" Holsteins

OWNED BY A. F. WENDLANDT, GOOD THUNDER, MINNESOTA

7 blocks from depot and 14 miles from Mankato. Trains met at Mankato morning of sale by auto.

45 HEAD **Thursday, Dec. 5th** **45 HEAD**

A sale where individuality and show qualities will count as well as good records.

Winners at the Minnesota and Wisconsin State Fairs. 2nd on herd at Wis. State Fair of 1917.

Piebe Champion, No. 60577, heads the herd and will be sold. He is well known as a sire of more than ordinary merit. Has 31 A. R. O. daughters and will undoubtedly have a long list in the near future.

18 of his daughters in this herd, also a number of his young sons, 3 of them being of serviceable age.

Most of the cows in milk have A. R. O. records, one having 24.14 lbs., one 20.81 lbs. and one 20.42 lbs.

Also daughters of a Grandson of Sarcastic Lad.

This herd is under State and Federal Test and is Absolutely Free from Abortion. Will be sold under a 90-day guarantee.

For catalog apply to

A. F. Wendlandt, Good Thunder, Minnesota, or F. H. Everson, Sale Mgr., Lake Mills, Wis.

Auctioneers: Col. J. E. Mack, Col. G. L. Fitch.

Sir Inka Prilly Segis Albino

Born Dec. 3rd, 1917.

A Real Bull For Some Small Breeder.

IF YOU ARE A SMALL BREEDER or beginner in the Holstein business and in the market for a herd sire, here is one that is worthy of your best consideration.

JUST A YEAR OLD—Ready for service. He is well grown, a splendid individual with faultless topline and marked nearly all white. As an individual he will suit the most particular.

SIR INKA PRILLY SEGIS, his sire, is one of the famous sons of the great King Segis, who has proved himself to be one of the greatest, if not the greatest, transmitting sires of the breed.

THE DAM OF SIR INKA PRILLY SEGIS is Inka Prilly with a record of 30 lbs. in 7 days. She is from a 25-lb. daughter of old Prilly and sired by a grandson of this same famous foundation cow.

THE DAM OF SIR INKA PRILLY SEGIS ALBINO is Princess Douglas Urmagel, a 24-lb. four-year-old daughter of Sir Urmagel Burke, a full brother to the 35-lb. cow, Urma Burke, and from the 31-lb. cow, Urmagelsche 2d A.

PRINCESS DOUGLAS URMAGEL is from a 29-lb. four-year-old daughter of DeKol Beets Segis, another well known son of King Segis.

THE THREE NEAREST DAMS of this young bull average over 28 lbs. Two of them being only four-year-olds. His seven nearest dams average 26.93 and his eighteen nearest dams average 26.77.

HE CARRIES THE SAME RELATIONSHIP TO King Segis as Segis Fayne Johanna, the only 50-lb. cow, Fancher Farm Maxie, the world's champion heifer with 47 lbs., and Mabel Segis Korndyke, former champion four-year-old with 40.32 lbs.

HE CARRIES A DOUBLE CROSS of both King Segis and the famous foundation cow, Prilly,—both animals familiar to breeders from coast to coast.

AND WE ARE OFFERING this young bull to you for $650, guaranteed sound in every respect and tuberculin tested by Federal veterinarians.

IF YOU WANT HIM, do not wait to write but send us a wire instructing us to hold for you.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show*. A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.28 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quali

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, M

Young Bulls From Yearly Record Da

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official recor 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Schr and other noted herds. These bulls are well marked, heavy bone, straight and large for thei We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association. J. V. Bopp, Fergus Falls, M

The Greatest Bull on Eart

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World Duchess Skylark Orm

Sons of Sir Ormsby Skylark from high testing dams for sale. Will also sell my four-year-o d j herd sire, 35-lb. son of Johanna McKinley Segis and Pearl Ormsby Burke.

MAXWELL FARMS, WATERLOO, IOWA.

HOME FARM HOLSTEIN FRIESIANS

His Six Nearest Dams Average 29.31 Lbs.

A beautiful son of KING KORNDYKE SADIE VALE 2 from 26-lb. dam who is a daughter of Prince Segis Korn from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. A will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One f world's record dam in yearly division. Breeding, size, individuality and price that will your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

HARGROVE & ARNOLD HOLSTEINS

They have the yearly record kind. Dairymen and breeders who want bulls backed by yearly records, and who appreciate the 4% Holstein cow, had better write Hargrove & Arnold Holstein Co., Norwalk, Iowa. They are headquarters for high testing Holsteins, and they have on hand now just a few bulls bred along these lines. Come and see us.

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related to King Segis Pontiac Count and Colantha Johanna Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr**

Registered Holstein Cows

Some to freshen soon. Also heifers and heifer calves and bulls. Very fine strain of good breeding. Non-tested dams. Prices right.

HENRY EICHACKER, - AKRON, IOWA.

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

HEIFER CALF

Born November 9th, 1918.

Three-fourths white, a dandy in every respect. Sire, King Segis Pontiac Alcartra Lad (166569) a son of the $50,000 bull. Dam a good record daughter of King Colantha Pontiac Korndyke 76965. Priced to sell. **Cedardale Stock Farms, O. A. Thomas, - Rutland, Vermont.**

When writing advertisers please mention Hoard's Dairyman.

Only 3 Bulls Left For

They are sons of Sir Johanna Piebe whose dam and full sister average 1030 lb ter for 1 year and his 1st 3 daughters to fr as Jr. 2-year-olds, made 19, 20, and 23 lbs. 7 days. These are Dec. and Feb. calves an dams are good yearly record daughters o of the Pontiacs. Herd on Fed. Accredite

RAY MEEKER, MUNCIE, INDI

P. S. Meet me at the National Dairymen

Service Bull

5 bulls from 1 to 2 years old. One a son o tiac Korndyke. One a son of King Segis Po The others and several not of service a grandsons of these two great sires. Also daughter of King of the Pontiacs and Pontiac Korndyke. Priced to sell. Wr full information.

WM. N. OSBORNE, WANATAH,

Holstein Breeders, Attention! Buy your bul young, 2 to 6 mos. old, good individuals, nicely from A. R. O. dams. Sire: King Segis De Kol Fa whose dam has 7-day A. R. O. butter record of His grandsire is the sire of Segis Fayne Joha world's record butter cow for 7 days. 1 service sale.

C. I. Reamer, North Liberty, I

Bull Calf, Born Jan. 6,

Sire—Colantha Johannn Champion 45674. 39 A daughters. Son of Colantha 4th's Johann lbs. butter in 7 days, 1,247.82 lbs. butter in

Dam—Emblagaard Colantha Mahomet 279872 antha Johanna Champion 45674. Record at 2 months, 9 days: Butter, 7 days, 14.67; milk butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 66 11 months. The price of this bull is exceedin We must make room in our calf barn.

EMBLAGAARD DAIRY, Marquette, MI

THE TRAVERSE HE

We have what you want in

BULL CALVES

the large, fine growthy type, guarantee in every way. They are from high pro A. R. O. ancestors. Dams' records up to Write for pedigrees and quotations, about age desired.

Traverse City State Hospital, - Traverse City,

The Pontiac H

"Where the Champions come fro

Offer Bull Calves sired by sons of *Korndyke, Hengerveld DeKol, Pontiac land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd

PONTIAC STATE HOSPITAL, Pontia

Bloomingdale H

...HOLSTEINS...

For twenty-five years have been b large production and good individuality Fayne Johanna, the first 50-lb. cow, is breeding and made her first 30-lb. recor in our herd. Many of the large produce been bred here. Foundation stock a spe

A. A. Courtelyou, Somerville, New

"NO HORNS"

Naturally Polled Holstein-Friesian bull sired by a son of the **World's Record** senior 1294.7 lbs. butter in 365 days. at $100 and up. De catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Sum

Complete Dispersion

of the Erinside Holstein Herd

Tuesday, December 10th, 1918

65 - Registered Holsteins - 65

:5 Cows and Heifers with A. R. O. Records from a 12-lb. 2-year-old to a 31-b. jr. 4-year-old. All young heifers, bulls and bull calves from A. R. O. dams.



MARY SEGIS BEETS 252171

31.83 lbs. butter in 7 days, 121.25 lbs. in 30 days as a jr. 4-year-old. Wisconsin State Champion in 30-day division.



KING BEETS LYONS 113045

This sire is by King Lyons, 40 A. R. O. daughters, and out of a 32.60-lb. daughter of King Segis. His 6 nearest dams average 31.90 lbs. butter in 7 days. He has 50 sons and daughters in our herd.

THE SALE INCLUDES:

Mary Segis Beets, the Wisconsin State Champion in the Thirty-Day Division. As a junior 4-year-old she made 31.83 lbs. butter in 7 days and 121.25 lbs. in 30 days. As a jr. 3-year-old she has 28.26 lbs. in 7 days to her credit and as a jr. two-year-old 22.88 in seven days, 88.66 in 30 days. There is no reason why she should not come back again and do even better next year. She and her 2 daughters will be sold, one a yearling, the other a heifer.

Lady Bess Sue, a 28.89-lb. cow, 2 of her daughters, and her last calf, a bull, will be sold. A host of other good ones are included.

Also 10 heifers and heifer calves and about 8 bulls and bull calves, the oldest 18 months old.

Cleveland Johanna Sir Piebe is our junior herd sire. He is from Molly Johanna Korndyke with 30.64 lbs. butter in 7 days as a 2-yr.-old. (World's record when made.) His sire is a son of Pinehurst Piebe, a 34.43-lb. show cow.

All of the daughters of King Beets Lyons old enough to breed are in calf to this splendid young sire.

REMEMBER:

This is strictly a breeder's herd, established in 1898. Every female but one has been bred by us.

We will give the same guarantee against tuberculosis as was given at the National Sale at Milwaukee last June. We have been testing for tuberculosis the last fifteen years and have never had a reactor.

The sale will be held at the farm which is located five miles south of the Lake Mills depot, six miles west of Jefferson and eight miles northwest of Fort Atkinson.

Trains which will be met are as follows: The 8:50 A. M. east bound and the 11:57 A. M. west bound, Lake Mills; the 8:55 A. M. north bound, Jefferson.

The sale will begin promptly at 10:30 A. M.

Catalogs will be ready the day of the sale.

AUCTIONEERS: HAEGER, AND MACK.

GORMLEY BROS., Proprietors

Fort Atkinson, Wisconsin, R. No. 1.

What An Expert Says About High Protein Feeds

Algoma, Wis., March 4, 1918.

Chas. A. Krause Milling Co.,
Milwaukee, Wis.

My Dear Sirs:

I believe that the feeds that have the greatest power to stimulate milk production have the least power in nourishing the reproductive organs.

I admit that high protein feeds stimulate milk production. It is true that cows making large records were fed rations containing a large amount of protein, but witness also the large number of such cows that are barren or entirely sterile as a result of such feeding.

I know herds right here, that have been fed largely upon high protein feeds, as recommended in conjunction with leguminous hays (high protein), that are now ruined by abortion. The fact that the cows carried their calves up to six to nine months is a pretty good indication that it is not germ abortion. It cannot be traced to any other source than improper feeding.

*High protein feeds have their place in the economy of feeding, but one thing must be remembered: **They must be fed with other feeds** that counteract their bad effects. Such feeds are corn, hominy, barley, etc., hominy being the cheapest at present.*

In carrying out this plan, alfalfa or clover hay, with plenty of good corn silage for roughage, and oats, corn, barley, bran and some one high protein feed, play an important part.

We should not let our thoughts run altogether to the milk pail. We should so feed and care for our cows that their vigor, health and reproductive powers are maintained.

Most sincerely yours,

(Signed) FRED PFUEHLER,
Official Tester of the Wolf River Cow Testing Association.



Why Cows Need a Balanced Ration

THE heavy milk cow of today may be compared to a machine. An experienced and careful operator can drive a machine at high speed day after day with only normal wear and tear. In the hands of an inexperienced operator, however, it is soon pounded to pieces, its working period is reduced, and while heavy production may be maintained for a time, the average is low.

Likewise, by the use of a high protein, but poorly balanced ration, a cow may be forced to show big results for a short time, but at the expense of her other functions. Feeders now realize that a cow's ration must be properly balanced by sufficient fats and carbohydrates.

A properly balanced ration which, while containing sufficient protein, furnishes in addition other necessary food elements, will produce a heavy flow of milk without in any way impairing the cow's general condition.

Three of the most widely used dairy feeds, BADGER STOCK FEED, CREAM CITY DAIRY FEED and KRAUSE DAIRY FEED, differ in protein content, so that the dairyman can select the one which is exactly suited to his requirements and will give him the results he desires.

The base of all of these feeds is BADGER HOMINY FEED, a rich, nutritious, palatable feed, high in digestibility, which stands at the head of every grain and feed stuff available to the American feeder. Fed alone, however, it is too compact and is not properly balanced. In these three feeds it is so combined with other elements as to form a perfectly balanced ration, which insures heavy milk production and, instead of lessening reproductive power, increases it.

BADGER STOCK FEED is designed to meet the need where a comparatively low protein and high carbohydrate feed is desired.

CREAM CITY DAIRY FEED has a good percentage of carbohydrates and fat, which keep the cow in good condition, with just the right amount of protein to produce a good flow of milk.

KRAUSE DAIRY FEED runs higher in protein, to meet the necessity for heavy milk production and for use where feeders wish to use home grown grains in the ration.

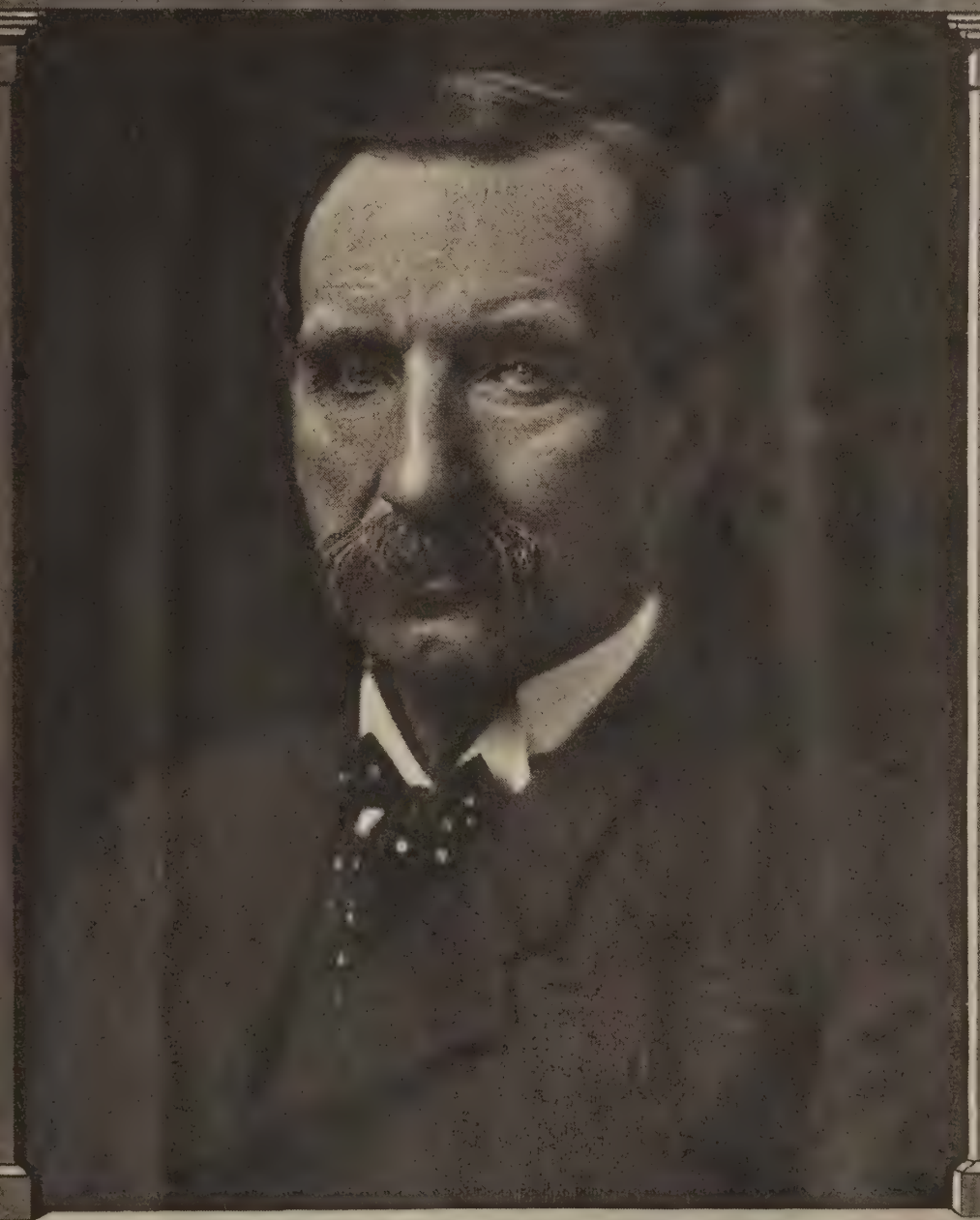
You can use no better feeds than these perfectly balanced rations, made up by a manufacturer of high standing and long experience. No feeds you can mix yourself can be as scientifically accurate, as economical, as thoroughly dependable.

Ask your dealer for the feed best suited to your requirements; write for free samples and full information.

Chas. A. Krause Milling Co., *Milwaukee, Wis.*

Manufacturers of the Badger Line of Farm Feeds

HOARD'S DAIRYMAN



WILLIAM DEMPSTER HOARD

Hoard's Dairyman

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Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Effect of Oak Leaves on Cow's Milk Flow

HOARD'S DAIRYMAN:—I am tendering the following information because if I had had it, it would have saved me a thousand dollars or more in production last year.

My herd had been accustomed to exercise in a good-sized wood lot. Last June, a year ago, I decided to pull down the trees for the purpose of clearing it up as a pasture lot. The trees were felled during June, just when they were coming out nice and green. A few were felled daily. My cattle, who are barn fed the year round, went after those green leaves with a vengeance. A good many of the trees were black oak.

About a week after the first trees were felled, one-half my herd fell off tremendously in milk. One cow that was producing eighty pounds of milk did not give an ounce for three days. She then began to increase and gradually came up to about thirty-five pounds, and I believe finally to forty pounds per day. The tannic acid in those oak leaves did the business.

I went to a number of veterinarians to find the cause of the great falling off in production, and I did not find a one who could suggest the cause, although I mentioned the oak leaves to everyone of them. Eventually I did find a veterinarian of national reputation, and he said he had heard of similar results on several occasions, and I am myself perfectly satisfied that the oak leaves were the cause. I am also satisfied that even the amount of oak leaves that cattle may gather in wood lots or passing through woods with underbrush will have the result of setting up a condition of indigestion that is very bad for milk production.

Maryland. H. M. ROWE.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

An Impossible Task

We fed him chicken twice a day,
We gave him turkey, too.
Sweet hams were often sent his way,
And lamb and steak and stew.
He had a little attic room,
As snug as it could be.
The movies cleared away his gloom,
As far as we could see.
He didn't have to work so hard,
His chores were mighty light.
We held him in a high regard
From morning until night.

All dairy tasks were quite a cinch,
A patent milking rig.
We did his labors in a pinch
His salary was big.
We called him "Mister"—let him go
To town, say twice a week.
We gave him clothes for Sunday show,
For style is what they seek.
But, after all was said and done,
The feeding and the play,
Them city lights and laughter won,
Th' dern fool wouldn't stay!

The Best Reason of All

Dairyman Jinks has written out seven reasons why he won't buy a new cream separator:

The old one is good enough.

He doesn't want to spend the money.

He's used to the one he has.

He'll make the other do.

One cream separator is as good as another.

The salesmen bother him.

His father used the one he has now.

But the best reason of all he does not give,—he just hasn't proper reasoning power.

Making the Best of It

"I attended the finest Holstein auction I ever saw the other day."

"Do any buying?"

"There were seventy registered animals, all at a bargain."

"Guess you took a whole herd then, eh?"

"Nope. But I bought one prime heifer and took the rest of it out in wishing."

If Hindenburg Could Reach Our Dairy Farms

"Cut the legs off all milk cows."

"Leave no calf standing."

"Burn every barn you see."

"Concentrate shell fire on silos."

"Poison every cream separator you find."

"Put the torch to corn cribs."

"Dairymen and their families should be executed."

"Destroy pasture land."

"Deport farm help of every kind."

"Capture every tractor in sight."

The Peace Bells Ring

How good to know that when spring comes,
With apple blossoms in her hair,
And when the May-time bee-time hums
That peace will greet us everywhere!
How good to know that letters now,
From boys who smiled and went away,
Will soon be saying: "Back ere long;
It's Home, Sweet Home' the soldier's song,
We're packing up today."

How good to know that herds will graze
In meadows shadowed by no cloud.
The storm has passed—the blood red haze,
The heartaches and the heads we bowed.
For war seems kin to tempests wild
That bent their fury on the land.
Then, peace, like sunshine, breaking through,
Let's God's smile mingle with the blue
As worlds walk hand in hand.

How good to know that as spring smiles
From out the melting cloak of white,
New seed will quiver o'er the miles;
New roses raise to holy light.
And men will toil and cattle trudge
Down many a little country lane.
Peace! Peace is here! The fight is done,
That which was wholly just, is won,
And we can smile again!

2 to 1

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So is labor.

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And never before was there so urgent reason for saving every ounce of butter-fat and every half-hour of time and labor.

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See the nearest De Laval agent right away and let him show you what the De Laval will save for you. If you do not know the De Laval agent, write direct for any desired information.

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50,000 BRANCHES AND LOCAL AGENCIES THE WORLD OVER.

Tributes to W. D. Hoard by Prominent Men

ON October 29, 1914, the portrait of William Dempster Hoard, editor and founder of Hoard's Dairyman, was given by the A erican Guernsey Cattle Club to the Saddle and S oin Club of Chicago. A banquet was held at th time in honor of Mr. Hoard at the Stock Y ds Inn, Chicago, but feeble health prevented h from being present at that time. Several p minent men paid high tribute to the service w ch he had rendered to the nation and also pre- s ed some personal history. These addresses w e not published in Hoard's Dairyman, because w considered them largely a personal matter. It n seems both fitting and wise to publish these s eral tributes which enumerate some of the most p minent activities of his life.

he exercises on this occasion were in charge of M. W. W. Marsh who, in his opening address, said:

Ladies and Gentlemen:—A very great honor has c e to me in presiding over this gathering, na- i al in character. From Maine and New Hamp- l e to California the great breed of cattle, the g at industry with which we are allied, is repre- s ted. I know full well, much as we love and l al as we are to the yellow cow, the occasion is n h greater than an attempt to do honor to her. I elieve this meeting is epoch-marking in the fact t we recognize here tonight, purposefully, the w k of a man who is a true servant of humanity; t work of a man along lines just outside of the l elight, just outside of those vocations in which p lic applause and headlines and fame in this day a apt to come. In other words, in animal hus- b dry,—and in agriculture we do not expect to h e the same recognition from the world and the p lic that they have in other walks of life. But t ight, in a gathering, national in its character, t life and work of our dear old leader, Hoard, a to be publicly recognized, and in doing that we d honor to ourselves and to the vocation with w ch we are allied.

The opportunity, the great privilege of telling h is work. devolves on other people; it is just my d y to introduce those people and to hand over t he Club, which is to care for and to guard, the p trait of the man whom we have chosen and, so f as it is in our power, to put him among the first t he immortals of our industry.

I am not going to say any more, because there a other people to talk about the Governor, and it w ld not be right for me to introduce any other s ject. On behalf of the Club, Dr. Favill will ac- t the portrait."

The fine portrait, painted by Mr. Arvid Nyholm o New York City, was here unveiled and re- ved with much applause.

n speaking for the Saddle and Sirloin Club, the s Dr. H. B. Favill, vice-president of the Hol- n-Friesian Association, said:

If there is great hesitation on my part in ac- ting so agreeable a duty and so noticeable a d inction as is offered me this evening, there is a s son, and the reason is a sense of inadequacy, a s se of distrust in my ability to walk just the line t I ought to walk in this matter. If I were to all that is in my heart to say on this subject, ould say too much, and if I say only enough for occasion, I shall not have said half the truth.

My feelings in this matter are deeply personal well as merely official. I have traditional relation Governor Hoard, born of respect and affection him—family tradition, neighborhood tradition. ay say, incidentally, that he was an intimate panion of my father's generation, his brothers ticularly. Two of my father's brothers and vernor Hoard, and four others, formed the first rymen's Association of Wisconsin. Soon after t—not so soon, but while I was hardly more n a boy, I became, when Governor Hoard was t elected Governor, his family physician. The tionship was not that of physician and patient, vas that of a young man deeply impressed with valuable friendship of an older man, and Gov- or Hoard is one of the few men I have ever n with whom I could associate half an hour at time and always learn something. And so, as e went on, and I traveled along in that com- nwealth more or less intimately with Governor ard, and always with my eyes fixed upon his er, I have seen him take a position in that mmonwealth—politically at that time—that was ays significant. I have seen his triumphs and ave seen his failure, if one may so call it, po- cally, always on the basis of principle. And the only defeat that he ever had was a defeat upon principle. And so as the time went on and I grew older and grew away from that locality, always that friendship has been maintained, always that relationship. So you can see that I come to this situation with a sense of personal interest that few people could have.

"In more recent years, as my interests began to be changed, and I began to have a fundamental and increasingly deep interest in agricultural affairs, I saw that all my early estimate of Governor Hoard was far short of its true level. I began to see, as I came to figure the various things that go on in this country, that although we had in Wisconsin statesmen, men of affairs, men of breadth, and power, and influence, and insight, that most of them were really superficial in comparison with Governor Hoard; that the statesmanship of Governor Hoard, as Mr. Marsh has so aptly stated, just outside of the limelight, was the statesmanship of our foundation; that whereas other men were dealing with the framework of our social structure, he was dealing with its sources, its foundations, its cornerstones. And so, as my familiarity with his work increased, and as I came more and more to follow the lines of his influence every year, I have come to see more fully that his influence is not to be measured by Wisconsin, not to be measured by the confines of the United States, but that his influence has reached the world around, wherever a community is sufficiently enlightened to realize that agriculture is its foundation and wherever it is sufficiently specialized to see that of all the branches of agriculture, dairying is the most important.

"Therefore, I have come to feel with regard to Governor Hoard that he is a man of the broadest statesmanship and I have yet to know, in casting over in my mind all of the public figures of this country, I have yet to realize, a man whose influence upon the welfare of this country has been greater than that of Governor Hoard.

"That being the case, the question is always before us, how has he done it? and I say he has done it by devotion to a cause; he has done it by patience, insistence, dogged determination to go on and on until he accomplished what he was at, and never has he compromised. And so, although we can see in this same agricultural world and although we can see in the dairy world great figures, men of great influence and great power, after all, here is the man who has carried the key to the recesses of the closed mind in this country. He is the man who has carried the torch that has fired men's souls, and this is the man that we must acknowledge as leader in the whole realm of agriculture and dairying thought in the world.

"The Saddle and Sirloin Club honors itself in accepting for a place upon its walls this portrait. Always it has held in highest esteem, in great appreciation, Governor Hoard. Only now has it come to the point where it includes his portrait in its gallery.

"You may wonder why it should be interested in this portrait for its gallery. The Saddle and Sirloin Club is not a mere social convenience. It is more than that, it is a clearing house for agricultural thought, and more than that it is an educational institution and, thanks to the great vision, and insight and inspiration of Mr. R. B. Ogilvie, who is really the father of the Club and the originator of the idea of the gallery such as we have, this movement has gone on and on, not as a decorative feature, but as a feature of perpetual education to the breeders and the agricultural men generally in this country, with the hope that it will go on and on and that its usefulness as an educational feature has only just started. For that reason, the Club welcomes the gift of the American Guernsey Club of this portrait of Governor Hoard and receives it with gratitude and thorough enthusiasm, feeling that no place that is filled by a portrait upon its walls will be more distinguished, more highly honored, more absolutely appreciated in the future of our great industry than will this place in which appears the portrait of Governor Hoard and, on behalf of the Club, I have to extend to you our heartfelt thanks."

Life and Work of Governor Hoard

CHARLES L. HILL OF ROSENDALE, WIS.

It is particularly fitting that this day which has been so full of interest to Guernsey breeders should close by our doing honor to one who, above all others, all dairymen delight to honor.

At last year's National Dairy Show the suggestion was made that in view of the fact of the International Amphitheatre having probably become the permanent home of the National Dairy Show, and the Saddle and Sirloin Club more and more the home of so many of the leaders in all branches of this industry, for the week of the show, that we ask the officers of the Club to be allowed to place some portraits of the leaders of this industry on the walls which have been used to immortalize the leaders of kindred industries. The suggestion was very happily received by the officers of the Club. Space has been set aside in which we may place portraits of men whom the dairy world deems benefactors.

The Executive Committee of the American Guernsey Cattle Club asked the privilege of placing on these walls the portrait of Governor Hoard, who, more than any other one man, has so unselfishly given his life to all lines of this industry. This, then, is the first portrait with which we start our gallery of the immortals of the dairy world. I have been asked to review briefly his life and some of the things he has accomplished.

William Dempster Hoard was born in Stockbridge, Madison County, New York, October 10th, 1836, the original name of the family being Hoar, and being the same family from which came Senator Hoar of Massachusetts and Congressman Horr of Michigan. The "d" was added to the name by Mr. Hoard's great-great-grandfather in 1760.

Of Mr. Hoard's boyhood life on the farm we have time to say a little. He delights to tell of the days spent with his grandfather on the old homestead. On the mantle over his office fireplace there is a grain sickle that his grandfather used when Mr. Hoard was a small boy; and when he was but nine years old, one day his grandfather's back being turned, he took the sickle and attempted to cut grain, and he will show you the scar on his finger as the result of his first trial as a harvest hand. When sixteen years of age he began to work for a well-to-do dairyman named Waterman Simons, who taught him to make both butter and cheese on the farm. Mr. Simons kept a herd of fifty cows that averaged above six hundred pounds of cheese each per year, and it is easy to see where Governor Hoard received his early knowledge and inspiration for this industry.

He came West in 1857 and, having joined the Methodist church at Lowell, Wis., he studied to become an exhorter and received a license to exhort, but having differed with the Presiding Elder over some of the doctrines of the church, particularly, he burned the license and went to cutting wood. That winter he helped cut two hundred cords of wood at twenty-five cents per cord, and when he received his pay, included was a bad $2.00 bill which represented four days' hard work, and Governor Hoard never fails to speak of the impression that this made on him regarding the need to the poor of sound money.

For the next three years he taught singing school in many towns from Waupun to the southern border of the state. He also gave instruction on the violin. He moved to Lake Mills in 1860, and there, on February 9th, 1860, he was married to Agnes Elizabeth Bragg. In 1861 he enlisted in Company E, 4th Wis. Volunteers, and was with Gen. Butler at the capture of New Orleans. On account of ill health, he had to leave the army in 1862 and he went to his father's home in New York, but his health having improved, he again enlisted in 1864 in Battery A, New York Light Artillery, and served to the end of the war, 1865. Immediately following the war he came back to Wisconsin and settled at Columbus, where he went into the nursery and hop growing business. He made some money in the nursery business, but lost it all, and more, growing hops, and it took him twenty years to pay his debts. He started the Jefferson County Union at Lake Mills, March 17th, 1870, and three years later moved it to Fort Atkinson. In 1871 he organized the Jefferson County Dairymen's Association. The success of this organization led to his organizing, in 1872, the Wisconsin State Dairymen's Association, of which he was the first secretary. This was among the first organizations of its kind in the United States. He also helped organize the Northwestern Dairymen's Association of which he was later president, until this gave way. In 1873 he helped organize the Watertown Dairy Board of Trade. It was in these years of the early '70s, apparently, that he had his first vision of what dairying in the West might become. In 1870 the Wisconsin cheese product

amounted to less than 1,000,000 lbs., and this seemed an enormous amount to the people of those days. Then all cheese was sold on the basis of the Liverpool market and the bulk of it was shipped there, except the Wisconsin product. New York State and the Western Reserve in Ohio were the greatest cheese producing sections. Mr. Hoard thought if only the prohibitive freight rates to the Atlantic seaboard could be reduced, dairying would increase by leaps and bounds. It was costing then 2½ cents a pound to ship cheese in common cars to New York.

He made a trip to Chicago and interviewed the agents of all the different freight lines to the Atlantic coast, but when he told them what he wanted, they laughed at him. The last man he went to see was Mr. W. W. Chandler, agent of the Star Union Line, the first refrigerator line in the United States. When he went into the office and spoke his little piece, Mr. Chandler wheeled in his chair and said, "What do you want, sir?" Mr. Hoard replied, "I represent a million pounds of Wisconsin cheese seeking an outlet on the Atlantic seaboard at rates that will allow us to compete with other cheese producing sections. I want you to make a rate of one cent a pound from Wisconsin to the Atlantic seaboard, in refrigerator cars, and I also want you to send a refrigerator car to Watertown, Wis., at a meeting of our Dairy Board next week, and come yourself to explain its advantages and workings." Mr. Chandler replied, "Is there anything else you want?" and Mr. Hoard said, "Not now." The very audacity of the request seemed to gain its point, because Mr. Chandler said he would do it. And this rate was in effect for many years and is practically the rate today. Cheese factories then began rapidly to increase in numbers and the cheese business continually increased, until Dairy and Food Commissioner J. Q. Emery of Wisconsin now estimates that Wisconsin cheese products for the year 1913 exceeded 190,000,000 lbs., and in the same year the estimate shows 133,000,000 pounds of butter, which together with condensed milk, market milk, cream, and by-products would exceed in value $100,000,000.

From the very first publication of the Jefferson County Union, which is today one of the best county papers in Wisconsin, he published one or two columns of dairy matter, and he constantly urged the farmers of Jefferson County to go into the dairy business.

In 1885 his son, Arthur Hoard, suggested that he believed there was a field for a special dairy paper. His friend, Edward Coe of Whitewater, suggested the name "Hoard's Dairyman," and the venture was undertaken. From the small, four-page paper of that day Hoard's Dairyman has now become the leading dairy paper of the world, with thirty to forty pages weekly and with a circulation of 75,000. It goes into every state in the Union and practically all foreign countries. While visiting Sir Henry Lennard's farm near London last summer, Mr. Lennard told me that he not only took and read Hoard's Dairyman, but also had a copy come for his man, and he sent word to Mr. Hoard that all he knew about the dairy business he learned from Hoard's Dairyman. The same testimony has come to me from dairymen in Australia, New Zealand, and Japan. Doubtless the same is true of every other country in which the English language is read.

At a meeting of the Executive Committee of the Wisconsin Dairymen's Association held in Milwaukee in 1884, Governor Hoard offered a resolution asking the legislature of the state of Wisconsin to provide some sort of a system of farmers' institutes, and appropriation was made at the next session of the legislature and this movement has spread practically to every state in the Union and has been one of the most powerful influences in agricultural education.

Probably Governor Hoard is better known for his championship of the special purpose dairy cow than for any other one thing. To thousands of audiences in every state in the Union he has said: "You don't hunt chickens with a bull dog, and why will you insist in dairying with a beef cow." In his study of the subject he prepared a series of charts to use at farmers' institutes and dairy conventions, the thought of the address being, "Temperament produces function and function controls form." Wishing himself to own some of the best dairy cattle for the purpose of study, he purchased, about 1885, both pure-bred Guernsey and Jersey cows. In the first address I ever heard him make, I remember hearing him refer to his Jersey cow, Queen Felch, and his Guernsey cow, Bonnibel. At the same time he bought from Mr. Fairbanks the Guernsey bull, Nutwood, son of Materna, of World's Fair dairy fame, and later sold him back to Mr. Fairbanks.

In later years, when financial conditions permitted, he bought the beautiful farm just north of Fort Atkinson, now known as the Hoard's Dairyman Farm. Here he keeps one of the best herds of Guernseys in the country. By his example on this farm, coupled with the teachings in the paper, he has helped give a wonderful impetus to alfalfa culture.

The starting of the farmers' institutes and the real beginning of agricultural education at the University of Wisconsin in 1886, gave an impetus and inspiration to agriculture, and the farmer became a respected citizen in that state.

In March, 1888, there were three candidates in the field for the Republican nomination for Governor of Wisconsin: E. C. McFetridge, H. A. Taylor, and Col. George Ginty. On the morning of March 26th, 1888, when Mr. Hoard started down to the office, the first man he met said, "Have you seen the Sentinel this morning, Mr. Hoard?" meaning the Milwaukee Sentinel. Mr. Hoard replied he had not, and the man said, "Better look at it." He was so accosted two or three times on the way down town, and when he reached the office he saw the paper. There was a long article, purporting to come from Madison, suggesting Mr. Hoard's name for Governor. It later turned out that this was written in the Sentinel office by Horace Rublee, the editor. Mr. Hoard took the suggestion as a joke, but at once began to get telegrams of congratulations, and his candidacy gained such headway that when the convention was held in September he was unanimously nominated on the first formal ballot. He was elected by a 20,000 plurality over James Morgan, Democratic nominee. During the season of legislature in 1889 there was passed a law compelling the teaching of English in all public and parochial schools, and not a single member of the legislature, either Republican or Democrat, voted against it. Within the next year, however, very strong opposition to the law arose on the part of those interested in the parochial schools, and when the next convention was held, in the fall of 1890, the politicians urged Governor Hoard and others in charge to weaken on the Bennett law, the name by which this law was generally known. Governor Hoard said he would never do it; that this law was right, and that if he was to be nominated for Governor, the party platform must declare in favor of the thought expressed in the Bennett law. This was the year, you will remember, of the Harrison defeat, and with the influence of national politics, combined with the opposition to the Bennett law, Governor Hoard was defeated by George W. Peck by 27,000 plurality. This is but an illustration of Governor Hoard's continual attitude towards anything that he considers right, regardless of policy or other people's opinion. Since that time, he has served his state as Chairman of the Board of Regents of the State University, as President of the Wisconsin Board of Commissioners for the Louisiana Purchase Exposition at St. Louis in 1904, and in many other capacities. During his term as Governor there was passed the law creating the Dairy and Food Commission, which, I believe, was the first one of its kind. He has also been the best known and most active worker for anti-oleo legislation, and anyone talking to him will soon discover that there is now no subject nearer his heart than that of seeing that the dairymen shall have the benefit of having oleo and other imitation dairy products sold for what they are.

If I were gifted with the use of mother tongue, I would count it the greatest privilege of my life to offer some words of eulogy of the character of this man. Tonight, in my mind's eye, I see the Father of Modern Dairying by his log fire in his complete but unpretentious home at Fort Atkinson, and he is undoubtedly thinking of what we are doing. Is it not a privilege to stop for an hour at this busy show, and recount some of the things he has done for us all, and to think that we can thus show some appreciation while he is still alive, to know and enjoy it?

The need of the world is vision. Here is a man who, returning to Wisconsin at the close of the Civil War, when the raising of wheat was the only kind of agriculture to which the farmers were paying attention, looked into the future and saw something of what dairying might do for the soil and the people. Doutbless then, as in every year since, someone told him, "The business will be overdone," but he heard them not. First, in his home county and through the local papers he urged more and better dairying. Then, in a rapidly widening field of influence, he worked until all the world rise up to call him their benefactor and acknowledge their indebtedness to him. Now, to the dairy world, Fort Atkinson is the Mecca to which come those who wish to pay him their honor and respects. They find not the typical unapproachable great man, but one who will treat them like an old friend; and, day in and day out, and year in and year out, his private office, with the door ajar from the reception room to which all are welcome and from which all go saying, "I am so glad I could have the privilege of shaking his hand; looking into his kindly, homely face and in my humble way how to honor him who, as years go by, we will be increasingly glad to honor." Not honor alone has come to him, for, while he has so cheerfully given his time to the public, there has come to him a reward of his labors that which could bring him all the luxuries in the world in place of the necessities his simplicity desires. It has made possible for him to gratify his desire to help the world in many ways. While his vision of the possibilities of modern dairying and of the special dairy cow are worthy of our highest admiration and praise, still we must honor him also for his championship of honesty and integrity in private, political, and business life. He was willing to go down to political defeat for a cause he knew was right, and which everyone else must now acknowledge as right. He gave years of his life to fight dishonesty and fraud in the adulteration of food products, and for this the dairy world owes him a debt it never can pay.

While he cannot be with us tonight, on account of his health, I am sure he is with us in spirit. It is the wish of every one present that he may not only reach the four score years which he will reach so soon, but that for many more years we may all call him benefactor and friend.

An Appreciation of the Man

DEAN H. L. RUSSELL, WISCONSIN COLLEGE OF AGRICULTURE

In rising to honor the man whose portrait has been presented tonight, I feel as if I was rising to do honor to my father, and I believe that every Badger who has any regard for agricultural education feels likewise.

And this is no mere idealistic conception, so far as I personally am concerned, for Governor Hoard means more to me than he does to many of those who are here tonight.

It so happened, when it became necessary for Dean Henry to lay down the administrative responsibilities which he had carried for so many years in connection with the College of Agriculture of the University of Wisconsin, and those responsibilities passed to much younger shoulders that Governor Hoard was a member at that time of the governing board of regents of the University, and in the widening sphere of influence of that college, it was the help which came from him in large measure which made possible the development of that institution. Governor Davidson appointed Mr. Hoard as regent of the University in 1907, and within a few months from the time that he was appointed a member he was elected president of the Board—an unusual honor to be conferred in so short a period of time, while at the same time he retained the chairmanship of the Committee on Agriculture. In this position he continued until 1910, when it became necessary, on account of declining health, for him to relinquish this position which he had filled with unusual ability. It is a pleasure and a privilege for me to stand here tonight and testify that I believe the success of the institution was due as much to the guiding hand of Governor Hoard in the formation of our policies as to any other man.

For singleness of purpose and devotion to agriculture, I do not know that I have ever seen his superior. In fact, in connection with his work at the University, there were some who felt that perhaps he even over-emphasized the importance of agriculture. Some of our literary colleagues felt that he was giving more attention to agriculture than to anything else, but I suppose this feeling largely arose from the fact that agriculture had so long been considered the tail of the intellectual kite, that some of our good friends had not yet realized that the tail was really the balancing force that kept the head of the kite in the wind. Governor Hoard believed that culture could be imparted through the study of nature as well as the arts of man, and in doing so he did not belittle the efforts which man has made which have been expressed through the humanities, but he did believe that, if properly presented, it was possible to secure just as broad a degree of culture through the study of nature itself as through the medium of the customary artistic and literary channels. Governor Hoard looked for light through the working out of the fundamental laws governing the practical operations of life an opportunity for culture as much as in Greek roots and mathematical theorems. In fact, the processes of nature were to him, as they are to many of us, the dark spaces which need to be lightened. Many of you have heard him refer to

that the inside of a dairy cow was perhaps the
rst spot on earth.
Ie agricultural college in those days was fre-
ly denominated the "Cow College," but we in
onsin regarded it as a matter of pride to be
iated with the cow. It is the cow that has
Wisconsin famous, and it is Governor Hoard
as contributed most to this work.
have in Governor Hoard not only a man
as been of inestimable importance in the de-
ment of the work of the University, but as has
testified to already by others this evening, a
common man who has kept his feet on the
d while at the same time he has had his head
e air.
u go into Governor Hoard's home and look at
haracter of the books in the library, and you
find there Persian and Hindu literature, as
as the literary treasures of the western civi-
ons, which he so much enjoys. You talk with
nd you are talking with a philosopher; you
alking with a man who is self-taught in most
s, and yet a man who has peered ahead with
on that is not equaled by many a University
A wide reader, a man of philosophic thought,
et a man who has constantly kept himself in
with men and affairs, and has so broadened
lf that he is one of the most catholic men
it has ever been my privilege to meet. I be-
that Governor Hoard is the most striking il-
tion we have in Wisconsin, so far as my ac-
tance is concerned, of what a man can do in
ay of intellectual betterment of himself and
llows without a University education. As I
so often talked with him and heard him tell of
fe, there continually comes to my mind the
traits in which he seems to resemble Abra-
Lincoln. Of course, I have no personal knowl-
of Lincoln, and therefore the picture in my
is wholly from historical sources, but as I
upon Governor Hoard and feel the influence
s personality, as I have listened to him, tell-
the story of the Lincoln-Douglas debates,
he as a young man heard, the resemblances
en the two men become more apparent.
times I have wondered what would have hap-
l to this man if he had had a University edu-
n. Might it not have spoiled him in many
? Might it not have destroyed that imagi-
e quality and philosophical insight which is so
a native talent, and which so frequently is
l and rendered mere commonplace by the rut
which the mind may sink when it is made to
v the outlined curricula which so frequently
s to University life?
vernor Hoard early got to the core of the
em of permanent agriculture and the relation
e stock to the same. The lessons of the seven-
which Mr. Hill has just referred to, were pat-
ent to him; he saw, if Wisconsin and the other states of the Mississippi Valley continued in the old lines of wheat raising, that it was their doom. I can remember as a boy in Southern Wisconsin when there was nothing grown but wheat, when the wages paid for binders to harvest the grain were $2.50 and $3.00 a day, with wheat selling at sixty cents a bushel. It was then that the single crop system of wheat culture in Wisconsin had reduced our yields to eight and ten or twelve bushels to the acre, that our people were forced to turn their attention to a different kind of agriculture; it was then that Governor Hoard saw with prophetic vision the absolute necessity of live stock in connection with our agriculture and, like the voice of one crying in the wilderness, he set the farmers of Wisconsin with their faces in the right direction, more than anyone else.

The previous speakers have referred to the formation of the Wisconsin Dairymen's Association, which occurred in February, 1872. Wisconsin honors these seven men who banded themselves together at that time for the development of dairying. To many of you, I presume those names are merely names, if known at all, but I want to give this list of names right here as an honor roll of which our state is proud. This list was led by W. D. Hoard; then there were Stephen Favill, A. D. Favill, W. S. Green, Chester Hazen, the man who built the first cheese factory in the state of Wisconsin, H. F. Dousman, and H. C. Drake. Those were the men who formed the Wisconsin Dairymen's Association. That association has not only the honor of being the first dairy association of America, but it has been the progenitor in our state of practically all the educational work which has been done along dairy lines. Out of the Dairymen's Association came later the State Buttermakers' Association and the State Cheesemakers' Association.

The Dairymen's Association was also the godfather of the Wisconsin Dairy School, the first educational effort made by any American University for the development of dairy education, and I have heard Dean Henry say that it was the Dairymen's Association that nursed through the precarious stages of infancy the Agricultural College itself. Now, gentlemen, when we consider the influences that have developed from the humble beginnings made by these seven men, the benefits that have come to the state in many directions from their efforts, I think you can appreciate that their names should go down as men of unusual type and character.

It is needless for me to dilate upon the personal work of Governor Hoard, but I need simply say he was a man who was unsparing of self,—was thoroughly unselfish in the promotion of dairying in all of its phases; he was a constant seeker after truth, a consistent advocate for intelligent agriculture and the application of science, and I may say I have very rarely seen a man bred in the world of practical affairs alone who has had such an appreciation of the importance and advantages of science. I know in our campaign against bovine tuberculosis, Governor Hoard was one of the first men in the state to embrace and utilize the tuberculin test. It had to be proven out, but he was one of the earliest to apply it to his own herd, and he has been its most consistent advocate ever since.

The introduction of alfalfa into this state is one of the crowning successes which he has accomplished from the agricultural point of view, and that was done by him in opposition to the advice of the Experiment Station; there is one place where Professor Henry and Governor Hoard failed to agree, and Governor Hoard was right. From the humble beginning then made, we have now come to be one of the leading alfalfa states east of the Mississippi River.

His advocacy of the use of lime and phosphorus is another illustration of the far-sightedness of the man; his efforts to lead the state in the direction of permanency of its agriculture.

He has gone beyond dairying; he sees in dairying an expression of agriculture, and anything and everything that will make for the uplift, the permanent, rational uplift of agriculture is the thing that finds place in his paper and through his expressions on the platform.

I recall at the time when we wanted to start the state soil survey in Wisconsin—it was while Governor Hoard was on the Board of Regents,—we secured the services of Professor Hopkins of Illinois, (we take off our hats to Illinois for the advanced position which she has taken on matters of soil fertility). The benefits which Professor Hopkins was able to show and the splendid work of Governor Hoard before the legislative committee made it possible for us to make a start in that important work in our state.

It is our regret that physical infirmities make it impossible for him to be with us tonight on this occasion, but time cannot rob us ever of the memory of his influence for dairy advancement, not only in the state of Wisconsin, but throughout the dairy world. His name will always be lovingly remembered as that of the Grand Old Man of the State, and Mr. President, I congratulate the American Guernsey Cattle Club for the honor they have done themselves in the presentation of this portrait as a permanent memento of this great dairy leader; I congratulate the Saddle and Sirloin Club of this city that they are the recipients of this portrait to put in their new Hall of Fame; and I congratulate the State of Wisconsin that we can offer so illustrious a name as that of Governor Hoard for this occasion.

W. D. Hoard Pioneer For Americanization

readers of Hoard's Dairyman know W. D.
oard very largely for the service he rendered
e dairy industry. His efforts and accomplish-
s were far greater than this. When he became
nor of Wisconsin his attention was called to
act that the English language was not taught
ny of the schools of Wisconsin. In his mes-
to the legislature he called attention to this
and urged a law that would make it impera-
or every child to learn how to read and speak
nguage of his country.
e Outlook published in its issue of April 24,
an article by William Herbert Hobbs, Uni-
y of Michigan, regarding Mr. Hoard's battle
mericanism, and it is as follows:

ccording to the expressed belief of Ludwig
, one of the Kaiser's ninety-three intellectu-
to speak German is to remain German'. The
Chancellor is said to have considered the most
tant political factor of modern times 'the in-
d and political fact that North America
s English'. That his followers have been re-
t to accept this as already settled is clear
the German-American Kultur movement of
ast generation, a movement which has aimed
ntinue the use of the German language by
grant Germans and their descendants, and to
the superiority of German ideals and meth-
ver those of this country. This attempt has
made through the medium of the German-
age newspapers and the many German socie-
n which German is the language of inter-
e and in which the German colors and the
r's portraits have been much in evidence; but
than all through the parochial schools main-
d under the fostering care of the German
h—a church which in Germany has always been the firm supporter of absolute government, whether Protestant (German Lutheran) or Catholic. But for the war it is doubtful if we as a people should have learned how largely this propaganda was supported and financed from Germany, and we have not yet gone to the root of the matter.

"To a large extent the American Kultur movement has been directed by men in the German departments of our American universities, some of them still German citizens, and many of them with strong German sympathies even when not outwardly disloyal to the United States. The leaders in this movement early discovered that the greatest factor in producing loyal American citizens is the American public school, and, under the pretext of the necessity for imparting religious instruction, German-American parents were, partly through persuasion, but far more through coercion, induced to withdraw their children from the public schools and educate them in church-controlled parochial schools where the language and the culture of the classroom have been those of the Fatherland. A direct result has been that these children have grown up unable to speak the language of their country and with little conception of its history or of the ideals of freedom upon which it has been founded. Long a resident of Wisconsin, I have visited sections of the state where to be understood one was compelled to speak German; and conditions are only less serious in some of the other Middle Western states.

"An incident which occurred in Jefferson County, Wisconsin, in 1870 will emphasize the helplessness of the German farmers in such sections, and it points to the menace of their ignorance as citizens of our common country. Several German swindlers from Chicago represented to the farmers that they were government census-takers, and papers were given out printed in English which the farmers were told they must sign, these papers being, in reality, promissory notes in payment of agricultural machinery. Inasmuch as the farmers were unable to read English, they were easily imposed upon, and the swindlers soon acquired notes aggregating $8,000 which were promptly cashed at the local bank before returning to Chicago.

"Out of this incident grew what will one day be regarded as an important landmark in the history of Americanization, for it had much to do with the pioneer movement looking toward nationalism through compulsory suppression of Kaiserism.

"The anger of the German farmers upon finding that they had been swindled it would be hard to exaggerate, as was soon to be learned by the United States Marshal appointed to take the census of four townships in Jefferson County. At the mere mention of the word "census" doors were slammed in his face, he was threatened with violence, and even driven off with pitchforks. A splendidly patriotic American and a veteran of the Civil War, this census-taker was no other than William Dempster Hoard, who later became Governor of the state, and whose name as the editor of Hoard's Dairyman has long been a household word among farmers. Full of years—he is now eighty years of age, but with a mind still unimpaired—he recently gave an interview to a representative of the Milwaukee Journal, in which, referring to his experiences as census-taker, he said: 'I remonstrated with one of these Germans for letting his three sons grow up unable to read a word of English. The reply was. 'Deutsch ist gut genug fur sie' ('German is good enough for them'). This was countered by the question, 'Was it good

enough to keep you from signing a promissory note of $800 and being swindled because you could not read English?' and the farmer was visibly disconcerted, appearing to have acquired a new idea.

"Upon being elected governor of Wisconsin in 1888, Mr. Hoard drew up the now famous Bennett Bill, which was aimed to have the English language taught in all schools. This bill was enacted into law in 1889. Sections 1 and 5 of the law are as follows:

"Section 1. Every parent or other person having under his control a child between the ages of seven and fourteen years shall annually cause such child to attend some public or private school.

"Section 5. No school shall be regarded as a school under this Act unless there shall be taught therein, as part of the elementary education of children, reading, writing, arithmetic, and United States history in the English language.

"The writer well remembers the political and social upheaval occasioned by the passage of this simple act. For once German Lutherans and German Catholics made common cause, though the Irish Catholics rather generally supported the Governor. Before the passage of the law a conference of the leaders of the Republican party in the state was held, and the Governor was thereupon notified that if he did not abandon the measure it would mean both his political ruin and the overthrow of the party. The prophetic reply was: 'We must stand up and save America from this thing. We must fight alienism and selfish ecclesiasticism, for unless we do, these dangers will rise up in still more menacing form in the future.'

"After the enactment of the Bennett Law, a committee of Lutheran pastors waited upon the Governor and insisted that he should not enforce the law. His reply was: 'When I became Governor of this state, I swore a solemn oath, upon the Bible, to uphold the Constitution of the United States, the Constitution of the State of Wisconsin, and all laws enacted in conformity therewith; and now you ministers of the Gospel come here and urge me to violate that solemn oath. It is my firm purpose to do my duty and to enforce the law.'

"Encouragement and support the Governor received from Archbishop Ireland, who at a reception in St. Paul took him aside and said: 'Governor, you must stand up. I must stand up. All who believe in America must stand up and fight this poisonous spirit of foreignism.' And stand up the Governor did, and he enforced the law without fear or favor, while no stone was being left unturned to bring about his defeat at the next election. By a plurality of 27,000 this was, in fact, accomplished largely through the defection of men of his own political party; and a Democratic legislature repealed the law in 1891, with the repealing act signed by a Democratic governor.

"It has been said of Governor Hoard that in securing the enactment of the Bennett Law when he did, this staunch patriot was twenty-five years in advance of his time. No doubt this is true, but it is now just twenty-five years since the Bennett Law was first introduced in the Wisconsin Legislature, and in respect to education in Americanism each of the last three years must be accounted the equivalent of many normal ones. The time would now seem to be ripe to root out this evil of the German parochial school, which can claim no reason for its existence save only that it fosters Kaiserism in America. It is for us now to take up and put through the splendid pioneer work of a Wisconsin governor, the luster on whose shield must grow brighter with the years, as the people are the better able to measure his great work, even though the immediate result was defeat and retirement from political life."

The Bennett Law in Wisconsin

The great World War has given a new understanding and a new interpretation of the Bennett Law, and it is perhaps not out of place to give a brief review of it and the political struggle which it created in Wisconsin. We take liberal extracts from a paper on the Bennett Law by Louise Phelps Kellogg and recently printed in the Wisconsin Magazine of History. The extracts are as follows:

The political significance of the Bennett Law agitation has long been a matter of record. German-American opposition to the law's provisions completely overturned the government of Wisconsin in the year 1890, elected a Democratic governor and legislature, sent in the succeeding years two Democratic senators and several Democratic representatives to Congress, and gave Wisconsin's vote to Grover Cleveland at his second election in 1892. The social significance of the agitation is realized only in connection with the present world crisis, and with Wisconsin's share in the nation's war upon Germany. The conditions of Wisconsin's German settlements, as revealed by the Bennett Law discussion, have an important bearing upon our present problems.

The Bennett Law was simply a compulsory educational law designed to prevent non-attendance and truancy in the schools, and child labor in the factories. In 1879 a compulsory school law had been placed upon the statute books. Its inefficacy was revealed by the biennial report for 1887-88 of Superintendent of Public Instruction Jesse B. Thayer. He called attention to the proportional decrease in public school attendance as compared with the state's increase of population. The numbers of children in the private and parochial schools he had not succeeded in obtaining. Statistics were produced during the Bennett Law campaign to show that from 40,000 to 50,000 children of the state, between the ages of seven and fourteen, attended no school. The extent of the state's illiteracy was thus called to the attention of the officials, whereupon Governor William D. Hoard in his first annual message of 1889 to the state legislature used these words, which have become historic: "The child that is, the citizen that is to be, has a right to demand of the state that it be provided as against all contingencies, with a reasonable amount of instruction in common English branches. Especially has it a right to demand that it be provided with the ability to read and write the language of this country. In this connection I would recommend such legislation as would make it the duty of county and city superintendents to inspect all schools for the purpose and with the authority to require that reading and writing in English be daily taught therein."

In response to the governor's recommendation a bill was introduced into the Assembly whose provisions were less drastic than the measures proposed by the message. It merely required the attendance of every child between the ages of seven and fourteen upon some school, in the district where he resided, for not less than twelve weeks, subject to a fine or penalty imposed upon the parents for noncompliance. In section five it was declared that "no school shall be regarded as a school unless there shall be taught therein, as part of the elementary education of children, reading, writing, arithmetic, and United States history, in the English language." Other sections provided against truancy and the employment of child labor. No person, apparently, saw anything about the bill obnoxious to any class of the population.

It is plain that its obnoxious character was not discovered until some time after its passage, and that this character was first revealed to the community by the protests of German religious bodies, interested in the maintenance of parochial schools.

There is a general impression that the earliest and most influential, if not the largest body of German immigrants to Wisconsin, belonged to the class now known as "intelligentia," the liberal and educated men who escaped from Germany because of political persecution after the unsuccessful revolution of 1848. This class, known as "Forty-eighters," and represented to the nation at large by Carl Schurz and his compeers, comprised but a small section of Wisconsin Germans, and although much before the public, was less influential with contemporary German-Americans than has been commonly supposed.

The earliest groups of Wisconsin Germans left the fatherland to escape religious rather than political persecution, and that not because they were more progressive, but because they were more conservative than their contemporaries in the prevailing state churches of their several localities. Moreover, the emigration was arranged and conducted by the pastors of congregations, which settled as colonies upon large areas of Wisconsin's public land. Even after persecution had ceased in Germany, congregational groups, closely knit by religious and social similarity, usually headed by their pastors, continued to emigrate and to build on Wisconsin soil a village for each group with a church and school similar to those in the home land. Thus in the New World German communities were reproduced with the institutions and atmosphere of the German home, where their former language, customs, and modes of thought were perpetuated.

The tendency of the younger generation was to break away from the home customs, to learn the English language, to mingle and assimilate with the youth of the land wherein they were born. The Lutheran church and the parochial school system were the bulwarks on which the older people relied to maintain their racial exclusiveness. It frequently happened that in the smaller communities the parents were more Americanized than the children. Instances were cited during the Bennett Law discussion, of English-speaking fathers, tives of Germany, whose children, born in Wis sin, knew only German. This was the conditio affairs that the Bennett Law was designe modify.

Occasionally one boldly stated that it was h that the Germans would remain a distinct cla the United States, that they and their poste would constitute a separate and perhaps a supe element in the great current of American life. the national pride grew the determination to m tain a "Germandom" in America grew likewise

Along with this pride of race grew the prid language. "Hold fast to the German customs manners and the dear mother tongue," was adjuration oftenest addressed to the German ers of Wisconsin.

The first mutterings of the storm were hear June, 1889. Two German synods, in session spectively at Portage and Sheboygan, passed lutions denouncing the educational law passe the late session of the legislature as an attack on German churches, schools, language, and p June 20-25 the Evangelical Lutheran synod Wisconsin met at St. Peter's church, Milwau On the latter date resolutions were passed de ing that the new school law was oppressive an rannical, that its enforcement threatened the istence of the synod's schools and churches, that it ought to be repealed. A committee o prominent pastors, editors, and professors wa pointed to take steps to carry these resolut into effect; this committee first suggested that Germans of the state should "emphasize their laration at the ballot-box." July 27, a Ger paster wrote of "crushing the Republican pa if it did not yield to the demand for repeal. T threats of political action, however, were in early stages of the discussion merely sporadic committees first proposed that the law be ign and if prosecution ensued, its constitutionalit tested in the state supreme court.

The Milwaukee Sentinel was the first newsp to take up the challenge thrown down by champions of the Lutheran church. It was language requirement to which the church aut ties objected. Case after case came to light i subsequent discussion of children born and re in Wisconsin who were unable to speak a wo English. From Manitowoc came the statement not one in ten of the parochial schools in county taught a word of English. It was ass that even public schools in the thickly settled man districts were conducted wholly in Ger In fact, said the Manitowoc County Chro "strike the two words *in English* from the law not a churchman in the state coul be foun raise his voice against it."

During the heat of the contest each pol party accused the other of having brought o conflict. In truth neither Republicans nor D crats were eager to bring the Bennett Law int political arena; it was the situation itself forced the issue. The methods of the two pa were necessarily different: the Republicans s to soothe, convince, and persuade; the Demo sought to avoid the issue. Thus the Milwa Sentinel, leading organ of the party in powe chief supporter of Governor Hoard, filled its umns with simple, reasonable, well-written torials urging the need of the law, the harmles of its provisions, the ease with which its req ments might be met, and the advantages would ensue to the Germans themselves and children from its enforcement. The Madison ocrat, on the other hand, throughout the cr summer and autumn of 1889 carefully avoide mention of a subject that was agitating the m of nine-tenths of the people of Wisconsin. Democratic Milwaukee Journal, edited by L W. Nieman, raised other issues, largely ignore Bennett Law, and as late as December 26, wrote "It is amusing to read the efforts (o Republican papers) to convince the public tha Democrats are making the Bennett Law a pol issue."

Governor Hoard, on the other hand, less a and more outspoken, attempted to defend th in several speeches made during the autum 1889 at farmers' institutes and county fai was asserted by some that the country Ger were favorable to the law, and that the oppos existed only in the religious press at Milwa Hoard spoke enthusiastically about the " schoolhouse" as a watchword to rally the peo his standard. No one who reads the speech the campaign can doubt the governor's sinc or his enthusiasm for the cause of popular e tion.

The campaign was unexampled for earnes and intensity. The "Little Schoolhouse" wa symbol of the Republicans, "Stand by it,"

ring cry. October 9, 1890, Hoard wrote from executive chamber, "The duty of the state to ire, and the right of the children of the state ceive instruction in the language of the coun- hall be insisted on." Senator Spooner stumped state making speeches of great effectiveness persuasiveness. The Republicans were confi- of a successful result.

e Germans on their part were not less active. Anti-Bennett Law Clubs, used with such effect e Milwaukee municipal campaign, spread over state. Thousands of German leaflets were ed; songs were prepared whose refrain was ser Sprache und Sitten, die geben wir nicht Individual voters were solicited by pastors priests. The result is well known; the forces Germandom" united with the Democratic ma- made a clean sweep of the state. Peck was triumphantly elected, and at the legislative session of 1891 the Bennett Law was repealed.

But in its defeat, the principle of the law triumphed. In their very eagerness to prove that it was unnecessary, its opponents began to obey its behests. In its weakness appeared its strength. April 22 it was announced that the Lutherans had revised their school curriculum and introduced therein more English. By August, the parochial schools of Manitowoc County had so improved in the teaching of English, that scarce one was to be found that would be disqualified under the Bennett Law. The discussion had accomplished what the law could not do: the stronghold of "Germandom" was demolished. "It never shall happen again" became the motto of wise Germans; and as the heat of the conflict died away, and the animosities it awakened softened, the beneficent purpose of the law stood revealed. Gradually the teaching of English became the rule, not the exception, in all the schools of the state. Slowly Wisconsin Germans came to accept the plea of their noblest leader, Carl Schurz: "Let us never forget that we as Germans are not called upon here to form a separate nationality, but rather to contribute to the American nationality the strongest there is in us, and in place of our weakness to substitute the strength wherein our fellow-Americans excel us, and blend it with our wisdom. We should never forget that in the political life of this republic, we as Germans have no peculiar interests, but that the universal well-being is ours also. In the fires of the present world crisis and the testing of America, may we all learn that 'it is by unity of speech and harmony of thought that the ultimate American is to be the light of civilization'."

As He Spoke in Public

readers, we are sure, will be interested in a ew paragraphs taken from addresses made by Hoard on religious, patriotic, political, and agtural occasions. These excerpts reveal slightly s readth of interest in things, in people, and in They enunciate truths and sacred principles h he believed must be followed if people or na- are to reap the great rewards of life.

The Patriotism of the Puritan

is is the title of an address delivered many s ago on Forefathers' Day at Whitewater, Wis. nat occasion he said in part:

e of the most unique and in some respects in- rehensible figures that stand on the pages of world's history is the Puritan. Possessed of a ous faith which in some respects was cold and dding, more of Milton, Calvin, and John Knox than Christ, there was united with it a single- of purpose, a lofty courage, an almost mysti- nging for the altruism of democracy, and a erful correlation of broad intellectualization he narrowest of prejudice.

concept of God was more the satisfying of a utive justice that destroyed, than a mercy ould save. The Old Testament more than the gave color to his ideas of society, of law, of nment.

heredity he came from the great yeoman class nlaid with the strong mortar of Dutch blood had emigrated to the west of England. And is is but obedience to his strong Anglo-Saxon ity. But the strong tap-root that held him to entral idea and purpose of his destiny was om to worship God as he thought and wished. it be understood that religious liberty is the olid foundation on which we can build politid civil liberty. The Puritan had a dim conness of this truth, and to it gave the last neasure of devotion and sacrifice. He was nt to its logic but not always to its broadest n which would have made him more tolerant d's law of diversity in the outcome of all life rowth, spiritual as well as material.

the great conspicuous element of his nature ourage, both moral and physical. He might staken but never afraid of his conclusions, his ients, or the effects which should follow their ation.

e is the chit of all patriotism. Taken by and it is safer and a thousand times more fruit- listen to the counsels of courage than of dice. It is true in war, in statesmanship, in ss, in religion, in politics, in love. It may ways land you in some fat office, poor time g politician, but what have you or your for- to do with patriotism anyway?

riotism demands sacrifice, demands opposio corrupt men and measures, demands cour- defense of the people, even to the abandonof party, of friends, of life. Sacrifice, not seeking, is the baptismal seal of this virtue.

A Political Address

October 29th, 1898, Mr. Hoard addressed embers of the Hamilton Club of Chicago as s:

are the center from which has radiated that is useful in public conviction, much that riotic, and, after greeting you today, I feel ou hold straight-away and steadily to the central proposition that politics without pam is fraud.

politics there is an evolution taking place hout the whole country. Observant thinkers, men who are watching the signs of the times, notice that the talismanic call of party does not reach the public conviction it once did. There is a hunger in the heart of the people, irrespective of parties everywhere, for once more the reassertion of the old-time American doctrine: "My country, 'tis of thee". Patriotism is the key-note. What is patriotism? Patriotism means sacrifice, sacrifice everywhere, sacrifice of the individual for the public good. What is the meaning of treason? Treason means a sacrifice of the public good for the individual. The soldier standing on the picket line is the embodiment of a public trust. Whether he be there or in the field or elsewhere, he is the embodiment of a public trust, and if he proves false to that trust he is a traitor. In God's name, is not an office-holder an embodiment of public trust? And is not the time pretty near when we should begin to apply to men who serve the public in a civic sense the same doctrine of responsibility that we apply to the soldier? I am sick and tired beyond measure with the idea of one standard for the soldier who embarks his all, yea his life, for $13 a month, and another standard for the politician and the office-holder. And I tell you, good friends, there is an apathy today that we feel all over this country. What does it mean? It means that the public heart has lost confidence in the rectitude, patriotism, and self-sacrifice of our leadership, not of our beloved President—God bless him —for if there is a man today standing in the eye of the great American people who is conspicuous for this definition of patriotism—sacrifice of all matters for the public good, it is William McKinley. But we have too many men today who are political merchants, who are reaching out for public confidence with one hand and selling legislation for money with the other. I would like to see the appeal made to the public heart everywhere once more than politics, and Republican politics in particular, means absolute devotion to the public good, and nothing else.

Agricultural Citizenship

We desire to call particular attention to the extracts from the addresses "Agricultural Citizenship" and 'The Standard of Citizenship". These addresses were given nearly a quarter of a century ago, but how timely their subject matter! How wisely he saw the trend of this nation and how apprehensively he viewed the appeals of the demagogues to religious classes, to the laboring classes, to farmers as a class, etc.! To him there are no classes in American citizenship. We are either foreigners or Americans. He said:

It is one of the grandest things on earth to be an American citizen. Grand, because of the vast extent of his country. Grand, because of the achievements of his race, the sublime struggles and victories it has wrought. Grand, because of the respect all mankind pays to the title he holds. Grand because his citizenship is a standing rebuke to the pretentions of a governing aristocracy and a constant stimulus to the cause of democracy.

Citizenship is the essence of American freedom. It is the Alpha and Omega of the American system of civilization. It is the foundation stone on which are built all American institutions. Its first great object is liberty for the individual. Liberty of thought, of speech, of action, of worship, bounded only by one great principle, to-wit: My liberty must not interfere with the liberty of another. This principle compelled the creation of organized liberty in the shape of a constitution and laws, derived from citizenship itself, whereby the largest liberty consistent with the safety of the whole is guaranteed.

The American farmer from the foundation of the government has constituted the most important class in American society. The agricultural brain has been the parent brain of the nation. Itself the least cultivated, it has furnished the highest cultivation in statesmanship, in commerce, in law, and in art. It is the weakest element for its own interest and advancement of all the elements of our national life. Yet, out of it more than any other element has come the talent, the courage, the enterprise, and the patriotism that has made us the nation we are. The founders of this government were farmers: Washington, Adams, Jefferson, Madison, Monroe, Jackson, down to Webster, Clay, Lincoln, Grant, Garfield, and Sherman all came from the soil. What a magnificent array of genius in every department of human effort has come from this wonderful agricultural intellect in America. Europe furnishes no parallel to it. Why? Because there it is a government of the classes, not the masses. Take Germany as an illustration: The farm peasant there is the lowest form of intellectual life. Hundreds of years ago he was a serf bought and sold on the estate. He has had no intermarriage with other classes. The son of a farm peasant has married the daughter of a farm peasant for hundreds of years, until by the law of heredity there has come a fixed type, honest and industrious, but not intellectual. There are none of the heredities of intellect there. It is a splendid foundation stock, but, like sand, it needs mixing and tempering with other elements before it shall become good mortar. Life in Germany, as well as nearly all the rest of Europe, has consisted of a division into classes, with the farm peasant at the bottom. The result has been that there is a great lack of intellectual assertion in this class. There has been no breaking up vertically, by marriage, of these overlying stratas as in the United States. Here, the poor girl of yesterday may be the wife of the rich and powerful tomorrow, and the humble farm home may and indeed has, in almost every instance, sheltered the infant presidents of the republic.

The Standard of Citizenship

The theory on which American society and government is built is that of manhood citizenship. We are stockholders in this concern not because of birth, rank, or wealth. Manhood is the insignia of our title to the right to be called American citizens. That is the theory. It is a grand theory.

It represents the heart's longing. Aye, the heart's blood of thousands of brave souls in the past history of the world who fought against the tyranny of the few over the many. Our forefathers laid broad and true the foundations of our citizenship and they hoped that we, their children, would adhere to them in all interpretations of our duty. Although they came from every nation in Europe they scorned the idea of race or religion as a basis of political action; they built their citizen on the man alone. Are we following out these ideas? In the light of what is done today, how strangely the old history reads. Turn back to the old party conventions of fifty or seventy-five years ago. You do not read there anything about catering to the Germans, to the Irish, or to the Catholics or Protestants. There were thousands of citizens then of foreign birth but they had left the land of their birth behind them. They cast their fortunes here. No demagogue politician at that time dared to attempt to herd them off into race cliques. They

gloried alone in the name of American citizen. They were Americans not by birth because they couldn't help it, but by choice. They scorned any division of the people except on issues of principle. I wonder sometimes what these old German and Irish patriots would think if they lived here now? Imagine their astonishment at being urged to hang together on this or that question as Germans or Irishmen, not as American citizens. Then again these old time builders of our political house were Protestants and Catholics and every shade of religious belief. No politician would have long survived the storm of indignation fifty years ago had he appealed to his fellow citizens to combine as Catholics or Protestants, as Lutherans, Methodists, or Baptists in political action. Our forefathers had read history to some purpose. They knew the desperate wickedness of the human heart when enlisted in religious controversy. They knew that there is no selfishness like that of ecclesiasticism when in search of political power. They remembered that in all the great struggles in Europe for liberty, despotism had often found its strongest entrenchments in the church. They wanted to live in peace with each other.

They said we will make a government of the people and for the people. The people shall rule as a people and so they divorced church from state. What do you think these old fathers of the republic would say could they hear as we hear today, political appeals made to this or that class of people to vote together on religious considerations? Would they not ask: "Is this the citizenship we established? We knew nothing of any nationality save that of our country. We are amazed to find these heresies among you."

I can see this drift in the tide of our national life. Understand me, my friends. I am a profound believer in religion and in the true mission of the church, but I just as firmly believe in my country, and in all matters of citizenship I demand that we render unto Caesar the things that are Caesar's.

Again, when our fathers founded this republic, they never dreamed that men would measure their civic duties by the trade they followed. No greater lovers of agriculture ever existed than the heroes of th revolutionary period. Yet, what would be the astonishment of our fathers if they could attend some of the latter day political conventions and hear our farmers urged to vote on questions of national interest not as American citizens but simply as farmers? What would be their astonishment if they could attend some labor convention and hear the mechanics urged to vote on the same questions in the name of their trade?

Would they not wonder whence had departed the spirit of that citizenship which they bequeathed to their posterity? Suppose Hamilton, the father of American finance, could hear the question of money discussed from the farm standpoint alone as some of our Alliance friends are doing? Would he not say: "How can the money of all the people be considered and measured alone from the standpoint of a part of the people?"

Money is to the body politic what blood is to the body physical. If it be lowered in force and vitality in obedience to a clamor of the feet or the head, the whole body will soon be poisoned. The circulating medium, if it be sound and good, will visit every part and nourish every part.

Suppose some one should demand that the air we breathe should be modified from a farm standpoint. Every farmer would say: "What we need as farmers is what everybody needs; the best of air and no other. Give us honest air, pure air, and all we are honestly entitled to and no more."

All these questions of general public moment must be looked at and weighed in the light of our relations to each other as citizens, equal partners in one great concern, and not by the trade we follow. No man is honest or dishonest, ignorant or intelligent by virtue of his trade.—"By its own force the river gains the sea."

We have learned blacksmiths and ignorant lawyers, statesmanlike farmers, and foolish mechanics. Demagogues live by arousing the prejudices of men. Honest men appeal to their reason. In reason we shall live, but he who taketh the sword of prejudice shall die by the same weapon. The politician who endeavors to arouse our prejudices against other classes in society is trying to bind us hand and foot with the strong bands of our own folly.

I do not believe the farmer is naturally any more honest than other men but the opportunity of temptation is so lacking that it is greatly in his favor; hence, he is the least corrupted of any class of men; hence, he is the nation's hope when it comes to integrity of purpose. Hence, he is the great jury to whom the destiny of the nation must be referred.

The great crying need of the hour among the farmers of our land is an intellectual awakening, a deeper, a stronger, and more vital thirst for knowledge. Only by this can he become "as gods, knowing good from evil". He needs this awakening for his own good as a farmer that he may more truthfully discern the truths of agriculture; that he may elevate the dignity and standard of his calling, and enhance his respect among men; and, lastly, he needs this awakening for the sake of his country. To him does she look more than to any other class for the preservation of the great principles of American liberty; for the spread of the sentiment of patriotism; for the firm establishment of rectitude and integrity in the conduct of public affairs; for the steadfast upholding of the three great things which constitute the essence of American institutions: Manhood suffrage, an honest ballot, and free public education.

The Old Soldier—A Loyal Answer to His Country's Call

From address delivered at the G. A. R. Banquet in Faneuil Hall, Boston, Aug. 14, 1890.

When God sent forth the children of Israel on that wonderful journey, so full of result to all the subsequent destiny of men, he placed in the jealous care of a chosen few the precious ark of the covenant.

So stands the Grand Army of the Republic, today the chosen priesthood of American liberty, consecrated by the blood of no vulgar sacrifice, as the guardians of that precious covenant with freedom wherein lies the essence of our national life and destiny. It is not an empty purpose of self nor "the vain glorying of war's recollections" that brings us together.

These are Passover days, and we sing the song of our mighty deliverance, in the living hope that its music shall linger forever in the hearts of our children.

War is a terrible reality, yet it has always proved a wonderful developer of national character. Peace hath its corrupting influences no less than war. The spirit of sacrifice dies out, the sordid pursuits of gain absorb both day and night and we come to measure God, man, and country by the "guinea's stamp".

When the war of the Rebellion broke like a cloudburst on our sweet dream of piping peace, it found us asking the cowardly question, "How will this affect our business?"

In four eventful years a grand transfiguration of national character took place. We became a nation of soldiers, ready, without question, for any sacrifice in defense of the ark of the covenant.

We made solemn compact then with the whole world, that American institutions should "not perish from the face of the earth", but live forever, the hope of mankind.

Here broadens out the illimitable horizon of duty that surrounds the old soldier.

Why does he wear the blue? Why does he travel across the continent to kindle afresh the fires of liberty and of patriotism?

What was and is and will be the purpose of his being, till his last expiring breath?

Did the old soldier fight for an abstraction, for an empty symbol, for a mere piece of bunting? No! His mission was to defend and more broadly establish American institutions.

It was his noble task to deepen and enlarge the channel of American pride, to broaden American understanding as to the foundations of our liberty; in short, to establish the glory of American civilization.

He fought to put down caste, and build in its stead the spirit of true democracy.

The best and bravest blood of all nations leaped gladly to the sacrifice.

No narrow nativistic ideas prevailed before the cannon's mouth. The baptismal smoke of that mighty contention buried forever, let us hope, the malign spirit of race prejudice. The American flag, thank God, recognizes no distinction of blood, save that of sacrifice in its defense.

The old soldier believes in true American citizenship, and he makes no apology for calling it American either.

Abraham Lincoln

From address before the Loyal Legion, Milwaukee, February 6, 1895.

Certain men are like mountains. They possess the same scenic character, the same lofty headlands of exalted duty, the same fertile valleys of love and sentiment where humanity can live and find sustenance. Within their bold and rugged outline are spots of most exquisite beauty. Alpine violets and flowers of rarest perfume bloom above their timber line. They bear their own distinctive v dure. Only to him who shall explore them with heart loyal to the sacredness of nature, will th disclose the beauty of their heights and depths.

The gold and silver that all the world wa lie hidden in their inmost recesses. There is m tery and solitude, marvelous light and appall darkness, wonderful cataracts and delight stretches of quiet streams, eternal snow and m ing sunshine, untold wealth and the barrenness t starves; all these elements belong to great men great mountains. It is always refreshing to le the dull and dusty plain and seek renewed cour and vigor in their inspiring presence.

Thank Heaven for mountains that are like r and men that are like mountains.

Did we ever look at a mountain and call it a ward? Its greatness carries it beyond such c cism. Yet an ant hill fashioned in the same out would meet with contempt. Hence let both men mountains maintain the shape that God gave th and be content.

Since the earliest records of human achievem we note that the men who have been rugged, p erful, and ample, have become the repositories confidence and leadership among their fellows.

Lincoln, both physically, mentally, and mora was of this type. Contention, from earliest ch hood, with a most grudging fate, taught him w smaller souls rarely learn, to look lightly on h ship, to patiently endure what he could not c and make friends with poverty and privation. discipline of soul made him tolerant and cath He despised only human meanness. He was stinctively a man of reason. Because of this he broadly conscientious, not only morally, but i lectually. The intellectual perception of the son of things must be right or the moral per tion will be wrong. Hence he was first ethical then worshipful. Reverse the operation and have a bigot and a fanatic. Fortunate is the man soul that starts right, and from the fou tions of reason builds to himself a broade view of God and the obligations of life.

All enduring greatness must have an et foundation. The aim of all human effort, of ernment, of trade, commerce, politics, and its sultant law, must be to establish the right. man who makes of himself a part of this g scheme, and serves it grandly, shall partake o immortality. Such men cannot be judged wi microscope nor analyzed by the gravimetric pro

The Hindu said of such a man: "For it i cause of thy fullness that thou art become as and drink to thy fellows."

All true greatness can come only through sacrifice. Nature abhors cheap effort everyw She is laboriously perfect, even in the smalles tail. Before all heroic souls stands humar altar, on which must be laid all consideratio self.

Christ was not Christ in the fullness of his ship until the supreme moment of sacrifice when he could pray as man never prayed be "Father forgive them, for they know not what do."

There was much of the Christ-like quali Abraham Lincoln. He strove undaunted unti fulfillment of his sacrifice, and always with giving soul. For this the whole world has la memory to its heart of hearts. Liberty dwelt him as she does with the mountains; she fe soul; inspired his genius; entranced his v broadened his judgment; and finally, pointi the crouching slave, said: "Inasmuch as ye done it to the least of these my brethren ha done it unto me." This was enough for a history. Here again does the man and destin to a lofty altitude, and the dead level of h greed and base ambition sinks out of sight.

Said his Elder Brother: "He that would his life shall save it."

Lincoln was a born leader among men. T born faculty he added a wonderful comprehe of the true principles of Republican gover with the object of securing the best exercise ble of individual liberty, public order, and th motion of a sense of justice among men.

This comprehension is the basis of state ship. The man who possesses it in a large must have integrity and courage. "He who s ship must be obedient to the stars." He who lead the people must be faithful and honest himself, with principles, and with the peopl trust in him, and he must have staunch co How few cowards there are on the battlefiel how many in places of public duty! It is abou a Loyal Legion was formed whose purpose sh to encourage and commemorate exhibitions o courage and faithful adherence to civil duty it if you please the Lincoln Legion, and m his life and services a particular study for t

uragement of bravery in matters of public service. Lincoln was one of the greatest politicians of merican history. His forethought, skill, and abili- in the management of large masses of men, po- ically, was phenomenal. All these qualities are eded in politics, for they are the sum of all that lomon prayed for—wisdom. There have been too w imitations among the politicians who have suc- eded him, because Lincoln was honest, truthful, d far-seeing. It was the fashion in those early ys of the Republican party to strive for a prin- ple, to steadfastly maintain it, and wait for the ople to see it. There are a few still left in the rty who are so old-fashioned as to believe that is is the true political doctrine, and that a defeat defense of a righteous cause should never mean listment under the flag of the enemy.

As a politician Lincoln strove to establish confi- nce in his leadership by being honest. The politi- l profligacy of these times has come by abandon- g time-honored traditions and principles. Colton, the preface to Lacon, has aptly characterized our esent condition:

"In an age when free thinking consists not in e thinking, but in being free from thinking; ien independence of principle consists in having principles at all to depend on; when patriots will ld anything but their tongues; keep anything t their word and lose nothing so patiently as eir character—in an age like this, to improve is ficult; to instruct is dangerous, and he stands no ance of amending it who cannot at the same time use it."

Lincoln trusted the people, believing that when ey saw the right they would do right. He always rried that rare sense of being the servant of the ople, not their master. How different from the modern political boss. The low arts of lying and duplicity and all that "foul brood that gnaw from within out, leaving a man hollow to the whitewash" he knew nothing of. He reasoned simply and directly, and still how powerfully, to this proposition: "If I lead the people to the truth that shall make them free, I must be truthful to myself", and so he became the mouthpiece of God and the people.

We are in the midst of many troubles and serious misgivings. The labor question and all sorts of questions are resolutely clamoring for solution. Lincoln's way of solving the problem would be to accord justice. Greed, arrogance, money, and political bossism will never cement and preserve the American people as a nation. Simple justice will.

Let us have justice and honesty, rather than ostentatious charity and falsehood.

I will speak of one more feature of this wonderful character, and close. It was his harmonizing sense of mirth and humor. There is profound philosophy in this quality of mind. It is the sweetening and tempering quality. A sense of the ludicrous is always essential to prevent us from becoming ridiculous. Lincoln used this sense with rare skill, and in obedience to the widest reason.

What could be finer than his reply to a body of querulous critics who visited him in the dark days of 1864, to complain of the conduct of the war. Not a word of suggestion or help did they offer. Nothing but criticism. It requires but very little brains to be a critic only.

Lincoln listened patiently, and said: "My friends, you remind me of my old friend, Jack Armstrong, down on the Sangamon bottom. It was a time of unfathomable mud, and Jack wanted a drink of whiskey. He lived three miles from the grocery. Finally he managed to get to the drinking place and imbibed several drinks. After dark he started home and between whiskey and deep mud he was having a hard job to make any progress. There came up a terrible thunderstorm. It was pretty much all thunder. An occasional gleam of lightning would have been useful. A fearful crash of thunder came which brought poor Jack to his knees, and while in that posture, he thought he would pray, and his prayer, gentlemen, I commend to your attention:

"'Oh, Lord God, if it is all the same to you, I would like a little more light and less noise.'"

His illustration of the Democratic party trying to ride into power on the Pro-Slavery question was keen and apposite. It was this:

"In an early day a Methodist circuit rider came to a cross-road in Illinois where stood a typical country boy, barefooted, pants rolled up, one suspender, and shirt bosom open. The minister was mounted on about the poorest, weakest horse that had ever been seen in those parts. Addressing the boy, he said: 'My boy, which of these two roads will take me to Bloomington?' The boy paid no attention to the question; he had never seen a respectable man mounted on such a sorry steed before. The minister repeated the quotation. The boy looked up and replied: 'Who are you?' The answer came: 'I am a follower of the Lord.' 'Well,' said the boy, 'it won't make any difference which road you take. You'll never catch him with that hoss.'"

And so this rare man—rare in his genius, judgment, courage, honesty, and kindly humor, a perfect man—God gave us as our leader and examplar of American patriotism, American duty, American courage, and American faithfulness.

Letters and Telegrams Received

The world will be, in fact, a lonely place without e sage and wise counsel, the kindly thought, and e intensely human companionship of W. D. ard. I have known your father since 1882. I st met him in Meadville, Pa., when I was an offi- of the Pennsylvania State Dairy Association; d for that reason, instrumental in a way in nging him to our annual meeting, where he im- ted to us of the wisdom of his experience. You ow that I have known him in a more or less in- mate way from that day to this. You are to be ngratulated that his years have been many upon e earth which his God gave to him; and that, per- ps to a greater extent than any man who has ed through his period, his work was basic, con- uctive, and helpful. To that end, in my mind, has been one of the greatest citizens that our untry has ever produced. You may take it as a ttering unction to your soul, that in the midst of ife, political, financial, and otherwise, he had an e singly to the best development in every sense, t only in his individual county and state, but in great republic at large. I know that there are ny men throughout this great land of ours, who ll date the beginning of their success in life m the hour that they either heard from his lips read from his pen the sound preachments which their faces towards the ultimate goal of success.—E. E. CRITCHFIED, Chicago, Illinois.

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I know of no more useful life in the Middle West n that just closed. Useful as were W. D. Hoard's vices in his public career, he rendered, in my nion, much greater services to his country as a e and courageous leader in its great dairy in- stry. There are thousands upon thousands of homes throughout the country, and particular- here in the Middle West, that owe more to Gov- nor Hoard's inspiration than to anything else. d the influences which he set in motion will con- ue indefinitely throughout all the years. One my most delightful memories is of the day I nt with him upon his farm a few years ago. His ge vision, his deep sympathy, his courageous in- tence upon what was right, greatly impressed then. I should not feel comfortable, if I did t pay this word of tribute to the noble career ich has just reached its earthly end.—GOVERNOR ANK O. LOWDEN, Springfield, Illinois.

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The agricultural interests of this country have t one of the greatest, if not the greatest, think- along advanced lines in agriculture. His loss ll be a calamity to the nation. I always admired D. Hoard from the fact that he was not only an vanced thinker along the right lines, but he had e courage of his convictions to stand for the ht.—GEO. L. MCKAY, Chicago, Illinois.

I have known W. D. Hoard for many, many years and have been closely associated with him in the work that he has been doing and that he did do so well. I learned to love and honor him because of his simple, lovable personality, because of his rugged integrity, and because of his desire to help others and especially to point out to young men the way to success. Wisconsin has lost its foremost and most useful citizen. He has done a great work for the agriculture of Wisconsin—not only that, but for a more prosperous condition of farming throughout the United States and in the Dominion of Canada. He had a keen, analytical mind, a clear vision of what the future needed, and was anxious that his fellowmen should see the light of intelligent agriculture, know the truth about the dairy cow, and about all of the problems that concern those interested in a better agriculture. He will be greatly missed by his old friends and associates.—C. H. EVERETT, Editor, Wisconsin Agriculturist, Racine, Wis.

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When the winged messengers of history are bringing to our attention the death of thousands of God's noblemen who have fought a good fight and died in their faith in the brotherhood of men, it is indeed an honor to any man that he has so lived that he will cause even a small part of this busy world to pause and say: "We shall miss him." W. D. Hoard has lived an honorable, a long, and a useful life, always working for the betterment of mankind, always holding aloft the highest principles. The whole dairy world will miss his wise counsels and ardent support of every dairy interest. He has fallen like the leaf after withstanding the storms of life, after changing into the beauty of a ripe old age—gone but not forgotten.—ALSON SECOR, Editor, Successful Farming, Des Moines, Ia.

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He went down in defeat on his stand on the Bennett law. Today we all see the wisdom of his stand for that law. He was a man of broad vision and he was far sighted. Words are futile to express one's emotion and the most I can say is that William Dempster Hoard was a real man. It would be well for the world if many of us, who are now of age, would emulate him.—FRED ENGELBRACHT, JR., Berlin, Wisconsin.

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I first met W. D. Hoard in the month of June, 1870, and have always looked upon him as a trusted friend ever since. In 1890 he was right and if the people then had heeded his advice there would have been less German propaganda abroad in Wisconsin at the present time. I considered your father the foremost citizen of our state.—JUDGE R. B. KIRKLAND, Jefferson, Wisconsin.

I knew that he had more than reached the allotted span of "three score years and ten", yet it is always a shock when you hear of the death of a friend. Few men have had an opportunity in their life time to erect their own monument to posterity. W. D. Hoard, however, was one of God's chosen few, who through his work for the farmer has erected a monument which will be imperishable for many generations in the farm homes of America. Through his example of integrity, loyalty, and clean living, he helped to make this a better world to live in and to prove to many men that manly virtues pay.—WALLACE C. RICHARDSON, New York City.

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I deemed it an honor to be counted among his close friends. He was a princely man—a man above most men in both heart and vision. He performed his mission upon earth and has passed into that Shekinah where vision is unobstructed by material limitations. The ashes of materiality we commit to the tomb; but William Dempster Hoard, the self-conscious, intelligent idea of creative mind, lives on and radiates today even greater and purer love for his fellows than that which was his distinguishing characteristic while sojourning still in the "material temple". Would that we could all leave a record like his behind!—JUDGE GEORGE GRIMM, Jefferson, Wisconsin.

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He stood for the best things and had vision. His life has been a most useful one and he will be mourned all over the nation. The good that he has done will live many years after you and I are gone. We both had great fathers and now they are both gone, leaving a rich legacy in good accomplished to us and likewise a great responsibility. Full of fruitage, they have gone to their rest. The splendid example they have set will ever be our inspiration.—JOHN WALLACE, Des Moines, Iowa.

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It has always been a great source of satisfaction to me that the committee who had the matter in charge named Governor Hoard "the most distinguished citizen of our state". There is something about this that gives one some faith in humanity and that real merit will be recognized. Some of our worthless politicians have disgraced the fair name of Wisconsin, but Governor Hoard has left a golden star in the windows of many, many homes of this state and nation.—PROF. E. H. FARRINGTON, Madison, Wisconsin.

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To have had the Governor as my friend has been one of the great inspirations in my life.—F. L. SLOCUM, New York, N. Y.

WILLIAM DEMPSTER HOARD

October 10, 1836 — November 22, 1918

THE man whose mind guided this page from its inception has been laid to rest. The great heart that pulsed with strength and devotion for all humanity beats no more. The voice that cheered his associates is silent. The lovable and fatherly spirit which radiated from his body is gone. His soul has passed to his Creator and his body has been committed to earth, but his spirit still lives on and the generations that are to be will be influenced and benefited by the work he has done. His vision was far seeing and of wide range. He was often disturbed because people failed to understand him and neglected to accept his principles and to follow them. It was his hope to have agriculture come to her rightful position and to have the farmers meet their opportunities. It was his intense desire for a better rural life, a better American citizenship, a better understanding of the teachings of Jesus Christ that urged and stimulated him to render a large public service. He loved righteousness, he loved truth, he loved all living creatures.

It pained him to see humanity suffer from its own ignorance because he saw opportunity for happiness and contentment for every living thing, if man would but follow the right principles in his living and right practices in his work. His tenderness extended to the soil, a common expression of his being: "Farmers have punished their soils." The phrase, "remember the cow is a mother and her calf a baby", characterizes him. In this statement he epitomized the essential conception necessary to successful handling of dairy animals. The dairy cow to him was not a dumb, insensate animal. She was a mother and, being such, was entitled to care and treatment becoming a mother. Thus he pleaded for warm barns, comfortable and clean stalls, pure air, and radiant sunshine for the cow and her baby. He urged that her feed be palatable, nutritious, and plentiful for he recognized in milk production the function of motherhood.

His work for the advancement of agriculture brought him world distinction and recognition, but some of his greatest efforts were made in behalf of better American citizenship. He believed no greater privilege could be extended to any person than the opportunity of becoming a good American citizen. He appreciated fully the meaning of being an American citizen, for he understood the price that had been paid for it; the struggle of humanity to secure liberty; the tyranny of kings; and he believed in the rights of the masses and not in the privileges of classes. When he saw men playing with this rich heritage,—men who lacked understanding of its meaning; men who would dispose of it for political aggrandizment, power, or gold; men who would rob the children of their rights—he rose with all his power against them. He suffered political defeat rather than yield to any course that interfered with the making of true American citizenship.

It took a great world's war to bring clearly before the people of Wisconsin and the nation that a common language was necessary and imperative to our country's welfare. He saw we could not build a country upon foreignism or a foreign language, but that we must teach our children so they would have a deep appreciation and a proper conception of their American citizenship. Those who opposed his election as governor for the second term, on the ground that he demanded English taught in all schools, have in late years come to him individually, in committees, and in groups to apologize. Such are the rewards of men who stand for the right, regardless of public opinion and temporary gains.

His messages to the people were carried by two weekly journals, the Jefferson County Union and Hoard's Dairyman. The Jefferson County Union was started at Lake Mills, Wis., in 1870 and in 1873 he moved it to Ft. Atkinson, where it has been published ever since. He started Hoard's Dairyman in 1885 and it now enjoys a world-wide circulation. He had no capital to back these papers, but he did possess something far better and more substantial. He had a vision and a sincere desire to render his fellowmen a true service. He saw the low standards of dairying followed by the farmers of Wisconsin; how lightly they considered their soils; their wrong conception of animal life and especially of the dairy cow; and the wrong attitude they took toward themselves and their calling. He never concerned himself about making money, but he was deeply concerned as to whether he was right. Making money did not mean success to him. He believed in the humanities and felt that good relations with his fellowman, leading people to knowledge, understanding, and right living, were the highest rewards of human endeavor. Thus he sought truth from every source, from the philosophers and the scientists of the ages; from the Hindu poets and the prophets of Israel; from the Master Teacher—that he might prepare himself as a safe and capable leader.

He was a profound student in many fields, but his special study of the dairy cow and all allied subjects made him the leader of dairy thought. He was not infrequently called "Dean of American Dairying". Over thirty-five years ago he analyzed the conformation of the dairy cow and pointed out how and why she differed in form from the beef cow. He not only studied her exterior conformation but went to the abattoir where he saw and measured her interior anatomy. This close study of the cow has never been paralleled. His investigation of dairy type and function led him to this conclusion: Temperament governs function and function governs form.

In his study he gave consideration to the product of the cow. Before the Agricultural Committee in Congress, when effort was being made to pass the Grout bill, which was drawn to protect the dairy industry and to force oleomargarine to sell upon its own merits, he said: "Butterfat is found in the milk of all mammalia. It is chemically and physically unlike any other fat in existence. It was designed by nature for the food and sustenance of infant offspring, having the most delicate of all digestion." The scientists have proven in recent years that his contentions were correct. It required a man of vision, a seeker of truth, and an indefatigable worker to unfold the secret processes of Nature, of the cow and her product. In his work he opened fields for the scientists, for his mind reached into unexplored regions, grasped the purpose of Nature, and came to conclusions marvelously accurate.

To the associates whom he called to his assistance in the publication of Hoard's Dairyman, his death means the loss of a dear, personal friend. To work with him was inspiration, to counsel with him was education. They count it a rare privilege to have been under his guidance and direction, and the inspiration of his life and works will be with them always.

Letters and Telegrams Received

Governor Hoard had the enviable pleasure of seeing the results of his work in every state in the Union. Without exaggeration, he has done as much good for the farmer and the breeder as any scientist or inventor. We know of hundreds of cases where struggling farmers were led by him into prosperity and happiness. We are glad indeed to pay our tribute to the wonderful sagacity, sound common sense, and ability to reach the understanding of both the farmer and the business man. There are very few that are gifted with this power of enlightenment, or, if they are, will devote their life to the amelioration of their struggling fellowmen. He was our teacher and we can thank him for a large fund of practical, sensible information that we would not otherwise have obtained.—ROBERT W. CHAPIN, Chicago.

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In the hour of your bereavement you should find comfort in the knowledge that the community owes a debt of gratitude to your father for his wise and sympathetic leadership; the state for his constructive statesmanship, and the nation for the first exponent of true Americanism. No other man has done so much for the upbuilding of agriculture and rural life in this state, none other has been so loyal and untiring a supporter of higher agricultural education or has shown more wisdom and personal sacrifice in his devotion to the "little rural school". Had the state accepted his leadership under the Bennett law it would not have had so much hyphenated Americanism with which to contend during the present war.—K. L. HATCH, College of Agriculture, Madison.

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The members of the faculty of the Wisconsin College of Agriculture desire to express their sincere sympathy and sense of personal loss in the close of the distinguished career of Governor Hoard. We deeply appreciate his devoted efforts in the upbuilding of this college and recognize h invaluable services in the advancement of ag culture. As the apostle of scientific dairying h influence has been world-wide. In his passing t farmers of Wisconsin and of the nation have l a most sympathetic friend and leader.—WISCONS COLLEGE OF AGRICULTURE, Madison, Wisconsin.

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In the dairy world, former Governor W. Hoard was a many-sided genius. A sturdy pione he blazed new paths through many trackless f ests. A very resourceful, self-reliant pilot, navigated uncharted seas. A towering charact he caught the early gleams of the ever rising lig of dairy knowledge and reflected them to his f lows. A unique individuality, we shall never s his like again. A self-made man of internatio fame and friendships, his death will be mourn by many thousands of people as that of a perso friend.—J. Q. EMERY, Edgerton, Wisconsin.

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The University of Wisconsin expresses the de est sympathy with you in your great loss. We j with all citizens of the state and nation in recogn ing the inestimable public services of Gover Hoard and in rendering honor to his long life of selfish and beneficial activity. We remember w peculiar gratitude his innumerable services to University, both as one of its regents and as constant friend and counsellor.—E. A. BIRGE, A ing President, Madison, Wisconsin.

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The news of your father's death brings gr sorrow to the hearts of the Dairy Division st We extend to you and your family, particularly your mother, our deepest sympathy. We mo with you the loss of a man whose long life of votion to an ideal has been a guide and an insp tion to the nation.—B. H. RAWL, Chief Dairy vision, U. S. Agricultural Department, Washi ton, D. C.

⚜

Dominion of Canada dairymen, in confere assembled at Ottawa, express their sincere s pathy to family and friends of Ex-Governor Ho in their bereavement. We remember with d appreciation the excellent services rendered by personally and through "Hoard's Dairyman" to dairy interests of our Dominion.—J. A. RUDD Chairman of Conference.

⚜

Without intruding, may I express the sin grief and keen sense of loss your father's de brings to an humble worker in a field in whic was such a distinguished leader. May his sple life record of service lessen, as far as such your grief for his loss.—TAIT BUTLER, Editor, gressive Farmer, Memphis, Tennessee.

⚜

I have just received the news of the deat Governor W. D. Hoard. Truly the dairy indu and the farmers everywhere have lost a g friend. I feel that Governor Hoard has stood as one of the great men in agriculture during past fifty years, and as an exponent of dairyin had no equal.—O. E. REED, Lafayette, Ind.

⚜

In the fulness of time, having completed mission on earth at the end of a perfect day, he gone quietly to sleep to awaken again in the h of the soul, the summer land of song somewhe the boundless realm of eternity. Blessed are dead who die in the Lord.—B. B. CLARKE, An can Thresherman, Madison, Wis.

⚜

Hundreds of thousands mourn with you in death of Governor Hoard. The farmers and da men of the country lose a good friend and an derstanding, ever ready, and unyielding cham His voice and pen were ever ready for advice righteous cause.—HENRY C. WALLACE, Wall Farmer, DesMoines, Ia.

⚜

Permit me to express to you my heartfelt pathy in your great loss. The dairy industr Wisconsin has lost in Governor Hoard its most leader, but his work will stand as an ever ing monument.—GEO. E. WEIGLE, Dairy and Commissioner, Madison, Wisconsin.

⚜

It must be a source of great satisfactio know that your father created in his lifetime own everlasting monument through the great he showed for the American farmer by his u ing and loyal work in their behalf.—WALLAC RICHARDSON, New York, N. Y.

V cherish as a bright spot in our lives the ac-
a tance with your father and the pleasure we
v had in meeting him in his and our home. The
nsey interests ever held him in warmest re-
r and will mourn his going.—W. H. CALDWELL,
t boro, N. H.

⚜

the death of William D. Hoard not only the
dairy interests but the entire country loses
el headed, big hearted, and patriotic friend.
whole Farm Journal staff extends deepest
athy.—CHAS. F. JENKINS, Editor, Philadel-
Penn.

⚜

arned with deepest regret of the death of my
old friend, Ex-Governor Hoard. He was a
international figure in the dairy world and
ss will be regretted by thousands who never
him personally.—J. A. RUDDICK, Ottawa, Ont.

⚜

ase convey our sincerest sympathy to the
y of W. D. Hoard. He was without question
reatest friend the dairy industry ever had.
eath leaves a vacancy which will never be
—JERSEY BULLETIN, Indianapolis, Ind.

⚜

desire to extend our heartfelt sympathy in
eath of your esteemed father. Dairy hus-
y has lost its great teacher, but his good work
o on and remain a monument to him.—
ARD FARM PAPERS ASS'N., Chicago.

⚜

ad great admiration and affection for your
and it is a source of great regret to me that
itterly impossible for me to be present at his
al. Please accept my most sincere sympathy.
IN C. SPOONER, New York, N. Y.

⚜

ernor Hoard's friendship for thirty years
een my good fortune. His record is my ad-
ion. The good he did for humanity must
prove comforting solace to you and yours.—
N T. HANKS, Madison, Wisconsin.

⚜

ernor Hoard was an inspiration to the coun-
His passing will be widely mourned, but his
work remains to bless the world, and his
ry will still be with us.—GEORGE WEYMOUTH,
Farm Life, Spencer, Ind.

⚜

ernor Hoard as editor, publisher, lecturer,
official, and exponent of genuine American-
vas a force for unbounded good in his gener-
His work will live long after him.—ARTHUR
R, Topeka, Kans.

⚜

s is to express in behalf of the American Jer-
attle Club its high appreciation of the life
of the late Mr. W. D. Hoard in the interests of
ng and dairy cattle.—R. M. GOW, Secretary,
York, N. Y.

⚜

reatly regret that circumstances prevent at-
g the funeral of Governor Hoard and paying
espect to a man who was in many respects
eading citizen.—DEAN EUGENE DAVENPORT,
paign, Ill.

⚜

the passing of Governor Hoard every dairy-
as lost a personal friend and the industry its
able exponent. Our organization extends
artfelt sympathy.—FOX RIVER BUTTER CO.,
go, Ill.

⚜

Nebraska Farmer Staff and all of its family
y grieved to learn of the death of Governor
l, one of agriculture's best friends and sanest
rs.—C. W. CUTSLEY, Editor, Lincoln, Nebr.

⚜

ir sorrow is shared by the whole state and by
iends who knew him. His charming person-
will linger in their memory while life lasts.—
. UPHAM, Marshfield, Wis.

⚜

death of Governor Hoard is a great loss to
ate and nation. His influence for right and
is a lasting monument.—EDW. SCHOFIELD,
ukee, Wisconsin.

⚜

Agricultural Southwest extends sincere re-
for the loss the whole country sustains in the
of Governor W. D. Hoard.—RUFUS J.
N, Editor, Farm & Ranch, Dallas, Texas.

Have learned with profound sorrow of the death of your father. His untiring efforts and interest in farm life have deeply impressed the nation. His loss will be felt in every community.—J. R. MOHLER, Chief Bureau of Animal Industry, Washington, District of Columbia.

⚜

I grieve for a dear friend, a good and great man and citizen for fifty years. I have known no finer, grander man, or more patriotic and sagacious citizen.—GEO. C. GREEN, Green Bay, Wis.

⚜

Governor Hoard was one of Wisconsin's great men who stood by the great principle in time of stress and lived to see himself vindicated.—JUDGE J. B. WINSLOW, Madison, Wisconsin.

⚜

We have lost one of our great and good men who was a true patriot and exercised for many years a patient influence in the nation, especially in agriculture.—W. H. JORDAN, Geneva, N. Y.

FUTURE DAIRYING

An Illinois subscriber requests our opinion regarding the European demands for dairy cattle after the war and principles and practices of dairying which should be advocated and carried out at the present time. His questions and our replies are as follows:

1. "Will there be a demand for dairy stock after the war from European countries?"

We believe there will be some demand for dairy stock from Europe after peace is declared. We feel reasonably confident that Europe's demand for cattle will not be as large as some persons expect. We have good reason to believe that exaggerated reports have been made of the depletion of European herds. There are sections, of course, where the dairy cattle have been destroyed and, on the whole, there is a decrease in the cow population, but not to the extent that some would have us believe. The large factor in decreased milk production of Europe, we believe, is due to the lack of forage. Some months ago there was a Belgian commission in Washington trying to locate dairy cattle free from disease and that could be purchased. This commission was looking for good cows. We believe the demand for cattle will help to keep the dairy cow market in a healthy condition and that dairymen raising good cows are assured of good prices for years to come. However, it is our opinion that the foreign demand for dairy cattle will not be an important factor.

2. "Will there be plenty of milk and dairy products to supply our export demand?"

We do not know, but we think if the prices for dairy products are sufficiently high that the European countries will have no difficulty in obtaining an adequate supply of dairy products. It may be said that this is a matter which is of no serious concern to the American dairy farmer when we look at it purely from a business standpoint. If there are not enough dairy products produced to meet the demands of the European countries, it will work to the advantage of the American dairy farmer, providing him opportunities to increase his herd and will assure him a good remuneration for dairy products. We believe we can increase the production of milk 20% if the dairy farmer will give his herd proper attention. They will likely do this if the prices of dairy products are sufficiently high to reward them for extra effort.

3. "Should the poor cow be weeded out and sold to the butcher the same as they have been in the past?"

Yes. Why not? There is no good reason why any farmer should keep an unprofitable cow and especially now when there is a shortage of feed. Every thinking person has been advising the farmers for years to weed out the unprofitable cow, and now we think we can emphasize this because the prices for beef are high and feeds none too plentiful. Those who advocate the keeping of all cows feel that it would be a calamity if all the unprofitable cows were sold. It would be, but there is no danger of any such thing taking place. Our effort, the effort of experiment stations, and everybody engaged in teaching is trying to lift a few more above the average. If we can at this time pull a few more men above the average practice, we believe it will work to the advantage of dairy farming and we do not believe that we should neglect the opportunity.

4. "Is this the proper time to appeal to the dairymen and farmers to preserve the dairy cow, improve her stock, and help her to produce more and better dairy products?"

This is an admirable time to appeal to dairymen to improve their herds. We feel certain that the prices for dairy products during the next five or ten years will be proportionately higher than other farm products. Without question, the European herds have been reduced in numbers, but not to the extent which some have claimed, but the decrease has been sufficient to bring about a shortage of dairy products and during the time that these herds are being replenished, these countries will come to America for dairy products. This will have a tendency to advance the prices for dairy products, as will also the new markets opening up in South America and the far East. In addition we have a campaign, which is rather universal, encouraging a larger consumption of dairy products in this country, and this is going to have a material effect for the next five to ten years, and perhaps longer. As a nation, we do not consume over one-fourth the amount of milk we should and not one-half the cheese. Instead of using the products of 23,000,000 dairy cows, we could easily use the products of 50,000,000 dairy cows if people were advised as to the importance and food value of milk and its products.

If we were to sum up our conception of what should be done at this time to improve and develop the dairy industry, it would be this: Proceed to encourage dairy farmers to improve their herds by the purchasing of a good dairy bull. Urge them to feed and care for their cows better and to test them in order to determine those that are profitable and unprofitable and to help them understand the principles and practices necessary to follow in order to make their herds profitable. Encourage the selling of the cow that will not produce milk at a profit. Point out the necessity of raising a larger amount of the feed on the farm that less will have to be purchased. This means the growing of more legumes and the building of more silos. Encourage the farmers themselves to consume more dairy products, pointing out the food value of milk and cheese and the necessity of butter.

In other words, proceed to advocate sane dairy principles and practices, the same as we have been doing before we entered the war. If we do this, we are sure that we will make no mistake. If we attempt to deviate from principles which lead to the development of our dairy herds or advocate practices which are not profitable, then we will be treading upon unsafe ground which will lead to confusion and will make the dairy farmer distrust our statements.

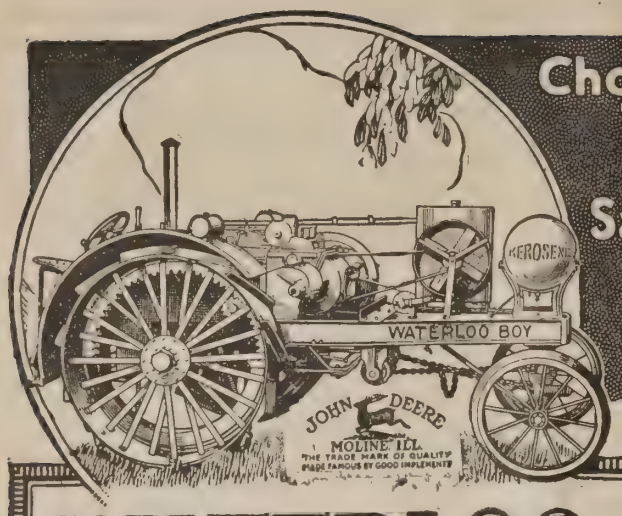
THE MEASURE OF A COW

The work a cow does in her life is her true measure. Every breeder appreciates the cow that reproduces regularly; the one that produces milk for eight or more lactation periods and transmits to her offspring the same powers. It is not enough that a cow makes two or three good records, especially for a week or thirty days. Constant yearly production, the average production for a series of years, even though it be not phenomenal, is what should be demanded of the dairy cow.

It is well enough now and then to prepare a cow for a big record by permitting her to rest for a long time and to feed her heavily during this resting period that she may be fattened. The record made by such fitting does not measure the inherent and steadfast qualities of the cow. It simply shows what can be done with feed and skillful handling. The cow selected for such a test is usually well bred or she could not do her part. This system of handling cows has had its advantages, for it has demonstrated clearly the importance of good feeding and right handling.

We are not unmindful of the harmful practice of permitting a cow to loaf the larger part of the year in order to make her fat and then force her by various schemes and methods to make a large record soon after she freshens. This system has taught us certain lessons which are valuable, but there is little to be gained by continuing in such practices. The scientists have shown us through their investigations the effects certain feeds have upon the development and function of the animal. Every breeder who desires to develop a cow of large and steadfast production and capable of reproducing herself regularly has been interested in the results obtained through certain feeds.

Enough work has been done to lead every thinking breeder to believe that with the right mixture of feeds our cattle will not only grow in producing qualities and reproduce more regularly, but the number of lactation periods will be extended. There must be a true conception of what constitutes the real measure of a cow and a thorough understanding of the factors influencing her development before the greatest progress in breeding can be made.



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When Writing to Advertisers, Mention Hoard's Dairyman

Officially Testing Dairy Cov

J. R. DICE, MISSOURI

THE official testing of dairy cows has become universal throughout the United States. The value of a pure-bred animal is now largely determined by its records or the records of its near relatives. A pure-bred cow, even if she is a good individual with plenty of size and vigor, no longer has an equal chance with her tested sister, for now every buyer pays considerable attention to records of production, regardless of the section of country from which he comes.

The question confronting all dairymen at present is whether to test now or wait until after the war. Feed is high and hard to get. Labor is so scarce that it is hard to get the necessary farm work done and test supervisors are also expensive and at times unobtainable. On the other hand, breeders can well ask themselves if they can afford not to test. Men of experience know that no one can tell at what age a cow will do her best. They know that many young cows meet with accidents that may end their career as producers or cut down their records, and they also know that many such cases will spoil the pedigrees of several animals in their herd. Another important reason for testing is that it now costs so much to raise a calf that unless it is backed by records the animal when sold will not bring enough to pay a profit over its cost of production. The sale of bull calves is one of the important items in determining the profit from a pure-bred herd. Because the number of bull calves raised has been cut down by war conditions there is a greater demand than ever for good calves with good backing at record breaking prices.

The beginner should know that it usually practically doubles the value of a herd to test it and many cases could be mentioned where one member of the herd by making a good record has become more valuable than the entire herd was before it was tested. It would, therefore, seem that we cannot afford not to test our good cows.

Good cows are the first requirement for good records. It is usually possible to pick out a good cow but all experienced dairymen know that you never know what a cow will do until she is given a chance on official test.

No one should be fooled into thinking that present day records are made by using dope or underhand methods. Unfortunately there are many who are not willing to give the dairy cow credit for the wonderful work she does. It is improved breeding, feeding, and management that have made recent records possible.

Some breeders hesitate to start testing until they have their stables arranged to provide box stalls, etc. Box stalls and the more expensive equipment are not necessary and some do not prefer them. Many of the prominent breeders do not keep their test cows in box stalls. One 40-pound record was made by a Holstein cow last winter after she had been taken out of a box stall and put in her regular stanchion.

Fitting the Cows

A cow that is to be tested should be given a rest and fitted so that she will do her best. The expense of testing a cow is usually not justified unless she is in condition to have a fair chance to make a good record. There are so many high record cows that a breeder cannot afford to be satisfied with anything less than the best a cow can do.

It is very desirable to have a cow dry about three months previous to freshening. Usually there is no advantage in giving a cow a longer and many do not have her dry long. If the cow is giving a good of milk, she can be quickly drie by putting her on hay for a short and milking her irregularly, on day at first and then every two Avoid cutting the feed down gra ly as a good cow will readjust he and continue to give milk. Some that are not persistent milkers dry up on hay and ensilage. Th der should be carefully watche this time and any tendency to should be taken care of. Rubbin udder thoroughly with camphor lard will usually be sufficient. camphor also has a tendency to check the milk flow.

The cow should have little, if exercise if she is being fitted short time test. For a long tes ercise is more desirable. Thus, rule cows should not be fitted on ture. Daily grooming is very de ble. If possible, weigh the cow week so as to know how she is ing.

The fitting ration fed should b tening so that the grain mi should contain a large part of feeds and linseed oil meal. A that has been used for years is up of equal parts by weight of bran, ground oats, linseed oil and corn meal or hominy feed. is especially good to use when a cow for a long test. For short the following mixture or some similar is preferred: 2 parts li oil meal, 2 parts hominy feed o meal, 1 part wheat bran. Groun should be added to this for he Some prefer to feed this with pulp soaked with water and mo and fed in the form of a mash. all of the grain the cows will ea a relish which will be from 15 t 30 pounds of grain per day, de ing on the size and capacity cow.

In addition to the grain ration ensilage, corn ensilage pref beets or beet pulp, and feedin lasses, if obtainable. About a of molasses per day can be fed. ver or alfalfa hay are best unle bowels become too loose and mixed hay or timothy may b ferred.

Two weeks or ten days befo cow is due the grain ration sho changed by reducing the amou to eight or ten pounds per da feeding equal parts of bran, g oats, and linseed meal or a light ration.

If for any reason the cow yo to test is not dry four or five before she is due to freshen, try to dry her off. Feed her all feed she will take and let he what milk she will at irregular ings. When the cow is due, bowels are not loose, either fee ty of beets or give salts to corre condition.

When the cow freshens she such good condition that she ne tle feed. Feed her nothing but age the first day. A quart or m bran will do no harm. Let he all of the water she wants, bein ful not to allow her to drink too at one time. Very cold water jectionable. Start in the sec third day feeding the light gr tion the cow was getting just she freshened, and, as the co of the cow improves, gradua her on a test ration.

The udder of the cow will ce cake but rubbing it, either dry lard, will usually be all that necessary. Do not use camp similar medicines as they hind

...retion. It is best not to milk the ...der out clean the first day as a full ...der tends to prevent milk fever.

As the cow becomes normal and her ...petite improves, the grain ration ...ould be gradually increased. A ...nd a day increase is the rule most ...nmonly followed. A mature cow ...t has been on heavy feed during ...t fitting period will usually eat 20 ...unds of grain per day without any ...uble. After that amount is ...ched, the feeder should proceed ...efully.

Test Rations

A careful study of the test rations ...l to high producing cows in recent ...ars shows that practically all of the ...ions are very similar. The follow...ng are good examples:

The Pine Grove Farms' rations: ...l. 200 lbs. wheat bran, 200 lbs. dis...ers grains, 125 lbs. ground oats, ...5 lbs. gluten feed, 80 lbs. linseed ...al, 100 lbs. cottonseed meal, 15 ...l. charcoal, 10 lbs. salt.

...2. 100 lbs. ground oats, 100 lbs. ...an, 100 lbs. hominy feed, 100 lbs. ...seed meal, 50 lbs. cottonseed meal, ...t, and charcoal.

These grain rations are typical of ...e rations fed cows on short test.

Duchess Skylark Ormsby, the high...producing butterfat cow for a ...ar, was fed the following grain ra...n:

...100 lbs. bran, 100 lbs. ground oats, ...lbs. distillers grains, 100 lbs. brew...grains, 60 lbs. linseed meal, 60 ...l. hominy feed.

Hominy feed is universally pre...red to corn meal for feeding cows ...test. Some prefer to not mix the ...tonseed meal in with the ration but ...d it separate. Where this is done, ...m one to four pounds per day are ...l, depending on the condition of ...e cow.

Distillers grains are now off the ...rket so that a substitute will be ...essary for this very valuable feed. ...fessor Humphrey of the Wisconsin ...tion suggests that gluten feed with ...to 15% germ oil meal will make ...best substitute. Bran and linseed ...al will also help take its place.

The cow should be watched con...ntly. If she does not like her feed ...to find out what it is she does not ...e and take it out of her ration. If ...e goes off feed or leaves a part of ...r ration, take it away from her and ...not let her muss it over. The next ...d give her half of the usual ...ount fed and in most cases she will ...me back on feed all right.

The amount of feed that the cow ...l eat will depend on each individual ...r. A cow will usually eat in addi...n to her grain ration from thirty ...sixty pounds of roots, twenty-four ...thirty pounds of ensilage, twenty ...forty pounds of dried beet pulp af...it is soaked, and from ten to fif...n pounds of hay. Divide the day's ...d so that the cow will receive an ...al part of everything except the ... at each milking time.

The one time in her life that a cow ...uld have her own way is while she ...on test. The late E. H. Dollar ...ed the skins off the beets he fed ...tiac Rag Apple because she would ... eat them with the skins on but the ...rd she made and the price he re...ed for the cow justified the trou...

The following digestive tonic is a ...d one to use if your breed associa... allows it to be fed: 1½ parts ...ber salts (dry sulphate), 1 part ...rbonate of soda, 1 part powdered ...tian, 1 part powdered nux vomi... This tonic is bitter and some ...s do not like it at first. Three ...espoonfuls per day is the dose but ... than that amount can be fed to ...antage.

The stable should be kept as quiet ...ossible and the cow should be left ...e between milkings after she is ...med. The temperatures of the stable should be rather cool, about fifty degrees, and the ventilation should be good. Some prefer to keep a light blanket on the cow.

The beginner may be advised that by manipulating the feed, feeding large amounts of some concentrate, or by sudden changes, he will be able to increase the fat test. Such changes may affect the test temporarily but it is just as apt to cause the fat test to go down as it is to raise it. The safe rule to follow is to make all changes gradually.

The only way to make known your herd's ability to produce is to test your good cows and the only way to learn how to test is by testing. There seems to be every reason to believe that the breeder who continues to test during these unusual times will be fully repaid for his extra effort.

Feeding Velvet Beans in Alabama

HOARD'S DAIRYMAN:—Many use the velvet bean with the pod and bean ground into a meal, and a great many others use the unground beans in the pod, but usually soak them 8 to 10 hours before feeding. By doing this the bean is softened considerably and is somewhat more palatable than when fed dry.

A mixture that is used by many of the dairymen is one composed of 100 pounds cottonseed meal, 100 pounds corn and cob meal, and 200 pounds velvet beans in the pod. The mixture of cottonseed meal and corn and cob meal is sprinkled on the soaked velvet beans in the pod. Some cows do not seem to relish the velvet bean at first; others seem to prefer it to any other form of grain. To those that do not seem to relish it, it is a good idea to feed only a small ration of it at first, gradually increasing the quantity until the full amount is being fed.

Many who do not have the corn and cob meal make a grain ration composed of velvet beans and cottonseed meal, using in the proportion of one pound cottonseed meal to three pounds velvet beans. The first named mixture is more desirable than this one, probably more because of variety than anything else.

Another good grain ration that has proven satisfactory to those feeding the velvet bean is one composed of 100 pounds cottonseed meal, 100 pounds wheat bran, and 200 pounds velvet beans. Of course, this mixture is not used to any very great extent now because of the high cost and scarcity of wheat bran.

Still another mixture that is proving quite satisfactory is one made up of 100 pounds cottonseed meal, 100 pounds peanut meal, and 200 pounds velvet bean meal. It is the experience of dairymen that this mixture is better than where 200 pounds of the cottonseed meal or the peanut meal is used along with 200 pounds of velvet beans, probably on account of variety.

Few dairymen in the section where velvet beans are growing, especially if they are grown on their own farms, mix up a grain ration without using a large portion of this bean. It is not so palatable as cottonseed meal, peanut meal, or other grain rations, but it runs around 18 to 20 per cent protein and very materially lessens the cost of the grain ration when it is grown at home. In feeding this mixture, from two to two and one-half pounds of velvet beans in the pod are considered the equal in milk producing value of one pound of cottonseed meal or peanut meal. Without question the velvet bean will continue to be one of the important ingredients of grain rations for the dairyman, especially for those who grow it at home.

Alabama. L. A. NIVEN.



Photo of Leda Johanna Rue
Holder of World's 13-Year-Old Record. Owned at Hill Den Farms, Dixon, Ill.

Makes World's Record With Sharples Milker

The Sharples Separator Co.,
West Chester, Pa.

Yes, we copped one of the Association prizes with "Leda Johanna Rue". She holds a world's record for a 13-year-old cow and it takes a real dairy cow to get in on any of the Asso. prize money. This cow was milked with the Sharples Milker four times daily the first eight months, and three times daily the last four months. The last milking of the 365 days, or the thirteen hundred and thirty-fifth milking, she gave 18.2 lbs. of milk, and was milked with the Sharples Machine. She has freshened since and is again being milked with the machine and hitting the same pace. The Sharples Milker is the *only* machine. I would rather part with this cow than the machine, if it came to a choice, although the cow is worth five times the price of the machine.

Very truly yours,
CHARLES R. HEY, Manager,
Hill Den Farms Company,
Dixon, Ill.

SHARPLES MILKER

"The Only Milker With Positive Squeeze"

Mr. Hey's letter speaks for itself—Sharples Milker was used on this cow after she had been milked by hand for years. But it was not until the Sharples Machine was used that a world's record was made. The Sharples positive squeeze and massage action on the teats made it possible to milk faster than others could and also insured the health of the teats and udder.

No other milker has this squeeze or massage, and Leda Johanna Rue is the first cow to make a world's record while being milked by a milking machine. Sharples Milker is an efficient and labor saving milker, whether on the average or the finest pure-bred or highest producing cows.

Write for information on other day-to-day achievements of the Sharples Milker. Address Dept. 10.

The Sharples Separator Company, West Chester, Pa.

Sharples Suction-feed Separator—Skims Clean at any speed

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DC-78

Wisconsin's Most Distinguished Citizen

IT has been given to few men to receive during their lifetime such generous recognition as was awarded W. D. Hoard. Conspicuous among these, and confirming in a sense what are personal testimonials, was his selection in 1915 as Wisconsin's most distinguished citizen. At the request of President Charles C. Moore of the Panama-Pacific Exposition, Governor Philipp appointed a committee to select the citizen of Wisconsin who had rendered the most signal service to his state.

The committee selected by Governor Philipp was able and knew the men who had rendered the greatest service to the state. The committee included a preacher, a lawyer, a doctor, an agriculturist, an educator, a manufacturer, and a railroad man. Their selection was an official act and in no way a personal matter. The honor of receiving such high recognition from the hands of the leading men engaged in various fields of endeavor was highly complimentary to him.

The official document which was presented to Mr. Hoard by Governor Philipp reads as follows:

UNITED STATES OF AMERICA

The State of Wisconsin

EXECUTIVE DEPARTMENT

MADISON, WISCONSIN, NOVEMBER, 24, 1915.

HONORABLE W. D. HOARD,
FORT ATKINSON, WISCONSIN.

MY DEAR SIR:

Under date of June 14, 1915, I received the following communication from President Charles C. Moore of the Panama-Pacific Exposition at San Francisco;

"It is the desire of the Panama-Pacific International Exposition to pay a signal compliment to the State of Wisconsin by designating a Special Day on our Calendar, in honor of one of the citizens of your State especially distinguished in statesmanship, literature, art, science or invention, etc."

The letter suggested the appointment of a committee to make the selection of the citizen upon whom the honor should be bestowed. In compliance with this request I appointed the following committee:

Reverend E. G. Updike, Madison, Wisconsin.
Theodore O. Vilter, Esq., Manufacturer, Milwaukee, Wisconsin.
Honorable George H. Gordon, Attorney, La Crosse, Wisconsin.
Professor L. D. Harvey, Menomonie, Wisconsin.
Doctor H. A. Sifton, Milwaukee, Wisconsin.
A. E. Manchester, Esq., Supt. of Motor Power of the C. M. & St. P. Ry. Co., Milwaukee, Wisconsin.
Charles L. Hill, Esq., Agriculturist, Rosendale, Wisconsin.

To the above committee I submitted a copy of the letter which I received from President Moore of the Exposition, with instructions that they proceed to confer the honor upon the Wisconsin citizen whom they regarded as being most worthy to receive the same. The subject was widely discussed by the public press and many names were suggested to me, which I transmitted to the committee for its consideration. Under date of November 3, 1915, I received the following communication:

MILWAUKEE, WIS., Nov. 3, 1915.

GOV. EMANUEL PHILIPP,
MADISON, WIS.

MY DEAR SIR:

Your committee to name the most distinguished citizen of Wisconsin has just concluded its conference and the honor falls on Ex-Governor W. D. Hoard. The vote was made unanimous.

Yours very truly,
E. G. UPDIKE, Chairman.

It is the purpose of the officers of the Exposition to invite you to San Francisco and there confer upon you fitting testimonials. I wish to add my hearty approval of the choice made by the committee. In the long life that it has been your privilege to spend in Wisconsin, no man has rendered a more useful service to our citizens. Therefore, as Governor of the State it gives me great pleasure to greet you as Wisconsin's foremost citizen and I can give you the assurance that the action of the committee in selecting you for this honor is universally approved by the people of our State whom you have served so well.

I submit to you this testimonial of your fellow citizens as a recognition of the value of a long and useful service to our State and Nation.

Respectfully,
EMANUEL L. PHILIPP,
Governor.

A Letter from C. P. Goodrich

HOARD'S DAIRYMAN:—I knew Wm. D. Hoard many years ago, knew him when he lived at Lake Mills, used to hear him talk and sing and tell stories in a delightful way.

After he came to Fort Atkinson in 1873 I became intimately acquainted with him. He was enthusiastic in urging men to be better farmers and better dairymen; dairying was his specialty. I was trying desperately to succeed in the dairy business so that whenever we met our talk was mainly on that business. He quite often came out to my place, nine miles west of Ft. Atkinson, with a horse and buggy, over roads which at that time, to say the least, were not very good. Sometimes he would stay over night. Of course, we had fun—stories, music, and singing, but the main thing was dairy talk.

We discussed the subjects of how to get better dairy cows, how to feed and handle them better, and how to handle the milk and make the butter, and how to market the product to get the most money. We talked of how to improve the breed of cows and as one of the results of our talk I got my first pure-bred dairy sire.

He tried very hard to help the poor, hard working, unsuccessful farmer, and the poorer and more ignorant he was the harder he tried. He did not do these things to show off his superior knowledge; he did them to help others from the kindness of his heart. He went out quietly to some farm and advised and helped the owner to adopt better methods. Many a man was benefited in this way, of which the public knew nothing. He didn't do it to show off, but to do good.

I will relate one instance of which I happened to know. A poor, hard working man came into Hoard's office looking much downcast. Hoard says: "How you getting along, Hans?"

"Not very well. I owe much for my little farm and I can't get enough to pay the 10% interest."

"Have you got any cows?"

"Yes, I got four."

"Don't you make butter?"

"Yes, some, but that is only 12 cents a pound and then I have to take goods from the store. I get no money for it." (This, mind you, was before there were any creameries in the country.)

Hoard says: "I'll come to your place tonight."

He did, and talked with him about feeding and watering his cows and many other things and even helped him milk. He arranged to set the milk in the best way he could for getting the cream. He went away, but said: "I'm coming again every day. I'm going to make some butter for you. He did, skimmed the milk, ripened the cream, and churned the butter. He used some good dairy salt and butter color. The butter Hans' wife made had been white. He told him to get a butter tub, in which Hoard packed the butter and shipped it off to Chicago to market. It brought 25 cents a pound. A more delighted man than Hans was I never saw. He said, when he got that money: "Meester Hoard, you have saved me. Now I can pay for my farm." And he did and became a prosperous dairyman.

This is but one instance. Many more might be told if the facts could be got at where Hoard had visited individual farmers in those early days and helped them to be more successful. But, of course, they would not all admit it for they thought it was all by their own wisdom that they succeeded. Still there are men yet alive who will now admit that in those early days William Dempster Hoard helped them.

C. P. GOODRICH.
Ft. Atkinson, Wis.

A Friend's Appreciation

HOARD'S DAIRYMAN:—For m
than thirty-five years, the writer h
a semi-editorial connection with
Dairyman, and mixed in with th
years Governor Hoard and I cros
and recrossed each other's paths
the lecture field; always with
stronger bond of friendship an
deepened interest in the affairs t
mutually prompted the betterment
others and ourselves as well. A
write these lines, out of the fulr
of my heart wells up an appreciat
for him who has at last laid down
burden of life. No one who came
close touch with the Governor co
but say that the coming together
attended with an uplift of thought
purpose, engendered by one wh
life, character, and example posses
ennobling virtues.

It is not to be wondered at that
young soldier should, in later y
and on many fields of peace, becon
leader in thought and action, a lea
and author of the new dairy thou
He became the editor of the one g
dairy paper and authority of
country, the governor of a g
state, the author and leader of
forms—the vast import of which
people of his state have only
come to realize,—a lecturer in g
demand in the field of agricultur
model farmer and breeder, a
whom "the common people h
gladly and the learned listene
with attention.

Governor Hoard was the nat
leader of the "Old Guard" of Wis
sin,—and what leaders and teac
they were! Call the roll: W
Hoard, Hiram Smith, Smith of G
Bay, H. C. Adams, Chester Ha
Steven Favill, John M. True,
Morrison, John Decker, Theo
Louis, C. R. Beach, and the o
that wrought for Wisconsin.
writer of this, though of an
state, counts it as the honor o
life that for four years, though
of all, he worked and labored
these men. He received far
than he imparted. I write these
with saddened heart, as an appr
tion of one to whom I owe a
debt, one I can in no way pay t
full.

Not so very long ago came a
from Mr. Hoard filled with c
words and loving sentiment
carried me back to those old da
which memory brought back the
kindly Hoard, that bridged ove
years since that day more than t
years ago when he said, "John
going to make a sub-editor of
and fly your name with the staff.
all these years, it has there rema
owing to his kind indulgence, th
not always because of merit, b
some way there sprung up a clo
sociation with him that seemed
than just friendship. He was a
teacher and benefactor, and in
ory such he will always remain
the "earth to earth, and ashes t
es" shut him out of the living v
we with misty eyes say our last
bye with, "Hail, friend of the
years. Hail, and farewell."

JOHN GO
Western Reserve, Ohio.

New York Milk Prices

The price of 3.0 per cent m
New York for the month of Dec
has been set at $4.06 per hundre
U. S. Food Administration ha
proved the League price, and
been accepted by the milk dealer
R. EASTMAN.

The United States Departme
Agriculture is at the service of
farmer. Not every farmer, ho
takes advantage of that service
department's advice costs the f
nothing, but the assistance give
save him a great deal—both in
and money.

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The Coming of Christ

W. D. Hoard believed in Jesus hrist and followed His teachings. He uld tolerate no creed or preacher at distorted the teachings of the aster. His strong passion for the uth and truthfulness made him ab- or the demagogue no matter what sition he occupied.

We found among his private papers poem endorsed in his own hand with ese words: "A splendid poem on the oming of Christ by a Welsh girl." The poem is as follows:

ey cry: "He comes!
e signs are sure; all lands are armed for war,
e mistic number is fulfilled.
comes!"
e answer: "Oh, that He would come.
e want the Christ.
e want a God to burn the truth
resh upon the forehead of the world.
e want a man to walk once more among
e wrangling Pharisees; to drive the beasts
d money mongers from the temple courts;
bring the gospel back again, and prove
w all unlike the churches are to Christ.
e want the Christ again to tell the "saints"
eir sins: that they were sent to preach the works of peace,
d they have filled the world with war of words;
at they were sent the messengers of love,
d they have driven love out of their creeds;
at they were sent to teach men not to lie,
r tremble when their duty led to death.
, for the Christ again!
, He would dare to tell the churches how they lie and cant;
d talk of serving God, and serve themselves;
d talk of saving souls, to save their "cause";
d pare and narrow God's divinest truth
til a man can hardly be a man
d member of a church.
ready Christ is coming.
ar ye not the footfalls of the Lord?
tramples down the cruel hedges men have built about
e gate that leads to Heaven.
rends the creeds.
d gives their tatters to the merry winds.
does not come as bigots prophesy
choose a handful and to damn the rest;
found a Jewish-Gentile kingdom here
d roll the world into the Past again.
comes the Spirit of a Riper Age,
en all that is not good or true shall die;
en all that's bad in custom, false in creed,
d all that makes the boor and mars the man,
all pass away forever.
s, He comes to give the world a passion for the truth,
inspire us with a holy, human love,
make us sure that ere a man can be saint, he first must be a man.

[This poem was given the editor of e Golden Rule about twenty-five ars ago by a gentleman who got it a little bookstall in Lianelly, Wales. was written by a strange looking rl of eighteen who was pointed out "a dreamer" and said to be crazy the village folks. The poem was ritten in 1868.]

Farmers and the Red Cross

There is no person anywhere who nnot be of some use to the Red oss and the idea which the Red Cross represents. The most immediate opportunity and the one which every man, woman, or child who is interested ought to take advantage of is the chance to become a member of the organization during the Christmas Roll Call. At this Christmas time there is no expression of the Christmas spirit of good will to men more effective than adding your name to the list of those who are joined together in the mission of mercy which the Red Cross represents. Especially is it the duty of those who are somewhat remote from the battlefield to get the direct contact with the work of the Red Cross that is felt by being a member of the organization. The farmer or the farmer's wife, his sons and his daughters, who can picture the bitter suffering of the French or the Belgian farmer who has been thrust from his homestead by the invader and who has seen his fields torn by big guns and his trees ripped up by shell fire, knows what Red Cross help means to those sufferers and can appreciate a chance to share in the work of making their lot more bearable. Much of the Red Cross money spent in France and Italy and other foreign countries goes to the relief of refugees from farm regions.

There are other ways for the farmer and his family to help the Red Cross. Home service is becoming one of the most important and far reaching phases of Red Cross work. It is the effort of the millions of Red Cross members to see that the standards of



CAPTAIN ARNET AND MRS. ATHERTON SMITH DISCUSSING FARM WORK WITH CRIPPLED FRENCH SOLDIERS AT AMERICAN RED CROSS FARM AT LE LIEGE FOR THE RE-EDUCATION OF MEN MUTILATED IN THE WAR

family life in America are not lowered by the war, that no soldier's or sailor's family suffers for lack of money or lack of friends while he is away fighting for his country. In that phase of Red Cross work farmers and their wives cannot only sympathize but can actively help.

The problem of home service is especially difficult in the rural districts. Where distances are great it is often hard for conscientious home service committees to keep in touch with all the soldiers' and sailors' families and make sure that nothing is left undone that will make them happier. Every farmer's family in the United States knowing of another family whose existence has been made hard by the departure of a man to the battle front can help the Red Cross by seeing that the nearest home service section is informed of the circumstances. Red Cross home service does not intrude or insist upon its help nor does it encourage anyone to intrude in its behalf. It is a great organized spirit of neighborliness to which anyone can turn who needs a friend.

By joining the American Red Cross now, by giving generously according to their means, by giving home service in their own communities their understanding and co-operation, every farmer and every farmer's family in the United States can be of direct help to the great ideal of humanity which the Red Cross is trying to serve.—C. S. CLARK, Secretary Red Cross Christmas Roll.

The New York Butter Market

NEW YORK CITY, Nov. 26—High quality creamery butter continues in exceptionally strong demand and buyers seem very willing to pay the extremely high prices that are asked. How much farther the consumer is willing to go in the matter of price is very problematical. When the wholesale price of extras (92 score) reaches 66½c and that of higher scoring butter a full cent over that, it stands to reason that the halting point must eventually be reached and that in the near future. While the demand for high grade butter continues strong buyers for under-grades are scarce. That statement is borne out by the margin of price between an extra and a low scoring first. At the present time that margin is 6c. It would seem that retailers would grasp the opportunity to lay in a supply of fair firsts but there seems to be no activity in that direction.

High quality butter is in scant supply and receipts of all grades are at low ebb. That condition will undoubtedly continue throughout the winter. We can not look forward within the next few months at least to a material lessening of the price of butter. Without doubt the prices that have prevailed during the past few months have been very necessary from the standpoint of the dairyman as he has been compelled to pay corresponding prices for feed for his dairy herd.

Since last week Tuesday quotations on extras and higher scoring butter have advanced three cents. The advance started on Wednesday when there was a gain of one cent. That was followed by a half cent advance on Thursday when the price of 65c for extras became established. That price prevailed on Friday and Saturday but on Monday of this week there was another gain of a full cent. Today witnessed a still further advance and the quotation on extras is 66@66½c. Additional quotations at the close today are: Higher scoring than extras (93 score or higher), 67 @67½c; firsts (88 to 91 score), 60½ @65½c; and seconds (83 to 87 score), 56@60c. Unsalted butter is in strong demand and the differential in price has been increased to 2½c over that of corresponding grades of salted butter.

It would be well for the farmer who does not believe it worth his time to take extra good care of his milk or cream to take heed of the margin between the price paid for extras and firsts and seconds. If the butter from his creamery sells as an extra he is indeed fortunate. However, if it sells as a first, due to its being an undergrade, he will find his cream check at the end of the month much less than it might and should be. A very little extra care means several more dollars for him at the end of the month. W. B. LIVERANCE.

To Discuss Milk Production Costs

For the purpose of determining the actual cost of production and distribution of milk and to ascertain from their findings whether the high price charged is justifiable, the National Commission on Milk Standards will meet in the Morrison Hotel in Chicago, Sunday, December 8th. The call was issued by Stephen G. Williams, chairman of the New York Milk Committee, and has been arranged by Dr. Charles E. North, secretary of the commission. Mr. Williams suggested that the commission disclose the effect, if any, that the high prices have made upon the health of the people, more particularly upon infants and young children who depend almost wholly upon milk for subsistence. This will be disclosed by individual reports rendered by the various members of the body concerning conditions in their different localities, such as the changes in the price of milk and milk products during the last four years, changes in the quality of the milk consumed within that period, and changes in the mortality of infants and older persons.

New York Dairymen Meet

The 42nd Annual Convention of the New York State Dairymen's Association will be held this year on December 10, 11, and 12 at the Joseph Slocum College of Agriculture, Syracuse University, Syracuse, N. Y. The large auditorium of this splendid agricultural building has very generously been given to the dairymen for their three days' meeting.

Educational exhibits of dairy products will be shown in the exhibition hall by Syracuse University, Cornell University, The Onondaga County Farm Bureau, and the New York State Department of Agriculture.—T. E. TIQUIN, Secretary.

Bulletins of the Week

The Soy Bean: Its Culture and Uses, by W. J. Morse. Farmers' Bulletin 973, U. S. Dept. of Agr., Washington, D. C.

Emmer in South Dakota, by M. Champlin and J. D. Morrison. South Dakota Experiment Station, Brookings, S. D.

Injurious Corn Insects, by H. C. Severin. Bulletin 178, South Dakota Experiment Station, Brookings, S. D.

Use of Pepsin as a Rennet Substitute in Cheddar Cheesemaking, by P. S. Lucas. Bulletin 155, Oregon Experiment Station, Corvallis, Ore.

Soil Acidity:—Its Relation to the Growth of Plants, by Emil Truog, Department of Soils, Experiment Station, Madison, Wis.

Cooling Milk and Cream on the Farm, by J. A. Gamble. Farmers' Bulletin 976, U. S. Dept. of Agriculture, Washington, D. C.

Serving Wisconsin Farmers in War Time, by H. L. Russell and K. L. Hatch. Bulletin 294, Wisconsin Experiment Station, Madison, Wis.

A, B, Cs of Potato Spraying, by G. B. Ramsey. Extension Bulletin 119, University of Maine Agricultural Extension Service, Orono, Me.

Self-feeder for Hogs, by L. S. Corbett and J. H. Bodwell. Extension Bulletin 117, University of Maine Agricultural Extension Service, Orono, Me.

Chemical Composition of the Soils of the Freehold Area in New Jersey, by A. W. Blair and H. C. McLean. New Jersey Experiment Station, New Brunswick, N. J.

Growing Wheat in Kansas, by L. E. Call and S. C. Salmon. Bulletin 219, Kansas Experiment Station, Manhattan, Kans.

Some High Producing Oregon Jerseys

F. A. DOERFLER, OREGON

ZAMOLEA Nutwood 196109 at 13 years, 9 months made 482.67 lbs. fat, 8,788.7 lbs. milk; average test, 5.49%. At 15 years, 48 days she started again and in 365 days made 578.57 lbs. fat, 10,168.6 lbs. milk; average test, 5.69%. After two weeks' rest and carrying calf 269 days during last test she started again at 16 years, 2 months and made in the first three months 160 lbs. fat and 3,100 lbs. milk. Zamolea Nutwood's daughter, Nutwood Figgis 328160 started as a senior 2-year-old and made 631.74 lbs. fat, 10,406.2 lbs. milk; average test 6.07, which was fourth highest senior 2-year-old record and now stands fifth highest in the United States for fat. Pogis Irene was a great cow; she made at 14 years 487.29 lbs. fat, 9,177 lbs. milk; at 15 years, 4 months 523 lbs. fat, 8,950.4 lbs. milk and at 17 years, 11 months 590.43 lbs. fat, 9,930 lbs. milk. Zamolea Nutwood is following closely in the footsteps of this great cow, Pogis Irene 2nd. Zamolea holds the world's record for milk and second for fat for cows over 15 years and Pogis Irene 2nd holds first for fat and second for milk.

I was the first to sign up in the Marion County Cow Testing Association and to prove that this work was a success I will say that I purchased this old cow, Zamolea, and her daughter, Nutwood Figgis, from the backwoods and paid $200 for the two. Zamolea's first calf after I bought her was a heifer. She freshened at 21 months. Three months after freshening she milked up to 30 lbs. and tested over 6%, then we lost her from bloat. Her heifer was sold for $300 as a yearling. Zamolea's 2nd calf sold for $300 as a senior yearling. Her third calf was a bull and sold for $250. Her fourth and last calf, dropped May 19, 1918, was a bull and should bring at least $500. Nutwood Figgis produced a bull calf that we sold for $85 before we knew his value. Her second calf, a bull and junior champion at the Oregon State Fair, sold for $250. The calf weighed 96 lbs. when born. In calving, Nutwood received a rupture and proved to be a non-breeder thereafter. We sold her to the butcher for $75. Had we not done official testing this great family would probably never have been heard of. In our second year's test work our 11 cows average 599.42 lbs. fat and 11,354.5 lbs. milk. We know of no other herd in the United States with such a high record, considering the number of cows and entire herd on test, from junior 2-year-old to past 15 years.

I wish to express my opinion regarding what a registered Jersey cow should produce. I claim that a cow milked twice a day should make not much less than 400 lbs. fat in 365 days, or 500 lbs. fat milked three times a day. I claim this where a cow has had a fair chance, but she need not have been crowded at that. The reason I say this is because of the 11 cows in my herd none made under 526 lbs. fat, and this one was a junior 2-year-old. My cows stood in box stalls part of the time and part of the time in stanchions. I had silage about 8 months out of the year and no kale at all. I fed no corn meal or molasses but had fairly good feed most of the time. I also changed milkers several times and changed barns twice.

Some breeders tell me that I have my standard too high and I should not write this to the public, as breeders will get down on me, especially those who have lower records than these, but others claim the same as I. They say that the Jersey breeders should organize and agree not to sell a bull where the dam has a lower record than above mentioned. As many bulls are sold with very low records back of them, usually such bulls or low record cows are sold to new beginners and the result is they fail. This hurts the whole breed, where, on the other hand, if a good animal is sold and their offspring makes good the buyer is very apt to come back for more stock and is probably more willing to pay fancy prices where he knows these breeders sell only high producing stock. Of course, if a cow with a high producing pedigree back of her does not prove profitable the first year I advise not to sell her, and let some one else try her out, but keep her and give her another chance. Then if she proves to be a failure sell her to the butcher. Breeders, don't say, "Doerfler will learn. He will find many low record cows in his herd the same as the rest of us, and his standard is too high." I don't doubt but that I will find some that will fall below the 400 and 500-lb. fat mark, but if I do they will go to the butcher. Another reason why I put my standard at these figures is because a registered Jersey is registered because she should improve production. If she cannot make a good record she is no better than a grade and she should be a grade. Now this is the way I see into the breeding of dairy cattle. If I am in the wrong I would like to hear from some other breeders and have their opinions on this subject.



JERSEY COW, ZAMOLEA NUTWOOD
At 15 years she has a year's record of 10,168.6 lbs. milk containing 578.57 lbs. fat.
OWNED BY F. A. DOERFLER, OREGON



A FEW OF THE JERSEYS AND THE NEW DAIRY BARN OWNED BY F. A. DOERFLER, OREGON
The barn is 48x110 ft. and has a concrete floor. Five dances were given here last summer for the benefit of the Red Cross and netted almost $1,000.

Dairying in New Zealand

HOARD'S DAIRYMAN:—The 1918-19 season will open early next month. The winter has been fairly kindly up to about three weeks ago, when heavy snow fell in the South Island and in the high parts of the North Island. Dairy cattle are not housed in this country all through the year but they "go up" in the winter months. They stay in their paddocks all the year round. Although unusually cold this winter, the weather is not expected to interfere with the milk production of the coming season. On June 30th, there were in the Dominion 410 cheese factories, 185 butter factories, three dried milk factories, and one condensed milk concern. The bulk of the cheese factories are in the provincial district of Taranaki and of the butter factories in the Waikato district, while considerably more cheese than butter is manufactured in the South Island, in Southland, and Otago; in fact, in the winter the South Island usually draws extensively upon the North for butter for the domestic trade. Apart from somewhat intermittent shipments to British Columbia via Vancouver, and a small and spasmodic business with Australia for canning there in bond for the Indian and Eastern trade, New Zealand's only export market is the United Kingdom. At the time of writing, export has ceased but a large quantity of butter is held in store on account of the Imperial government. It is detained for want of sufficient insulated tonnage, although a clearance of all the 1917-18 make is expected to be made by the end of October. There is also a very large quantity of cheese held on imperial account, but not in the freezing stores as the butter is.

Practically all the cheese and butter factories in New Zealand are co-operative concerns owned by the farmers themselves. They pay on the fat basis to their milk suppliers. Here a difficulty has arisen. The returns to suppliers this past season have been approximately 47 cents per pound fat for milk supplied to cheese factories and six cents per pound less, allowing for the skimmilk, to suppliers of butter factories. The discontent of suppliers to butter factories has been accentuated by the knowledge that in respect to the Imperial government's purchase of Canadian cheese at 23 cents for first grade cheese, purchasers of the other milk products were expected at prices which placed all suppliers of milk, for any other purposes, upon an equal footing. If this were done in the case of the 1918-19 make—should the Imperial government be again the purchaser—it would prevent the soreness at present felt by butter producers who see supplies which have hitherto gone to their factories being diverted to cheese factories, if such are within a reasonable radius. This does not apply to the Auckland Northern districts, where home separation of cream the rule. Home separation is e tensively practiced in other parts New Zealand where farms are at considerable distance from the fa tories.

Some cheese factories make a litt butter at the very beginning and the extreme end of the season, but f the rest of the time they concentra on cheese; others make nothing el but cheese, and butter from the whe There are some factories which ha dual butter and cheese plants. T output of butterfat for the whole the Dominion is now estimated to 126,000,000 pounds per annum.

Dried milk is now being made five factories in New Zealand. T process is evaporation of skimmi over heated revolving cylinde butterfat being added. These fa tories with one exception are manag and controlled by farmers but th sell the product to the firm whi erected the works. Milk supplied such factories is paid for on t butterfat basis and two cents p pound over if in the neighborhood a butter factory, and four cen per pound if in the vicinity of cheese factory, whichever is near The two or four cents per pou premium is, of course, to divert mi from a butter or cheese making co cern to the dried milk factories.

There has been considerable e citement and interest created amo dairy farmers in the North Isla by proposals to dry off skimmilk evaporation in a vacuum chamber, consequence of the high current pric reported from London for dri skimmilk powder. Factories are ready building in Waikato for t skimmilk powder industry—farme co-operative concerns, pure a simple. The cost of erection and equi ment of such factories is put at 20,0 pounds to 25,000 pounds each. T machinery and plan is ordered in t United States. In such enterpris butter will be regarded only as a ki of by-product. It cannot be said th those connected with the financing the dairying industry, apart fr the most ardent advocates of t scheme, are very sympathetic wi it. The government, usually so prom to assist farmers, does not turn very kindly eye upon the dried m proposition. The reason of this a parent lack of interest in the dri milk idea for New Zealand is that is only likely to be as highly a luc tive enterprise, as its sponsors clare, while the current high pric for the manufactured article can upheld. Further, that the market w practically be limited to Great Brita in any case, inasmuch as all Ame can requirements can and will fully met by dried milk manufact

s in the United States, who in any se are able to turn out a much tter article than New Zealand can ok to do for some years to come. ood cheese and good butter New aland has proved can be made in is country; therefore, many who are terested in the development of the irying industry hold that farmers ould stick to what they know best d improve their butter and cheese.
New Zealand. GEORGE OSBORNE.

Help Avoid Burlap Shortage

Continued and increasing war demand on the jute industry of India burlap makes necessary the utmost conservation of this product ich we have been accustomed to e freely, even wastefully. India is e great jute center of the world. ere the jute is grown, made into fer, and manufactured into jute th which is commercially known as rlap or gunny-sacking.

Imports of burlap cloth by the ited States normally average about 0,000,000 yards annually. After ching this country most of the burl cloth is sewed into bags, most of ich are used as containers for food al feed. Investigations by the Food dministration show that somewhat re than three-fourths of all burlap ported is used by farmers in shipg agricultural products or in buyi necessary supplies.

Familiar products shipped principly in burlap include cereal grains, l feeds, mixed feeds, seeds, fertiliz potatoes, onions, binder twine, and sery stock. In peace times burlap s are worth about 6 or 7 cents a-e, and at this value dealers found mpractical to advertise for, gather, re-use second-hand bags. But the sent price, which is about four es these figures, and the decreased orts owing to such enormous prices rant the most careful conservation re-use of bags.

The U. S. Food Administration is hout authority to control either supply or price of burlap from ia at the moment, but the importe of this product as a food and l container makes a full understanding of the situation by farmers rable. Here are the Food Administration's requests:

urlap is valuable. Save the present ply, reserving enough on farms profitable future needs.

here is a good demand for second-d bags at fair prices. Put surplus s back into the channels of trade.

ven fertilizer bags can be saved ss acid fertilizers are allowed to ain in them too long. Empty the s at once, wash, and dry them. ar bags, after emptying, should be washed and dried.

ou need not mend torn bags that to be sold. Bag manufacturers special facilities for doing this and they prefer to do it.

llow no burlap or bags to mildew o be damaged by storing in a p place. Keep them clean and dry.

y waste of burlap adds to the nal demand, which in turn causes economic pressure for shipping India. Saving burlap helps to shipping to supply the American d forces abroad.

addition to the international and ary sides of the question which the most important, a personal deration may also be mentioned. burlap imported by the United s now costs about $150,000,000 ally, of which at least $100,000,is ultimately paid by American ers. The Food Administration bes that this figure can be materialduced if conservation is actively iced and the re-use of second-bags encouraged.

"DELCO-LIGHT is a Time and Labor Saver"

"We have had our Delco-Light plant for more than two years now and the work that it is doing out here saves several hours of time each week.

"The time and labor saved multiplies man-power on the farm.

"So you see Delco-Light is a good investment.

"By just pressing a button we can start an electric motor that runs the washing machine for my wife, milks the cows, operates the cream separator or tumbles the churn.

"Delco-Light gives us running water throughout the house and barns. It furnishes good, safe, clean electric light everywhere. We can do our chore work after dark as well as in broad daylight. And it does not take as long as when we had to lug lanterns about.

"The old smelly lamps and lanterns have been stored away. They are nothing but relics now, like the cradle my great-grandfather used, to harvest grain.

"Electric light eliminates fire risk. I do not fear fire any more.

"And the beauty of it is that we have all of these things at low cost. The plant runs on KEROSENE. The same kerosene that we burned in the lamps and lanterns, furnishes both electric power and light.

"Delco-Light pays for itself. There is no question about it.

"Before I had Delco-Light I did not know much about city conveniences. I believe that if I had to give up Delco-Light now I would move to town. My family would insist on it. Delco-Light helps every one of us in our work and keeps the children contented."

The above sums up statements made in over 5000 testimonial letters just received from users—More than 60,000 such users endorse Delco-Light.

THE DOMESTIC ENGINEERING COMPANY
Makers of DELCO-LIGHT *Products*
DAYTON, OHIO

A complete Electric Light and Power Plant for Farms and Suburban Homes—Self-Cranking—Air Cooled—Ball Bearings — No Belts — Thick Plate Long Lived Battery—RUNS ON KEROSENE

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Buy no milker without first getting this new complete book on milking machines. Full valuable authentic facts about the proved success and reliability of mechanical milking.

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Try this milker FREE. If satisfied, pay only a small part down, if you like, balance $1 per cow per month and a year to pay.

Saves ⅔ Labor
Learn why we call the Pine Tree Milker "The Million Dollar Milker"—how $1,000,000 backed the inventor—why we can give the ONLY 3-year guarantee. Saves two-thirds work and expense—increases profits.

More Milk
100% efficient in simplicity, reliability, durability and gentle, calf-like manner of milking. Milks like the calf sucks. Increases milk flow; lengthens lactation period. Cows like it.

Try One FREE PROVE by FREE TRIAL on your farm.
Write today for big helpful book and Trial Demonstration Offer. No obligation. Write now.
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Dept. 4549 X, 13th St. & California Ave., Chicago, Ill.

GET-A-WITTE Kerosene Engine
Buy on your own terms. Save $15 to $200. Catalog FREE.
WITTE ENGINE WORKS
1640 Oakland Ave., Kansas City, Mo.
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The Fellow who argued with Jim the other night



ran up against the shock of his life.

Jim knows tobacco. And before he got through, Jim made the fellow admit that Real Gravely tastes better and gives a satisfaction you can't get out of ordinary tobacco. A small chew of Gravely lasts so much longer that it costs nothing extra to chew this class of tobacco.

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It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND
Real Gravely Chewing Plug
each piece packed in a pouch
P·B·GRAVELY TOBACCO CO., DANVILLE, VA·

Keep Tab on Your Cows!
Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.



A Dwarf in Size A Giant in Power

Only 40 to 60 lbs. per H. P. yet Plenty of Surplus Power

Compared to ordinary farm engines, Cushman Engines are very light for the power they develop. They weigh only about one-fourth as much as other farm engines.

However, when compared with high grade engines used for other purposes, Cushman Engines are not regarded as unusually light in weight. For instance, they weigh several times as much, per horsepower, as automobile engines.

Cushman Engines are high grade engines built for farm work—made as heavy as they need to be, but no heavier. They are balanced so carefully and governed so accurately that they do not need such heavy construction.



Light weight power is much easier to handle for all ordinary jobs like grinding, etc.

Even with their lighter weight, Cushman Engines run much more steadily and quietly than ordinary farm engines weighing several times as much. They are also the most durable farm engines in the world, on account of improved design and better material and construction.

CUSHMAN

Light Weight (273) All-Purpose Farm Motors

Easy to Move from Job to Job

They do many jobs in many places instead of one job in one place.

Weigh Only One-Fourth as Much

as ordinary farm engines. Light weight and higher speed mean **more jobs, easier handling, less waste of material and fuel and steadier running.** Cushman Engines are the standard light weight engines of the world.

4 H. P. weighs only 190 lbs., being only 48 lbs. per horsepower. This is the most useful farm engine ever built. Besides doing all ordinary jobs, it may be attached to any grain binder, saving a team, and in a wet harvest saving the crop. Also it may be used on corn binders and potato diggers. Very easy to move around from job to job.

8 H. P. weighs only 320 lbs., being only 40 lbs. per horsepower. For all medium jobs. Also may be attached to hay presses, corn pickers, saw rigs, etc. 8 horsepower and larger Cushman Engines are all double cylinder.

15 H. P. weighs only 780 lbs., being only 52 lbs. per horsepower. For heavier farm jobs, such as 6-hole corn shellers, ensilage cutters, large feed grinders, small threshers, etc.

20 H. P. weighs only 1200 lbs., being only 60 lbs. per horsepower. For heavy duty jobs, such as shredders, shellers, grain separators, heavy sawing, etc.



Besides doing all ordinary work, Cushman Engines may be easily attached to machines in field. Picture shows 8 H. P. on Hay Baler.

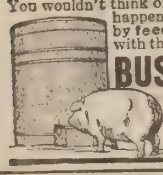
Cushman Engines stand up under wear and tear and do not wear unevenly and lose compression. Every running part enclosed free from dust and dirt and properly lubricated. Equipped with Throttling Governor, Carburetor, Friction Clutch Pulley and Water Circulating Pump. Ask for Book on Light Weight Engines.

Cushman Motor Works 817 N. 21st Street Lincoln, Nebraska

WARM WATER With 15c Oil In Place of $1.50 Grain



You wouldn't think of burning $1.50 grain under a water tank! Yet that's what happens when stock drink ice water! Their body-heat—produced by feed—is absorbed in warming ice water instead of making milk, muscle fat. Warm the water with this oil-burning heater; your stock will drink more—require less feed—save bushels of grain.



BUSBY OIL-BURNING TANK HEATERS and NON-FREEZING HOG WATERERS

Tank heater costs one-half cent per hour for kerosene. No smoke, no sparks, no danger. Fill tank once in 36 hours. Keeps water at animal heat. Can't freeze even at 30 below zero.

Free Folder and Special Offer. Busby Hog Waterer costs 2c a day for kerosene. Holds 70 gallons of water. Never freezes. Write for special discount offer to owner-agents on tank heater and hog waterer.

C. W. BUSBY & CO., 312 North Seventh Avenue, WASHINGTON, IOWA



A Healthy Udder

means comfort for the cow and a generous, easy milk flow. BAG BALM, the great healing ointment, will keep the udder free from sores, chaps, cuts, bruises, cracks, bunches and inflammation.

BAG BALM

IS ESPECIALLY EFFECTIVE AT THE CALVING PERIOD WHEN CAKED BAG FREQUENTLY OCCURS.

Its penetrating and softening effect is immediate. Every dairy should keep Bag Balm on hand.

Sold by druggists and feed dealers, in big 60c packages. Write for free booklet, "Dairy Wrinkles."

DAIRY ASSOCIATION CO.
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25 Cords a day One Man Log Saw

Strong, Simple, Dependable. A Fuel maker and work saver. Cuts any size logs into any lengths. Easy to move from log to log and from cut to cut.

OTTAWA ENGINE LOG-SAW

Does the work of 10 men. Makes wood sawing easy and profitable. When not sawing wood use as portable engine for pumping water and on other power jobs. Saw blade easily removed. Write for our low price.

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1529 King Street, Ottawa, Kansas.

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90-DAY TRIAL

Mill Book FREE!



Shows how to grind the most digestible stock feed, table cornmeal, Graham, whole-wheat, rye or buckwheat flour—all with one N. & M. guaranteed genuine

FRENCH BUHR MILL

Any power. Lasts a lifetime. Boy can handle and keep in order. Make money grinding for neighbors, too. Free Trial Offer and book of mills sent free. Write today.

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Write for prices on complete line Frozen, Smoked, Salted and Spiced Fish. Lowest prices and best quality. Badger Fish Co., Dept. 1, Green Bay, Wis.

Teat Operations

The teat operations I am going to describe are a few simple operations that I have used for a long time in my practice with satisfactory results. My clients are satisfied with them, as indicated by their repeated calls for these operations. I will first take obstructions of the end of the teat, caused by injuries, frost bite, infection, etc., most commonly found in cows kept in the old fashioned wooden stanchion which favors injuries by treads, etc., from the adjacent cows much more than does the modern stanchion with pipe partitions.

The histories of these cases are much alike. The owner or herdsman informs you that they were all right at the last milking, but milked with much difficulty or not at all from the affected teat the next milking. Upon examination we find a hard swollen condition of the teat end with or without a wound or wounds. The quarter may be relieved of its milk by using a teat tube but these cases will terminate unfavorably if the use of the teat tube is persisted in. I have never yet found anyone able to lay down a rule whereby the layman could use a teat tube twice daily for any length of time, without disastrous results to the quarter. The ordinary man considers a teat or tube clean if he is unable to see any dirt on them. I formerly used hard rubber teat bougies, or metal teat plugs, to dilate the affected duct, with unfavorable results; in fact, I have tried every apparently sane way of handling this condition, with very poor success until I began doing the operation I am about to describe.

It is absolutely essential in doing teat and udder operations to have the animal well restrained. First, the teat is well cleaned, especially at the orifice; it is then dipped in etherized iodine. I carefully introduce a sterile teat bistoury, with the blade guarded into the orifice and up past the obstruction which is the inflamed swollen circular muscle that forms the valve. I then engage the cutting point of the blade to the superior or upper side of the muscle and put on enough pressure to divide the muscle, being careful not to punch through the skin or cut the mucous membrane at the orifice of the teat. Repeat the procedure until the muscle has been divided three or four times at equal distances. The milk usually runs out in a stream until the quarter is one-fourth relieved when it is then necessary to empty the gland by milking. The after treatment consists of dipping the teat before and after milking in a 1-1000 solution of mercuric chloride and the milker's hands should be clean and dipped in the same solution before milking or handling the teat.

The next operation is for the fibrous growths that obstruct the duct of the teat, anywhere from the upper part of the lower third to the gland usually found at the upper part of the middle third. If a teat bistoury or curette is used on these cases the immediate results are good but in from three to ten days the trouble recurs. I find the best way to handle obstructions of this kind is to prepare the teat by washing with soap and water, rinsing with 1-1000 solution of mercuric chloride, dip in etherized iodine, inject a few drops of a 5% solution of cocaine into the field of incision; roll a rubber band up to the base of the teat to prevent bleeding, tense the teat by stretching, then with a sterile, sharp scalpel make an incision down on to the fibrous growth, dilate the wound and dissect the growth out with a blunt pointed pair of scissors, apply etherized iodine to the wound. Leave the rubber band on two hours, then remove by cutting with scissors so as to not molest the wound.

After Treatment

Apply etherized iodine and antiseptic powder twice daily for three days, then once daily. The milk will leak out sufficient to relieve the gland the first few days, then it will be necessary to strip it out by hand with precautions against infecting the wound. If the wound does not become seriously infected this operation gives satisfactory results and will save a good many teat quarters that would be lost to other treatment.

Complete stenosis of the milk duct may occasionally be cured by slitting it completely from the base to and through the muscular valve at the apex of the teat, being careful not to cut through the mucous membrane at the orifice. Four incisions, equal distance apart through its entire length are necessary.

Atresia of first calf heifers may be relieved in the same way after perforating the entire length of the teat with a large sterile probe. This condition is usually caused by being sucked by other calves while a calf.

In cases of severe wounds or other injuries to the teat ends, when the parts are beyond repair, complete ablation of the affected part is indicated and it is surprising how well some of these cases will terminate providing the cow is on a good flow of milk when the operation is performed.

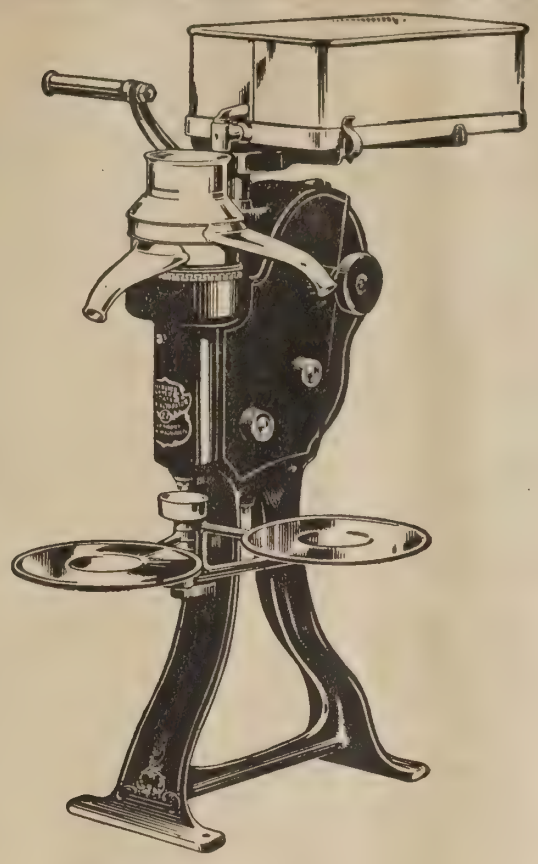
Blocking of the teat duct, with casein or blood clots, is best relieved by manipulation with the fingers. Every country practitioner should practice such manipulation until he becomes expert at it and by so doing save a good many teats and quarters.

Fistula of the teat is best operated when the cow is dry, preferably a month or more preceding parturition. Some object to casting a cow heavy with calf, but I have had no bad results from doing so.

The field of operation must be thoroughly cleansed with soap and water, thoroughly soaked in a 1-500 solution of mercuric chloride, and the whole teat painted with tincture of iodine. The instruments, scalpel, tissue forceps, artery forceps, teat tube, scissors, needles, suturing material, sterilized by thorough boiling. Inject a few drops of 5% solution of cocaine into the field of incision and around the fistulous tract; introduce a long sterile, self-retaining teat tube into the teat, leaving it there for a guide, apply a clean rubber band to the base of the teat to prevent bleeding, grasp the fistulous tract with a pair of forceps and completely isolate it by an elliptical incision on each side of and down to the duct, make a clean cut section, removing all the skin lead down to the duct, then suture, using the mattress stitch, do all the operating and handling of the teat with sterile instruments, apply ether and iodine and collodion. If the operation has been done surgically clean the wound will heal by first intention and the teat will be O. K. when the cow freshens.

Removing supernumerary teats to improve the appearance of the udder is best done in heifers or when the cow is dry. Use the same restraint, remove the teat or teats close to the udder with a pair of sterile, sharp scissors, and cauterize the duct or wound with the small point of a thermo cautery at cherry red heat. No after treatment is necessary.

Address by DR. THOS. H. FERGUSON, Wisconsin, at 54th annual meeting of the A. V. M. A. Clinic, Kansas City, Missouri.



Winning 100% Efficiency While 80% on War Work

Soon after the great war started our Company made a decision about as follows: "Until this thing ends, and ends right, our place is in the service. Nothing else matters much until it's all over 'Over There.' "

So we went to it—shrapnel and high explosive shells for our Allies and, later, for the U. S. A. Eighty per cent of our manufacturing energies were concentrated on day and night war work.

But during all this time every atom of the inventive genius that had made the "United States" separator highly efficient was working to make it infinitely better.

We have won our goal. Important refinements and improvements were accomplished. In the past eighteen months the Government has issued to us no less than *seven exclusive patents.*

There can be but one answer — the United States Disc Separator will sell and *stay sold* wherever dairy cows are raised for profit. Such sweeping points of merit cannot fail of recognition.

The "United States" has changed—for the better. Our peace-time job will be to keep this machine so efficient that when a better separator is made, it will be a

UNITED STATES
DISC SEPARATOR

Things You'll Notice Every Day You Own a "United States"

Get these three points fixed *Now;* others later

FIRST—One-piece frame construction. Means long life—it is made to grow old gracefully.

SECOND—Interchangeable discs that even a child can clean and reassemble with ease.

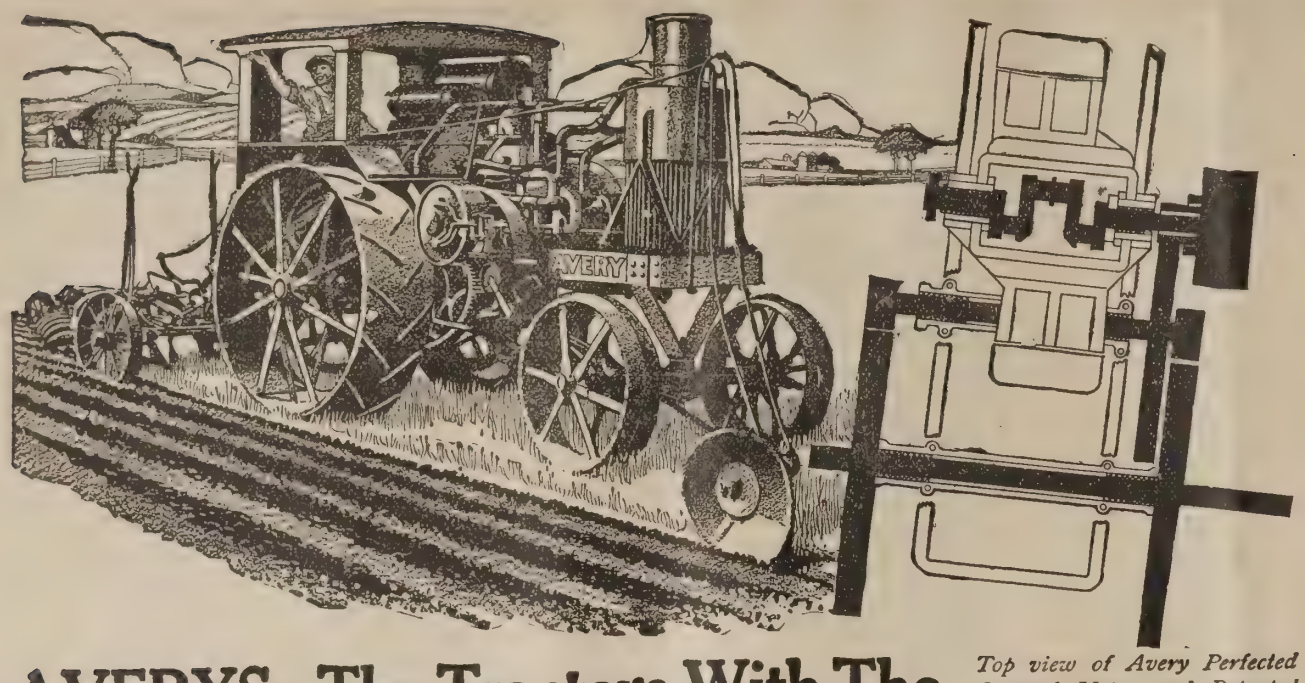
THIRD—Low Crank Speed—larger sizes only 42 revolutions per minute means 20 to 30 per cent less energy to the operator.

Find the "United States" dealer; let him demonstrate this wonderful machine point by point. Meantime, write for full descriptive literature.

Vermont Farm Machine Company

BELLOWS FALLS, VT.

CHICAGO PORTLAND, ORE. SALT LAKE CITY



AVERYS—The Tractors With The Perfected Opposed Motor and Patented Sliding Frame Transmission

Top view of Avery Perfected Opposed Motor and Patented Sliding Frame Transmission. Note direct drive to belt wheel and drawbar—only 3 shafts—only 8 gears—all straight spur gears.

THE **Perfected Opposed Motor** used in Avery Tractors has advantages for tractor work which no other tractor motor has.

An opposed motor distributes the weight correctly between the wheels, makes possible a narrow tractor—has a short crankshaft with only two bearings—is stronger in construction and runs at a low speed.

The **Avery Perfected Opposed Motor** has all these advantages—and then many more. We built it with the heaviest crankshaft in any motor, a round radiator with thermo-siphon cooling system, and valves in the head. Then we invented the wonderful Avery renewable inner cylinder walls, adjustable crankshaft boxes and gasifiers for burning kerosene and distillate. **No other motor used in any tractor has even half of these features.** The power of this motor is delivered to the belt wheel and drawbar by the simplest system built—the **Avery Patented Sliding Frame Transmission.**

This is the only transmission that makes possible a direct drive in either high, low, reverse or in the belt. It has only one clutch—only three shafts—only eight gears—all straight spur gears. The belt pulley is mounted on the crankshaft, and no crankshaft bearing on the frame or bevel gears are used. Without a question the **Avery Patented Sliding Frame Transmission** is the simplest and most efficient belt and drawbar transmission system built.

Write For Catalog or See An Avery Dealer

You will find this same type of Motor and Transmission in all five sizes of Avery Tractors, from 8-16 to 40-80 h. p. The Avery line is a complete line of power farming machines, including also a special 5-10 h.p. Avery Tractor, the Avery Motor Cultivator and Avery "Grain-Saver" Threshers and Tractor Plows. They are ***successfully used by farmers in all 48 States and 61 Foreign Countries.*** Ask for catalog or see an Avery Dealer.

Let Us Teach You How To Run A Tractor—FREE

Avery Tractor Service Schools will be conducted at all our Branch Houses, Distributors' and at many of our Dealers'. If you cannot attend, you can get the same instruction free in our Correspondence Course. It covers these subjects:

1. The Principles of a Tractor Motor. 2. Carburetor Adjusting. 3. Magneto Care and Repair. 4. Adjustment and Lubrication of Bearings. 5. Valve Grinding. 6. Belt and Drawbar Transmission Systems. 7. Operation of a Tractor.

Dates of Service Schools at Avery Branch Houses:

Dallas, Texas	Dec. 4-6
Kansas City, Mo.	Dec. 9-11
Wichita, Kans.	Dec. 12-14
Omaha, Nebr.	Dec. 16-18
Lincoln, Nebr.	Dec. 19-21
Madison, Wis.	Jan. 9-11
Des Moines, Iowa	Jan. 13-15
Sioux Falls, S. D.	Jan. 16-18
Aberdeen, S. D.	Jan. 20-22
Minneapolis, Minn.	Jan. 23-25
Fargo, N. D.	Jan. 27-29
Grand Forks, N. D.	Jan. 30-Feb. 1
Billings, Mont.	Feb. 3-5
Peoria, Ill.	Feb. 13-15
Indianapolis, Ind.	Feb. 17-19
Columbus, Ohio	Feb. 20-22

Special Avery Exclusive and Protected Features

Take particular note of these exclusive and protected Avery Features:

1. Renewable Inner Cylinder Walls enable us to use a harder material which wears longer and, if it ever does wear, the walls can be replaced and the Motor made as efficient as in the beginning and with less expense.

2. Adjustable Crankshaft Boxes, which enable you to take up any wear in the main bearings instantly without tearing the Motor down.

3. Duplex Gasifiers, which turn kerosene, distillate or other low-grade fuel into gas and burn it all.

4. Double Carburetor, by which you can start on gasoline and instantly switch to kerosene or distillate without having to make a single adjustment.

5. Crankshaft one-half or more in diameter than the cylinder and so strong it is almost unbreakable.

6. Thermo-Siphon Cooling System, which does away with the pump, fan, belts, gears and chains and saves the power required to drive them.

7. Round Radiator, which catches the wind from any direction.

8. Internal Gear Pump Oiling System that protects every working part of the motor.

9. Sliding Frame Transmission, which transmits the power to the belt wheel and the drawbar with the least loss, and is the simplest and most durable transmission system built.

10. Univeral Self-Cleaning, Non-Slipping Lugs that fit all conditions of field or road work.

AVERY COMPANY, 6121 Iowa Street, Peoria, Ill.

AVERY

Motor Farming, Threshing and Road Building Machinery



Seven Times More Food Value

"Yes, I bought all the Liberty Bonds that I could carry. And I've found a way to pay for them out of *extra* earnings and at the same time help folks Hooverize: I make my skim into delicious cottage cheese and pack it in

KLEEN KUP

The Package of Quality for Foods of Quality

Government experts say that skimmed milk furnishes seven times as much actual human food when made into cottage cheese as it does if fed to live stock. My customers are very glad to get it on meatless days—and other days, too.

"I use Kleen Kup packages also for my private brand of butter and for farm-made buttermilk. They are neat, convenient, inexpensive. I'd hardly know how to run a dairy without Kleen Kup."

You, too, can increase your dairy profits by the use of Kleen Kup packages. Let us show you how. A postal will bring samples, selling helps and the Kleen Kup story. Write today.

THE MONO-SERVICE CO., NEWARK, N. J.

DO YOUR DITCHING NOW



You imperil your next year's crops, your next year's profits, if you let fall and winter rains stand on your land. Give your land a chance to keep breathing. Do the farm ditching and terracing **now.** Do it the quickest way, the cheapest way, the easiest way.

Use the Most Rapid Farm Ditcher, Terracer and Road Grader

THE Martin O.D.&G.CO

All-steel—Reversible—Lasts a Lifetime.

Cuts a V-shaped open-drain, irrigation or tile ditch down to 4 feet. Cleans old ditches. Builds farm terraces, dikes, levees, and grades roads. Works in any soil — wet or dry. Does work of 100 men the old way. Write for free copy of valuable Drainage, Irrigation and Terracing Book and Special Introductory Offer.



Model 20

Owensboro Ditcher & Grader Co., Inc. Box 412 Owensboro Ky.

Alfalfa Turns Yellow

HOARD'S DAIRYMAN:—While the
are numberless causes that may cau
alfalfa to wilt and yellow, the moi
ture factor should never be lost sig
of nor the fact that this will opera
quite differently according to the a
of the alfalfa and the length of i
root, the porosity of the subsoils,
the presence of hardpans or ev
hard textured soils. A good deal d
pends on the time of cutting and
alfalfa fails to bud it should be c
when ready; on the other hand, r
peated early cutting before it
ready to shoot will encourage oth
growth which will eventually ov
come the alfalfa. Alfalfa will live
very long time without surface mo
ture and it is largely due to this fa
that on the western plains alfal
easily combats and defeats all wee
and grasses; while in the cool
moister hill regions it is overcome
dandelions, pepper grass, blue gra
and other competitors. In three yea
with an annual rainfall of twen
inches, alfalfa will exhaust all the f
water and its survival depends on
access to a permanent water table
one frequently refilled.

With sufficient heat, the limit of t
alfalfa crop like corn, only more
is the moisture available, which in
country of ordinary rainfall is eas
exhausted; in an irrigated coun
supplied up to the need of the cr
at the rate of from two feet in de
to as many as five and six feet
acre. On a small piece of wash s
we have almost every soil conditi
from hardpan to a very free, op
decomposed coarse granite. For
purposes of observation we allow
alfalfa to go dry or water it. Bef
the alfalfa had penetrated the ha
pan on the silt soil it yielded v
little, its root area being limited
15 to 18 inches in depth and a sp
of about a foot square per plant.
the gravel soil it is even thinner
the roots have always been m
longer, losing their tap form a
depth of 2 to 3 feet and splitting
into very fine hairs—quite unlike
dinary alfalfa roots. The bigger
first crop the dryer the soil is left
the next crop if, as often happe
spring rains are sufficient for a
first crop and later rains fall. Th
is no second cutting without irriga
and if this continues long enough
crowns become so dry that they
be easily broken off. Such buds as
start wither and die except on a
plants with spreading root and cr
that usually manage to per
through any drouth. Whether thi
due to the plants or pockets of cla
the subsoil cannot be said decide
perhaps to both causes.

Nearly forty years' experience v
alfalfa varying from hundreds
acres down to small patches un
closer observation lead me to say
the worst conditions for alfalfa
great moisture with cool weat
early in the season with subsequ
dry weather. Such conditions
courage the growth of trash and
to give alfalfa the advantage of
deep roots over surface feeders;
fact, the desirable condition is the
verse of that with the timothy
clover crops. With plenty of heat
get a big first crop; without it an
cool weather the other plants th
better than the alfalfa. Rooted
deep, porous soil, alfalfa shows m
of the same qualities as corn and
gins to thrive best when other c
and grass fail but this it canno
until it has penetrated deeply, an
countries with much heaving its
growth is subject to much inter
tion and there is no question as t
superiority of Grimm and Baltic
rieties.

With refractory subsoils one alf
failure or more should never be
lowed to discourage us. The

l be cleaned by fallow or potas nd at once reseeded. The plants eap the benefit of the attacks de- d by the first plants upon the l.

n is a grosser feeder and is deeper l than potatoes and if it can be as clean will often serve better, e potato root is unable to follow pe made by the alfalfa root the ear, though it will do so the sec- corn roots will run down along- The new broken alfalfa field is noculated and full of humus some of the lime already applied needful and the second immedi- repeated attack is far more like- be successful than the first. Un- ound conditions are more often minant ones than mere surface tions. It is a capital thing to pick and shovel and put in a day l out what plant roots are to be against instead of walking lei- around on top where a few s have been civilized to plant Alfalfa is the greatest subsoil- l the cheapest tillage agent if it given a chance to get going in sive generations where the con- s are not sufficiently good for tire success of the pioneer crop. orado. L. OGILVY.

Dairy Industry in Mexico

ARD'S DAIRYMAN:—That grazing ther conditions in certain parts exico are ideal for the develop- of the dairy industry is the re- which has just been made to the tment of Agriculture of the an government by men who had more or less experience in ine. Plans are on foot for im- g several thousand head of cattle from the United States e purpose of stocking farms are situated adjacent to the pal cities of the country. The s of the proposition have not worked out as yet, one of the still under consideration being er the dairy herds shall be t by the different state govern- and sold on reasonable terms farmers or whether the federal mment shall bear this cost.

m a natural grazing standpoint are sections of Mexico which id to be the equal of the famous districts of New Zealand. This rticularly true as to the states ichoacan, Jolisco, and parts of ulipas, Vera Cruz, and Puebla. ically all of Southeastern Mexi- well fitted for dairying, the re- says.

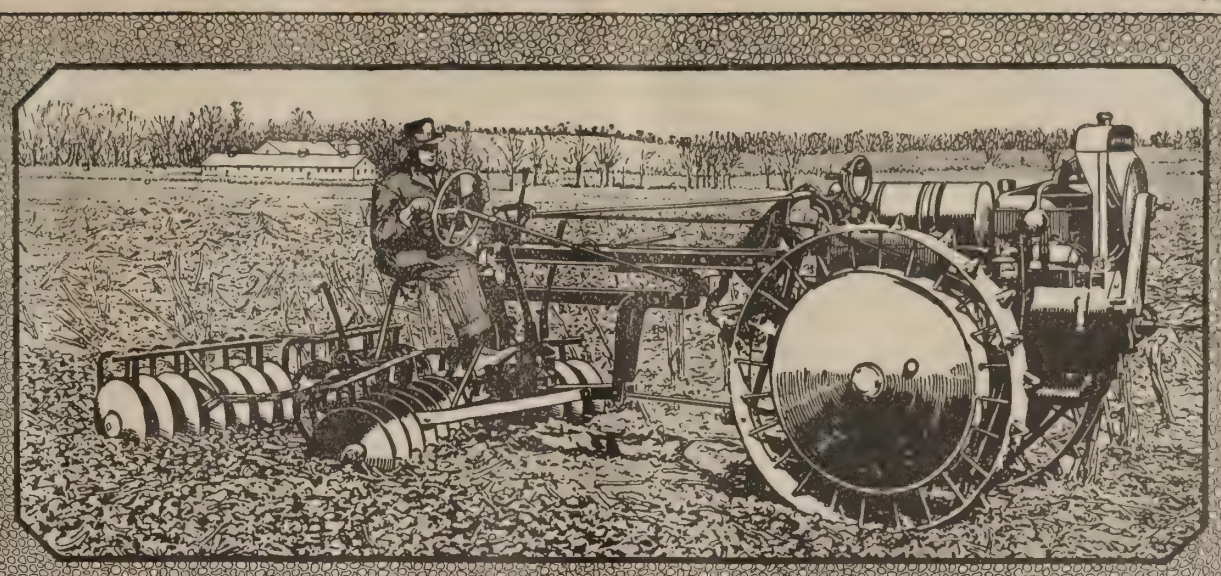
the pre-revolutionary days con- able advancement had been made e operation of modern dairies in o. The industry was in the of Americans almost exclusive- n the vicinity of Monterey, San Potosi, Chihuahua, Tampico, of Mexico and other of the larg- ies American dairies were con- d. Most of these dairy herds be- scattered as a result of the long d of revolutionary activities. cas. W. D. HORNADAY.

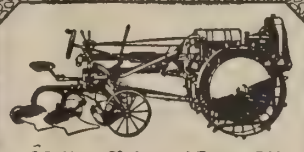
Lame Cow

ve a young cow which I believe is afflict- n rheumatism, but would like your opin- d advice. She seems to be affected most- the right knee. Will be all right for a eriod, then will get so lame over night n hardly walk, accompanied by loss of e. The knee at times becomes enlarged e swelling is very soft and does not feel h.

ana, Iowa. J. A. P.

e cow may be bruising her knee, would be well to stable her in a y, well bedded box stall. At times tack, poultice the knee with anti- istine, or other plastic dressing ed hot, covered with cotton bat- and renewed each time it tends come dry. Meanwhile, rub in a iodex if the knee remains en. We assume that the cow has tested with tuberculin. If not, should be done.





Moline-Universal Power Lift Gang—Extra strong construction, simple power lift operated by foot lever, equipped with quick attachable shares and combined rolling coulters and jointers. In average soil conditions this outfit will plow 9 acres a day.



Moline-Universal Disc Harrow—Strongly constructed with 18-inch blades. Each gang has 3 large dust-proof bearings equipped with wood bushings. Easily and quickly adjusted. Built in 6 and 7-ft. sizes double cut, or 8, 9 and 10-ft. single cut.



Moline Grain Drill—Operator sits behind the drill where he can see work being done. Furnished in a great variety of sizes either as plain or fertilizer drill. Deposits seed with unvarying accuracy. Equipped with either single or double disc furrow openers.



Moline-Universal Tow-Row Cultivator—With this outfit 10 to 20 acres a day can be cultivated. Entire outfit easily handled. Tractor speed easily regulated from ½ to 3½ M. P. H. Cultivator is extra strong and has pendulum foot gang shift.

THE TRACTOR
for ALL Your Work
AND ALL THE IMPLEMENTS
to Do It With

Mr Nile Kinnick of Adel, Iowa, operates a 400-acre farm and all the work is done by two men, two Moline-Universal Tractors and one team of mules. This is what he says about the Moline-Universal:

"I was agreeably surprised with the ease with which we could cultivate corn, and for harvesting it far surpasses horses or mules. It appeals to me as an ideal tractor. It will actually replace horses, something that most farmers must consider when they plan to buy a tractor. The ease with which it is handled and the advantage of operating the outfit from the seat of the implement are facts that cannot be appreciated until one has tried it."

This expresses in a nutshell the advantages of the Moline-Universal. It does *all farm work* including cultivating; *one man* operates both tractor and implement from the seat of the implement; it has *ample power* for heavy field and belt work, yet can be operated economically on light work.

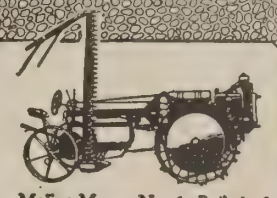
Another big feature that makes the Moline-Universal superior to all other tractors is the complete Moline Line of Implements to be operated in connection with it. This does not mean it is necessary to purchase all of these implements with the tractor, as many horse drawn implements can be used successfully. But it does mean that a Moline-Universal owner can operate his tractor to full capacity at all times and make the best use of the operator's time by using Moline tractor implements. They do better work with the Moline-Universal, are of larger capacity, stronger construction, are designed to run at higher speeds than horse drawn implements, and will pay for themselves in a short time.

For full information Address Dept. 18,

Moline Plow Co., Moline, Ill.

Manufacturers of Quality Farm Implements Since 1865

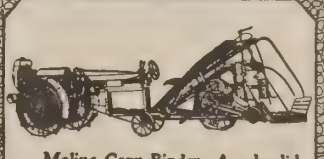
MOLINE
UNIVERSAL TRACTOR



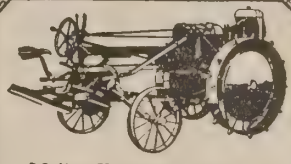
Moline Mower No. 4—Built in 6, 7, 8 and 10-ft. cuts. The largest capacity mower in the world. Proportionately larger and stronger than ordinary mower. Equipped with spring draft rod. One man operates both tractor and mower.



Moline Grain Binder No. 11—Cuts a 10-ft. swath. Extra strongly constructed throughout. Cuts 35 acres a day. Equipped with power bundle carrier. One man handles the tractor and binder easier than he could a binder and horses.



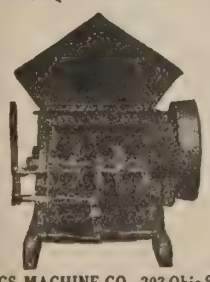
Moline Corn Binder—A splendid outfit for cutting corn easily and quickly. Power bundle carrier deposits bundles away from the path of the tractor. Strong and durable. One man operates the entire outfit easier than with horses.



Moline-Universal Tractor Attachor—A great variety of equipment can be attached to rear crossbars, so that majority of operations in orchard and vineyard work and cane growing can be performed with this one outfit.

DO YOUR OWN CONCRETE WORK WITH A MINSTER BATCH MIXER

When most convenient with your own men.



Build your own SILO.

Let us tell you what other men are doing with our machine.

WRITE TODAY.

Build rat and fire proof barns and other buildings.

THE CUMMINGS MACHINE CO., 203 Ohio St., Minster, O.

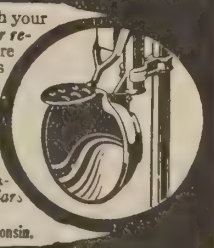
20 to 25% Bigger Winter Milk Yields



WITH pure, rich milk analyzing 87% water—and with your winter herd *getting only ¼ to ⅓ of their natural water requirement from icy outdoor tanks*, you can see where cold weather cow-thirst is one of the biggest causes of your year-after-year winter milk shortages. With

Simplex Improved Water Bowls

your cows drink "to their hearts' content" day and night. Result—*20 to 25% more milk from every cow all through the housed-in season.* And no more frozen tanks—no tank-heater makeshifts—no more twice-a-day "herding out" periods. *Write for Full Particulars on the Only Drop-Down Water Bowl on the Market.*



F. Rassmann Manufacturing Co., 31 Mill Street, Beaver Dam, Wisconsin.

The Only "Drop Clean" Water Bowl Made

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Shows how to grind the most digestible stock feed, table corn-meal, Graham, whole-wheat, rye or buckwheat flour—all with one N. & M. guaranteed genuine

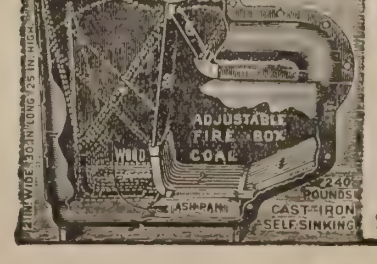
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Any power. Lasts a lifetime. Boy can handle and keep in order. Make money grinding for neighbors, too. Free Trial Offer and book of mills sent free. Write today.

Buhr Mill Book

NORDYKE & MARMON CO. 1384 Morris St., Indianapolis, Ind.

COW BOY SURE HEATER for STOCK TANKS



HELP FEED THE WORLD

Don't Waste Grain; but Save it and Produce more **Meat**, **Butter** and **Milk** by warming the drinking water for your stock with coal, wood or cobs with a

COW BOY TANK HEATER

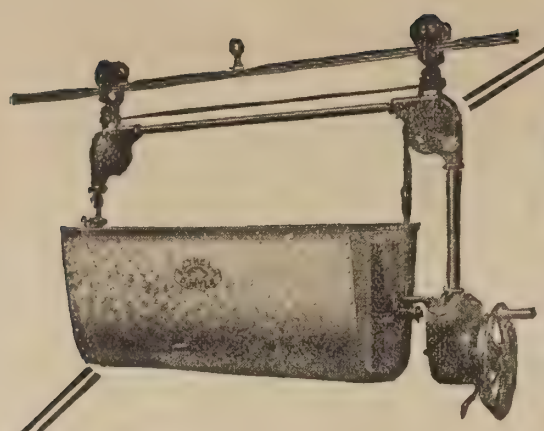
Quickest to heat; strongest draft; adjustable grates; ashes removed without disturbing fire; keeps fire 24 hours.

Absolutely Safe; pays for itself in 2 months with 4 cows; **Self-Sinking;** can be used in Wood, Steel or Concrete Tanks of any size. Most reliable, practical, efficient and durable Tank Heater manufactured.

"Purchased 3 of your Tank Heaters last Winter, worked very satisfactorily and are well worth their cost. Every Stockman should use one." W. H. Pew, Prof. of Animal Husbandry, Iowa State College, Ames, Ia.

Get a Heater early. Write now for illustrated circulars and dealer's name.

THE WILLS MFG. CO., 32 Seventh St., MENDOTA, ILL.



Porter Litter Carriers

Priceless time, labor that runs into dollars—save them both with a Porter Litter Carrier—thousands of farmers all over the United States are doing it.

They're saving time and labor on what most of them think is the "toughest" job on the farm. The farmer knows that a little money expended on a labor-saving device is money well invested—that is, if the device is "right."

And most farmers know that a Porter product is right—that the Porter slogan, "Simplicity, Sanitation and Durability," is lived up to in everything turned out with the Porter stamp on it.

Save Time and Labor

Geared Hoist Litter Carrier—Most popular of the Porter models, shown in illustration above. Operated with plain spur gear and wire rope drums. Simple in design and operation, installation practical, reliable. Entire mechanism boxed, making it absolutely dirt and weather-proof. Runs on swiveled trucks adapted for Columbian steel track.

Chain Hoist Litter Carrier—Preferred in some cases. Like the geared hoist carrier, the tub can be tipped either way. Free from complicated parts. Tripped by light line as is geared hoist carrier.

We manufacture a complete line of stalls, stanchions, pens, carriers, etc.—the practical kind that show returns on the investment.

Your dealer can give you complete specifications. Write for our catalog.

J. E. Porter Co.
317 Guion Street
Ottawa, Illinois

PORTER

(30)

I Will Sell On Dec. 16th

MY ENTIRE DAIRY HERD

Including 9 Registered Guernseys

5 cows and 1 2-year-old bred to freshen in Jan. and Feb. 2 yearling heifers, unbred. 1 bull calf. May Rose and Gov. of the Chene breeding. The cows and heifer are in calf to Rose's Bob Rilma, he by a grandson of May Rilma, 1,073 lbs. fat. (World's Record when made).

14—HIGH GRADE HOLSTEINS—14

2 cows and 6 2-year-olds, fresh in Dec. and Jan. 1 yearling heifer, 4 heifer calves and 1 2-year-old pure-bred bull, a dandy.

Will also sell all my horses and farm machinery including a 10-20 Titan Tractor in excellent shape, a New Racine Thresher, 28-48, in good running order, 3 bottom tractor plow, silo filler, husker, etc.

Write me today for descriptive circular and further information.

FRANK DANIELS, FORT ATKINSON, WIS.

20 Grade Holstein Springers For Sale

We are offering 20 grade Holstein Heifers due to freshen late this fall and early winter. They are from very high grade cows and are carrying calves by a registered bull. **Geo. W. Callahan, R. F. D. No. 1, Knoxville, Tennessee.**

20 High Grade Springers 20

For Sale: Twenty head of two and three-year-old high grade Holstein heifers, tuberculin tested. Green County, Wisconsin bred and due to calve in next three months. Also *King Mandane Mercedes*, a splendid yearling registered bull. Would agree to keep cows until January 1 for purchaser. No better bunch of high grade cows in Illinois. **W. S. Middlesworth, Shelbyville, Illinois.**

256 STEERS FOR SALE

1, 2 and 3 years old, Herefords, Angus and Shorthorns. Weight 600 to 1,200 pounds. Choice quality. If interested, write me your wants.
HARRY I. BALL, - Fairfield, Iowa.

Fairview Stock Farm Holsteins

For Sale: 3 yearling heifers sired by Sir Korndyke Hengerveld Grouw, whose dam is a full sister to Pietertje Maid Ormsby. Also one bull ready for heavy service. Write your wants. **FAIRVIEW STOCK FARM, W. G. Marshall, Prop., Whitewater, Wis.**

Holstein Breeders' Sale Company Consignment Sale

The Holstein Breeders' Sale Co., an organization of Holstein breeders in central Wisconsin, has a splendid new sale pavilion at Fond du Lac, Wis. It is an excellent pavilion, one of the best, if not the best, in the country. It was completed this fall just in time for the November 14 and 15 sale and very naturally buyers who attended that sale went expecting a sale in keeping with the building in which it was to be held.

They were not at all disappointed. One hundred sixty-eight head were offered, practically all of them in sale shape, and the fact that they sold for $41,000, an average of $244, shows plainly that they were appreciated. The 29 bulls sold for an average price of $217; the 139 females for a $249 average. There was a particularly keen demand for heifers bred to freshen this winter and everything, individually good, that was offered in that line was snapped up at very satisfactory prices.

Buyers from four states, Iowa, Minnesota, Colorado, and Wisconsin, contributed to the success of the sale. F. D. Baker, Iowa, was the heaviest buyer, taking 18 animals for an average price of $259.

The sale included the dispersion of the Reid & Dawson herd, but Andrew Frank was the heaviest consignor with 44 animals, most of them heifers and young cows. They sold for $9,630, averaging $218. Another of the very good consignments, although a much smaller one, was from the herd of Jno. Puls, Wisconsin. His included 5 granddaughters, 2 and 3 years old, of Sarcastic Lad. This little group proved especially popular and brought an average of $525.

The highest priced animal of the sale was Meadowholm Ona Button Hartog, junior sire in the herd of Reid & Dawson. He is but a 2-year-old, sired by a 30-lb. grandson of Pontiac Korndyke and from a granddaughter of Aaggie Cornucopia Pauline Count that has 30 lbs. butter in 7 days and 1,345.55 lbs. in 365 days. He was purchased by Chas. Braatz & Sons, Wisconsin, for $1,550.

Haeger, Mack, and Pohlman did the selling, with S. T. Wood in the box. S. H. Bird managed the sale.

Following is a list of all animals selling for $200 or more, prices, and buyers:

Otto Hinsel, Wisconsin	
Colantha Sir Aaggie Rag Apple 2d	$140
Chas. Braatz & Sons, Wisconsin	
Meadowholm Ona Button Hartog	$1,550
Jewel Clover Lawn 3d	430
Queen Jewel Colantha DeKol	220
Maid Sarcastic	200
Anna Laura Mutual Rex Segis	345
John F. Hespont, Wisconsin	
Queen DeKol Neta	$225
E. G. Carpenter, Wisconsin	
Johanna Deone 2d	$320
A. E. Tulledge, Wisconsin	
Johanna Diana	$305
Johanna De Mercedes	260
Wm. F. Treleven, Wisconsin	
May DeKol Goldie	$280
S. C. Stanchfield, Wisconsin	
Johanna Ruberta	$355
Goldie Jewel Johanna 2d	310
John Frey, Wisconsin	
Ormsby Clover Lawn 4th	$475
Colantha Bluebird Belle	220
Luecke Bluebird	400
Mary DeKol Girl	270
King Walker Colantha Champion	500
Rex Vivian Korndyke Segis	270
Rex Goldie DeKol Jewel Segis	300
Elizabeth Rex Segis	230

WE HAVE THE BEST

IMPROVED FAR

in the state of Florida fo large Dairy and Hog Ranc

All kinds of forage crops in abun and Acorns, Peanuts, Sweet Potatoes, Cl Rape all the year around. Grazing all the Large Range for all stock. Milk sells for cents a gallon, cream $2.50 per gallon, 70c. Not half enough to supply de *Want two men to help manage place.* have five thousand dollars each to put o cows and 100 Brood Sows. Large guaranteed.
Address P. O. Box 1311, Jacksonville

CANADIAN RANCH FOR SALE

One of the finest wheat and stock ranc Alberta for sale. Contains 800 acres—250 tivation. Elaborately improved; good If you want a farm and home that will itself in one year, see this. Priced for quic at $35 per acre. Terms—for photos a information, write owner,
BOX 13, - PIG VALLEY, A

FOR SALE

Pure-bred

Holstein Bu

Six months old. Dam's seven- record: 32.63 lbs. butter from lbs. milk. Sire's dam's seven- record: 31.82 lbs. butter from lbs. milk. Dam now on semi- cial test, and at the end of sixth month she was milking pounds per day and had to credit 12,700 pounds of milk about 570 pounds of butter. make attractive price to move s Might sell his 21 months old brother that we have been u slightly in our own herd. Fe ally tested for tuberculosis. abortion. **AVALON FAR**
E. D. Curtis, Owner. Bantam, C

FOR SALE—A YEARLING

of 5% breeding, whose dam's 3-yr.-old reco two of her three nearest dams and his sire' nearest dams, average 29.62 lbs. butter in His sire from a daughter of Hengerveld and sired by a son of K.P. Pontiac Lass. H by a 27-lb. son of Colantha Johanna Lad. bull calves sired by a son of King Segis P and whose dam is a daughter of Pontiac dyke. Priced for quick sale. For further in tion write, **GLENN WILSON, Wanata**

A Bargain in Guernseys

I am offering for sale several e young bulls up to 9 months old, sons of Pride of Riverside, he an A. R. son o Waukesha. All of these youngsters ar A. R. dams. They are well grown an straight individuals. I am also offe heifers by the same sire; 3 are 15 mont one 4 months old. My herd is acc These animals are priced to sell. Write for pedigrees and prices. **Maple Heights Farm, Frank E. Swan, Wauwatosa, Wisconsin.**

CHOICE HOLSTEIN BU

A Few Ready for Light Servic

We have a few choice young bulls f They are nearly ready for service, ar A. R. O. dams and by one of Minnesota Holstein sires. We are short of room are pricing them to sell rapidly.

Write today for further information. won't stay here long.

Fleck's Registered Holstein Far Ed. Fleckenstein, Mgr. Faribault,

He's Ready For Heavy Serv

For Sale: A two-year-old son of Anchor of the Glen from a granddaug Imp. Raymond of the Preel VI. The da first and junior champion at the 1915 sin State Fair and a real dairy cow. himself is a splendid individual, ve grown. He is a brother to Polly's Beau lbs. fat at 4 yrs. (class leader) and to Anchor Queen of Sunny Side, 505.88 lbs

Write us for full information.
Maple Hill Farm, Fruit Bros., Waukesh

BULLS READY FOR SERVICE

Four well bred yearling bulls for sale. Two son of Juliana King of Rock, he from Queen Dirkje, 3000 lbs. butter in 3 years. The othe direct to De Kol 2d's Butter Boy 3rd and Lord Ne De Kol, famous century sires. Also grades a breds in car lots and some dandy $25 heifer calv
Hellen Stock Co., Jefferson, Wis. "A reliable

Sale Announcements

Dec. 10—Holsteins. Gormley Bros. Dispersion Sale. Jefferson, Wis.
Dec. 14—Jerseys. D. V. Vandiver, Columbia, Mo.
Jan. 7-8-9, '19—Holsteins. Moyer's Holstein Sale, Earlville, N. Y. H. A. Moyer, Di Syracuse, N. Y.
Jan. 7, '19—Holsteins. Rock Brook Farms Dispersion at So. Omaha, Neb. H. C. Gliss Sta. B., Omaha, Neb.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. D Williams, Mgr.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

...sby Clover Lawn 4th	475
...aatz, Wisconsin	
...abeth Crown Segis	$350
...ronemann, Minnesota	
...n Butter Boy DeKol	$300
... Clover Lawn 2d	510
...l Clover Lawn	590
...nna Maid Clover Lawn	590
...tte, Wisconsin	
... Clover Lawn	$510
...iser, Wisconsin	
...n of Clover Lawn	$475
...pp, Minnesota	
...rill Pride Johanna	$325
... De Pauline	340
...thy May Johanna	260
...each, Wisconsin	
... Nelson Segis	$405
...e DeKol Mutual 2d	280
...lloy, Wisconsin	
... Johanna Konig Lyons	$250
... Canary Mercedes Johanna 2d	245
... Lahoma Korndyke Segis	225
Getzinger, Wisconsin	
... Pontiac Sadie Julip 5th	$225
...ntha DeKol Concordia 2d	255
...nder, Wisconsin	
...a Pontiac Colantha DeKol	$265
... Wisconsin	245
...gger, Wisconsin	
...nie Butter Boy DeKol	$600
...thy DeKol Wilsrijp	230
...a Pledge Segis	410
...ce DeKol Welsrijp	320
...lie DeKol Jewel	390
... Edith DeKol	305
... Royalhill Korndyke Segis	250
...awrence, Wisconsin	
... Ruby Clothilde	$260
...iller, Wisconsin	
...s DeKol Posch 2d	$215
...Mittelsladt, Wisconsin	
...y Inka Johanna	$255
...inkler, Wisconsin	
...han Queen DeKol 2d	$275
...oy, Wisconsin	
...ntha DeKol Korndyke Pontiac 3d	$210
...mmel, Wisconsin	
...lewood DeKol Girl	$225
...y Alexander Echo 3d	260
...fcSchoome, Wisconsin	
...a Piebe Johanna	$325
...mpion Rigtje DeKol	400
...agner, Wisconsin	
... 49	$325
...ann, Wisconsin	
...y Canary Mercedes Johanna 3d	$310
...ettman, Wisconsin	
...y Colantha Gelsche	$450
...'Laughlin, Wisconsin	
...bird Polkadot Paul	$330
...aker, Iowa	
...herland Netta Colantha Lad	$230
...ce DeKol Rag Apple	500
...en Pledge Rag Apple	280
...y Imperial Onyx DeKol	200
...anna Burke Welsrijp	240
...hess Pietertje Johanna	300
...en Lyons DeKol Segis	300
...anna Snow Ball Queen 2d	310
...anna Snowball Queen	275
...consin Star Champion DeKol	360
...y Star Mercedes	290
...sy Mink Star	275
...173	230
...etry & Son, Wisconsin	
...bird Colantha Belle Boy	$300
...nith, Wisconsin	
...y Bertha Korndyke	$230
... Jewel Nannetteson	260
...n Bros., Wisconsin	
...icess Echo Rag Apple	$225
...tedmond, Wisconsin	
...hess Johanna Marvel	$225
...anna Rag Apple Pledge	320
... Dybedal, Wisconsin	
... Korndyke Segis Rag Apple	$205
...anna Mink Pontiac	250
...andman, Wisconsin	
...ol Rigtje Konig	$200
...ook, Wisconsin	
... Esther DeKol	$200
...cCourt, Wisconsin	
... Peach and Cream Korndyke Segis	$410
...luntley, Wisconsin	
... Laura Mutual Segis	$400
... Godfrey, Wisconsin	
...ol Star Lilly	$555
...sy Star Mink	555
...anna Star Idyl	555
...rcedes Champion DeKol	555
...ampke, Wisconsin	
...ertje DeKol Konig	$210
...eulemans, Wisconsin	
...rcedes Wisconsin Lyons	$260
...ohse, Wisconsin	
...press Konig Fobes	$330
...everidge, Wisconsin	
...y DeKol Korndyke Johanna	$340

...Heid's and Rush Chapman's Guernsey Sales

...re were some very good Guern...ffered at W. J. Heid's and Rush ...an's dispersion sales held ...9 and 20, respectively, at Fort ...on, Wis. Both were strictly ...rs' sales, practically every ...l sold having been bred by their ...tive owners, and as might have ...xpected the stock sold very well. ...'s 36 head sold for $8900, an ...ge of $247. The 31 females in ...rd, including calves, brought an average of $273, with the highest ten bringing a total $3940.

Chapman's herd of 27 head sold lower, they brought a total of $5945, but that was to have been expected because he had done no official testing. The 22 females in his herd sold for an average of 246, with the high ten selling for $2740.

Nearly half of the Heid herd went to breeders from Colorado, Virginia, Georgia, and Illinois, but things were quite reversed at the second sale, most of the animals being purchased by local buyers.

Both of these were good herds but in each case better prices could have been obtained had more A. R. work been done. That which Heid did, made a noticeable difference in the prices paid, for his animals were no better individually than those sold the second day.

Drainage is a factor in crop production which no farmer should fail to recognize. If you don't believe it, ask a farmer who has tried it out.

Well balanced rations and careful feeding have a direct bearing on the production of your hens.

DAIRY MARKETS

SPRING GREEN, Wis., Nov. 26—Offerings of cheese on the Spring Green dairy board of trade on Tuesday was 411 boxes of single Daisy cheese. Of these 120 boxes sold at 36⅝c and 291 boxes at 36⅝c.

APPLETON, Nov. 26—Five factories offered 123 boxes cheese on the local call board on Tuesday. Sales were 61 boxes Twins at 34¾c and 62 boxes Double Daisies at 36c.

PHILADELPHIA, Nov. 26—Eggs—Higher; nearby firsts, $21.00@21.60 per case; nearby current receipts, $20.70; western extra firsts, $21.00@21.60; western firsts, $20.40@20.70; fancy selected packed, 75@77c per dozen.



Cow Waters Herself



with this wonderful new Libbey Automatic Water Bowl. Animal moves lever, opening water valve, when it starts to drink. Lever swings back, closing valve, when animal stops drinking.

15% More Milk

Milk is 87% water, and cows cannot give their greatest yield unless they have plenty of water constantly within reach. Farmers who use Libbey Bowls report an increase of 15% to 20%, which soon pays for the bowls.

Libbey Automatic Water Bowls

are the most sanitary and successful ever invented. Each bowl controls its own water supply, operated entirely by cow, and may be put at different heights, or in any stall or pen. No float tank required. Cannot overflow; cannot get out of order. Almost no water left in bowl to become stagnant. They save labor and feed and increase milk. Prevent spread of contagious diseases, as each cow has her own bowl and no water can pass from one to another, as with old-style bowls. Very simple and easy to install. Write for circular and prices, also FREE DAILY MILK AND FEED RECORD.

If interested in Stanchions, Stalls, Carriers, etc., ask for free General Catalog.

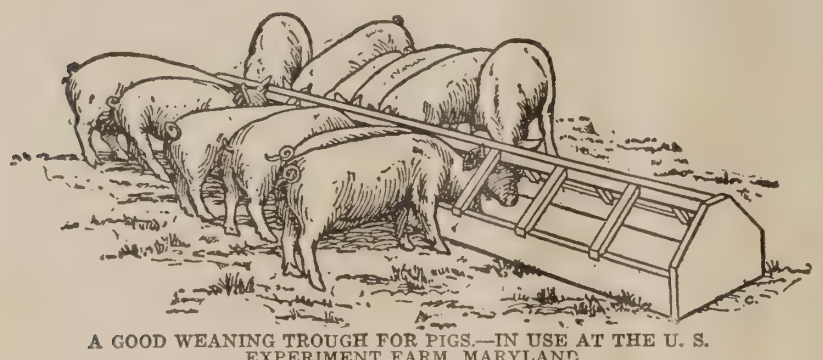
C. A. LIBBEY COMPANY
101 Marion Street Oshkosh, Wisconsin

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Pig Weaning Trough

We all know that when little pigs are fed together in an open trough there is always more or less crowding and as a result the smaller ones are crowded out or at least are robbed of a part of their meal. These are just the ones that should be well fed, but this continual crowding and robbing keeps them in the runt class which of course means a loss. The best way to remedy this difficulty is to build some kind of a trough that will keep the pig out of the feed and give each one a fair chance. The accompanying drawings illustrate such a trough that is used on the Government Experiment Farm in Maryland. It can be built by any junior who is at all handy with tools, and if he so desires, can be made larger or smaller than the one planned. This one is large enough to hold a slop feed for 20 weanling pigs weighing about 35 or 40 pounds. It is only 3 inches deep so that the pigs can easily get at their food, but the ridge pole and cross pieces make it impossible for the animals to climb into it. Like any feed trough or box it must be kept clean, and this is easily accomplished by use of an old broom and plenty of water.



A GOOD WEANING TROUGH FOR PIGS.—IN USE AT THE U. S. EXPERIMENT FARM, MARYLAND

The trough is 7 feet 9 inches long and weighs only about 50 pounds, so it is easily handled and can be carried from one place to another. Lumber seven-eighths inch thick is used except for the floor and ridge pole. The floor is made from 1-inch stuff and the ridge pole which is 2 inches square can be cut from a 2"x4".

The following bill of material is necessary for the construction:

One piece 1 inch by 1 foot by 12 feet for the floor and ends. The ends can be dressed down to ⅞ inches thick or else used an inch thick.

One piece of ⅞ inches by 4 inches by 16 feet for the two sides.

One piece 2 inches square by 8 feet for the ridge pole.

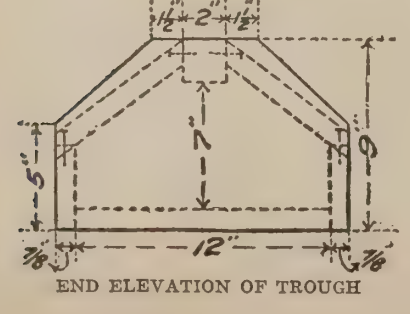
One piece ⅞ inches by 1¼ inches by 15 feet for the partition pieces.

Total number of board feet, 20.

Thirty-six screws (1¼ inches, No. 9) to fasten the partition pieces.

Fifty-two nails (8-penny); 14 used to fasten each end piece to the ridge pole, sides, and bottom; 12 used to fasten each side piece to the floor.

If you don't happen to be able to secure this particular kind of lumber, you can probably find some around the buildings that will answer the purpose just as well. Thus if you don't happen to have any ⅞-inch boards, you can use 1-inch ones or else dress them down to ⅞-inch. Then, too, if you want to make the trough larger or smaller, plan it accordingly. These plans are merely suggestions.



END ELEVATION OF TROUGH

Such a trough can very well be used to teach the little pigs to eat before they are weaned, but when it is used for this purpose, fence it off in one corner of the pen with a fence that will keep out the old sow but will allow the pigs to run under.

Value of Silage—Calf Feeding

HOARD'S DAIRYMAN JUNIORS:—I would like to ask you a few questions. How much is good corn silage worth a ton? How much is good shredded fodder worth a ton? How much would skimmilk be worth a hundred? We are getting 60c for butterfat.

Would you tell me what are the best feeds you can give a calf to make it grow its best?

Minnesota. ARTHUR J. BRADY.

Corn silage is not bought and sold on the open market like grain or hay so it really has no market value. There are, however, several ways of estimating what it is worth per ton. One way is to compare it with the price of grain according to the following table issued by the Indiana Station:

When grain costs	Silage is worth
$25 per ton	$ 5 per ton
30 per ton	6 per ton
35 per ton	7 per ton
40 per ton	8 per ton
45 per ton	9 per ton
50 per ton	10 per ton
55 per ton	11 per ton
60 per ton	12 per ton

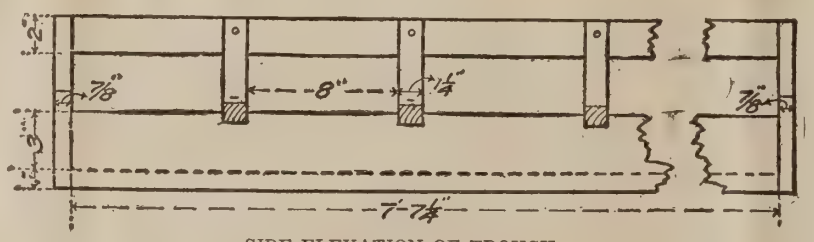
You can use this table by finding out the present market price of grain. Thus, if it is now worth $35 to $40 per ton, corn silage would be worth from $7 to $8 per ton.

We have estimates that the value of silage is one-fourth the selling price of timothy hay. For example, with timothy selling for $30 per ton, silage would be worth $7.50.

Pound for pound, shredded corn fodder contains nearly three times as much actual feed as a similar amount of silage. The silage is, however, more palatable, the cows like it better, and moreover there is less waste from it. You know from experience that when dry fodder is fed, a good deal of the coarser part is left uneaten. With silage this loss is small. Feeding experiments have proven that a ton of corn put in the silo will produce seven or eight per cent more milk than the same corn fed as dry fodder and we believe that a ton of such fodder is not worth more than twice as much as a similar amount of silage.

Just how much skimmilk is worth depends upon the cost of other feeds as well as the purpose for which it is to be used. One way of estimating its value per 100 pounds for feeding hogs is to multiply the market price of live hogs in cents per pound by 5. If it is to be fed with corn, multiply by 6. Thus, if hogs are worth 17 cents per pound, skimmilk would be worth about 90c per 100 pounds as a feed. For calves it would be worth even more.

Milk is unquestionably the best single feed for most growing animals. It is the food Nature intended for them and in this one respect at least it is a hard job to improve on Nature. The dairy calf is no exception to this rule. Milk is the feed it will use to best advantage which is why you often find breeders of pure-



SIDE ELEVATION OF TROUGH

breds feeding their calves whole milk until they are three to six months old.

This last, however, is unnecessary and certainly is expensive with butterfat at 60 cents or more a pound. Start the calf on whole milk and when it is from three to five weeks old gradually substitute skimmilk until the calf is on skimmilk entirely. A few pounds of milk a day is enough for the very young calf, but as it grows older this amount can be increased until it is getting 12 to 15 pounds daily.

Now there are certain precautions to be observed in feeding milk. First of all, keep the feed pail clean. Feed regularly and feed milk at about the same temperature each time. Irregular feeding is one cause of scours.

Milk alone will not be enough for a calf. When it is two or three weeks old it will begin to eat grain and hay if given an opportunity. Keep a little bran or ground oats in a feed box where the calf can get it at any time. Before long it will begin eating it. Then begin feeding grain regularly. A mixture of ground oats or ground corn and wheat bran will do very well, the ground grain being replaced by whole grain after the calf is eating nicely. Half a pound will be enough at first but late may gradually be increased up t pounds or thereabouts.

Clean, bright hay is another tial part of the calf ration. or alfalfa is to be preferred. A but little will be eaten but as th develops the consumption of ha increase until by the time it months old it will be eating th four times as much hay as grai move the uneaten hay each da give a fresh allowance.

McHenry County, Illinois, and Girls Do Things

McHenry County Boys' and Clubs have been making some records for their county and selves.

At the McHenry County Fai put on the best exhibit of c fruit and vegetables, corn, and on the fair grounds and at the fair they took the blue ribbon fo exhibit of fruit; blue ribbon fo best corn demonstration team ond place with their canning d stration team; fourth place i pageant; and fourth place on exhibit of canned vegetables.

These boys and girls have doing some fine work with their canned products, and pigs. mothers, what do you think of putting up all of the home fru vegetables as some of these have done? When girls und years put up between 200 an cans in a season they are sure over the top. Many of the Mc County boys are taking orde their early seed corn.

And such pigs—! You goo men should see some of these pigs. Six-month-old pigs we 200 pounds. Yes, and one pig w 268 pounds the day it was six m old.

On Nov. 29 and 30th these boy put on one of the biggest show pig sales ever held in McHenry ty. There were Duroc-Jersey, P China, and Chester White pigs, of them pure-bred. These pigs all weighed by the boys when b and a record kept of the feed.

Illinois. T. H. MURI

A Book for You

Are you interested in dairy in the feeding and care of calv the common ailments calves may and the treatment of them? you like to know more about h properly feed and care for cows? Certainly you would, fo are a junior dairyman. Ther books published on this subje not all of them are written for

Very recently, however, v ceived a little booklet covering things that was written express boys and girls who are memb calf clubs or are interested in cattle. It covers the subject ver and is written in a way that one, old or young, can understa is a "Hand Book for the Use of Cattle Clubs", by Frandsen and ens. The Nebraska Experimen tion, Lincoln, Neb., will send a to any interested person who for it.

Your Letters

We very often hear from so our junior club members who

…because their letters have not …printed and no doubt it does …strange to some of you when …e other letters printed but not …wn.

…time you feel this way, just …ber that there are thousands …r boys in the club besides your…d that as a result we get more … than we could possibly pub… We print a few of the many and … or later one of yours will un…dly be among them.

…fact that we only publish a … the letters we receive does …wever, mean that we are not …ted in the others. We are, and …nighty glad to hear from every … you as often as you care to …

Junior Letters

…s Dairyman Juniors:—I have not …e for a long time. I was in the Gibson …Pig Club this year. My pig weighs …at six months old.

…in the eighth grade at school. I put …2 acres of corn this year. We have put …the corn in the silo and are going to …e of it and sell the other.

…e milking 2 cows. We have 2 cows, 5 … We sold our bull last month. He …1,800 pounds. We got $200 for him. …three years old. All of our cattle are …d Holsteins.

…hool is closed on account of influenza. …been closed two weeks and will be …out five or ten days more.

…a four ducks and one drake. They are …unners. They are laying now. I will …close now as it is bedtime. My ad… Oakland City, Ind.

John C. Farmer.

…s Dairyman Juniors:—I have a calf …wn now. I sent in my card and I be…t a lot of the other juniors have sent …rds and are in the race. The sire and …both Holsteins, but it is brown and …We just got 23 steers on Friday and …doing fine. We have 48 head of cat…I will close, wishing the juniors good …

…lvania. William Betz.

…s Dairyman Juniors:—I have been so …bing my father that I have not had …write. I am in the 8-A at school now …made a double. I have $100 worth …Savings Stamps and a $50 Liberty …

…our milk to the condensery now and …ng $3.30 per cwt. for our milk now. …about 250 lbs. per day.

…ed our silo full this year with clover, … corn. We have sowed some wheat …h this fall and hope we will have …o fill our silo in the spring.

…f is growing fine now and is very …ow, because she will be fresh next …y father has three steers and two …nning outside yet. One steer we are …butcher for our own use, then we will …est. He has a sow and a pig. The …s about 85 lbs. and we are going to …t when it gets to be about 125 lbs.

…ierce County dairymen got together … month ago and organized the Pierce …Milk Producers' Association. Its ob…o obtain higher prices for our milk …be able to buy our feed cheaper. …ted my father as treasurer and he is …rector.

… taken an active interest in the …ub in this community for I was ap…president of the club. We are milk…t 12 cows now and are feeding 19 …

…gton. Robert E. James.

… Dairyman Juniors:—We have fin…ting corn and are going to start …next week. Our sow had eight little …ey will be ten weeks old Oct. 16. … black and white spotted.

…anish influenza is very bad around … a cousin who had it but is better …

…e 2 cows and 3 heifers now. We are …move Jan. 1 to a place about 2 miles …. It is a farm of about 166 acres. I …ainea keats this spring; now I have …

…r the juniors good luck.

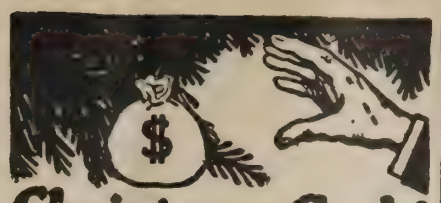
…d. Alfred Heine.

… Dairyman Juniors:—We filled our …weeks ago. I helped tramp in the … have sowed 22 acres of rye and will …res more. Before I go to school in …ing I milk 3 cows. It is three miles …

… When I come home my brother and …e cows home from the pasture. We …nty-six cows now. We have three …d I have one heifer. We have four …d one mule. I have picked up a … walnuts. There are not many this … no apples at all.

…o read Hoard's Dairyman and espe… junior page. I am ten years old. …ee now as it is bed time. With re…all juniors.

Victor Hugo Boesen.



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Get **top prices** from the World's Largest Fur House. Your check comes by return mail. Have money for Christmas spending! We need millions of skunk, muskrat, coon, mink, fox, moleskins—everything—and pay best prices. DON'T wait! Ship NOW! Ask for Free Trapper's Guide—3-in-1 Book, and Free Shipping Tags.



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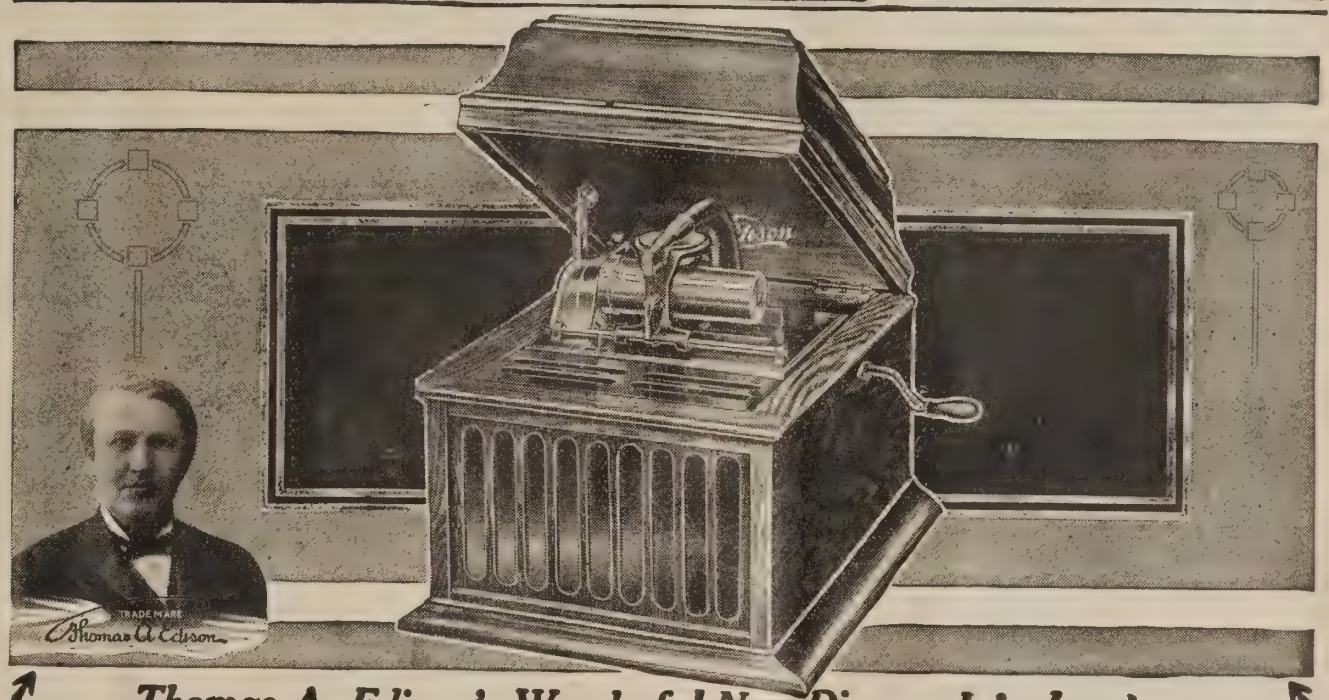
Ward Work-a-Ford

Gives you a 12 h. p. engine for less than the cost of a 2 h. p. The Ford car has a powerful engine—it will outlast the car—and you might as well save your money and use it to do all your farm work.

No wear on tires or transmission. Hooks up in 3 minutes. No permanent attachment to car. Cannot injure car or engine. Also used on other cars.

Friction Clutch Pulley on end of shaft. Ward Governor, run by fan belt, gives perfect control. **Money back if not satisfied.** Ask for circular and special price.

THE WARD CO., 2012 N St., Lincoln, Neb.



Thomas A. Edison's Wonderful New Diamond Amberola

Sent on Free Trial!

Read the Coupon Below! An astounding offer—the New Edison Diamond Amberola, Mr. Edison's great new phonograph with the new Diamond Stylus reproducer, and twelve brand new Diamond Amberol Indestructible Four-Minute Records sent to you on ***absolutely free trial. Send no money***—just fill out the coupon below and send it to us at once. We will send you the complete outfit immediately. Entertain your family and friends with the latest song hits of the big cities. Laugh at the side-splitting minstrel shows. Hear anything from Grand Opera to Comic Vaudeville. Decide if you can get along without it. If, after the free trial, you decide not to keep the outfit, send it back to us ***at our expense.***

Only $1.00 After Trial

If you wish to keep Mr. Edison's superb new instrument after the free trial, send us only $1.00. Pay the balance of $47.20 for the complete outfit in easy payments of only $4.00 for 11 months and $3.20 for 12th month. Total $48.20. Remember, the brand new Blue Amberol Indestructible 4-Minute Records are included in outfit.

Think of it—a $1.00 payment, and a few dollars a month to get this outfit of Mr. Edison's new phonograph with the Diamond Stylus reproducer, the life-like music—the same Blue Amberol Records—all the musical results of the highest priced outfits. The *finest*, the *best* that money can buy at very much less than the price at which imitations of the Genuine New Edison Diamond Amberola are offered.

After years of labor on his favorite invention, Mr. Edison has made the music of the phonograph true to life. There is no reason now—especially since we make this rock-bottom offer—why you should be satisfied with anything less than Mr. Edison's genuine instrument. You are under no obligation on this free trial offer.

Send No Money —Just the Coupon!

Convince yourself first. Get the New Edison Diamond Amberola in your home on free trial. See how much happier it will make your home. Just fill out the coupon and send it in. No money down, no C. O. D. You pay us nothing unless you keep the outfit. Of course, we do **not** want to ship an outfit to a person who can not afford to at least pay on easy payments (and when you get a free trial it must be understood that you can **afford** to keep it). Yet, no one is **under any obligations** to keep an outfit if it is not entirely satisfactory. If it is not just what you want, return it **at our expense; you,** not we, must judge what the Edison phonograph means to you and we accept your decision cheerfully and without question.



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Canadian Office: 355 Portage Ave., Winnipeg

No obligation to buy in sending this coupon, this is just an application for a Free Trial

F. K. BABSON, Edison Phonograph Dist., 4549 Edison Block, **Chicago, Ill.**

Dear Mr. Babson:—As per your offer, I should like to hear Mr. Edison's wonderful new style phonograph in my own home on free trial. If I decide to keep the outfit, I will have the privilege of the rock-bottom price of $48.20, direct from you on your special terms. I merely agree to take the outfit promptly from the depot, pay the small express or freight charges, and if I do not find it thoroughly satisfactory, I reserve the right to return the outfit at once at your expense. Otherwise I will send the first payment of $1.00 within forty-eight hours after the free trial or as soon as possible, in no case exceeding one week, and will make monthly payments thereafter of $4.00 for 11 months and $3.20 for the 12th month. Total $48.20. The outfit is to remain your property until the last payment has been made. (This offer is not open to anyone under 21 years of age. If you are under 21 ask your father, mother or guardian to fill in and sign this coupon for you.)

Name.....Address or R.F.D. No.....

City.....State.....Shipped by.....Express

Shipping point.....Occupation.....

Age.....Married or Single.....If steadily employed at a salary please state.....

How long a resident in your neighborhood and your vicinity?.....If there is any possibly of changing your address during the next year, what will be your next address?.....



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

For Sale—Butter King DeKol Colantha, one of the best sons of the great Friend Hengerveld DeKol Butter Boy who has 4 daughters above 1,000 lbs. of butter per year. He was born Dec. 30, 1912. He is out of a 30.54-lb. cow and carries 75% the same blood as Highlawn Hartog DeKol, 1298 lbs. butter and over 2,500 lbs. milk per year. N. E. SHANOWER & SONS, Burton, Ohio. 12-tf

Registered and high grade Holsteins. We have a very choice car of high grade springers four to seven years old at from $100 to $130. OAKGROVE FARMS, Oxford, Wis. 19-8

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Holstein springers—7 high grade heifers, coming three years old, to freshen soon. Send for photo. Price $100 each. Heifers at Lake Mills, Wis. Write ALBERT C. WOLLIN, Grove City, Pa. 16-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 16-tf

For Sale—10 heifer calves and 4 young bulls. Sire a grandson of King Segis. Through their dams they trace directly to Woodcrest Pietje, Colantha 4th's Johanna, and King of the Butter Kings, a son of Pontiac Rag Apple,—three of the best animals the breed has produced. Write for pedigrees and prices. AUSTIN FARMS, Windsor, Vt. 17-4

High grade Holstein calves $13.50 each crated. MAPLE LANE FARM, Cassadaga, N. Y. 18-tf

Registered Holstein heifer calves, 4 to 6 weeks old, sired by King Hengerveld Model Fayne Bawn No. 196342, dam's record 732 lbs. milk in 7 days, 28.5 lbs. butter in 7 days. Dams are daughters of King Pontiac DeKol No. 49088 and other equally well bred sires. Price, registered and crated, F. O. B. Cleveland, Ohio, $75. Satisfaction guaranteed. JOSEPH F. SCHMIT, Route 3, Brooklyn Station, Cleveland, Ohio. 18-4

For Sale—Three weeks old high grade Holstein heifer calves, $20 crated. YOHN'S STOCK FARM, Watertown, Wis. 18-4

One February 24, 1916 Holstein bull for sale. Registered with better than 28 lbs. of butter in seven days on his mother's side and 31 lbs. on his father's side. Price $300. H. W. KELLER, Dallas Center, Ia. 18-4

For Sale—Nicely marked, serviceable, Holstein bull, $125.00. REDDELIEN, North Lake, Wis. 19-2

For Sale—Registered Holstein bulls ready for service. Tuberculin tested. Our breeding. S. E. JONES, Watertown, Wis. 19-8

Registered Holsteins, two extra good bulls, 25- and 31-lb. dams, record bull calves. 14 bred heifers, 10 good cows. D. H. BRINKMAN, Sheldon, Iowa. 19-2

For Sale—Good high grade heifer calves $22 crated. W. A. STRAUSS, R. 5, Watertown, Wis. 19-2

Registered Holstein bull calves from A. R. O. dams for sale. No. 1—2 months old, ¼ white, three nearest dams average 7 days, butter 24.0 lbs., milk 496.0 lbs., 365 days, butter 671.0, milk 15,208.0 made at 2 years, 3 years and 10 years of age. No. 2—2 months old, 4-5 white, records almost the same as No. 1. No. 3—7 months old, 2-5 white. Dam and sire's dam average 7 days, butter 24.3 lbs., milk 520.0 lbs. Price $100 each. Others cheaper. All straight and right. Herd tuberculin tested. W. H. GARDNER, Solon Mills, Ill. 19-2

Dispersal Sale—Thursday, December 12th, my entire herd of 50 registered and high grade Holsteins: 30 cows, 20 heifers and 2 bulls. Also my entire dairy equipment. CARL REDDING, Angola, Ind. 19-2

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

Registered Holstein bull born March 5. King Segis Pontiac breeding. A. B. ANDERSON, R. 4, Red Wing, Minn. 20-2

A. R. O. registered Holsteins. Ten head aged two to seven years, springers. M. E. MOORE & CO., Cameron, Mo. 20-4

Waukesha County Holstein-Friesian Cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin 20-13

STOCK FOR SALE

For Sale—Sixteen heifers, grade Holsteins, will be 2 years old in March and April and of good size, well marked and to freshen in April or May. SAMUEL DAVIS, LeRaysville, Pa. 20-tf

Ten grade Holsteins for sale. VICTOR LOHMANN, Lake Elmo, Minn.

Registered Holstein yearling heifers, $125 each. 24.80-lb. bull, $125. GEO. WILLIAMS, Orfordville, Wis.

For Sale—Eleven registered Holsteins; six milk cows, three fresh soon; three coming two-year-olds; two calves. JOHN A. HENTZELL, Wellington, Kansas.

For Sale—One hundred choice high grade Holstein springing cows and heifers. J. A. KNORR, Blanchardville, Wis. 20-8

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

Four extra good registered Guernsey bulls for sale. Age 7 to 9 months, May Rose breeding, being sired by Langwater Frederick 22268, from dams with A. R. records 510 to 740 lbs. fat. Pedigrees and sale list. HOMER F. RUNDELL, Livingston, Wis. 15-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, high grades, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 19-tf

For Sale—Splendidly bred Guernsey bull, two years old. A bargain. Great A. R. ancestry. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Proven Guernsey sire—Seven nearest relatives average seven hundred sixteen fat. Championship quality. Write for descriptive matter. BEMIS AND SARGEANT, Long Prairie, Minn. 19-2

Three registered Guernsey bulls for sale, sired by Langwater Frederick and Dairymaid Glenwood of Pinehurst 3rd and from A. R. dams; 740 lbs., 529 lbs., and 510 lbs. fat. Sale list. HOMER F. RUNDELL, Livingston, Wis. 19-tf

For Sale—Sons and daughters of the great May Rose bull, Bell Buoy of Linda Vista (19430) A. R. One daughter has made 476 lbs. fat and three others on test will go over 450 lbs. fat at 2 years. They have both production and type. O. R. SCHWALEN, Roberts, Wis. 19-tf

Registered Guernseys—Offer my herd bull and several yearling bulls for sale. Price $75 to $200. HENRY ZIMMERMAN & SON, R. 4, West Allis, Wis.

Guernsey Bull—Registered, ten months old, first class in every way. Write us today. $110. GEBHARDT BROS., Palmyra, Mo. 20-2

$40 buys Guernsey bull calf, world's record breeding, mostly white. RICHARD F. KLEMM, Baraboo, Wisconsin. 20-2

A few registered Guernsey bull calves, four to ten months. Good breeding. Prices right. W. J. HAINES, Chestnut Hills, Philadelphia, Pa.

Registered Guernsey bull calf. Born Aug. 7, 1918. Sire was grand champion bull at the Danver Show last year. Dam a heavy producing cow. Price for immediate sale, $65.00. H. W. GRISWOLD, West Salem, Wis.

Young Jersey bulls for sale, registered. Bred and priced right. Liberty bond taken. O. R. SCHMELING, Watertown, South Dakota. 20-3

For Sale—Registered Jersey bulls, cows, and heifers, all ages, leading strain. CLARENCE RAGSDALE, 709 Monroe Ave., Moberly, Mo.

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

STOCK WANTED

Wanted—A few head of registered Holstein springers, cows or heifers, give full particulars. GEO. BACHER, Route D, Box 31A, San Antonio, Tex.

Wanted—Forty high grade Holstein heifers. Eleven to fourteen months old. Thirty two-year-olds to freshen in early spring. Give description and price. COLEMAN & CARLTON, Walter, Okla.

Wanted—High grade Holstein cows and heifers springing, must be good ones. EVERETT CLAMPIT, Jacksonville, Ill.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 17-4

David W. Williams, Lake Forest, Illinois can buy you dairy cows of any breed. 20-tf

SWINE

For Sale—400 stock pigs eight weeks old for $7 each delivered to your station. ERNEST DUTCHER, Whitewater, Wis. 16-tf

For Sale—Registered Poland-China boars. Reasonable prices. CHAS. W. O'NEILL, Bridgeport, Wis. 16-5

Big type, big wonder strain, Poland-China boar, also boar large enough for service. G. W. BLAKE, R. 1, Jefferson, Wis.

Berkshires—Choicely bred, registered April, 1918 pigs; breeding stock, both sexes, reasonable prices. QUINEILO FARMS, 297 East Water, Milwaukee, Wis. 19-2

Duroc Jersey boars: Large type. FRED SNYDER, Marion, Ia. 20-tf

For Sale—Duroc Jersey pigs eligible to register, $7. ARTHUR WYCOFF, R. 8, Battle Creek, Mich.

Big type O. I. C. fall pigs. Price $10 each. AUG. NEITZEL, Bloomer, Wis. 20-tf

POULTRY

White Rock Cockerels, heavy boned, laying strain, $2.50. GEORGE KLEIN, Webster City, Iowa. 19-2

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Airedale Terriers, extra nice pups from registered parents at $10. Females $6. FRED W. SCHROETER, Grafton, Wis.

MACHINERY

For Sale—Complete pasteurizing outfit. Slightly used. Will sell for very low figure. TRUMAN W. BROPHY, 81 E. Madison St., Chicago. 17-4

For Sale—One 8-16 Rumely, new, 2-plow tractor—used as demonstrator. Closing out—sell for less than cost. Act quick to get this. Address BOX 617, Marengo, Ill. 18-3

For Sale—Three-unit Hinman milking machine, A-1 condition, used three weeks. Herd sold. Price $200.00. HOWARD EVANS, Eau Claire, Mich. 19-2

For Sale or will exchange for pure-bred Holstein calves or mules—Killen-Strait caterpillar tractor, 35 H. P. Waukesha motor, used one season, good condition. HAWTHORNE FARMS CO., Barrington, Ill. 20-2

For Sale—17-unit Sharples milking machine, complete and in first class condition, sell in units of six. Also two "Chilly King" coolers and Davis 2x6 bottler. ARCADY FARM, Lake Forest, Ill. 20-3

For Sale—One new Double-unit Calf-Way milking machine including vacuum pump and tank. Best outfit on the market. Have gone out of machine business, will take $280 to close. Regular price $350.00. First come first served. Address BOX 317, care Hoard's Dairyman. 20-5

For Sale—Five hundred Pine Tree Milkers, both double and single units, with Gardner pumps. Brand new. Best on the market. Price right. A. C. MACARTNEY, Box 626, Syracuse, N. Y.

For Sale—"Pulford Attachment" only $90 or a good offer. Guarantee it to be in perfect working order. Will easily do the work of three or four horses. F. C. FREEMAN, Los Banos, Calif.

Wanted—Combined churn and butter worker. Medium size Victor preferred. G. S. SICKER, Coshocton, Ohio.

For Sale—Complete 3-unit Hinman milking machine. Has been used only 3 weeks and still carries the manufacturer's guarantee. In perfect condition, cost over $200, will sell for $125 delivered. Also have shafting and pulleys and wood rods. Will sell for $50.00 here. J. S. MAVERICK, Sunshine Ranch, San Antonio, Texas.

For Sale—Fordson tractor with extension rims and Oliver two-bottom tractor plow. New, used only few days, soil too sandy. WALLACE BROS., Bayshore, Mich.

FOR RENT

For Rent—My good dairy farm to a good business farmer and dairyman. SAM B. WOODS, Crown Point, Ind.

First class dairy farm to let on half shares. Adjoining grade at Borden Plant. Will keep 50 to 60 head of stock. Only experienced manager need apply. HERMAN F. BERGER, New Milford, N. Y. 20-2

"Fifty-fifty" share proposition, wanted on high grade dairy, 100 acres up, modern equipment and living conditions, near markets, carrying 20 or more 7,000-lb milkers, yearly sales $7,000 up. Will furnish labor, owner other expenses; dividing gross income. Honest efficient manager experienced all departments. Must be convenient high school, church. Details first letter. BOX 323, care Hoard's Dairyman.

FARMS FOR SALE

Booklet on request presenting facts b Commissioner of Agriculture describi Mazarn Valley in the Ozarks, ideal for ing and stock farming. Address MA VALLEY LAND COMPANY, 847 Ave., Hot Springs, Arkansas.

For Sale—60,000 acres cutover land in ern Wisconsin. $20 up per acre, $10 do forty and $10 per month or balance pa extended, provided you do required am work. We have a few eighties with b ready for use. To purchasers of these rent teams and tools on community ba advance money for cow, pig and c when you can supply feed; also grubst during farming season providing you tire time to developing your farm. HAWK LAND CO., Box L, Tomahaw

If you wish a farm in the best grass of the south where alfalfa and all the including Red White, Alsike, Sweet Crimson and Japan grow to perfecti soy beans, cowpeas, peanuts, velvet corn, oats, wheat, rye, and barley, w have a creamery making fine butter a ing Elgin for butterfat, and where the bovine tuberculosis nor cattle ticks; in munity of northern farmers, write t GURLER, Macon, Miss.

Farms in the Mississippi Prairie Belt and clovers. Corn, hay and live stock sition. Ideal climate, good neighbors, churches, good roads. Main line of Close to large markets. Write now. HANSEN, Macon, Miss.

Fine Farms and Land Cheap—120 acres clearing; large house, log barn 235 acres with buildings; 45 acres und $5,600. 40 acres bushland $500. $1,000. 240 acres $3,000. Write for to THE E. L. C. CO., D-M, Dept. 31, Wis.

Dairy and Grain Farm—316 acre loading station; splendid impro equipped for dairy purposes. Price per acre. Write for full description; scriptive booklet. MANSFIELD CO Ottawa, Kansas.

Ideal Farm Home—165 acres well i 3 miles Nashville, fine oiled pike, lays deep rich soil, 75 bushels corn per a watered, excellent neighborhood, mode equipment. Cheap at $225.00 per ac terms. Might take clear land up to as part payment. T. E. HALE, Route ville, Tenn.

$1,200 down secures equipped 157-a farm cutting 60 tons hay, 25-cow, s tered pasture, sell cream and feed hogs; estimated 1,000 cords wood, 1 timber, 200 bbls. apples last season, 1, maples, evaporator and buckets. house, barns, granary, piggery and house. Only 3 miles to village, crea milk station. Feeble owner's low pri and if taken now he includes pair cows, 2 calves, sow, poultry, hay, co toes, dry fire wood, wagons, tools, cr arator, cook stove, parlor stove, lot ture and automobile with $1,200 down terms. Details page 12 Strout's Bar alogue 17 states. Copy mailed fr 3001, E. A. STROUT FARM AGEN quette Bldg., Chicago, Ill.

For Sale—98¾ acres good soil, go room house, two barns, two miles to reason for selling. D. D. BENNET Mich.

For Sale by Owner—One of the f improved 120-acre farms in St. Croi Wisconsin. An ideal home. Write a LOCK BOX 62, Hammond, Wis.

128 acres in best county of state, road, 70 acres cleared, good buildi ernly equipped. $75 per acre. Wil sonal property. RICHARD EI Greenwood, Wisconsin.

Liberty Bonds, at face value, ac payment for Aitkin County lan more loyal district anywhere. You this county. There are greater opp here than anywhere else for the fa dairyman. Prices low. Terms easy. maps and experiences of people we cated. ARNOLD, Land Agent, Ro Railway, 154 Wolvin Bldg., Duluth,

Southern Dairy Farms—200 acre land one mile from station, $45.00; highly improved rolling prairie, o wells, $70.00; 640 acres ½ mile fro extra good grass and grain land, $40 rare bargains. GEO. E. BROWN town, Alabama, formerly Aurora, Il

330-acre dairy farm, in best dairy New York; 50 head registered stock; roofed barns; large house; plenty s ter, sugar bush, apple orchard, n tractor, plows and harrows, manure corn harvester, potato digger, feed other tools. Silo full; 70 tons hay oats. Buildings alone worth $12,000 uine bargain at $17,000, with amount down. Write for photograph tails. Possession at once. ENNIS & Cattaraugus, N. Y.

PARTNER WANTED

Must know cows; money making d Southern Pennsylvania. BOX 320, ca Dairyman.

FARMS WANTED

Would you sell your farm, if you price? Sell direct, no commissions. lars free. CHARLES RENICH, Ill.

FEED BAGS

Second-hand bags and burlap. highest prices and pay freight. S guaranteed. LINCOLN BAG CO., S Illinois.

WANT TO RENT

Want to Rent—Small retail dairy thing furnished or will buy stock ment on monthly payments. Colora oming preferred. Best of reference. care Hoard's Dairyman.

HAY

Alfalfa hay for sale. Write or w delivered prices. ALBERT MILLE PANY, 192 North Clark Street, C

SEEDS

ion Farmers—Buy your Grimm alfalfa olgrimson and Lyman strains direct ower. Will furnish affidavits showing ity. Purity test 99.39. Price $42.50 lbs.; sacks free. Prices on smaller on request. At TRIANGLE RANCH, ood, S. D. 25-tf

Hills non-irrigated alfalfa seed, very ariety. Write for sample and price. RS' ALFALFA SEED CO., Rapid City, kota. 15-tf

ndid Spring Wheat for Sale—We offer a limited quantity of the Blue Ribbon f spring wheat, only 70 bushels. Our ith this wheat is as follows: Last e sowed two bushels on two acres of e return, threshers' measures, was 76 which grades uncleaned, 61 lbs. per We will sell this wheat well cleaned for $3.00 per bushel. Bags furnished nts each. Order early to avoid delay t. HOARD'S DAIRYMAN FARM, inson, Wis. 16-tf

MISCELLANEOUS

Guinea Pigs for us. We supply stock. ries need thousands. Big money and inexpensive to raise. Particulars and cents. DR. J. A. ROBERTS' LAB- IES, Oconomowoc, Wis. 19-tf

herd record—Pocket Herd Book, re- good for ten years, 75 cents postpaid. HEELER, Tully, N. Y. 17-4

r, we have a special opportunity for ng spare time, an opportunity to do od work in your neighborhood, for rment of dairy farming, that will pay sh for the effort you put forth. Write "Special Opportunity Getting To- folder. Address HOARD'S DAIRY- ort Atkinson, Wis. 2-tf

PRINTING

s Dairyman Art Dept. designs your ad free. Just tell us your breeds of book of 5,000 Farm, Ranch and Cottage cts. Ask for samples of letter heads, , shipping tags, cards, milk tickets, r stationery is more of a damage elp. Address HOARD'S DAIRYMAN, t., Fort Atkinson, Wis. 8-tf



sing in this department is 5c per word. Remit in advance.

HELP WANTED

d—Farm foreman for 200-acre dairy farm near Detroit. Must understand farming and all modern farm tools. perience, number in family, ages, and xpected with house, board, and fuel l. Wife must cook for six men. UN STOCK FARM, Birmingham, 19-2

d—A man with enough help to take of 75 Holsteins, no other farm work. ther men to board. Everything fur- nd nothing short of year contract d. Will pay for milking by the gal- ODUCERS' DAIRY, 2050 Humboldt, Colo. 18-3

d—Herdsman. Married man; must be etaker and able to get results in A. ork. Small herd of extra good Hol- nodern barns. Address, stating age, e and wages expected, to W. H. Portland, N. Y. 19-2

d—Married couple, no children; man milk, take charge of dairy room, bot- deliver milk. Ford truck used for de- wife to help with housework, must cook, neat and clean about work. st be good dry hand milker and know handle and deliver milk. Steady work right kind of people. Wages $70 per everything furnished. Give full par- with references first letter. Position once. Address BOX 312, care Hoard's n. 19-2

d—Working foreman on large farm. is willing to work and can handle fe to board from 5 to 10 men. Good uarters furnished. House has all conveniences. Must have references. ges expected in letter of application. ORN FARM, Hawthorn Farm P. O., unty, Illinois. 19-4

nan for a herd of 50 registered Hol- if you like cattle there will be no ob- o your religion, nationality or the size family. BOX 405, South Bend, Ind.

HELP WANTED

Wanted—A good chore man on a ranch in California. Good pay. Address BOX 290, care Hoard's Dairyman. 16-6

Wanted—Married or single man, white or colored, to work on dairy farm. Both must be able to milk and man to do general farm work. House, garden, milk and wood. State wages and how many in family. Transportation refunded after six months' service. BIRCHWOOD FARM, Route 2, Coatesville, Pa. 17-4

Wanted—Competent single man as superintendent on medium sized modern general farm located in Chicago suburb. Pure-bred Holsteins and Durocs. This is a good opening for an up-to-date and practical man who wants to improve his position and opportunities. Good wages to the right man. Best of living conditions. In answering state age, nationality and late experience. Address BOX 306, care Hoard's Dairyman. 18-tf

Wanted—Single man for general work with Guernsey herd. One interested in good cattle and large records. $55.00 per month and bonus to start. Good chance for advancement. Address ISLAND FARM, Floodwood, Minn. 10-spl

A young married man as assistant manager on modern dairy farm—Guernseys. Fine location, near excellent schools, an attractive home and good salary. Good opportunity with promise of increase to a really capable and ambitious man. Address P. W. BAKER, Mount Ararat Farms, Port Deposit, Md. 20-3

Wanted—Good dry hand milker on a large dairy farm, located on electric street car line three miles from Denver, Colorado. Farm equipped with all modern conveniences and men well cared for. Hollanders preferred. Wages on yearly contract $65 with good board and room. Address BROOKRIDGE FARM, Littleton, Colorado.

Wanted—Man who can successfully and economically raise calves and feed dairy cows profitably. Everything modern, herd consists of 100 head Jerseys. Applicant must be strictly sober, married, and agreeable. Salary first year $100 per month with house and garden, together with a bonus at the end of the first year if results are satisfactory. Location at the foot of famous Lookout Mountain in Tennessee. Climate moderate, very healthful. Address ASHLAND FARM DAIRY INC., Alton Park, Tenn. 19-4

Wanted—Farm manager. Pure-bred Guernseys, certified dairy, general farming, some knowledge of landscape gardening and building construction desirable. Situation, buildings, equipment, living conditions of the best. Give full particulars with salary wanted, references, etc. Location central Ohio. Address BOX 318, care Hoard's Dairyman.

POSITIONS WANTED

Wanted—A position on dairy farm. Experienced with milking machine. $55 expected. Use neither liquor nor tobacco in any form. LEO SMITH, Burnett, Wis. 19-2

Do you want a herdsman, farm foreman, assistant on farm, greenhouse men, tractor men, or farm help? We have young men trained in our school, competent to fill these positions next spring. State full details including wages. BERNARD OSTROLENK, National Farm School, Farm School, Pa. 20-spl

Scientifically educated farm manager desires position. Salary or shares. Dairying a specialty. L. A. WOOD, R. R. 3, Muncie, Ind. 20-2

Working farm manager wants position. Capable, honest, strictly reliable. Single. Understand all branches farming, especially crops, stock and machinery. Built complete set barn buildings last year. Can give satisfaction anywhere. Good reference. BOX 322, care Hoard's Dairyman.

Dairy herdsman, 24, reliable, well trained and experienced, States and Canada, feeding for test. Milking machine operator. West coast preferred. Reference. Give details. BOX 319, care Hoard's Dairyman.

Wanted—Position as herdsman. Single, middle aged, life experience handling dairy cows, raising good calves, fitting for show or sale. C. A. WOOD, Box 334, East Grand Forks, Minn.

Situation wanted as veterinarian and superintendent of large live stock farm devoted to cattle and hogs. Graduate of one of the best veterinary colleges in the East. Extensive experience in diseases of hogs and cattle, also in the management, handling and feeding of them. Familiar with U. S. government work in eradicating hog cholera and tuberculosis. Specialty in cholera work. Employed at present in the South. Desire a change from my present position. Understand the raising of crops, dairying, use of milking machines, etc. Would accept a position with some large concern as veterinarian to look after the health of live stock. Any first class proposition will be considered. Address BOX 313, care Hoard's Dairyman.

Conserving Children

RD'S DAIRYMAN:—What would ink of a mother who would try pel her two-year-old baby to the multiplication table? You think that she was crazy or ing worse, would you not? And ow many mothers expect that machs of their babies will en- he same burden that is put he stomachs of adults. They full well that the undeveloped of the baby cannot digest the lication table. They ought to further, and realize that the h of the baby is even more un- ed than its mind.

is baby year with America, ery one who has a voice should in behalf of the abused little who are so bitterly misunderstood. We try to force their unformed minds by insisting that they know many things which they have no possible way of knowing; we try to crowd their embryo souls by giving them more or less unheeded lessons in morality and ethics; and, more than all else, we abuse their digestive organs by compelling them to eat food fitted only for hard-working adults, and then wonder why they fall ill.

I wish that it were possible to let the children have their meals entirely apart from the elders of the family, for then we could feed them just what they most need, without tempting them by the proximity of food fit for older persons. If every child could have proper food, well prepared and fitted to its needs, there would be less than half the illness that is now prevalent among children, and infant mortality would be reduced to an unbelieveable figure.

The only food for a baby under one year of age is mother's milk, and if for any reason the mother finds it absolutely impossible to nurse her baby, she should modify cow's milk in such a way that it will closely approximate the milk of the mother. The much-vaunted prepared foods do well in some ways, but they are composed largely of cereals, and there is too much starch in them for the baby under a year old. I admit that many babies seem to be doing well upon these prepared foods, but if a crisis comes in the condition of the child, the breast fed baby has more than double the chance of the bottle fed baby. And the bottle fed baby who is given modified cow's milk has a much better chance than the baby fed on prepared foods.

Any reliable physician can give you a formula for the modification of cow's milk, but if there are those who are too far from town and a doctor to rely upon his advice, I will give the formula that was given to me.

Cow's milk contains too much casein, or curd, and too little sugar, as compared with mother's milk. So we must remove the excess casein, and add the necessary sugar, to make an ideal food for baby. Let a pint of milk stand over night, and remove the upper third, reserving it for future use. To the two-thirds of a pint of skimmilk that remains, add a crumb of junket tablet no larger than a half of a grain of wheat. Dissolve this in a few drops of water, and when it is dissolved, add to it the skimmilk which has been warmed to blood temperature. Stir thoroughly, and set aside until it forms a curd, like clabber, but not sour. Ten minutes is usually enough, and sometimes five minutes will do the work. Break up this curd, and strain it out; add the other creamy third of the milk to the whey, sweeten with sugar of milk, about a half teaspoonful to the above quantity, and feed with a bottle.

By the use of this formula, you avoid the use of starchy cereal foods, granulated sugar, and too much casein, and it would be wise to prepare enough at one time for several feedings, that is, if you are sure you can keep it sweet. Nothing else but cool, fresh water should be given to the baby, but as he grows older, a little more of the milk may be retained in the portion skimmed off, so that he will gradually grow accustomed to a stronger food. It will not hurt baby to live upon this food alone until he is sixteen or twenty months old, and that would be far better than giving it any kind of food that is too heavy for it.

If, in spite of care, baby does poorly, or is taken ill, seek the best medical advice at once, for a human life is just as precious in the case of a baby as that of any adult. Conserve the babies that we already have rather than add more undeveloped, poorly nourished children to the population. Two babies that live and thrive are worth more to a nation than a dozen that linger along for a year or two, then give up life with nothing to show for their having lived.

ADA CARROLL WORTMAN.

Nebraska.

After Supper on the Farm

HOARD'S DAIRYMAN:—To busy folks in the work-a-day world the time after supper is the best time of the day. Whatever leisure we have usually comes at that time. What an opportunity for delightful times is ahead of you during the months to come!

Why not even now in the fall begin to plan for the winter? Have you thought at all how you can best use those long winter evenings? If you have given the matter any thought at all, have you decided to make the reading of some good books a part of your program?

Everything considered, perhaps nothing will give more genuine and lasting pleasure than a series of evenings spent with books that will give information, amusement, and inspiration.

Perhaps for some time you have wanted to read books giving suggestions on the best methods of farming such as Coulter—Co-operation Among Farmers. Perhaps you are the "director of the household" and have wanted for a long time books on home-making. Perhaps you are a high school graduate back home on the farm again helping Uncle Sam by "doing your bit" to help feed the world. Though you are not on the firing line, you will want to know what is happening along the line of battle. "My Home in the Field of Honor" and "How Belgium Saved Europe" are two books that will give you a clear picture of what war means. Books on all phases of the war have been published since the war began. Perhaps you may be just anybody interested in a number of things—books on history, books about our country, on biography, on travel, or books of fiction having nothing more to commend them than that they are good stories. Among kinds of books referred to above are the following: "Spell of the Rockies", "Twenty Years at Hull House", "Russia in Upheaval", "The Dark People", "The Amazing Interlude".

Whatever your line of interest, it is possible to get just the sort of books that you want. No longer can it be said, "I'd like to read that book but I haven't any way to get it. The city with its library offers to the city people the books they want to read. So, is it not fair that the state should, through its Library Commission, offer the people of the state who do not live in library centers, the books that people in the villages and country want to read? The state of Wisconsin thinks so.

Do you know that upon application to the Library Commission any Wisconsin community can get a traveling library for the use of all the people? All that is necessary is for five responsible people to sign an application card and the traveling library will be sent. Information and application cards are sent to anyone who asks for them.

As you read this why not make up your mind that you will find out further how Wisconsin supplies her people with books, if they want them. Send a post card to the Traveling Library Department, 604 University Avenue, Madison, Wisconsin, asking for an application card and for circulars of information. Then tell your friends about it. Interest them in the idea. When the card reaches you from the Commission, sign it yourself, get four other people to sign it, return it to the Commission, and begin to look for your traveling library. It will be sent promptly upon receipt of your application and should reach you a week or two later. Allowances must, of course, be made for the time needed in freight shipments.

Sometimes local conditions are such that it is a little difficult at first to get a traveling library started. In such cases individuals may secure one or more books by writing in person for them. The Commission through its parcel post arrangement will see that books are supplied by mail.

JESSIE WEDIN.

Wisconsin Library Commission.



Do *you* think there is no competition?

If anyone thinks there is no competition amongst the big packers he ought to go through a day's work with Swift & Company.

Let him begin at the pens when the live stock comes in; let him try to buy a nice bunch of fat steers quietly and at his own price, without somebody's bidding against him.

Let him realize the scrupulous care taken at the plant that not one thing is lost or wasted in order that costs may be held to a minimum.

Let him go up into the office where market reports are coming in — and reports of what other concerns are doing.

Let him watch the director of the Swift refrigerator fleet, maneuvering it over the face of the country like a fleet of battleships at sea.

Let him take a trip with a Swift & Company salesman and try to sell a few orders of meat.

Let him stay at a branch house for an hour or two and see the retail meat dealers drive their bargains to the last penny as they shop around among the packers' branch houses, the wholesale dealers, and the local packing plants.

And then, when the day is over, let him have half an hour in the accounting department, where he can see for himself on what small profits the business is done. (Less than 4 cents on each dollar of sales.)

If he still thinks there is no competition in the meat business it will be because he wants to think so.

Swift & Company, U. S. A.

A nation-wide organization owned by more than 23,000 stockholders



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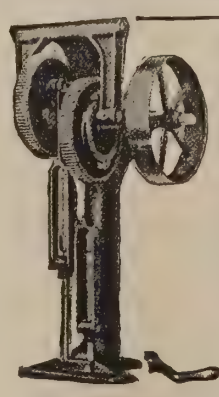
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Free Catalog in colors explains how you can save money on Farm Truck or Road Wagons, also steel or wood wheels to fit any running gear. Send for it today.

Electric Wheel Co.
31 Elm St., Quincy, Ill.

The Farmer and War Price

HOARD'S DAIRYMAN:—Almost ev where one sees a group of people gether he will hear some phase of war discussed. If it is not the "w ern front" it may be the draft, conservation, or how rich and p perous the farmer is with eggs r than four cents each and other p ucts at undreamed of prices. I heard this latter question argued and con and to satisfy my own osity I set about to find the trut the matter, in part at least.

I began farming operations for self in the spring of 1916 and so in good position to know somet about cost prices then, and with aid of my farm record and the Book of the United States De ment of Agriculture, together present local prices, I felt that I some material at my disposal. I twelve articles that the farmer h buy and twelve that he had to se figured the 1916 price, the price, and the increase in per ages. The articles were picke random, no effort being mad choose those that would benefi farmer. The figures in each were made to cover as much o year as possible and in some were the averages for the yea shown by government reports. following tables give the resul my effort:

What the Farmer Has to Buy

Article	Price 1916	Price 1918	Pe In
Plow Paints	$ .33	$ 1.00	
Walking plow	13.00	32.00	
Sulky plow	35.00	60.00	
Manure spreader	110.00	190.00	
Grain binder	135.00	225.00	
Binder twine	.10	.26	
Nails	.04	.08	
Hay rope	.18	.37	
Mower	45.00	85.00	
Barn siding	28.00	48.00	
Cultivator (riding)	35.00	60.00	
25th Lever harrow	25.00	45.00	
Average increase			

What the Farmer Sells

Article	1916 Price	1918 Price	I P
Butterfat	$ .33	$ .47	
Poultry	.15	.27	
Eggs	.25	.37	
Hay	10.00	20.00	
Oats	.43	.75	
Barley	.80	1.20	
Hogs	.10	.20	
Cattle	.08	.16	
Wheat	1.60	2.10	
Rye	1.25	1.40	
Corn	.70	1.60	
Apples	.90	1.00	
Average increase			

According to these tables th terials the farmer has to buy ha creased in price 102%, while w has to sell has increased in pric 71%, or a difference of 31% purchasing price of a farmer's is 31% less than it was before, am sure no one likes a 69-cent

There is still another side question which must not be looked and that is the labor qu The farmer has been confronte a serious labor shortage, yet g ment reports show that the p tion of foodstuffs has increa spite of a decreased supply o labor. One report showed the an increased production in foo of 26% with a decrease in la 16%. This means that every vidual farmer is working harde previously. In fact, two men n producing nearly as much f three men did before the war such inroads upon our labor. brought about partly by inc machine work, which means creased investment, and partly increased effort on the part farmer and his family. The is working overtime, for whic borer in our shops and factor ceives pay and a half or doub

Michigan I. H. WALBR



Protect Your Car To 5° Below Zero For $1.50

nson's Freeze-Proof is the logical i-freeze preparation to use in auto- biles, trucks, tractors, gas and sta- ary engines, and electro lighting l heating plants. It is inexpensive s non-inflammable—easy to use— l guaranteed. It is much more de- dable than alcohol as there is no poration.

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A Soldier's Letter

Future of Dairying

HOARD'S DAIRYMAN:—It is quite proper to devote all the news space to the war, for right now it is the main issue of the day, but I want to slip off on a little side path for a few minutes and dwell on the days before the war.

Turn back the pages of time and let's talk about the Wisconsin dairy products and the farm.

I sure miss my copy of Hoard's Dairyman but that can't be helped for the mails are very heavy from the states with letters so I must forego the pleasure of Hoard's Dairyman.

Every once in awhile I see a can of milk from Wisconsin and it sure makes me think of the farms, creameries, and cheese factories back in the good old U. S. A. I haven't had much of a chance to see any of the modern English farmers but hope to have a chance to look 'em over before returning home.

I'm going to aim to secure all the data I can from the English Department of Agriculture on the subject of the dairy products of England.

I left the states early in March so have had some chance of looking around a bit over here and I honestly wish I were competent and had the ability to picture to the American dairy farmer the great future possibilities in store for them.

Before I left home I heard farmers say, "Oh, I'm going to sell my cows—feed is too high and my income too small, etc." If these same farmers could only look ahead and realize what their herd is going to be worth as soon as we knock the war ideas out of Kaiser Bill, they would change their tune and would scratch and pinch to increase the herd. There is going to be an unheard of demand for good cows and the fellow who is foresighted enough to raise calves now is going to reap his harvest as soon as peace is declared.

You see I haven't read a copy of Hoard's for some time so don't know what you are doing along these lines. But if you will permit a suggestion from a soldier from Wisconsin, tell the cow man to prepare now for what is coming very soon—peace and a call for good cows and more cows.

You read the late war news in the daily papers so I won't spend any time discussing that subject, but want to say this much—the Yanks are in the battle and they sure are doing themselves proud and as the song goes: "We won't come back till it's over, over there". Will be glad when that happy day comes so we can return to our homes and once more have our loved ones with us.

The writer and his wife and an 11-year-old boy all used to get a lot of good dope from Hoard's so I figure you'd appreciate hearing an old reader say his copy is missed.

With best of wishes for the success of all your undertakings.

J. H. MCVAY.

Convalescent Camp, England.

All animals require plenty of good, pure water. This is especially true of the milking cow, as water constitutes more than three-fourths of the volume of milk. Stale or impure water is distasteful and she will not drink enough for maximum milk production.

Victor Jr. Churn



Practical and Complete—a Combined Churn and Butter Worker.

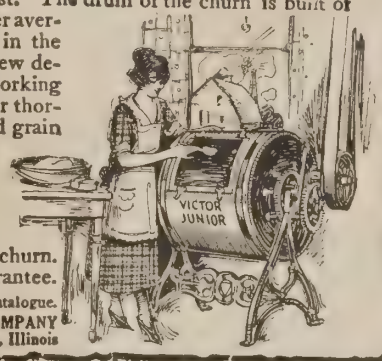
The Churn That Helps You to Make Firm Butter

The **Victor Junior** Churn puts butter making on the farm on a level with creamery butter making. It keeps the temperature down much better than the ordinary churn both during the churning and the butter working.

The mechanism of the churn is such that it will not only churn quickly but will get all of the butter. It also preserves the butter from dust and flies because when the churning is done, the butter can be salted and worked right in the churn. It does not have to be removed until finished.

To get the best butter, the temperature of cream for churning should be from 50° to 60° F. according to the density of the cream. A rich or dense cream requires a lower temperature than a thin cream. Having the cream at the right temperature to start with counts much in producing firm butter of good appearance.

The Victor Jr. will do the rest. The drum of the churn is built of heavy, well seasoned lumber. Under average conditions the temperature in the churn should not rise more than a few degrees during the churning and working process. The rolls work the butter thoroughly. It comes out with a good grain and firm.



We make and sell more churns for creamery use than all the other concerns combined so you can depend on our recommendation of the Victor Jr. as the ideal farm churn. It is covered with our iron clad Guarantee.

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Mrs. James McKenzie, Edina, Mo., says: "Just ten applications of Caustic Balsam relieved me of goitre. My husband also cured eczema with it, and we use it for corns, bunions, colds, sore throat and pain in the chest."

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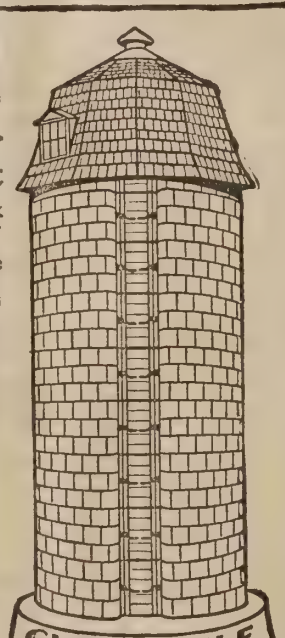
Dr. Higley, Whitewater, Wis., writes: "I have been using Caustic Balsam for ten years for different ailments. It has never failed me yet."

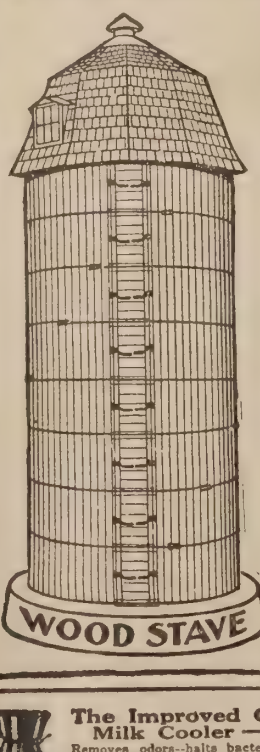
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Abortion Work in Kansas

Educational work in prevention of abortion disease in dairy and beef herds is now being developed by the Kansas State Agricultural College in co-operation with the U. S. Department of Agriculture. As explained by Dr. Geo. M. Potter, who has it in charge, the purpose of this work is to demonstrate not only that it is possible to control the disease by a system of sanitation and herd management but that such a practice will be profitable to the owner of the herd. The work will be of a demonstrational nature. Where regulatory measures should be adopted the live stock sanitary commissioner will be immediately notified. In farm bureau counties the work will be conducted under the auspices of the farm bureau.

It is proposed to secure the co-operation of the owners of dairy herds, two or three in each eight or ten counties in different sections of the state, and a like number of owners of beef herds in four or five counties which are typical of their respective sections, who are willing to try for a term of years our plan of herd management to overcome this disease. In choosing co-operators, only those men who have had losses in the past and realize the necessity for instituting preventive measures should be accepted. The proposed work will require the intelligent interest and active co-operation of the owner, as one who would not follow a definite system of herd improvement would derive no benefit from it. The assistance and active co-operation of one or more local veterinarians will be sought in every case so that they may be fully informed of the methods used and thus be ready to apply similar treatment and management to other herds in the community whose owners become interested in results in the demonstration herds.

It is desired to work wherever possible with pure-bred herds, or in the case of dairy herds with those connected with cow testing associations. Where such herds are not available good grade herds may be used. In working with such diseases as abortion, which is of a chronic nature, the work must continue over a period of years before results become apparent, and it is essential that there be a continuity of purpose such as the pure-bred and testing herds seem to offer. Moreover, this class of cattle are more frequently used as foundation stock in the development of new herds, and are, therefore, potentially more dangerous disseminators of disease. They afford the most logical point of attack in any plan of herd management for disease prevention. The work will be directed along the following lines: Prevention of abortion disease and allied affections, prevention of calf diseases, and veterinary service.

At first, only general measures such as sanitation, segregation of aborters, and proper methods of herd management will be instituted. On subsequent visits when the work shall have been organized, the special measures for the treatment of aborted cows, retained afterbirth, and sterility will be demonstrated; also laboratory diagnosis will be made, as opportunity offers, in co-operation with the Veterinary Department.

Records of breedings, calvings, abortions, retained afterbirths, sterility, etc., will be kept to facilitate the work as a means of recording progress.

In outlining systems of herd management, the specialists in dairying and animal husbandry will be consulted. Conditions are so varied that each herd becomes a study in itself, and expert advice is necessary in each case.

A detailed discussion of the dis-

Retained Afterbirth

When the membranes remain in t uterus of a cow and decompose, flammation of the lining of the wo may be caused, and this, with the sorption into the blood of the produ of putrefaction, leads to ill-heal emaciation, diminished milk supply f ure to breed, and often blood pois ing and death.

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causes the afterbirth to come aw naturally in a few days, and thorou ly cleanses and disinfects the parts, le ing the cow in normal condition breeding.

"After four years of experienc find Hood Farm Breeding Powder v necessary, for keeping my herd fr aborting. It cleans the cows out qu ly and clean, they breed early and sure to stand."

Stuart Bird, Cropper, Ky

Try Hood Farm Breeding Pow once and you will never again forc remove the afterbirth.

Prices prepaid $1.15, $2.75 and $5.00. F ble Injection Tube, by mail, 90c. Mam size Breeding Powder and Tube, prepaid, $ Mention this paper.

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Horns never grow if Hornstop is used earl enough. Money back if not satisfactory. Ou "Veterinary Adviser" Free if asked for.

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Dr. Geo. Hollabush's for abortion and general for cows and mares will vent abortion and r prompt breeders and c failure to clean. I guar and refund money if not factory. Send for circul

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nd its complications and meth- combating it were given in Agri- al Experiment Station Circu- o. 69, "Contagious Abortion of ".

s planned to visit co-operators rly. All work performed will a demonstrational nature, for nefit of interested breeders of mmunity. As it will also be of fessional nature, the co-oper- of the local veterinarians will ght.

diseases are somewhat closely ited with diseases of breeding and the same measures of ion are effective in controlling groups. Specific anti-serum be used in combating outbreaks tagious scours. Dietetic errors ntly cause digestive disturb- which could be avoided by the n of correct practices.

r troubles constitute another of diseases which are of espe- ncern to dairymen. Attention directed to the causes and ive measures.

petent veterinary service is al for the success of any sys- effort for disease control. We e to secure, wherever possible, vices of a competent veterin- o care for all cases of disease ng immediate attention. The e and assistance of the local arian will be sought at all dem- ions and in all work of a pro- al nature.

successful operation of this n harmony with the work of epartments, would mean much able animals saved and make more productive animal hus- —KANSAS COLLEGE OF AGRI- E.

000 in Awards Offered Wisconsin Cheesemakers

is the time for every cheese- in the state to select and begin a cheese for the Wisconsin nakers' convention in Milwau- n. 8—10," advises J. L. Sam- retary of the state association semakers. "The plans now be- anged by the officers include gest list of state prizes and ns ever offered at the conven- n addition, county prizes are offered by leading dealers in and factory equipment, some- hat has never been done be-

complete list of prizes will be in the convention program, ill be sent to every cheese fac- the state. The awards include educational premium fund to ed among cheese exhibits scor- oints or more; the association s to each exhibitor of Ameri- iss, Brick, or Limburger whose scores 93 points or more; and prizes for the high scoring in the four classes.

ity prizes totaling $200, in war savings stamps, are of- or the highest scoring cheese he convention from the differ- ities in the state. The associa- owever, may withdraw the rom counties sending fewer n exhibits to the convention. s reason, every cheesemaker nake an effort to have his well represented.

pecial group of awards has anged for the highest scoring rom the one county sending est number of exhibits."

nen's greatest profit-produc- od is during the first and sec- rs, and unless a hen is an ex- lly good breeder she should sed of at the end of her sec- ing season, before beginning Few eggs can be expected un- ullets are matured.

The Guaranteed Milker



THE PERFECTION is made for the man who wants a milker he can depend on. Month in and month out, summer and winter, the Perfection does the milking without balking or breaking down. With the Perfection there is no complicated mechanism to operate and no clockwork to get out of order. It is the guaranteed milker with a reputation for reliability, simplicity, and mechanical perfection.

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The sucking calf and not the human hand is the original milker. The calf sucks on the teat, squeezes it towards his throat downward with his tongue and the roof of his mouth, then stops sucking momentarily while swallowing. When the calf stops sucking, the blood in the teat flows back into the udder.

The Perfection Teat Cup is the one which faithfully reproduces these three actions of gentle suction, downward squeeze and a period of complete release. That is why such famous dairymen as G. G. Burlingame, of Cazenovia, New York; Grahamholm Farm of Rochester, Minnesota, and G. K. Herzog & Company of San Anselmo, California, use the Perfection on their valuable cows.

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You can increase your herd and make more profit, in spite of labor problems, if you have a Perfection to help you. One man with a Perfection can do the work of three men at milking time. In an emergency, your wife or daughter can do the milking.

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You will find every question you can think of about mechanical milkers answered in the great book, "What the Dairyman Wants to Know". It contains the experience of hundreds of practical farmers. Not one word of theory—just straight-from-the-shoulder *information.* Write now for your free copy

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remember to keep the dairymen in your locality always well supplied with "Dandelion Brand"—for thirty-five years the standard butter color of the whole world. For every housewife wants butter with the golden shade—the shade only obtained by the use of

"DANDELION BRAND"

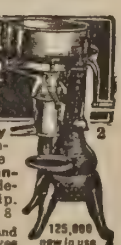




We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.
WELLS & RICHARDSON COMPANY, Burlington, Vermont.
Manufacturers of Dandelion Brand Butter Color

Dandelion Brand *The color with* Butter Color *the golden shade*

Only $2 DOWN ONE YEAR TO PAY



$38 Buys the New Butterfly Junior No. 2½. Light running, easy cleaning, close skimming, durable. Guaranteed a lifetime against defects in material and workmanship. Made also in four larger sizes up to No. 8 shown here. 125,000 now in use
30 DAYS' FREE TRIAL Earns its own cost and more by what it saves in cream. Postal brings Free catalog-folder and "direct-from-factory" offer. Buy from the manufacturer and save money.
ALBAUGH-DOVER CO., 2161 Marshall Blvd., CHICAGO

PERFECT Farm, Shop or School SHOE
From Factory to Feet
Aluminum bottoms, perfectly water-proof, two styles, removable steel calks or leather and fibre half soles and heels. Best water-proof uppers. Army style footform shape. Easy and durable. Rust and rot-proof.



Sizes 1-13 6, 10, 13 or 17 in. High

Overland Aluminum Shoes
cheaper than leather shoes, will outwear several pairs. Ideal country school shoe, saving money on shoes and doctor bills. Easy and inexpensive to repair. Sold on money back guarantee. Illustrated catalog FREE.
Thousands wearing Overland Shoes with perfect satisfaction.
OVERLAND SHOE CO. Dept. 18C RACINE, WIS.

Play a Lyon & Healy Cornet



For pleasure and profit learn to play whichever instrument you favor—but let it be from Lyon & Healy. Then you're assured of the high quality that's been standard for over 50 years. Lyon & Healy American Professional Band Instruments are moderate in price and offer positive choice. Mention your favorite when you write for catalog and details of liberal purchase plan. Sold by leading dealers.
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SUCRENE HOG MEAL



68 Pounds Body Building Nutrients in Every Sack

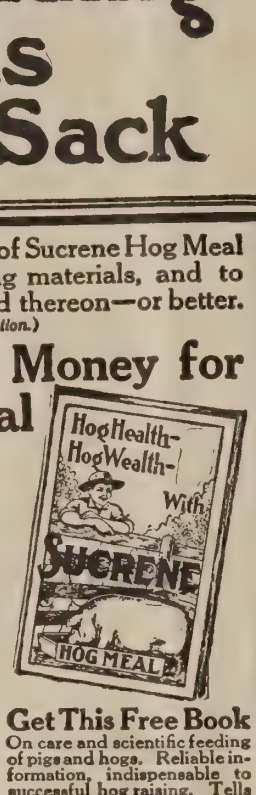
We positively guarantee every sack of Sucrene Hog Meal to contain only the high quality feeding materials, and to carry the strong nutrient analysis, printed thereon—or better.
(Note print on sack in above illustration.)

Profs. Henry and Morrison on Ready-Mixed Feeds

"Many mixed feeds are the result of honest and intelligent efforts to furnish a ready mixed, balanced concentrate mixture for various farm animals. Such have won good reputations among intelligent feeders.—All mixed feeds should be purchased, on the guarantee of the amounts of crude protein, fat and fibre in the mixture. When in doubt as to the merits of a feeding stuff, one should consult the feed control officials of his state, or buy only the pure, unmixed grains, straight milling or factory products, *or high-grade proprietary feeds that have won good reputations.*"

You Know What You Pay Your Money for When You Buy Sucrene Hog Meal

We have nothing to conceal about Sucrene Hog Meal. We give you a correct list of all the materials that go into its manufacture, the high feeding value of which is known to all experts on feed stuffs. Sucrene Hog Meal never varies in nutritive quality, no matter how high the prices of raw materials may go. Our buying and manufacturing facilities enable us to maintain in Sucrene Hog Meal the standard pork producing value which has gained for it



The Enthusiastic Approval of Leading American Hog Raisers

Miller Bros., Carlos, Ind., raisers of Big Type Poland Chinas: "We consider Sucrene Hog Meal the best feed we have ever fed for raising fine healthy hogs."

Herbert Benson, Newark, Ark.: "I think Sucrene Hog Meal the best feed I have ever found. My young stock is coming good. Enclose check for another sack."

G. T. Smith, Winter Garden, Fla., "My hogs like your Sucrene Hog Meal and I believe are making better gains than with any feed I have ever used."

Whitehead Bros., Carlos, Ind. "Nineteen pigs gained 113 pounds each in 42 days on Sucrene Hog Meal—an average of 2.7 pounds per day."

Get This Free Book
On care and scientific feeding of pigs and hogs. Reliable information, indispensable to successful hog raising. Tells about diseases of hogs, prevention and cure.

More Pork per Pound of Feed Than You Ever Got With Corn

Sucrene Hog Meal has a record of producing twice as much pork per ton as good corn. Its nine different high-quality ingredients nourish the hog completely—no corn or tankage needed. Strong protein and fat making materials correctly balanced, with necessary ash and mineral matter, build a large, strong frame and firm, solid flesh. Blood Flour and Pure Cane Molasses are special health promoting materials not found in ordinary hog feeds. They are strong in animal protein and carbohydrates, practically 100% digestible. They reduce chances of loss by disease, whet the appetite, aid digestion—hogs eat more and turn all their feed into high-quality pork.

Feed Sucrene Hog Meal dry or slopped. Order a ton from your dealer. If he can not supply you promptly write us. Coupon or a post card brings you full information and free illustrated literature.

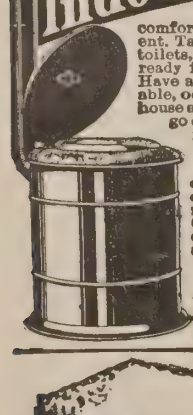
Better place your order at once to avoid transportation delays which are confidently looked for in the near future by all shippers.

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- [ ] Sucrene Calf Meal
- [ ] Sucrene Hog Meal
- [ ] Sucrene Poultry Mash
- [ ] Amco Fat Maker (for steers)
- [ ] Amco Dairy Feed (25% Protein)

My Dealer's Name.....
P.O.....State.....
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American Milling Company, Dept. 4, Peoria, Illinois
(Sucrene Feeds for All Live Stock and Poultry—18 Years the Standard)

RO-SAN Indoor Closet



The original chemical closet. More comfortable, healthful, convenient. Takes the place of all outdoor toilets, where germs breed. Be ready for the long, cold winter. Have a warm, sanitary, comfortable, odorless toilet right in the house anywhere you want it. Don't go out in the cold. A boon to invalids.

GUARANTEED ODORLESS
The germs are killed by a chemical in water in the container. Empty once a month as easy as ashes. Closet guaranteed. Thirty days' trial. Ask for catalog and price.

ROWE SANITARY MFG. CO.
5912 8th St., Detroit, Mich.
Ask about Ro-San Washstand—Hot and Cold Running Water Without Plumbing.

For bedding most convenient and serviceable. Write for prices.
Defnet & Jagerson Supply Co., Neenah, Wis.



Stalls paved with Circle A Cork Brick in the Bolard Dairy Company's Barn, Cambridge Springs, Pa.

Tested the Temperature of His Stall Floors

Every dairyman knows that cows stabled on warm floors have better health and produce more milk than those that have to stand on floors which are hard and cold. This is one of the marked advantages of

All genuine Armstrong Cork Brick bear the Circle A trade-mark.

Circle A Cork Brick
For All Stall Floors

All genuine Armstrong Cork Brick bear the Circle A trade-mark.

They are always warm to the touch—summer or winter. Note this convincing report from Mr. L. E. Matz, Woodsfield, Ohio:

"I have had numerous parties make tests of the temperature of the cork brick and concrete, and all are surprised that the concrete is very much colder at all times of the year than the brick."

Read the book, "Better Stall Floors", and examine a sample brick. Both will be sent you free on request.

Armstrong Cork & Insulation Co., 112 Twenty-Fourth St. Pittsburgh, Pa.

Progress of Missouri Silo Campaign

"How is the silo campaign get on?" This question is asked daily it suggests that other people as as the farmers in Missouri are i ested in knowing what has been and what is to be done in the fu in conducting the silo campaign.

After the preliminary meeting 000 copies of the four-page circ "Build Silos and Win the War", printed and distributed. In add to the circular, 5,000 large illustr patriotic silo posters, "Your Cou Calls", were secured. This post printed in attractive colors, illus ed with a group of soldiers ru forward near the top and a silo i lower left-hand corner, and the fo ing silo information: "40 per ce the crop wasted when left in the a silo saves 10 cents on the produ of one pound of butter, $1.50 o pounds of beef or mutton, an cents on a 100 pounds of milk."

Another 5,000 of large illust patriotic silo posters, "Help U Sam", were secured. This post printed in the national colors, trated with a picture of Uncle pointing to a silo around whi group of cows is standing. It als tains the following advice of Sam: "Put your corn in a silo save millions of dollars; a silo food for stock as the can save man."

Up to October 1, eleven c agents, district agents, emer demonstration agents have indic wish to have a silo campaign put their territory. In addition to th chairmen of county councils of d have expressed the same desire, these from counties in whic county agent is employed.

As the campaign has progress increasing number of letters ha received from farmers who d literature or direct information construction of silos, the filling same, and of the feeding of Naturally a majority of inquir late to the condition and best the present corn crop.

Up to October 1, reports of t survey have been received fr counties. These reports conta name and address of every ma has a silo and of other farme intend to build one within the Although some school distri these counties have not yet been from, the reports received sho in these 34 counties there ar 1302 silos and that 1524 farm tend to build silos in time to some of their next summer's crop. We may safely estimat after all reports are in from counties, the number of silos built will be at least 1700, or 5 county. If the other 80 counties state will show the same inte silo building, more than 6,00 will be built in Missouri befor fall.

As soon as reports are r from school district clerks, a c letter is mailed to each farm intends to build a silo, in whic advised to consult his county to get literature of the differe manufacturers, to compare the and prices of the different ki silos, to build a silo early next summer so that, if it is crete or tile, it may be thor seasoned before the time of fil order to secure possible reduct freight rates and prices, farm advised to join in a group a the same kind of silo in the ne hood. The circular letter con list of bulletins that relate t and silage, with the suggestio the farmer should indicate by mark the bulletins that he wo to receive, give his address

"I bring Better Butter Prices – because I keep Butter Better"
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More Profit From Butter

No matter how good *you* consider your butter, your *customer's* opinion governs the price you get for it.

Butter is always fresher, sweeter, cleaner and more salable when it reaches your customer wrapped in

Paterson Pioneer Parchment Paper

And butter so protected from dirt, dust and bad odors, brings top market prices.

Paterson Parchment comes in rolls, sheets and circles to suit all methods of marketing.

Write for free samples and book, "Better Butter". Full of valuable information for every dairyman.

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THE PATERSON PARCHMENT PAPER CO. PIONEER PASSAIC N.J. TRADE MARK

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THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

epsie Foundry & Machine Co.,
POUGHKEEPSIE, N. Y.

turn the sheet to the Extension Department of the Missouri College of Agriculture. It is believed that this method of helping those farmers who intend to build a silo will lead to good results in the selection of silos, in the building of silos, in the filling of silos, and in the feeding of silage to farm animals.—F. G. KRAEGE, Director Silo Campaign.

Federal Loans to Farmers

During the month of August $7,685,245 were loaned to farmers of the United States by the federal land banks on long time first mortgages according to the monthly statement of the Farm Loan Board. The Federal Land Bank of Spokane leads in amount of loans closed, $1,155,410; with the Federal land bank of St. Paul running second, $919,200. The other ten banks closed loans in August as follows: Wichita, $702,100; New Orleans, $699,465; Houston, $683,765; Columbia, $607,215; Omaha, $595,300; Louisville, $592,800; Springfield, $448,250; St. Louis, $432,840; Berkeley, $426,400; and Baltimore, $423,500.

On September 1 the total amount of mortgage loans placed since the establishment of the Federal land banks was $124,877,354 covering 55,325 loans closed. During August 2,500 applications were received, asking for $8,175,040. During the same period 2,297 loans were approved amounting to $7,686,245. Altogether 99,070 have applied for loans under this system, aggregating $258,493,125.

The grand total of loans closed is distributed by federal land bank districts as follows:

Spokane	$19,359,695	St. Louis	$8,243,130
St. Paul	17,804,100	Louisville	7,962,000
Omaha	14,517,340	Berkeley	7,609,100
Wichita	13,595,000	Columbia	5,925,790
Houston	11,253,999	Springfield	4,839,695
New Orleans	9,050,305	Baltimore	4,717,200

Progress

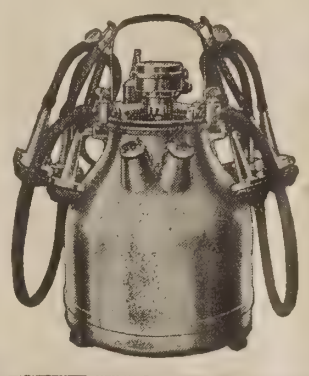
DO you still milk your cows by hand? Do you have three men on your pay-roll when likely one would do? Using two Burrell Milkers, one man can milk the same number of cows that three men milk by hand. At the present high cost for labor the saving resulting from the Burrell System would very soon equal the cost of its installation.

The operating cost of the Burrell Milker is almost nothing, its repair expense is very little; while the life of the milker is exceedingly long. It is an investment which yields a high rate of profit.

The Burrell (B-L-K) Milker has many exclusive mechanical advantages. An Automatic Connector provides just the exact amount of suction required to milk each individual cow—less force for the easy milking cow and more for the hard milker. The action of the Burrell Connector is automatic in every function—you can forget it's there. Other mechanical advantages found only in the Burrell Milker are the Universal Single Compartment Cup, Partition Pail and Positive Suction Trap.

There are many Burrell Milkers operated for more than ten years which make greater profits today than ever before.

Write for the Burrell booklets; learn how other dairies have increased their profits.



D.H.Burrell & Co.

501 Albany St.

Little Falls, New York

Makers of "Simplex" Cream Separators and other "Simplex" Specialties. The Best in the World

Nothing Is More Important



DO YOU think of *Digestibility* as being just a big, vague word which has little or nothing to do with anything in particular in your line of business?

Or do you think of *Digestibility* as being something which really has some definite connection with the amount of money to be made from the dairy?

There isn't a thing about the dairy business any more important than *Digestibility*.

BUFFALO CORN GLUTEN FEED

When you pay a good price for coal to burn in the heater, and get a lot of clinkers, you don't think you got your money's worth, do you?

You are up against the same thing in feed. Feed that runs 'way down in *Digestibility* is just as poor a buy as clinkery coal.

Feed has to break down and get through the cow's digestive tract in order to make milk. Unless a big share gets through, you lose.

1,614 of the 2,000 pounds in a ton of Buffalo Corn Gluten Feed are milk-bucket possibilities. Look over the list and see what runs higher in *Digestibility*.

CORN PRODUCTS REFINING CO.
CHICAGO NEW YORK



for Contagious Abortion

Don't sell the aborters. Clean out the infection. Breeding animals are worth more than ever before. Control of Abortion is doubly necessary.

Every time a cow drops a calf—whether alive or dead—by premature birth or aborting, whether the afterbirth is retained or not, her reproductive organs should be flushed out once or twice with B-K. The Abortion infection develops in the uterus and vaginal tract. This infection causes Barrenness, Retention of Afterbirth and Calf Scours in addition to Abortion. Unless checked it is likely to run through your entire herd.

B-K is a powerful non-poisonous antiseptic—scientifically correct for this work. Used as a douche, it dissolves the slimy albuminous matter, kills the germs, stops discharges and controls the infection. B-K is much more effective than lysol, carbolic acid, Lugol's solution, bichloride of mercury and coal tar disinfectants, all of which tend to coagulate or thicken the albumins.

Contagious Abortion is being successfully controlled in many herds by following our simple plan with B-K. A well known breeder of registered stock says:

"I have been using B-K according to directions and the results have been very gratifying. My cows have every one passed the time for aborting and are calving all right in a natural way. I had lost $1,500.00 on my cows and feel that B-K has cleaned up the trouble entirely.'"

B-K is sold by Dairy and Farm Supply Dealers, General Stores, Druggists, etc. If your dealer does not have it, send us his name.

There are over "145 Farm Uses" for B-K

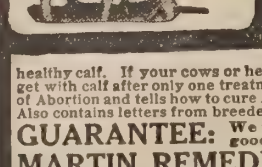
FREE BULLETINS: Send for our valuable bulletin No. 52, on "Contagious Abortion," also "145 Farm Uses" and our "Trial Offer."

General Laboratories

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ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT. REGULAR BREEDERS BY

STERILOID

STOP LOSING CALVES

TREATMENT: If STERILOID is used at the first sign of abortion the cow will go her full time and have a healthy calf. If your cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for **FREE BOOK.** It explains the causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID. Also contains letters from breeders who have used STERILOID successfully.

GUARANTEE: We will refund money in every case when **STERILOID FAILS** to make good. **PRICE $1.00. Mailed Postpaid, in plain wrapper.**

MARTIN REMEDY COMPANY, Dept. A. 398-408 Columbus Ave., New York City, Reference—Colonial Bank.

STOP LOSING CALVES

You can **Stamp Abortion Out** OF YOUR HERD and **Keep It Out**



By the use of
DR. DAVID ROBERTS'
"ANTI-ABORTION"
Small Expense.
Easily Applied. Sure Results.
Used successfully for 30 years.
Consult DR. DAVID ROBERTS about all animal ailments. Information free. Send for FREE copy of "The Cattle Specialist" with full information on Abortion in Cows.

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Superior Root Cutters WILL CUT



any kind or size of vegetables very fast and easy (1 to 3 bu. per minute) in fine shape for feeding. They save time, labor and make your feed go farther. Made for Hand or Power and with Electric Motor attached. If not at your dealers, write us—we can make prompt shipment. Superior Churn & Mfg. Co., 454 Northville, Mich.

ARMLEDER MILK WAGONS

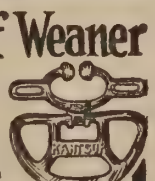


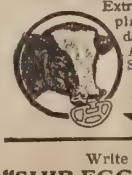
Bring results. Ask Mr. Frost of Fredonia, N. Y. Convenient Terms Prompt Shipment 303 Styles & Sizes Write for Free Catalog.

ARMLEDER 330 CHARLES ST. CINCINNATI, O.

"Kant-Suk" Calf Weaner

LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but absolutely prevents sucking. Extremely easy to put in place. Endorsed by dairymen everywhere. At dealers. Sent Prepaid: Calf size 45c; Cow size 60c.





Wagner Specialty Co.,
Dept. F. Burlington, Wis.

Write for our Illustrated Circular
"SHIP EGGS WITHOUT BREAKING"
Tells how to get more for your selected eggs.
Diamond Box Mfg. Co., Minneapolis, Minn.

"Come On, Wisconsin"

HOARD'S DAIRYMAN:—There has never been a time when dairying had as prosperous an outlook as at present. Despite the disadvantages which loom before those who are reluctant about starting a dairy herd, farmers who have the foresight to improve and add to their herd good dairy cows will reap the harvest in the near future.

There are two obvious forces which have been operating within the last four years to bring dairying to the front. One is the wholesale slaughtering of dairy cows in the warring nations of Europe, and the second is the comparatively high prices of dairy products which prevail. The extensive advertising which dairy products will receive, after their true worth become better known through scientific findings and methodical advertising, will cause them to not only maintain their present prices with the approach of normal times, but to go higher.

The dairyman who has kept abreast of the times, by culling out the boarder cows and raising the standard of production for his entire herd, is on the road to signal success. If he has gone one step further and introduced into this herd one or more pure-bred heifers of known merit (it is assumed he already owns a pure-bred bull) he has a second avenue of success open to him.

The dairy world is looking to the United States for dairy stock with which to replace and rebuild the destroyed dairy herds, and no state in the Union has a better claim to a big share of this patronage than the Badger state. We need not feel alarmed about the demand, but we should consider seriously the supply. Is it adequate and is the quality all that we could desire? It has been my observation that we are wanting in both. I will not gainsay that the numbers may be sufficient, but the total would be seriously curtailed should we apply the standard of excellence to every herd. Too many cows are kept as family heirlooms rather than because of their meritorious qualities.

The test of merit should be applied to every herd by means of the scales and Babcock test, and the undesirables sold for meat and replaced by those which will stand the test. This can be done now when price of meat is high and feed too costly to feed to cows merely because they can chew.

Contemporaneous with other lines of preparedness for meeting conditions which will arise after the war, the enterprising farmer will fall in line and see to it that he, too, is prepared to answer the call that is bound to be echoed around the world for dairy cows that can pay for their maintenance and return a profit to their owner. Come on, Wisconsin dairymen, lead the world in raising the standards of dairy cows, as you have and are leading in numbers.

Wisconsin. THOMAS M. OLSON.



AUCTIONEER
For pure-bred livestock and general farm sales. Write me before deciding on an auctioneer for your sale. Square dealing and satisfaction assured. References, State Bank of Honey Creek. I sell 25 head of pure-bred and grade Holsteins, including herd bull, at Kenmoor Farms, Oconomowoc, Wis., Saturday, Nov. 2nd. **FRANK DRUMMOND, Honey Creek, Wis.**

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and one that knows values of both

Pure-bred and Ordinary Live Stock

Write me for dates as I have 95 per cent of all sales in this section of country. Also sell Real Estate at Auction.

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Pocket Herd Register loose leaf

Fits the pocket—very complete—durable. Five-ring leather cover and 100 sheets. Order today. **$4**

Live Stock Printing Company, La Grange, Illinois.

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Productiveness in age makes t Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breed Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farm

Pure-Bred Brown Swiss Cattl

Only high class, well bred animals fr clean and healthy herd offered for sale. than 100 head to choose from and our 20 experience is back of every one. Write us
F. FREEMYER, WALHALLA FARMS, Middleburgh

FOR SAL

Brown Swiss Bull Calves

8-10 months old. Good individ Sired by a bull whose dam milked 16000 pounds of milk. Priced to se
Hawthorn Farm, Hawthorn Farm Lake County, Illinois.

ONE REGISTERED

Brown Swiss B FOR SALE

Large bone, straight back and good colo all-round No. 1 calf. Seven months old. $125.00. **J. F. Bundy & Son, Lyons, Neb**

Pleasant View He

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, grown, good individual. *By sire* out of R. dam with 16,500 lbs. milk, 650 lb *Out of* a dam weighing 1,600 lbs., whi milked 75 lbs. a day. Priced for sale.
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H. W. AYERS, HONEY CREEK,

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POLAND CHIN

THAT WEIGH AND WIN. We bred and Double own the Wis. 1918 Grand Champion Boar,
Herd boars and farm boars, open g shipped when bred, sired by 3 Grand pion boars. Boars and gilts not Raised without corn, and IMMUNE. what you want. We can please you. pigs weigh up to 275.
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FOR SAL

REGISTERED

Duroc Jersey Bo

$50.00 to $75.00
Will Ship on Approval.
McCanna's Edgewood Stock Farm, Burlington, W

Cedar Crest Farm Berksh

Cholera Immune

The wonderful bargains we offered in Be were so quickly taken advantage of that we ha single boar of serviceable age for sale and on brood sows, weighing 250 to 300 lbs. bred for t or second litter and a limited number of un gilts. Our stock is right and our price is righ us today for complete information. Remembe come first served—the quicker your order is pl better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake

Kilehurst Farm

DUROCS OF QUALITY

We have a limited number of choice Spring B Gilts left. Order now. Prices right. We wi you. **Kilehurst Farm, Elwyn F. Bradley, Manager, Mome**

Have you talked with your neighbor subscribing for Hoard's Dairyman? W do it now? Make up as large a club scribers as you can and send them in.

GUERNSEYS

you want to increase your
iry profits you need to know
out the cows whose average
oduction, under tests super-
sed by State Agricultural
lleges, is three times as great as
average of all dairy cows in the
ited States. Ask for the "Story
the Guernsey".

American Guernsey Cattle Club
lox H Peterboro. N. H.

PLAND FARMS

Ipswich, Mass.

rs for sale a Bull Calf dropped
ruary 4, 1918.
id by—*Langwater Cavalier* No.
.2. (A Double Grandson of
. King of the May 9001.)
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8. Record of *10,686.8* lbs. Milk
8.62 lbs. fat in Class B.
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t. F. P. Frazier & Son, Props.
W. K. Hepburn, Supt.

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Headed by

Diavolo of Linda Vista
e Great $10,000 Bull

est young bulls and several heifers for
reasonable prices.
Bureau Animal Industry Health certi-
ith all animals over 6 mos. old.
AARTZ, 10 High St., Boston, Mass.

eenway Farm Guernseys

WARE, MASS.

ulls of May Rose breeding out of A. R.
id cows now on test. Herd tuberculin
Prices low.
EORGE H. TIMMINS, Prop.

e Mixter Farm

325 GUERNSEYS 325

at bull calves for sale at exceptionally low
will pay you to visit our herd.
ARDWICK, MASSACHUSETTS.

LSWOLD FARM

Shrewsbury, Mass.

ed Guernsey bull calves for sale. Dams in
Registry and tuberculin tested. Prices right
ls guaranteed to suit. W. A. Clowes, Mgr.

LTON FARM — QUALITY BREEDING — VALUE — RNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm,
Mansfield, Ohio.

g Cows, Heifers and Bulls

reatest prize-winning herd of the Guernsey
reasonable prices. My catalogue tells what
or come and see.
L. V. AXTELL,
estead Farm, Perry, Ohio.

Sale: Bull Calves

onths old. A. R. Dams. Sire a grand-
olly Dimple's May King of Langwater.
rsey Farm, N. C. Dahl, Owner, South Haven, Mich.

le Alto Farms

oung Guernsey Bulls

Langwater Royal Master (23663), who
of Imp. King of the May (9001). Get
hese splendid young bulls for your
n. Herd is on the Accredited List of
Send for pedigree and price list, or
me and see this excellent working
H. McCallum, Mgr., Wernersville, Pa.

UERNSEYS

young bulls of exceptionally good Adv.
eding for sale. Strong individuals and
epresented. Dams milking from 40 to
s daily. Could spare a few young cows.
or pedigrees and prices.
POST, R. R. Station Owasco Lake,
Ensenore, New York.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R R.

619 POUNDS FAT

is the average of our first nine Advanced Register Records

FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175. Full particulars and pedigree from

Falcon's Flight Farms, Litchfield, Conn.

N. B.—No contagious abortion in over five years; no tuberculosis.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND — A. N. HATHWAY, Herdsman, Floodwood, Minn. — MINN.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

TILDEN FARMS

GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Mound City Farm GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.

Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

SARNIA

Imported and Home Bred Guernseys

No more to spare from 1918 importations. Place your order early for heifers from 1919 importations.

Several high class bulls for sale from A. R. cows, and sired by best bulls money can buy. Send for sale list.

Charles L. Hill & Son, - Rosendale, Wis.

GERAR GUERNSEYS

Production
Reproduction
Quality.....

Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.

Louis McL. Merryman, Cockeysville, Md.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

W. D. HOARD, Proprietor, Fort Atkinson, Wisconsin.

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in service bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd has been established for 26 years and is one of the oldest in Waukesha County. Write or come and see what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd in the county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted, Mgr

LONE TREE FARM

GREEN LAKE, WIS.

Has in its Herd 15 A. R. Guernseys and 11 R. of M. Jerseys
And Carries About 16 Cows on Test.

To inquiries for BULL CALVES we give full, honest particulars and stand behind every animal sold.
Jersey Sire—A Son of Pogis 99th. Guernsey Sire, Langwater Islander.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

Elderwood Guernsey Farm

Offers For Sale the Following Pure-bred Animals

1 2-yr.-old heifer just fresh, whose dam is an A. R. cow with a record of 389 lbs. fat at 2 years.

1 heifer calf and bulls up to 10 mos. old from A. R. dams. Roy Burton, Eagle, Wisconsin.

We Are Offering 2 Registered Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by "Pencoyd's Golden May Secret" (39626) a son of Nella Jay 4th.

W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.

HOMER RUNDELL, LIVINGSTON, WISCONSIN.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. August Ziesing, Deerfield, Ill.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. Rock River Farms, Byron, Ill.
Medill McCormick, Owner. R. S. Hulce, Supt.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Price exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

Registered Guernsey Bull For Sale

Dropped April 13th, 1918.

Sire:—Allenwood King Regeant 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat.

Dam:—Walter Maple Marjoria Golden Secret 52629. Out of a 450-lb. A. R. cow by Golden King of Arcady, a grandson of Imp. Golden Secret 12899.

Price $100. For pedigree and photo write.

FOLLY FARM, LIBERTYVILLE, ILL.

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. F. G. Benham & Son, Canandaigua, N. Y.

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

OK JERSEYS



JERSEYS are the "O.K." breed for the working farmer. They are bred to make money for the owners. Feed in the manger is gold in the milk pail if it goes through a Jersey. There is no other breed that produces so much for so little as the Jersey. Beautiful as a picture, hardy in all climates a genuine satisfaction and continuous source of income. Ask Breeders for pedigrees and prices and let us send you some revelation facts about the money making Jersey.

The American Jersey Cattle Club, 351 West 23rd Street, New York City

The wool-production estimate of the Bureau of Crop Estimates makes the clip of 1918 amount to 257,921,000 pounds in the grease; pulled wool is not included. The clip of 1917, revised estimate, was 241,892,000 pounds.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

SOPHIE'S TORMENTOR JERSEYS
"Production" Our Watchword
BULL CALF FOR SALE

Our No. 252, dropped April 29, 1918; solid golden fawn with black tongue and switch; well grown for his age and an excellent individual in every respect.
SIRE—Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. 85% butter, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM—Van's Warden Lady 336390, an excellent individual of extremely good dairy type.
Write for particulars.
FAIRVIEW FARMS, INC.,
R. L. PIKE, Genl. Mgr. P.O. Box 1404
ATLANTA, GA.

WE OFFER
Three Young Island Bred Cows

—strong in the blood of Oxford Lad, Oxford Majesty, Gamboge's Knight and Golden Maid's Prince,—which we are pricing attractively. They are carrying calves, sired by sons of Oxford Lad and Royal Majesty and will freshen during the winter. Address
FINCH FARM, - DAYTON, OHIO.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order. **Ashland Farm Dairy, Inc.**
ALTON PARK, TENN.

BULL FOR SALE

Island bred and ready for service. Dropped March 18th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 642.92 lbs. butter. Write for particulars or come and see him.
OAK GROVE JERSEY FARM,
W. M. KNIGHT, EAGLE, WISCONSIN.

Burn Brae Jerseys
Ibsen's Chief
HERD SIRE
High class bulls for sale—all ages.
CHAS. A. PETERSON, ROSENDALE, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

JERSEY BULL "Mable's Noble King, 146293" Dropped Sept. 4, 1914. Solid color. Sire—Noble Rozel 101785. Dam—Matilda's Mabel 234231—the National Dairy Show winner—who in Association work made 708 lbs. butter. Mable's Noble King was 1st prize yearling at Springfield. Guaranteed a breeder. Price, $300 F. O. B. Lake Geneva. See him or write,
G. D. GILBERT, Lake Geneva, Wisconsin.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

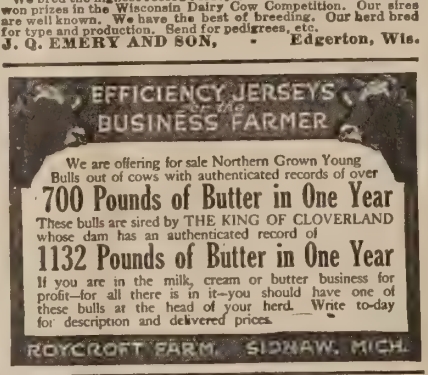
REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea R. 2, Box 99, Baraboo, Wisconsin.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.



MERIDALE JERSEYS

Several foundation herds of particular merit are available from the Meridale Herd this summer. They are fully described in a small leaflet, mailed on request.
AYER & McKINNEY
300 Chestnut Street, Philadelphia, Pa.

Meadside Farms
Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

POLLED JERSEYS

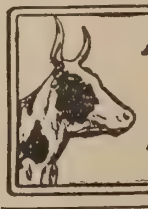
Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.

RED POLLED

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old; four cows and six heifers, all bred; one two-year-old not bred, two heifer calves, one bull calf. Selling to make room for Holsteins.
RICHLAND COUNTY ASYLUM FARM,
Chas. W. Snyder, Supt., Richland Center, Wis.

AYRSHIRES



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle

Are you looking



for an imported sire?

The above calf, snapped at a week is the first son, as far as we know Bargenoch Casabianca, "15250", born the United States. This sire is owned Mr. Montgomery of Lessnessock, Scot and is considered one of the greatest alive. His purchase price, in Scotland, $1,650 at ten months old. The ca dammed by a fine two-year-old heifer imported and is right in every way.
ECHO FARM, Thos. W. Barnard, Menomonie, P. O. Downsville, Wis.

RAVINIA AYRSHIR



Our purchase of the entire milking he Willowmoor Farm, Redmond, Wash., major event of this decade in Ay history.
This is a herd of show individuals b by the world's greatest consistent pr tion; a herd that has bred more w record cows than any other and whic holds more world's records than any It is the greatest collection of record duction Ayrshire cows in the world t
In offering Ayrshires of all ages from herd, we divide our wonderful herit with you. If you want the best, write to
GOSSARD BREEDING ESTA
Martinsville, Ind. Preston, Kans. Axial, C
Address all correspondence to the G Offices, 100 So. Michigan Ave., Chic

Edelweiss Farms—Ayrs

Stock of all ages for sale. Seven yearli ready for service.
FRED TSCHUDY & SONS, MONRO

Cresmont Fa AYRSHIRES

Are offered in choice bull calves, co heifers. "Finlayston", and "Baron's Bargenoch" breeding. We have what y at reasonable prices.
W. H. DRUCKEMILLER, Sunb

World's Champion Ayrs

Extraordinary Bull Calf out of Imp. Torr's Tr A. R. record 3-year-old, 13055 lbs. milk, fat. A. R. record 5-yr.-old, 15584 lbs. lbs. fat. Now on test should make big She is full sister to Lessnessock Buntie old, 14678 lbs. milk, 3-year-old, 15794 l mature, 17612 lbs. milk. Write for p picture and particulars.
PENSHURST FARM, NARBER

Wineland Farm Jers

Big Milkers—Prize Winners.
100 Head - - 10
A few for sale.
H. C. YOUNG, 33 and O Sts., Linc

PUBLIC SALE
60 PURE-BRED JERSEYS 60

Most of them are fresh or to be fresh this winter. Also a few excellent grade Jerseys.

SATURDAY, DECEMBER 14th, 1918

Daniel Boone Tavern Hotel headquarters. Automobiles will meet all out of town buyers.

Write B. C. Settles, Palmyra, Mo., for Catalog.
Col. Perry, Auctioneer of Columbus, Ohio. D. V. Vandiver, Owner, Columbia, Mo.

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisie, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, ada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Ag
Cooperstown, New York.

Wisconsin Ayrshire Breeders' Associatio

Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and gra
Jas. Van Etta, Lima Center, Wis. Adam Seitz, Waukesh
Fred Tschudy & Sons, Monroe, Wis. Stephen Bull, Racine, Wis.
Bollig Bros., Black Earth, Wis. John DeMaster, Cedar Grov
A. J. McNab, Secretary, Black River Falls, Wis.

(3 Lbs. Butter—
8,747 Lbs. Milk

t yearly record made by Segis hina Creamelle at 3 yrs. 9 mos. ge. Her 7-day record, same s 21.86 butter from 495.7 lbs. il. She is dam of a fine bull calf ve for sale, born July 12, 1918. ire is a 25-lb. son of King Pontiac and her dam a 30-lb. ter of Vikina Johanna who at 14 yrs. 39.43 and is dam of orld's record 50.-lb. cow, Segis e Johanna.
ire of this calf is Sir Henger- Korndyke Ormsby, son of tje Maid Ormsby 35.56 but- days and full brother to Miss yke Maid Ormsby, 1,255.62 and 25,419.3 lbs. milk in a
nearest dams average 30.14 r and 25,419.3 lbs. milk in a white and a splendid individ- He represents the best breed- btainable and is offered at a reasonable price. For furth- rticulars write.

ALCOWIS FARMS,
Atkinson & Son, Lake Geneva, Wis.

k River Valley Farm

Awarded

IRST PRIZE

Wisconsin Dairy Cow Competition

inner, Queen Juliana Dirkje, produced ear as a 3-year-old 1,021.72 lbs. but- fat.) Over 30 yearly record cows in ded by Mutual Piebe DeKol. young bull calves from these cows sired ull for sale. (Herd tuberculin tested.) METTS, FORT ATKINSON, WIS.

eveland Herd

Yearling Holstein bull from a 29.08-lb. dam; that gave 100 lbs. milk in a day $109 prize money in one year. Her 36.10-lb. cow. His sire is a 30-lb. grand- $50,000 bull. He is evenly marked, a ight individual and ready for heavy Price $500. If interested send for his
H. R. Weiskopf, Cleveland, Wis.

35.43-lb. Sire

orn Feb. 1st, 1918. Dam has a record of nearly utter 7 days. Best days milk 75 lbs. Bull is individual especially high rump, half and r. Price $175.00 delivered. No. 2. Born Feb. Dam has 20.20 lbs. at 4 years, second dam lbs. 7 days. A little more white than black. y he's a dandy. Price $200 delivered. For ticulars and pedigree address
DERSON, - WHITEWATER, WIS.

Holsteins $25

thousands of satisfied customers and you as one. Buy the best. Five d, 15-16 pure, $25 crated. Express D. D. Write us for anything in cattle.
oberts Stock Farms, Oconomowoc, Wisconsin.

lstein Bull Calves

dam at 3 years 4 mos. King of the Pontiacs, i De Kol and Johanna breeding. 19 years d selecting a producing herd. Write or bet- id see. M. F. Peck & Sons, Marshall, Wis.

in Bull Calves For Sale

ed, well marked, good pedigree; ages year down. Farmers' prices.
SE, SUPERIOR, WISCONSIN.

A Bull That Will Suit You

ed by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna e made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is hort and long time records. Individually he's a dandy, nearly half white, just the kind you've been Other young bulls by the same sire and from A. R. O. dams for sale. Write
STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

SALEM STOCK FARM

We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to 's old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, f the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 d 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot grown and nicely marked. This stock is priced to sell in single or car lots. Also offer tock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, s for just what you want in Holsteins or Polands. We can please you. Farm located ity Limits.
J. D. McDONALD, WEST SALEM, WISCONSIN

. O. Holstein

make room in our barns we a number of cows and heifers ked by large official milk records. They are bred to
IN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis



Ollie Johanna Sir Fayne 58096. Sire: Sir Johanna Fayne, 44 A. R. O. daughters. Dam: Ollie Watson Prima Donna, 31.10 lbs. butter. Owned by Masonic Home Farm.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to
W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A. R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Bonair Farm Foundation Herd For Sale

Owing to feed shortage we will sell any or all of our 30 producing females. Mostly line-bred Ormsbys with A. R. O. records up to 27 lbs. Due to freshen from now to Mar. 1st. Bred to Sir Korndyke Fytje Pietertje 132719 A. R. O. of dam 23.15 lbs. butter in 7 days and 18431 milk and 784 lbs. butter in 1 year at 2 years of age. He will also be sold. O. J. Will, Templeton, Wis.

Ready For Light Service

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

Holstein Bull 10 Months Old.

Sire, a 30-lb. son of Rag Apple Korndyke. Dam, an 18-lb. Ormsby bred cow. $150.00 takes him. Also two 9-year-old cows cheap on account of slight defects. WM. F. MIELENZ, 312 First National Bank Building, Milwaukee, Wisconsin.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old

out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. Aitken Bros., Waukesha, Wis.

SIR PIETERTJE ORMSBY MERCEDES 43rd

heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull Maplecrest King DeKol 2nd. A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Need a Bull?

Write and ask us how to get the use of a good bull for two years, sired by a 34-lb. bull—KING SUPERBA, 176125, or PABST KING PONTIAC LAD 129288, and dams with 7-day and yearly records. Dr. David Roberts Stock Farm, Waukesha, Wisconsin.

KING SUPERBA

Those who did not meet his sons and daughters at the Wisconsin State Fair have seen by the report in agricultural papers how they took the firsts and Junior champion. Individually they are correct, from A. R. O. dams.
W. J. Mann & Sons, R. 1, B. 16, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

I. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. His Dam: Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4 year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.
G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

Sir Inka Prilly Segis Albino

Born Dec. 3rd, 1917.

A Real Bull For Some Small Breeder.

IF YOU ARE A SMALL BREEDER or beginner in the Holstein business and in the market for a herd sire, here is one that is worthy of your best consideration.

JUST A YEAR OLD—Ready for service. He is well grown, a splendid individual with faultless topline and marked nearly all white. As an individual he will suit the most particular.

SIR INKA PRILLY SEGIS, his sire, is one of the famous sons of the great King Segis, who has proved himself to be one of the greatest, if not the greatest, transmitting sires of the breed.

THE DAM OF SIR INKA PRILLY SEGIS is Inka Prilly with a record of 30 lbs. in 7 days. She is from a 25-lb. daughter of old Prilly and sired by a grandson of this same famous foundation cow.

THE DAM OF SIR INKA PRILLY SEGIS ALBINO is Princess Douglas Urmagel, a 24-lb. four-year-old daughter of Sir Urmagel Burke, a full brother to the 35-lb. cow, Urma Burke, and from the 31-lb. cow, Urmagelsche 2d A.

PRINCESS DOUGLAS URMAGEL is from a 29-lb. four-year-old daughter of DeKol Beets Segis, another well known son of King Segis.

THE THREE NEAREST DAMS of this young bull average over 28 lbs. Two of them being only four-year-olds. His seven nearest dams average 26.93 and his eighteen nearest dams average 26.77.

HE CARRIES THE SAME RELATIONSHIP TO King Segis as Segis Fayne Johanna, the only 50-lb. cow, Fancher Farm Maxie, the world's champion heifer with 47 lbs., and Mabel Segis Korndyke, former champion four-year-old with 40.32 lbs.

HE CARRIES A DOUBLE CROSS of both King Segis and the famous foundation cow, Prilly,—both animals familiar to breeders from coast to coast.

AND WE ARE OFFERING this young bull to you for $650, guaranteed sound in every respect and tuberculin tested by Federal veterinarians.

IF YOU WANT HIM, do not wait to write but send us a wire instructing us to hold for you.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was ***Grand Champion*** of a ***National Dairy Show.*** A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb.17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

ARDEN MEANS QUALITY BULL CALVES

We Offer Our Usual Crop of Well Bred Bull Calves, at Our Usual Rea sonable Prices. We Have Headed the Prize List for Two Successive Year

WHY ?

BECAUSE IN BUYING A HERD SIRE, WE GOT THE VER BEST WE COULD FIND. WHY DON'T YOU DO THE SAME WE CAN FURNISH THE BREEDING, INDIVIDUALITY AN BLOOD LINES TO MAKE RECORD BREAKING HERDS.

Where Can You Find Better Breeding ?

SONS OF *KING SEGIS PONTIAC COUNT*, THE SIRE OF TH TWO FAMOUS HEIFERS THAT JUST BROKE ALL PREVIOU RECORDS IN THEIR CLASS FOR BOTH MILK AND BUTTE IN YEARLY PRODUCTION. His first twenty-four daughters freshen broke more than one hundred World's Records. A RECOR NEVER EQUALLED BY ANY OTHER SIRE OF ANY BREED.

SONS OF DAUGHTERS OF THE ABOVE MENTIONED WORL FAMOUS BULL, SIRED BY OUR FAMOUS JUNIOR SIRES.

SONS OF *PIEBE LAURA OLLIE HOMESTEAD KING*, Our F mous Show Bull. His type and show-qualities cannot be beaten, ar are all transmitted to his offspring.

SONS OF *KING ABBEKERK PONTIAC SEGIS*, the best son KING SEGIS PONTIAC COUNT, whose dam is a 1,230-lb. cow wi nine 30-lb. sisters.

SONS OF *SIR ORMSBY HENGERVELD KORNDYKE*, whose da is the famous cow, PIETERTJE MAID ORMSBY.

ASK US FOR PEDIGREES

Joseph M. Hackney, Owner, 601 Merchants Bank Bldg., St. Paul, Min

HEAD YOUR HERD WITH

A Young Bull of Ormsby Qual

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapoli

Young Bulls From Yearly Record Da

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official re 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. S and other noted herds. These bulls are well marked, heavy bone, straight and large for t We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Fall

The Greatest Bull on Ear

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World, Duchess Skylark C

Sons of Sir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Skylark fast enough to take care of the inquiries which we are receiving.

MAXWELL FARMS, WATERLOO, IOWA

HOME FARM HOLSTEIN FRIESIANS

His Six Nearest Dams Average 29.31 Lb

A beautiful son of KING KORNDYKE SADIE VALE from 26-lb. dam who is a daughter of Prince Segis Ko from a 29-lb. dam. He is ¾ white. Born Feb. 18, 1918. will bring his photo and description.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BUL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. On world's record dam in yearly division. Breeding, size, individuality and price that your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or writ

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

FROM A. R. O. COWS

For Sale—Two Registered Holstein Bulls ready for service this winter. Dams are persistent milkers with good Cow Testing Association yearly records; and also A. R. O. records 20.86 lbs. and 26.39 lbs. butter respectively They possess a showy appearance, a straight top line; color of one is almost white and the other is half and half. Sired by Sir Ormsby Hengerveld Segis, a half brother to Sir Ormsby Skylark, who is the only bull having a daughter that has produced over 1500 lbs. butter in one year. A son of the great Sir Ormsby Hengerveld DeKol, who has four 30-lb. daughters, including the former world's champion, Pietertje Maid Ormsby 35.55 lbs. For further information write or see us.

KAPLAN BROTHERS, R3, Owatonna, Minnesota.

FAGERENG FARM

Offers a son of an

18½-lb. 7-day A. R. O. Cow

Her dam, sister of world record cow, Pietertje Maid Ormsby. Sire, son of King of the Black and Whites with many 30-lb. dams. This promising young Bull was born Mar. 18—¾ white and beautiful show type. Price reasonable. Write to **K. Olaus Finseth, Kenyon, Minnesota.**

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.**

Never mind the 7-day record

The Other 358 I

that show a cow's producing abil are offering young bulls with

Yearly Record Bac

at very moderate prices.

IOWANA FARMS, Davenport

HARGROVE & AR HOLSTEINS

They have the yearly record kind. and breeders who want bulls backed records, and who appreciate the 4% cow, had better write Hargrove & A stein Co., Norwalk, Iowa. They quarters for high testing Holsteins, have on hand now just a few bulls these lines. Come and see us.

Don't Forget This Sale

Complete Dispersion of the Erinside Holstein Herd

Tuesday, December 10, '18

At Fort Atkinson, Wis.

65 Registered Holsteins to Be Sold.

A Breeder's Sale. Don't Fail to Attend.

ORMLEY BROS. Props., R. 1, Fort Atkinson, Wisconsin.



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.

JOHN PULS, - HARTFORD, WISCONSIN

(% Discount

r December

account of not being able to ete our new calf stable this e have decided to sell our bull calves at a *10%* re- n during the month of *cember* in order to relieve esent congested quarters. e is an opportunity to pur- some great young sons of oted KING PONTIAC MPION and KORNDYKE S JOHANNA at unusually gures. Send for our price

BST STOCK FARM

t A, Oconomowoc, Wis.

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ulls—Bulls ALL AGES

anna and Ormsby Breeding.

of individuality. Unusual . Satisfaction guaranteed ney refunded. Send for ees and details.

EHURST DAIRY

Sheboygan Falls, Wis.

Sale—Registered Holsteins

ve left two young bulls, excellent breeding, ght months old, the other about eleven mos. by splendid seven day as well as yearly so four beautiful heifers, two of them about d, sired by Johanna King Segis the 40-lb. of a good A. R. O. dam. Another one about ths old, her dam a show cow; sired by a Another one about year old, granddaugh- ,000 Sire. Very classy stuff. Must sell be- rtage of feed. Breeders, not dealers.

ck Farm, Bear Creek, Waupaca County, Wis. McKone, Prop. William Lucia, Mgr.

EGISTERED OLSTEINS

ows due to freshen soon. red heifers. Also a few bulls. nt the best at reasonable prices, it ou to write.

CKBURN - CUBA, OHIO.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.

C. A. SCHROEDER & SONS, West Bend, Wis.

FOR SALE

27 HEAD

Pure-bred and 15-16 Pure-bred Holstein Heifers

2 and 3 years old. Well marked. 18 head to be fresh soon. Sired by a 30-lb. bull and in calf to a 30-lb. bull. A very choice lot—all my own raising.

A. H. BOSWORTH, DIXON, ILL.

Buffalo Creek Farm

OFFERS A SON OF

Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. **Albert R. T. Lillie, Supt., Arlington Heights, Illinois.**

YOU

Will be interested in our free price list of 100 head of choice, pure-bred

Holstein Cows and Heifers

or if interested in a bull calf send for our bull calf list. **Woodlawn Farm, Sterling, Illinois.**

Why Not Buy Colantha Aaggie Perfection

whose dam produced 13.8 fat in seven days and 450 pounds butter in ten months, for your herd sire? Write for price and pedigree.

J. DIEDRICH, - SUMNER, IOWA.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. **E. A. POWELL,**

904 W. Genesee St., Syracuse, New York.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

A Chance to Buy a Son of King Korndyke Sadie Vale

At less than half his value, because he is dark in color. $400.00 buys King Korndyke Segis Johanna Ormsby, born Aug. 17, 1918. He is a large growthy fellow and a fine individual. His dam and sire's dam average over 35 lbs. butter in 7 days. Sire:—King Korndyke Sadie Vale, regarded as the greatest sire of his generation. His daughters, still heifers, are making wonderful milk and butter records. One K. K. S. V. Topsy made over 40 lbs. butter as a 3-yr.-old. He also has two other 3-yr.-olds with records over 30 lbs., and two 4-yr.-olds over 30 lbs. He is the sire of the youngest 29-lb. heifer of the breed. Dam:—Anna Johanna Ormsby, A. R. O. record as follows, butter 7 days 29.35, 30 days 122.30 lbs. She is one of the best daughters of Sadie Vale Sir Ormsby. Thus this young Bull has a double cross of old Sadie Vale Concordia.

W. D. ROBENS, POLAND, NEW YORK.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

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35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

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Born Oct. 5, 1917

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Bull Calf, Born Jan. 6, 1917

Sire—Colantha Johannn Champion 45674. 39 A. R. O. daughters. Son of Colantha 4th's Johanna. 35.22 lbs. butter in 7 days, 1,247.82 lbs. butter in 365 days.

Dam—Emblagaard Colantha Mahomet 279872 by Colantha Johanna Champion 45674. Record at 2 years, 2 months, 9 days: Butter, 7 days, 14.67; milk, 346.20; butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 lbs. at 11 months. The price of this bull is exceedingly low. We must make room in our calf barn.

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***BUILT LOW*—Top of milk tank only 35¾ inches from floor—easy to fill. Crank shaft 33 inches from floor and in right position for easiest turning, no back-breaking work.**

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING



rt Atkinson, Wisconsin Vol. LVI, No. 21 December 13, 1918.

Hoard's Dairyman

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THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

A Dairy Story From Overseas

It has been our privilege to talk with a sturdy doughboy recently returned from the soil of France. He was a farmer's son, a dairyman's boy, and almost at the first call he left a prosperous business in the Middle [illegible] to do the sort of righteous [illegible] that Uncle Sam is sometimes [illegible] ask his lads.

[illegible] back now, back for good. [illegible]e bells have just rung in his [illegible]d he is very proud of the part [illegible]ons of farmers played in the [illegible]ty European conflict. They were [illegible]ve boys because they were hardy, strong boys. Health has something to do with it, you know. One can't play with fire if one's body is frail.

And those who went from the nation's farms possessed remarkable vitality. Their faces and arms were already bronzed. They knew the big outdoors. They could manage to sleep in trenches and mind it less. They were self-reliant, indomitable, accustomed to some of the essential hardships that have kinship with Mother Earth.

This boy had been interested in all dairy problems. He had a paying herd of his own. He loved cattle and understood their care. He had even gone to a farmers' college and mastered the scientific side of cattle breeding, milk culture, and wise business procedure.

And what he found abroad, in France, hurt him dreadfully. There was such desolation—such devastation! His heart went out to the tiny garden plots laid bare and bleeding by the enemy. It shocked him to see prone orchard trees, hacked to the quick, for he knew that it would require generations to bring back new trees and bearing orchards.

Yet he saw the working of a great, infinitely wise Power in it all. He was almost ready to believe that perhaps it was for the best. Through suffering, new ideals of life are born. It is interesting to get his viewpoint of these matters, for they are closely knit with dairying.

"For many months," said he, "I was back of the lines in France—poor, unhappy France. I was often billeted with peasant families. I grew to know them. They are quiet, unpretentious people, thrifty, and eternally hopeful. At no time did I hear complaint. French people look on the bright side.

"But it was the little farms that made me think. So many of them were irreparably ruined. I visited one place where shells had ripped into the very vitals of the home. The house was but a shadow, the vineyard was shorn, the small orchard level with the ground, and the once cultivated acreage a barren, soggy waste.

"A wisp of a mother and two wee children were in charge, brave, indomitable to the end. They knew, now, that the Germans would never come back that way again. The last cloud had passed. Reconstruction could begin. A cow—one of five—had been saved. There were a few hogs and some chickens. Soldiers, now and again, had helped to rebuild the home. Some green things were beginning to show in a meagre strip on a hillside. A flaming bed of poppies, like Poilu blood, consecrated and reborn, grew alongisde the shambles of a road. Shoots of fruit trees were struggling for life here and there.

"I used to tell this little French mother about my home and my herd and of the progress we had made from tiny beginnings. She never tired of hearing me recount the story of the gleaming white silos, and the concrete drinking basins for the cows, and the special manure pits, and the tractors that were doing such noble work for us.

"And I would tell her of the records we kept of the herd, of milk and butter profits, of immaculate dairy houses and highly specialized feeds.

"With her children snuggling close to her, she would make me tell, not once or twice, but many times, the story of a certain cottage under fine oaks and of our own electric light plant, and the suction sweeper and the spinning emery wheels that sharpened knives.

"The light that shone in her eyes, the light that I always saw in the eyes of the children, made me understand that soon now the French farms that were will spring from even richer soil and that a splendid progress will be inevitable. They will learn the new way. From the wreckage and the grief there will rise model dairy farms, revitalized and rehabilitated for the years that are to follow. It was once very pretty and very picturesque in these far lands of France, yet I could see that they lacked some divine touch which would have made them build.

"You will smile, but American boys, some of them, are staying in France. They love it so, they are so dearly loved. And these very boys, guided by comradeship and sympathy that side-by-side fighting has germinated, will make the fields blossom once more and efficiency pour forth its dividends. And, some day, I want to go back to France, and search for a certain little farm. I imagine I will find well bred cattle on the poppy slopes and cream separators and immaculate dairy houses and—who knows—perhaps a shimmering silo, bright in the Flanders' sunshine!"



"Slipping" not "Saving"

"I kept slipping back two feet every time I went ahead one." That's what the small boy gave as an excuse to his teacher for being late for school one winter day.

And that's just what is happening to the cow owner who is trying to get along without a cream separator or with an inferior or half-worn-out machine. Like the small boy he is "slipping". He thinks he is thrifty but for every dollar he saves by not buying a De Laval he loses two through not having one.

It ***isn't*** economy to do without labor saving and money saving and food saving machines. It ***isn't*** economy to feed 60 cent butter to the calves and hogs.

It ***is*** economy to buy and use only the best cream separator made—and that's the De Laval.

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See a new De Laval machine for yourself. Try it to prove every claim made for it. If you don't know a De Laval agent, write direct to one of the addresses below

THE DE LAVAL SEPARATOR COMPANY

165 Broadway, New York **29 E. Madison St., Chicago.**

nteresting Dairy Notes from Idaho

J. F. BRUINS, IDAHO

dairymen of this section have a ew market with the opening of ondensery of the Carnation Com-

nsery Com- pany at Nampa this fall. This plant has recently been put in ation, and is said to be the sec- argest in the United States, with ximum daily capacity of about 00 lbs. of milk. It does not fol- however, that it is now running at extent. In fact, it is said that r the greatest difficulty the com- has met has been in securing its material and it probably is not ng more than a small fraction s requirements. Previous mar- have fully absorbed the dairy- s output and it appears as if the any would be obliged to develop fields. Its situation, however, is able, as railroads enter its lo- n from five directions and it is belt line electric road which runs d the Boise Valley and all of ributary country is potentially, st, excellent dairy country.

s development is being watched much interest by the farmer holders of the two co-operative anies in the Valley. These are ed principally in making e, the Boise company having five ies with a daily intake of about 0 lbs. of milk. So far the cheese ies have not been injured by ondensery and have kept prac- all their patrons. Farmers no feeling of unfriendliness for ondensery but they do have a recollection of the time when e corporations controlled their t and are disposed to hold fast ir present organization and the ty it has given them.

es for dairy products are high section at present. Butter has d at 72 cents and milk in Boise cents. The condensery is pay- .10 for 4% milk and the cheese y 75 cents for fat. Curiously h, with all the advantages that ection possesses for dairying, ds of butter are said to be d through here to supply North- Pacific coast points. Meanwhile e clamoring for cars to ship our potatoes, and hay to outside ts.

conditions for the season have lly favored the dairymen. farmers suffered from the hot, dry weather while the d Corn grain was filling but hay (alfalfa) and corn age are generally an excellent There has been no frost till the part of October for the last two in this section and corn has d and has proven one of the profitable crops.

average yield of silage corn for ction has been about 12 tons e, which is increased to 20 by cultural methods. The crop s but little work and no water gation until the grain is out of y. Silage is generally valued t half the price of hay, and at



CENE IN FRANKLIN COUNTY, THE OLDEST SETTLED DISTRICT OF IDAHO

$7 to $10 per ton forms a very profitable crop. It may be remarked that large numbers of range sheep and cattle are commonly wintered in the irrigated valleys and these supply a market for the silage as well as the hay.

We have an enemy to our corn crop here that other sections may find it profitable to guard against. Some years ago the state game department introduced the Chinese pheasant to this section with the idea of furnishing sport to the hunter and an object of beauty and diversion to the nature lover. The project was so successful that the country fairly swarms with them. To be more accurate, I suppose some 30 or 40 have made their home on my 40-acre farm during the past summer. Their habits are much like those of domestic fowl and what a flock of these will do to a field of young corn just coming up is calamitous. There is now an open season on them during the fall but many farmers take the law into their own hands and kill the pests whenever possible. In fact, by all means the best tool for raising corn in this section is a well loaded shotgun. The pheasants will not only pull up five times as much corn as an equal number of crows but they attack the ripening ears, particularly the choice early ripening ones you want for seed and also cause heavy loss in the grain fields. They flutter along just at the top of the ripening grain to thresh it out and then pick up a small part of what they have knocked down. The cock pheasants certainly are beautiful creatures but we no longer admire them. Farmers of other sections should watch out to resist strongly any attempt to plant these birds in their neighborhoods.



AN IDAHO DAIRY PLANT. NOTE INEXPENSIVE CONSTRUCTION OF BUILDINGS AND DERRICK FOR STACKING HAY

Hay is still selling at very moderate prices in this section, running from $10 to $20 per ton according to quality and location.

Hay is Plenty Corn silage in the field sold as low as $3.50 this fall. The fall rains have made an abundance of feed on the range and this will also tend to reduce the demand for hay. Also the presence of the alfalfa weevil in this section is threatening to or has placed quarantine against our alfalfa. In fact, the state of Oregon is said to be attempting to prevent the shipment of alfalfa there from southern to northern Idaho. The situation strongly encourages home consumption as well as production of feed.



SUNNYSIDE DAIRY OWNED BY JOHNSON BROS., IDAHO

Clover hay is being increasingly raised here as compared with alfalfa. The general practice is to secure one crop of hay and save the second cutting for seed. The first cutting generally makes about 2 tons of hay per acre and the second 3 to 7 bushels of seed, which this year is bringing 40c per pound. Clover weevil and aphis attacks the seed and in raising seed, dodder and buckhorn must be kept out of the fields, all of which make the crop a less attractive proposition than might at first appear. Curiously enough clover hay sells for fully as much as alfalfa in this section and often commands a premium. The straw from which seed has been threshed is valued at about half the price of the hay.

Our grain feed situation is the only fly in our ointment at present. Practically all we can get is mill feed with a very small proportion

Feeds Scarce of shorts in it and a mixed feed. The mill feed is almost straight bran and sells at $40 per ton. Probably for equal weight it is no better than straight alfalfa. The mixed feed sells at about $50 per ton and it is said to be composed of oats, wheat, corn, linseed meal, and beet pulp. As any one of these ingredients sells for $60 a ton or more one wonders what the answer to such a bargain can be. The feed is sold by a company which also manufactures oatmeal or rolled oats and the answer probably is that the "oats" in it consists of hulls, cheap, and filling no doubt, but of no particular value for milk production.

Farmers express considerable discontent with the situation with reference to mill feed. We have heard a great deal about "$2.20" wheat and consumers and the general public no doubt believe that the farmer gets that figure. In the course of grading, dockage, freight charges, etc., the farmer here got a little over $1.80. Also he has understood he might buy mill feed at 38% of the price of wheat. You might think, therefore, that 38 lbs. of wheat at the mill might be exchanged for 100 lbs. of wheat feed. But instead of that we get a devil and stump hippodrome of differentials and basic markets and terminal demurrage and a request for 66 lbs. of wheat instead of 38, all of which we dazedly try to explain to the cows over their short rations with no results whatever. We buy our bonds and devoutly curse the Kaiser, but at the same time we have a sneaking feeling that some one along the bread line is combining thrift with patriotism to an undue extent and a good many of us are surreptitiously lending aid and support to the Nonpartisan League in consequence.

The favorable corn crop and the price of hay is causing increased interest in silo construction. Some

Silos in Favor feeders claim that a ton of silage and a ton of hay have as much feed value as two tons of hay. At any rate the silo is increasingly popular and it may be noted that where one of them is built in a new community a regular rash of them soon breaks out over that neighborhood. We are leaning also toward more permanent methods of construction. The stave type is falling literally and from favor. In a dry climate their tendency to dry and shrink make them particularly susceptible to strong winds and bring more substantial types into favor. Many of the double walled wooden hoop type are seen among the new buildings, but the scarcity of labor has restricted the number of new concrete ones.

Cow testing association work has made progress here lately in both directions. A new association is being

Women Testers formed in the Boise Valley and is about ready to begin with 500 to 600 cows.

The greatest difficulty with this work here at present is the lack of testers. This has caused a temporary suspension of the work in the Buhl Association. It is proposed to meet the situation by employing women testers. Of course there is an obvious objection to that also. In a country where a schoolma'am with nothing but a pink ribbon to commend her to favor escapes domestic internment only a few months, what chance would there be of keeping employed a lady who knows every cow in the valley by its first name? We hope to employ a lady of mature age, preferably a widow, who has had experience with domesticity and is not likely to be lightly tempted again.

The favorable prices for dairy products and moderate cost of most feeds have brought about a good demand for milk cows

Cows in Demand here at present. Grade cows of the larger breeds sell at from $100 to $200 a head, generally with Jerseys considerably cheaper. One sale of grade Holsteins during the latter part of the summer brought an average of about

(Continued on page 714)

Secretary Houston Discusses the Agricultural Situation

AT the request of Secretary Houston some fifty editors of farm papers from every section of the United States met in Washington to confer with him concerning the present agricultural situation and wherein the work of the department could be made more valuable to the people. "The department," said Secretary Houston, "has long recognized that the farm papers are perhaps the most effective printed mediums for reaching the millions of people living in the rural districts. I know of nothing that the better agricultural papers of the Union have omitted to influence thinking along right lines and to further the purposes of the governments."

The secretary stated that the cosmic changes of the past few years had filled people with apprehension, but if the whole nation will maintain its customary poise and view its complex tasks in a calm spirit, much of our difficulty will disappear. In times like the present, hysteria naturally develops and because of its situation those at the nation's capitol are likely to get an impression that there is more of it than actually exists. However, the great masses of our population are busy at their own particular work and are not greatly excited.

During the first year of the war the American farmers planted 23 million more acres of the leading food crops than in 1916 and 32 million acres more than during the 5-year pre-war average. And this was done in spite of all difficulties, of labor disturbances, and confusion in every direction. The farmers have expanded their operations and have responded magnificently, not only for reasons of self interest but even more for patriotism.

Concerning the more immediate questions that are confronting farmers and what may be relied upon for the future, Mr. Houston said:

"It is difficult to forecast the situation a year hence. The foreign demand will be for a great variety of foods and feedstuffs, but especially for certain kinds of fats. It is, therefore, highly probable that prices for current supplies, for the harvests of this year, both because of large foreign needs and of continuing domestic demands, will remain reasonably high and remunerative to producers.

"When we come to consider the situation which will prevail a year from now and what should be done in respect to further production, particularly in planning planting operations for next spring, we encounter more difficulty in making a forecast. There are too many unknown factors. We must remember that European nations will omit nothing to produce those things with reference to which they can get a prompt response, that is, bread grains and feedstuffs. If conditions settle down and order is restored, all pains will be taken to systematize production and to have those countries become as fully self-sustaining as possible. Again, in all probability, restrictions on trade movement will gradually be removed and ocean as well as land transportation will return to normal in due course. They will doubtless improve in the near future. Foreign nations will more and more look to their former distant sources of supply.

Increased Domestic Demand Important

"We must consider this whole question in the light of the recent past and of the probable future developments. Many people think too much in terms of today. How many of you realize that this nation, in the fifteen years from 1900 to 1915, gained a population of 22,000,000, nearly three-fifths that of the Republic of France, a nation with producing and consuming power probably greater than that of any South American country. It is estimated, also, that since the European war broke out our population has further increased nearly 3,250,000, largely through natural growth. We have taken care of this population. Those who have wished to farm have found places. Doubtless we shall gain 15,000,000 or 20,000,000 in the next fifteen years, and these, too, we shall take care of. These, too, will benefit from agencies working for the betterment of rural life which, in point of scope, personnel, financial support, and effectiveness, excel those of any three nations.

Financial Preparedness

"It seems providential that the reserve system should have been inaugurated before the breaking out of the European war. This war involved financial burdens and strains such as no economist imagined any country could stand; and yet this nation has, by reason of the operations of the Federal Reserve Board and of the reserve banks, proceeded in orderly fashion with its finances. In no former period, either of war or of peace, were we able to weather any considerable financial storm. During the Revolutionary War our finances were chaotic. We promptly suspended specie payments at the beginning of the war of 1812, and also when our Civil War came on. During the period of expansion in the '30s, we suspended specie payments and did not resume them for a number of years. In 1873, by reason of the over-trading following the Civil War, we had a suspension within a suspension. Twenty years later we were in trouble again, and in 1907 we had difficulties of a special and peculiar nature. What would have been the course of things if we had been less fortunately situated in this war no human being can tell.

"Another task remaining in the field of finance is to provide a proper system of personal credit unions, especially for the benefit of individuals whose financial circumstances and scale of operations make it difficult for them to secure accommodations through ordinary channels. I am not oblivious to the fact that banks now make short term loans of a great aggregate value to farmers possessing commercial credit, but there are those who can not easily avail themselves of the facilities they offer. This would appear to be a matter primarily for state consideration and state action. Such course has been approved by many of the best economists and seems to have been that sanctioned by the Joint Committee of Congress. The Department has formulated a tentative model law for personal credit unions and is ready to place itself at the service of any state which is ready to undertake legislation in this field. A number of states already have adopted laws for personal credits. In most cases, however, the associations formed under them are composed of urban workers. The North Carolina law apparently has had more fruitful results in respect to rural associations. This is due, in no small measure, to the provision made for educational activity.

Land Settlement

"We are still, in a measure, pioneering the country and we shall be called upon to take care of many more millions of people in our own country. Of course, we cannot induce people to stay in the country districts or to take up farming unless we make rural life profitable, healthful, and attractive. Farmers can not produce merely for the love of it. They must consider their bank balance just as other business men do. In the long run, as many people will engage in farming as are necessary to produce the supplies needed by society and taken by society at a price which will justify the operation. Farming must pay and that is a prerequisite to its extension. The task of the organized agricultural agencies of all sorts is to improve rural life so that it will be profitable to the present farmers and attractive to those seeking new enterprises. They must omit nothing to improve processes, to promote economies, and therefore to relieve farmers of economic burdens in production, to control and eradicate animal and plant diseases and insect pests, and to better distribution and marketing.

"It is particularly vital that the process of acquiring ownership of farms be encouraged and hastened. This is now the process. Tenancy has its dark sides but it also has its bright sides. In no inconsiderable measure, it is a step towards ownership. It is a stage through which many of our owners have passed and are passing. It is a stage at which the young farmer, in many instances, begins his career. The statistics indicate that 76 per cent of farmers under 25 years of age and that only about 20 per cent of those over 55 are tenants.

Federal Feed and Fertilizer Laws

"Some complaints have reached the Department recently regarding c mercial feedstuffs. We have e studying the situation and it see me that it would be desirable to a a comprehensive federal feed l placed upon the statute books present, in order to secure for t public the benefits of the provisio the Federal Food and Drugs Act reference to animal feeds, it is n sary to rely on the appropriate l utes of the different states. Thes not uniform and there are a f states which have no laws tha be invoked. Under a federal framed along right lines, it shou possible for the government to ceed in a uniform manner and cure to consumers protection ag misbranded, adulterated, and w less feeds entering into inte commerce. Similar legislation reference to fertilizers passing interstate commerce probably be feasible and valuable.

Farm Economics and Farm Management

"I have been keenly interest my life in the economics of agr ture and I have therefore not emphasized in my mind the nec for developing a strong and eff Bureau of Markets, but also a ganization here for the satisfa study of the difficult problem farm economics and farm ma ment. I have by no means beer isfied with some of the work c present Office of Farm Manage I refer especially to the studies cost of farm crops. It is unnece for me to point out the difficult securing accurate statistics o cost of producing an agricu commodity. Corn, for instan produced by perhaps 6,000,000 ers over a continental area. It ficult enough to ascertain the c producing corn on a single where there are complex opera It is equally difficult to secure ages in a given area that are h guides. It is even more difficult a tenant is involved. Still, av are the best that we can get. requisite, however, is that they be based on actual and distinc dies on many individual farm that the facts shall be tabu carefully interpreted, and set o der the proper limitations. T not true with reference to the s recently much discussed. Comp impartial economists and st of the subject, after careful i gation, reported that the studie little more than expressions of ion based on impressions re from conversations with fa that the interpretations and tions were highly unsatisfactor that the conclusions as given misleading.

"I have the whole problem a in mind. I am calling into conf the best students of farm eco in the nation, including the he state farm management depart some of which have develope grams superior to parts of ou I shall hope, at the proper ti lay before Congress a carefull sidered series of projects for larged Office of Farm Manag I shall ask for sufficient author funds to secure the services best staff available and shall work in close co-operation wit equipped departments in state and universities. It is my ho the nation shall not again be without adequate and reliable production data as a basis thinking and acting. Of cours alize that farm management i more than mere studies of co involves land settlement, stu ownership and tenancy, of th tion of crops, of domestic and supplies in relation to domes foreign demand, and many things."



THE BIG SHED

This farmer believes in supporting the machinery manufacturer and dealer; he is not interested in his own profit. Proper care of this machinery would more than double its life, and it could be done at small expense.

A Well Managed Dairy Farm

R. I. GRADY, OHIO



THE BARNS ON MAPLE GROVE FARM, OHIO

I these days when many dairymen re selling their herds and going in- other work because of the high cost o feeds, the scarcity of labor, and the ratively low prices of milk and milk ducts, the experience of a man o is making his dairy pay is help- f. In the Maple Grove Dairy, Ohio, re is not a cow that is not return- it a profit. The manager, Mr. Carles Beelman, does not attribute h success to any one single factor, b considers it due to the methods o breeding, of feeding, and of caring f the herd. These methods are be- in carried out under ordinary prac- tical conditions and can, therefore, b easily employed by others.

The Maple Grove herd consists of a ut 100 head of registered Jerseys. T owner, Mrs. L. I. Buchanan, pur- ased a few registered Jerseys about t nty years ago and the present h d has been built up from them. The id constantly kept in mind was the im roving of their h d and the develop- m t of a particular str in of cattle. For c e years the herd did n make the progress sh it should have, be- ca e the management w left largely to hi d help who were n sufficiently inter- es d in the herd.

During the past few ye s the management h been on a different ba s. At the present ti the manager's sal- ar is a certain per e of the receipts of a farm and dairy. He d only has complete ha ge of the dairy but h of the farm of 212 ac s. He hires the la- o and does all the ha ng and selling. He sa vs that his income is irectly proportion- to the income of th dairy and for that rea on he does his best. Be g hired for a pe- d of five years, it is th his advantage to bu up the herd and im ove the strain because he re- ins a part of the proceeds from the s of cattle.

System of Farming

l other industries on Maple e Farm are subordinate to the y. About 125 acres are under vation, ordinarily all the rough- needed for the herd is raised on farm. This year's roughage crops st of 50 acres of corn, 5½ acres y beans, 3 acres of sorghum, 10 s of alfalfa, and about 35 acres of clover hay. In addition to these crops about 35 acres of wheat are raised which furnishes ample bedding for the herd.

Although the dairy receives first attention on this farm, the fertility of the soil is not being neglected. The barn is equipped with manure carriers and the manure is never allowed to accumulate in the stable, but is generally taken to the field each day. During those parts of the year when it is impracticable to spread the manure on the fields, it is stored in a covered shed where most of its fertilizing constituents can be preserved. Mr. Beelman believes he can obtain the best results by putting all the manure on the wheat and hay crops. Although some other method might be better, he is undoubtedly raising some good crops. Last year a 30-acre field of wheat averaged more than 32 bushels to the acre.



PART OF THE HERD AT MAPLE GROVE



THE RESIDENCE ON MAPLE GROVE FARM, OWNED BY MRS. L. I. BUCHANAN, OHIO

Labor

Much time and man labor are saved on this farm by the use of labor saving equipment. A 10—20 tractor furnishes much of the power for preparing the ground for seeding, harvesting crops, filling the silos, etc. A 4-unit milking machine does away with much of the drudgery connected with the dairy. With this machine the manager told me that he, with the assistance of a boy to weigh the milk, could milk 42 cows in one hour and 15 minutes. A dynamo furnishes power for operating the milking machine, for running the separator, for pumping water, and for electric lights. The barn is equipped with double rows of stanchions for 65 cows and 25 yearlings, has 6 box stalls for cows, and pens for about 30 calves.

With the help of machinery, Mr. Beelman and two other men are able to do all the work connected with the farm and dairy. Although there is plenty of hard work, there is no labor trouble on Maple Grove Farm. The men are willing to work hard because they are being treated fairly. The helpers begin work at 4:30 in the morning, take one hour off for breakfast from 6 until 7 o'clock, have another hour off from 12 until 1 o'clock, and then work until 6 in the evening. Each man is paid a good wage, is given a comfortable house in which to live, a garden for his own use, and milk for the table. Each man gets one day off on pay each month.

Breeding

It was the aim of the founder of this dairy by the careful selection of sires to build up a herd of high producing Jerseys. At the present time May's Signal Eminent 86652 and Fern's Sensational Eminent 136421 are at the head of the herd. Both of these bulls are grandsons of Eminent 69631, one on the dam's side and the other on the sire's. Eminent is the sire of 102 tested cows and of 33 bulls with tested daughters. He sold at auction for $10,000. Most of the calves and heifers now in the herd were sired by Fern's Sensational Eminent. If these heifers inherit the qualities of their sires much can be expected from them. Fern's Sensational Eminent was sired by Sensational Fern 75924. He was the sire of at least 20 cows in the Register of Merit and was sold at auction when eight months old for $10,200. For the three preceding generations Imp. Golden Fern's Lad was the sire of this bull.

Feeding Practices

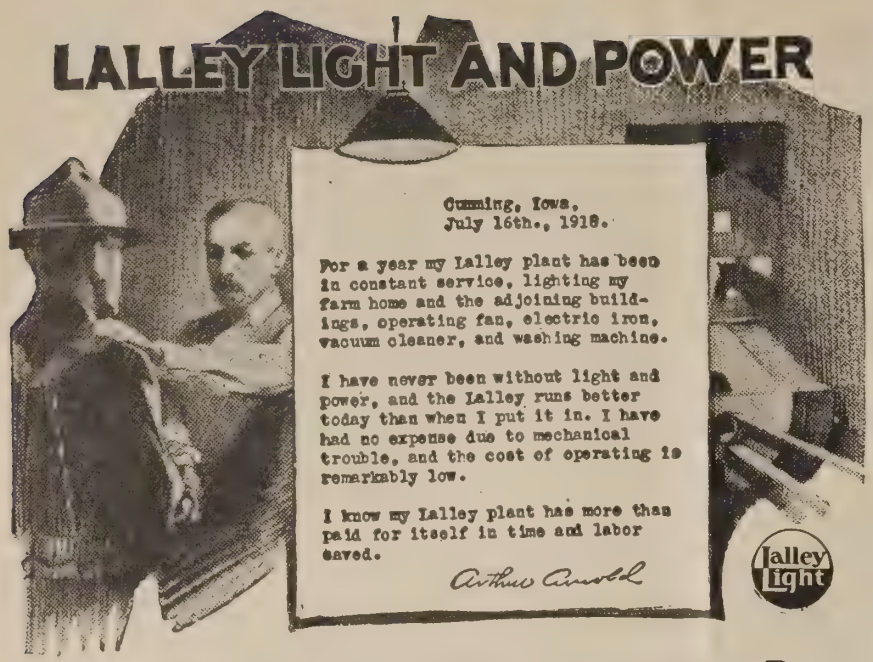
The cows are fed as individuals according to their production. Each cow's milk record determines the amount of grain she will receive. Ordinarily 1 pound of grain is fed for each 3 or 3½ lbs. of milk. In addition to silage and either clover or alfalfa hay the herd receives a grain mixture consisting of bran, cottonseed meal, oil meal, and either oats or corn. By mixing his own feeds the manager finds that he not only has a better grade of feed but that his feed bill is much smaller also. Regularity in time and manner of feeding are matters of prime importance. The cows are fed grain and silage before they are milked. They are milked at the same hour, both morning and evening. After they are milked the cows are fed roughage, bedded, and watered.

Production

Every cow in this herd is making a profit. Daily milk records and extensive notes are kept of each cow. No cow is considered profitable unless she produces at least 5,000 pounds of milk in a year. Although the production of these cows is not unusually high, the encouraging thing about it is that the average production per cow is being constantly increased. The daughters almost invariably give more milk per year than their dams. Many of the cows are now producing more than 50 pounds of milk daily. It is expected to do some more official testing this year. During the official test which ended last year, the cows were given ordinary care and feeding and were milked only twice a day, and with the milking machine at that. All of the cows on the test made Class AA in the Register of Merit.

Mr. Beelman has several practices which he has adopted because they have proved helpful in his experience. A few years ago many of the cows in the herd had udder trouble during the winter. Mr. Beelman believed this was caused by standing on the cement floor all the time. To overcome this he puts a layer of planks on the cement in the fall and leaves it on until the cows are turned out to pasture in

(Continued on page 714)



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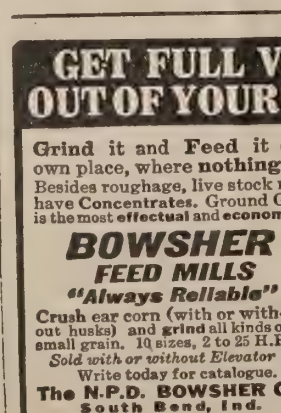
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The Rural School—A Center of Community Service

GEORGE F. COMINGS, WISCONSIN

"We must learn, we freemen, to meet as our fathers did, somehow, somewhere, for consultation. There must be discussion and debate in which all freely participate."—Woodrow Wilson.

IN recent years quite a number of people from America have visited Denmark in order to investigate social conditions. As a rule, they eulogize the remarkable progress made in that far away country. One speaks of it as "a little country filled with a contented, happy people." Another as "a farmer ruled country with everything done co-operatively." Still another as "a country where there is practically no illiteracy, very little poverty, the largest per capita savings bank deposits of any country in the world, where ninety per cent of the farms are owned by those working them, and where the most efficient, orderly, and economical system of marketing prevails."

Dr. Frederick C. Howe, Commissioner of Immigration at the port of New York, in his book "The High Cost of Living," says: "Denmark has few persons of great wealth and relatively little industrial life, but more has been done for education and intelligent co-operation than in almost any other country in the world. How was this brought about in the face of a niggardly nature, of a chilly, inhospitable climate, in a relatively poor state surrounded by greater powers?

"The movement began with education—a strange kind of education that has no exact counterpart in the world. Bishop Grundvig was the leader in this educational movement. He insisted that the schools of the country should be agricultural and the culture of the country should be the culture of the farmer. Today there are eighty-two of these people's high schools in Denmark, each one of which is independent in its administration and each of which is the center of politics, of discussion, of propaganda, of agricultural training. Text books are but little used. Classroom work of the ordinary kind is of secondary importance. The schools idealize country life and the nobility of manual toil. To attend one of these schools is the ambition of the peasant. He is taught the history of his country. He learns the songs of Denmark. He acquires a strong body. In addition, the curriculum includes farm accounting, natural science, drawing, surveying, bookkeeping, and agricultural economies of all kinds. Around about the school are experimental farms. The student learns about agriculture and the conduct of the thousands of co-operative societies which are to be found all over Denmark. He acquires a love for farming and the scientific appreciation of its possibilities and joys."

The Danish farmer is the most intelligent farmer in the world. He has a culture of his own, gained from the emphasis which has been put upon farming by the nation. As a result of education, a widely read press, and endless political organizations and discussions, the farmer has become the ruling class in the state. He dominates parliament. Members of the ministry are chosen almost exclusively from among the peasants, and the railroad, taxation, and social legislation are directed to the intelligent upbuilding of agriculture.

To halt the decay of agriculture taking place in the United States, to turn back the rapid sweep toward farm tenancy, a much better, more practical education for rural people is needed, and a thorough, all-inclusive organization of social forces in rural communities is demanded. Why has so little been done to unite the common forces? Why in an era of organization have the farmsteads remained unmoved, hardly touched by the great socializing forces?

We believe that in Wisconsin, where the land will permit, districts should be formed, without delay, equal in area to the ordinary township. (Six miles square.) At some central place where roads converge should be a bit of land, owned collectively, on which a fine school building and a residence building should be erected; the school building for community use, the residence as the home of the school superintendent—township advisor—and his corps of helpers. This school building should contain a fine auditorium, stage, etc., for by and by the movies, the finest educational force we have, will be a part of our educational system and be used to instruct, to please, to spiritualize instead of profit-mongering by appeals to the low, the sensual, the vulgar. In our school building, too, there should arrange for a marketing department.

Imagine, if you will, living in a consolidated school district and agreeing to co-operate for mutual good and advancement, are one hundred farmers keeping one breed of hens, developing them for large production. Suppose that on the average they keep eighty hens each and through the service and help of their township advisor produce an average of seven dozen marketable eggs per hen. This is only about one-half as many eggs as can be produced where good methods in breeding and feeding are followed, and only one-half of what may be expected in years to come as a result of intelligent, organized effort.

The eggs from our hundred farms are brought promptly to our school marketing department, where they are standardized and put upon the market as a certified product at an average of five cents per dozen better price than if marketed in the old-fashioned way. Our statement for the year may be as follows:

100 farms keeping 80 hens each, total 8,000 hens; 8,000 hens producing seven dozen eggs each, 56 dozen; 56,000 dozen eggs sold at a premium of 5c, $2,800.

Two thousand eight hundred dollars extra received for eggs is sufficient for the salary of a first class man who can live in that community and give his entire time to its upbuilding. Better than the two thousand eight hundred dollars saved, or even better than ten thousand dollars, is the fact that one hundred farmers are beginning to be Christians; for Christianity means going to market with good eggs instead of with blood-ring eggs. The most vociferous shouting "Amen! Glory to God!" in the prayer room meeting will not atone for bad eggs sold the following day in the market.

On our land, collectively owned, shall be carried on much experimental work in a small way. Each week during the summer vacation the children of the district shall meet at the school building, two or three afternoons from four to eight o'clock, for lessons in agriculture, under the direction of the township advisor.

n evenings each week, all the year
nd, plays, dances, and the movies
ll be used to develop the dramatic,
l artistic, the musical talents of the
mmunity.

Another feature we must plan for
a part of our community life cen-
ed in the school: On every farm, in
l near future, will be found several
es of gas engines, from the six
nder down to the smaller size used
run the separator or the pumping
k. Every winter a course of ten
ifteen lectures with practical dem-
tration work shall be carried on
ler expert guidance. In this de-
tment a larger saving is possible
100 farmers than is indicated in
marketing department for eggs.

n many localities across the road
m the school can be a community
ese factory, creamery, and laun-
, with one water and heating sys-
for all these industries, which
be used for the families in that
mmunity.

esides the social gatherings we
have games of basketball and
er recreational activities provided
in our community center, quite
uent Sunday afternoon programs
which the whole community shall
part, singing of national songs,
tations, lectures, explanations of
erimental efforts, discussions of
tical policies. Through these fre-
nt associations a real oneness of
pose for social justice and frater-
relation would result, the tides of
would flow, the common forces
ld be united, and a real communi-
would be created.

o spend four years during the
impressionable period of one's
surrounded by the professional
of a village high school, where
manners are followed, where as
bert Spencer declares are methods
establish an aristocracy of let-
," the movies, late hours, the ar-
ial glamour and excitement of
life, the ambitions for a profes-
al career, always and everywhere
red to in all our conventional in-
itions, is a splendid training and
ronment to lead from the farm
give the view that country life is
le", insipid, and to be forsaken.

recapitulate: to develop an in-
gent, contented, home-owning, ru-
lass is the most important ques-
for us to consider. Every civi-
ion that has toppled over first al-
d its agricultural interests to be
royed. The poet long ago wrote:

ares the land, to hastening ills a prey,
e wealth accumulates and men decay.
es or lords may flourish or may fade;
ath can make them as a breath has made;
bold peasantry, their country's pride,
once destroyed can never be supplied."

bring back the people to the
farming must first of all be made
table. An organized, satisfying,
l life must be developed. Every
nunity has an abundance of dor-
talent; the great crying need is
rship. A perfected and intelli-
democracy will much sooner sub-
he world than the largest battle-
or armaments.

r fine school building, our local
t, our all the year program, our
ed superintendent—township ad-
—furnish the material and lead-
p. Have we the vision, the faith,
and dare? Dare we believe the
n Rule a workable proposition?

Brood Sow Rations

ARD'S DAIRYMAN:—Please ad-
me as to the best ration for
ng brood sows in good condition.
much should the ingredients be
sed prior to the weaning of the

lalia, Mo. L. W. W.

en we first came to the Iowa
n and took charge of the Ani-
Husbandry Experimental work
in 1910, one of the first things
d was to start some brood sow experiments with the object in mind of working out more efficient rations for the production of good, strong, healthy pigs at farrowing time; pigs that have big bones, good coats, and are of normal development.

We wanted the ration to be as cheap and economical as possible, and yet to be effective in the production of new-born pigs, and also effective in the carrying of the brood sows through the gestation period.

There are a number of good brood sow rations. We have found that out in our eight years of experimental work. But we have found that in using the ordinary grains as a basal feed that the brood sow ration during the period of pregnancy should be supplemented with either milk products or meat products or leguminous or clover products, if the best results are to be secured. We refer now to winter feeding. In the summer time, of course, good results can be secured by running on pastures other than legumes, such as young, green, tender bluegrass, luscious Dwarf Essex rape, and others. We particularly emphasize the rape because it has many of the characteristics of the legumes.

Some good rations, therefore, that we have worked out are about as follows: Corn enough to keep the sows in the condition required as regards fatness, plus one-fourth to one-half pound of meat meal tankage per head daily; or, instead of using the meat meal tankage, one can use from five to ten pounds of skimmilk or buttermilk or one-half to one pound of alfalfa hay, preferably of the leafy sorts. Usually the third cutting is best.

We tried using oats to balance up the corn ration, but as a lone supplement to corn it is unsatisfactory, as are wheat middlings. So is corn gluten feed; so is linseed oil meal. However, any of these good partial supplements, such as oats, wheat middlings, or linseed oil meal, can be fed in conjunction with milk, tankage, or alfalfa hay to balance up the corn ration. Barley will be balanced up like the corn, inasmuch as barley and corn are so nearly alike. The same is true of wheat, kafir, milo maize, and feterita, and other similar grains.

If one prefers not to supplement his grain ration in the winter time during part of the gestation period, he can perhaps get along all right, but it should be emphasized that during the last 60 days of pregnancy, or two months, before the pigs come, the brood sows should be fed particularly well, because during the last half of the pregnancy period practically 90% of the dry matter of the fetus is laid down.

After the sows farrow their pigs, some good rations for them would be as follows: Ordinary grain, such as corn, ground barley, ground kafir, ground milo maize, etc., in conjunction with skimmilk or buttermilk or meat meal tankage in dry lot or on pasture. If on pasture, such as alfalfa, red clover, rape, tender blue grass, much less milk and tankage will be required than where the pigs are allowed to have the run of the best pastures. In addition to this basal ration containing the ordinary grains, a combination of milk or meat products with wheat middlings, linseed oil meal, or ground oats can be used satisfactorily.

We like to self-feed our suckling sows with litters, and have had excellent success with these feeds self-fed: Shelled corn and meat meal tankage self-fed free-choice style in conjunction with five to ten pounds of skimmilk or buttermilk per sow with litter daily. Ground barley may be substituted for corn in the above ration, while other substitutes would be hominy feed, sorghum, kafir, milo maize, etc.

JOHN M. EVVARD.
Iowa Experiment Station.



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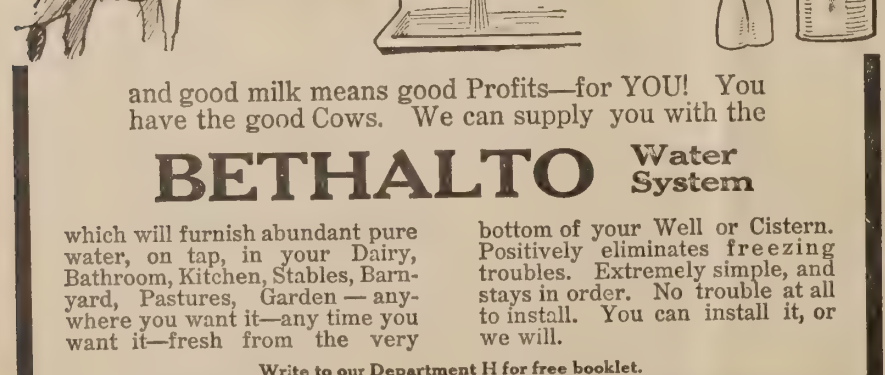
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Write for Illustrated Bulletin

Cow Testing Association

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Penn.	Eastern Bradford	M. E. Neal	Oct.	328	14	61.3	C. W. Newman
"	Canton	B. E. Whitney	"	440	23		L. D. May
"	Lawsville	W. A. Warters	"	400	10	49.3	E. Tiffany
Wis.	Sheboygan Falls	E. P. Lindow	"	374	3	48.3	E. G. Mog
Vt.	Rutland	C. A. Wheeler	"	636	4	49.0	Vt. Sanatarium
"	White River	W. E. Parsons	"	234	23	68.5	Quechee Falls 1
"	Craftsbury	P. E. Bassett	"	332	9	50.2	J. H. Findlay
"	Lamoille Valley	Harland Gage	Sept.		13	50.4	D. G. Speir
"	Lamoille Valley	Harland Gage	Oct.		17	70.4	T. J. Bronson
"	Lamoille Co.	M. L. Lashua	"		4	50.4	Willey Bros.
"	No. Chittenden	C. N. Howe	"	403	4	66.7	G. M. Nelson
Ohio	Geauga	Claude Spencer	"		33	64.0	F. Wilmont
N. J.	Middlesex—Somerset	J. G. K. Duer	Nov.	395	17	33.4	Forsgate Farms
Va.	Orange	R. S. Gillispie	Oct.	360	38	62.0	Wambersie & Cooper

Association Notes

Eastern Bradford, Pennsylvania:—In October market milk was sold in this community for $3.51 per hundred. The average test was 3%, and for each point above, 4 cents were paid. The creamery paid 59 to 62 cents per pound fat, and the cheese factory $3.15 per cwt. Butter retailed for 60 cents per pound. Prices of feeds: Gluten, $2.75 to $2.90 per cwt.; oil meal, $2.70 to $3.15; buckwheat feed, $1.70 to $2.50; wheat bran, $1.95 to $2.10; hominy, $3.10; brewers grains, $3.25.

Canton, Pennsylvania:—Plans are going forward through the Bradford County Farm Bureau for the establishment of bull associations and tuberculosis-free accredited herds. Cow testing association work during the past five years in this county shows big results in better dairy profits. Milk sold for $3.73 per cwt. during October. The average test was 3% and 4 cents were paid for each point above test. Milk retailed for 12½ cents per quart and butter 60 cents per pound.

Sheboygan Falls, Wisconsin:—One member bought a yearling bull whose three nearest dams average 32.82 lbs. fat. He is out of a 27-lb. 3-year-old. The cheese factory paid $2.87 to $3.05 per cwt. for milk. Cheese sold at the Plymouth cheese board for 36 cents per pound. Gluten is $50 per ton; oil meal, $58; bran, $35.

Lawsville, Pennsylvania:—A Holstein bull association was started in Susquehanna County the past summer. In October market milk sold for $3.55 per hundred. The average test required was 3% and for each point above 4 cents were paid. The creamery paid 79½ cents per pound fat. Milk retailed for 13 cents per quart, butter 65 cents, and cheese 32 cents per pound. Gluten sold for $54 per ton; barley feed, $50; wheat bran, $45; corn meal, $60; cottonseed meal, $60; oil meal, $60; oats, $57.

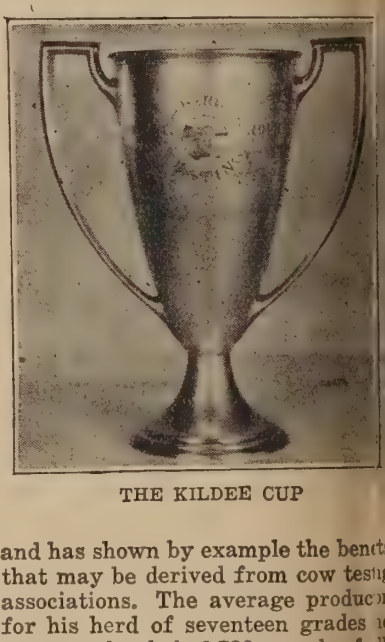
Middlesex—Somerset, New Jersey:—In November market milk sold for $3.85 per cwt., the average test required being 3%. Four cents were paid for each point above. Milk retailed for 16 to 18 cents per quart, and butter 70 cents per pound. Feed prices: Corn, $50 to $60 per ton; oats, $50; bran, $40 to $50; linseed, $57 to $65; Big Six, $65; Unicorn, $67 to $70; silage, $10; alfalfa $35; clover, $25 to $30; timothy, $27 to $28; beets, $10.

The Kildee Cup

The trophy donated to the Iowa cow testing associations by Professor H. H. Kildee was won this year by Mr. Ernst Dengler, a veteran breeder of grade Guernseys in the Davenport Association.

The doner of the Silver Loving Cup intended that it should give an added impetus to the improving of the grade dairy herds by encouraging selection through cow testing association records. The rules of the competition in brief are that the whole herd shall be entered for yearly work and shall consist of at least eight cows of which more than 75% are pure-breds.

Mr. Dengler is a most worthy winner of the contest because he has for many years used pure-bred sires and kept careful records on his cows. He has always been a staunch supporter of the cow testing association work



THE KILDEE CUP

and has shown by example the benefit that may be derived from cow testing associations. The average production for his herd of seventeen grades and two pure-breds is 6,729 pounds of milk and 333.2 pounds of butterfat.

In 1915 the cup was won by C. Bechtelheimer of the Pioneer Association, his Guernseys averaging 8,126 lbs. milk containing 378.2 lbs. fat. In 1916 Ernst Dengler took the honors with his Guernseys averaging 8,056 lbs. milk containing 382.6 lbs. fat. In 1917 the cup went to T. Hansen of the Benson Association, his Holsteins averaging 11,387 lbs. milk containing 406.7 lbs. fat.

Iowa. C. L. BLACKBURN

An Annual Report From Illi

The 2nd Lake County Cow Test Association completed its first year's work on November 1st, 1918. Twenty-four herds were tested during the year. With the exception of one or two, all the old members have signed for another year's work.

The improvement that has been made during the year in this association is surely a great credit to its members. Almost all of their unprofitable cattle have been disposed of and replaced by better and higher grade dairy cattle. Sixty-one head of pure-bred cows were purchased by the members during the year. Two-thirds of the members now own a few pure-bred cows.

By changing their methods of feeding and care for their dairy herds the increase in production after

cd month's work was enough evi- en to show the farmers that it ay to be a member of a cow testing sc ation.

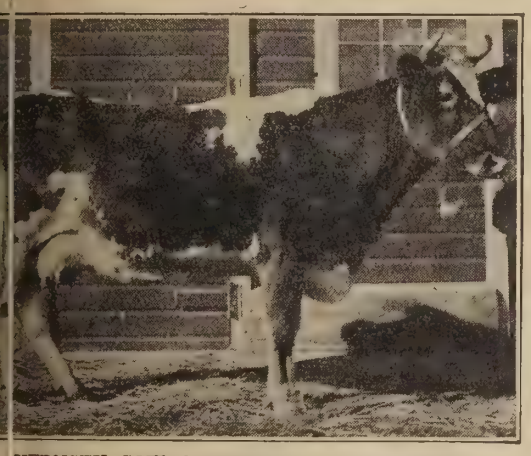
C ing to the uncertain milk prices nd igh priced feed last spring, hun- e of well bred dairy cows from al County were shipped to the od Undoubtedly the cow testing si ation repaid double what it cost si n knowing what cows to sell and h to keep. At the present time e mand is so great for dairy cows a enormous prices are being paid r iem.

T re are only two members who ot have a silo. The records in e ast year have shown that silage d of the cheapest feeds a dairy- an can feed. It requires less labor d nsures against the slump in the ll flow, especially in the summer n the pastures are poor and dry.

O the 495 cows entered on test r g the year, 260 completed a c l of 10 months or over, and 135 r sold. Of this number very few n sold as milkers; nearly all the p fitable cows were sold for beef.

T highest fat producing cow for e year was a grade Guernsey n l by H. A. Eggers. She produced 2 pounds of milk and 554.88 u s of fat in 11 months. Her feed l was $143.06; milk value 0 1; profit over feed $143.06, or 1 for every dollar's worth of c ed during the year.

T average production of the 260



UERNSEY COW, FLOSSIE OF FOX VALLEY
Year's record: Milk, 11,082 lbs.; fat, 578.17 lbs.
WNED BY FRANKLIN LAND & TIMBER CO., WISCONSIN

completing the year's work was pounds of milk and 282.47 s of butterfat, with an average 3.78%. The value of the milk ed during the year was $208.98 w and the value of feed per as $112.83, which shows a re- f $96.15 over feed. An average .85 return for every dollar's of feed fed.

highest milk producing cow year was a pure-bred Holstein Velmberc Ansher 2nd, (4-year- owned by the Osborne Farm. oduced 14,005 pounds of 3.45% nd 480.37 pounds of butterfat; of product, $393.54; value of $217.07; return above feed, 7, or a return of $1.82 per $1.00 fed.

honor of having the highest roducing herd goes to Rouse rs. Thirty-six grade Holstein averaged for the year 8,200 of milk and 303.40 pounds of at, the average test being 3.7 t. Value of milk, $230.42; val- eed, $127.10; return over feed v, $103.32, or a return of $1.81 ry dollar's worth of feed fed. honor of having the highest oducing herd goes to Haw- Farms. Their Brown Swiss 49 head produced an average 3 pounds of milk, and 322.65 of butterfat, the test being cent. This herd has led the tion for fat production for the e consecutive months.

The most profitable herd in the association per $1 feed fed was a herd of grade Guernseys owned by H. A. Eggers, which shows a return of $121.31 per cow (10 cows) over feed expenses, or a return of $2.13 for every dollar's worth of feed fed.

Also Lloyd Ritzenthaler's herd of grade Holsteins shows a very profitable return. Eleven cows averaged 8,351 pounds of milk, and 312.32 pounds of butterfat for the year. Cost of feed per 100 pounds of milk for the year, $1.50; average return per $1 worth of feed fed was $1.91, or a return of $112.12 for each cow over feed expenses.

Elmer Gosswiller made an excellent showing with his herd of grade cattle. Twelve head show an average of 6,106 pounds of milk, 3.70% test, 225.92 pounds butterfat for the year. Average cost of feed per 100 pounds of milk for the year was $1.46 and a return of $1.81 is shown for every $1 worth of feed fed. This herd was fed mostly on home grown rations, with the addition of oil meal and bran with silage and clover hay as roughage during the winter. Grain was fed in limited quantities.

R. WILLIAMS, Tester.

Flossie of Fox Valley 37627

Flossie of Fox Valley 37627, owned by the Franklin Land and Timber Company, Wisconsin, has recently completed a record of 11,082 lbs. milk and 578.17 lbs. butterfat. She began her test when three years old, and has carried a calf 365 days of her testing period, thus qualifying for second place in Class EE. She started her test June 21, 1917, while owned by George W. Browne, Wisconsin, and was sold February 6, 1918, to the Franklin Land and Timber Company. Although not a phenomenal milker, she was a steady worker, giving fifty-three pounds of fat in her first full month and forty-two in her last.

Flossie of Fox Valley 37627 was sired by Wedding Bells of Waukesha 16844, an Advanced Register sire. Her dam is Yeksa Dimple of Fox Valley 35123.—American Guernsey Cattle Club.

Condenseries to Receive Full Sugar Quota

By a recent order of the Food Administration, condenseries may now receive their normal requirements of sugar and new condenseries may be opened. The need of condensed milk abroad for the nourishment of the liberated nations and the Allies is officially reported to be extremely pressing. Shortage of feed and fodder throughout Europe has resulted in serious curtailment in dairy production abroad. Europe is expected to require butter and condensed milk from America in large quantities over a period of years.

Farmers of the United States are asked to prepare for furnishing the great quantities of milk that will be required by condenseries now existing in this country and those to be built.

Jersey Cattle Notes

For week ending Nov. 22, 1918:

Number of animals registered: Bulls, 150; cows, 462; total, 612. Number of transfers recorded: bulls, 201; cows, 600; total, 801.



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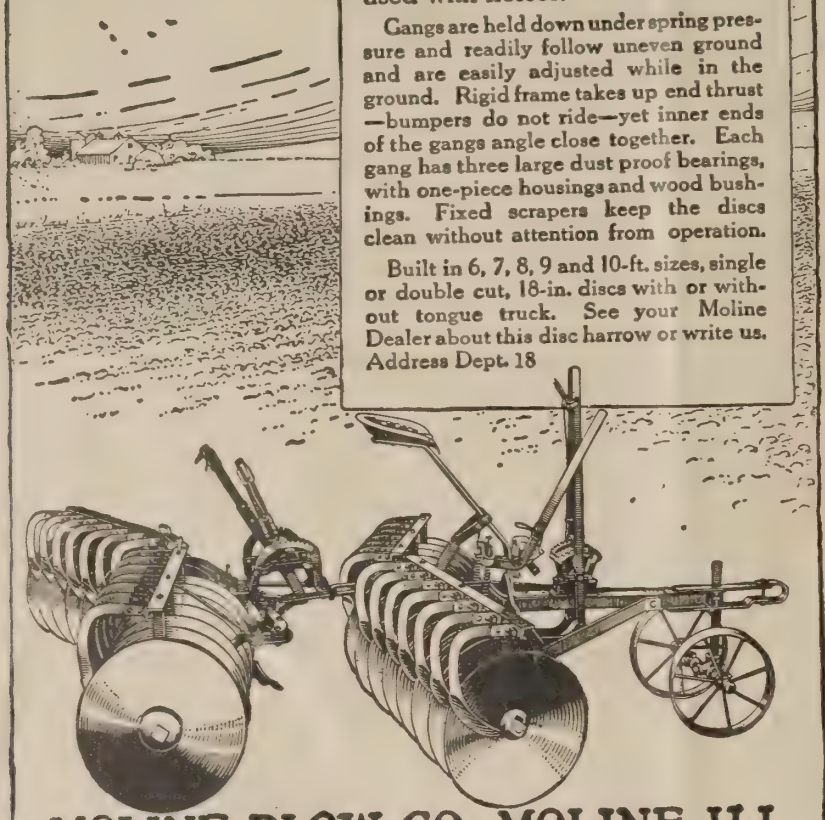
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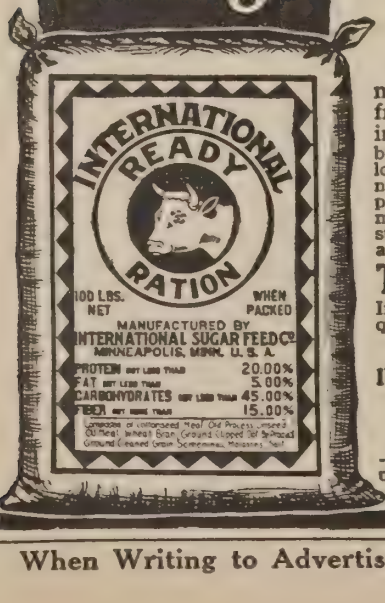
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Maine Dairymen and Breeders' Meet

HOARD'S DAIRYMAN:—The annual meeting of the Maine State Dairy Association, the Maine Pomological Society, the State Seed Improvement Association, and the Maine Breeders' Association, together with the New England Fruit Show, was held in City Hall, Portland, Nov. 18 to 23, with a fine attendance and an excellent display of farm products, particularly of fruit.

The exhibits of the boys' and girls' agricultural clubs were especially attractive. Particularly so was the display of canned fruits and vegetables which filled one of the large rooms. Each county was represented and the arrangement of the fruit by counties enabled one to locate particular exhibits of special interest to the observer. The girls of Maine certainly know how to can fruit, not only so it is good to eat but handsome to look at.

Dr. A. O. Thomas, State Superintendent of Schools, gave a talk on Rural Life which was the principal address of the first evening. The speaker referred to the trend of the country towards the city due to the hard work of the farm, its isolation, and lack of school facilities. However, he had faith in the state of Maine and its agricultural possibilities, praised the high standard of its products, and pressed home to his hearers that the two most urgent needs of the rural community were better schools and better roads. The time was coming when the rural teacher would be paid a salary that would compensate her for the self-denial practiced in teaching in isolated sections and the farm would at no far distant day be brought nearer the city markets through the medium of quick transit over "truckable" roads.

The meeting of the Dairymen's Association opened Tuesday. At the business meeting the officers chosen were: L. C. Holstein, Cornish, president; J. A. Ness, Auburn, vice-president; H. M. Tucker, Yarmouth, secretary; F. S. Adams, Bondoinham, treasurer; L. E. McIntire, Waterford, trustee.

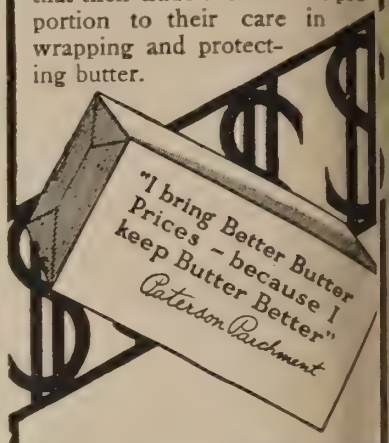
Dr. J. A. Kiernan, Chief of Tuberculosis Eradication Division of the U. S. Bureau of Animal Industry, spoke at the afternoon session. He stated that out of 40,000 hogs tested, ten per cent were found tuberculous and that last year the country lost 25 million dollars through this disease. The percentage of tuberculous cattle in some places in the West and in the East was as high as 75 per cent. Since 1910 Washington, D. C., had reduced its percentage of tuberculous cattle from 19 per cent to less than one. This had been accomplished by elimination, correct enforcement of sanitary conditions, isolation of infected stock, and purchasing new stock only from herds known to be healthy.

One thing Professor Kiernan objected to was allowing affected stock to be moved from one state to another. By this means the state with low percentage was menaced by an influx of infected stock. He would treat a section according to its percentage of tuberculous animals. If a low percentage, he would have those reacting killed and their owners indemnified; if medium percentage prevailed he would practice the method used in the District of Columbia; if as high as 75 per cent he would test out the clean cattle and herd them together; the others he would place under state supervision as tuberculous herds. With her herds carrying a low per cent of tuberculosis, Maine would have every state in the Union at her doors to purchase stock instead of those alone in her immediate neighborhood.

Professor P. A. Campbell, manag-

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r of Ayerdale Stock Farm of Ban-
r, spoke on "Upbuilding of the
iry Herd Through Breeding". Bet-
sires were advocated and the re-
tion in the herd of only cows that
re producers. To be an efficient
oducer he thought a cow should av-
ge a calf a year and give annually
least 6,000 pounds of milk.

At the evening meeting Arthur W.
lbert of Boston, a member of the
deral Milk Commission, spoke with
ference to the necessity causing a
cent increase in the price of milk
d the difficulty of fixing a price at
ce fair to all concerned. The price
not go much higher without driv-
g the public to the use of substi-
es. Mr. Gilbert urged a closer co-
eration among dairymen that they
y be able to handle the business to
e best advantage.

Richard Pattee of Boston, secretary
d manager of the N. E. M. P. A.,
s the last speaker. He told what
is organization had accomplished
the past year. Among its accom-
shments was the banding together
15,000 dairymen whose spokesman
was. It had kept the industry up
ring a period of depression and but
r it many herds would have been
crificed and their owners out of
siness. It had standardized the
siness, encouraged other branches
agriculture, promoted co-operative
rchasing, and, lastly, through its
gressive and progressive work it
d brought the northeast farmers
ring the past year $3,000,000 they
ver would have had without it.

The Breeders' Association met Fri-
y and elected the following: A. E.
dges, Fairfield Ctr., president; E.
. Morton, Orono, secretary; Arthur
. Ellis, Fairfield, treasurer. The
yrshire breeders chose J. B. Hod-
ns, Lewiston, president; J. F. Dean,
rtland, vice-president; J. A. Ness,
burn, secretary and treasurer. The
ecutive committee chosen were: J.
Dunn, N. Yarmouth; H. S. Day,
wiston; E. W. Files, Portland; A.
Rickser, Poland Springs.

H. W. Bailey, Superintendent of
mmit Farm, Davidson, spoke on
eeding Problems. Mr. Bailey em-
asized the importance of selection
ith a view of improving the herd—a
od sire and females for foundation
ock should be chosen with care.
od or ill to the stock results from
redity; while feeding, care, and
anagement have an effect on size
d constitution; good environment
d liberal feeding increase size and
pacity in a given family. As an aid
choosing a sire the official records
d individuality of his dam, gran-
m, and near dams should be exam-
ed. The cows used as foundation
r the herd should have strong con-
itution, large digestive capacity,
ell developed udder, large, full milk
ins, large muzzle, wide forehead,
d large eyes. The highest produc-
g animals are line bred but the
eaker warned that care should be
rcised as there is the same tend-
cy to make defects more marked as
ere is to emphasize good qualities.
changing sires he would use a bull
om the same paternal source but
om a different dam or a bull from a
lf sister to the first one's sire.

Friday evening Secretary of Agri-
lture Houston and Senator Hale
ere guests at a banquet tendered
me 300 farmers by the Portland
armers' Club in Congress Square
otel. Col. F. N. Dow, president of
e club, was toastmaster and intro-
ced the two distinguished guests.
enator Hale in his talk spoke of the
lan to have the returning soldiers
ho desire to do so settle on farms,
e government buying tracts of
000 acres each to be divided into 50-
re farms; the men to be paid for
orking them and to have the privi-

(Continued on page 716)



Successful Farmers

like Unicorn Dairy Ration because it brings out all the milk the cow can make. Just the feed to use with your home grown grain or alone.

During the cold, harsh, trying winter months every cow needs the best nourishing feed. She must maintain her bodily vigor as well as her bountiful flow of milk.

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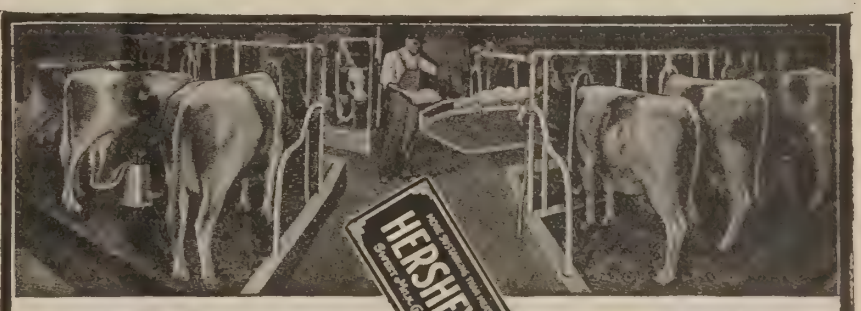
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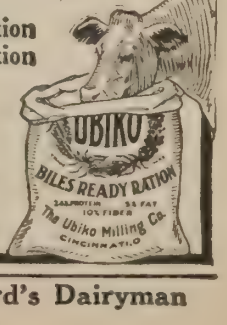
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Montana Dairyman Killed

HOARD'S DAIRYMAN:—The state of Montana has lost one of her leading dairymen in the person of Ralph E. Logan of Stevensville who was killed at his home, October 22nd. From the meager reports at hand, it seems that he was engaged in tearing down a shed on his farm and when the building was about to fall, he noticed that the little daughter of one of his neighbors was directly in line of the falling timbers. In his effort to save the child, which he did, he was himself caught by the beams which broke his back. He was immediately taken to the hospital at Missoula, where, though provided with the best of medical attention, he died several days later.

Mr. Logan was one of the leading Jersey breeders and show men of Montana. He was vice-president of the Montana State Dairymen's Association, in which he was a very active and loyal supporter. He was a young man of thirty-six and had only started in his career as a stockman, yet had succeeded in building up a splendid herd of Jersey cows. It was Mr. Logan's hope to have the best herd in the West, and that he was well on the way toward the realization of his ideals is evident from the records of his herd.

Mr. Logan was a young man of high ideals and sterling character and an untiring co-worker for the upbuilding of the dairy industry of the state. His loss will be felt not only by his neighbors in the Bitterroot Valley but by every dairyman in the state.

G. F. MARTIN.

Montana College of Agriculture.

New York Butter Market

NEW YORK CITY, DEC. 3:—While quotations have continued to advance during the past week, the market is very quiet today. That condition is due to several causes, the principal one of which being increased receipts due to the arrival of butter which was held up in transit last week to allow shipments of poultry to reach New York in time for the Thanksgiving trade. In addition, and as has been anticipated, the consumer is beginning to let down to a considerable extent in his purchases which naturally causes a nervous condition to prevail. On top of all, receivers of butter are unwilling to take much risk on accumulated stores and are attempting to force some sales which always has a weakening effect. With increased receipts, more high quality butter has become available than during the past few weeks and dealers have become fairly well stocked with it. Under existing conditions they do not feel it wise to accumulate any quantities greater than actually necessary for them to keep their customers supplied because they feel that some day, as from a clear sky, the market is going to witness a great decline in values. While under conditions of war it was not felt that there would be any marked change in quotations on any single day, that feeling of security is greatly lessened with the discontinuance of actual warfare.

Last week Wednesday saw the quotations on extras and higher scoring butter advance a half cent. That was followed by advances of one cent on Friday and a half cent on Monday of this week. Today, however, because of factors cited above, the price was lowered a half cent, and practically all activity ceased. It is very noticeable that as soon as quotations begin to retreat buyers are noticeable because of their absence. We will undoubtedly witness further decreases in price within the next few days. These are the days when butter receivers feel the responsibilities of their positions. At the close today established quotations were as follows: Extras (92 score), 67½@68c; higher scoring than extras (93 score or above), 68½@69c; firsts (88 to 91 score), 61½@67c; and seconds (83 to 87 score), 57@61c. Unsalted butter continues in active demand with quotations on the usual basis as compared to those of salted butter. Naturally the decrease in price also affects its sale somewhat as buyers wait for still further decrease in prices when the market shows a weakened condition. W. B. LIVERANCE.

Prevailing Milk Prices

November milk prices paid New England producers of milk for direct consumption averaged $4.06 per hundred pounds for 3.5% milk, an increase of 27 cents over the October price, the range in price being from $3.86 to $4.53. These figures were secured by the Bureau of Markets of the U. S. Department of Agriculture from reports received from 35 different markets in those states. Average prices for milk of like test for other divisions are reported as follows: Middle Atlantic, $3.89; North Central, $3.58; South Atlantic, $4.30; South Central, $4.03; Mountain & Pacific, $3.58. The greatest range in prices, $3.73 to $5.65, was found in the South Atlantic States.

Prices per quart of "standard grade" milk received by producers and paid by consumers in several widely scattered sections of the country during the month of November, according to the report, are as shown in the following table:

Market	Producer receives per quart Cents	Consumer pays per quart Cents
San Francisco, Calif.	7.7	14.0
Denver, Colo.	7.5	12.0
Washington, D. C.	10.5	17.0
Jacksonville, Fla.	11.2	18.0
Chicago, Ill.	8.7	14.0
Indianapolis, Ind.	7.5	13.0
Des Moines, Ia.	7.8	15.0
Kansas City, Kans.	8.7	14.0
New Orleans, La.	9.5	16.0
Boston, Mass.	9.7	16.5
Detroit, Mich.	7.9	15.0
St. Paul, Minn.	8.1	13.0
St. Louis, Mo.	9.1	14.0
New York, N. Y.	9.1	16.0
Cleveland, Ohio	8.7	15.0
Eugene, Ore.	7.5	14.0
Pittsburg, Pa.	9.8	15.0
Philadelphia, Pa.	9.1	14.0
Memphis, Tenn.	8.5	16.0
El Paso, Tex.	9.9	20.0
Salt Lake City, Utah	7.1	12.5
Spokane, Wash.	7.9	15.0
Milwaukee, Wis.	8.7	13.0

The prices quoted for producers are for milk F. O. B. city and to get the actual price the various transportation costs must be deducted. In Chicago producers are paid 8.7 cents per quart F. O. B. city, whereas the producers actually receive 7.9 cents at their country shipping station; like variations occur for other cities according to the transportation costs. The prices given are based upon an average test of 3.5%, a differential of 4 to 5 cents per point being paid for higher tests. The consumer's price is for milk bottled in quarts and delivered. Comparison with October prices may be had by referring to a similar report appearing on page 555 of our issue for November 15th.

The following F. O. B. city prices are reported to have been agreed upon by producers and dealers for December: Los Angeles, $4.28 per hundred for 4% milk; Detroit, $3.69 per hundred for 3.5% milk; Atlanta, $5.65 per hundred flat price; Philadelphia, $4.71 per hundred for 4% milk. The New York price in the 150-mile zone is $4.06 per hundred for 3% milk.

Certified milk retails in Boston for 24 cents per quart, in New York for 22 cents, in Philadelphia for 27 cents, in Chicago for 21 cents, and in San Francisco for 20 cents. Dealers in these same cities sell buttermilk at 8 to 11 cents per quart, special fermented milk for 10 to 15 cents per quart, cottage cheese for 10 to 30 cents per pound (average 15 cents), 15 to 20% cream for 14 to 18 cents per half pint, and 22 to 30% cream for 15 to 27 cents per half pint.

Secretary Houston Wants Better Roads

The value of good roads as a means of making farm life more attractive and more profitable, as also the particular desirability at this time of the resumption and extension of their construction, was emphasized by Secretary Houston, of the U. S. Department of Agriculture, at his recent conference with the editors of farm journals. On this subject he spoke as follows:

"We must resume as quickly as possible, in full measure, the operations under the Federal Aid Road Act. You understand why they had to be contracted during the war. It is highly important that they be resumed. I need not emphasize before you the fact that good roads are prerequisite for better agriculture, for orderly distribution, and for a healthful and attractive country life.

"From unexpended balances of federal appropriations for the last few years, from state funds beyond what was necessary to meet the federal allotments, and from amounts available during the current fiscal year, shall have for expenditure during calendar year approximately $75,000,000. Next year, if all the bala should be expended during this and we would have to rely solel the funds accruing next year, we have from federal appropria about $20,000,000 and probably than this amount from state sou The states, in addition, will ex sums in excess of what they hav signed, or will assign, for federa road projects.

"It seems to me that we should even a further step—take this not only because of the importan good roads, but also because of th sirability of furnishing worthy jects on which unemployed labor ing the period of readjustment ma engaged. There will be many th suggested for which federal and funds will be sought. Some of will be unworthy. Clearly such p works as roads are worthy, ar would be in the public interes make available larger appropria from the Federal Treasury, to be separately or in conjunction state and local support.

Necessary Machinery Already E

"There need be no delay in the cution of such a program. The n has already provided the machi in the Department of Agriculture in the state highway commiss The Federal Aid Road Act was f ful of good legislation and each in the Union now has a central h way authority with power and f to meet the terms of the Federal The two agencies, in conjunction, been engaged in devising well co ered road systems and in making veys, plans, and specifications. task will be one of selection and roads should be designated for provement which are of the gre economic importance, with due re to such military and other neec are proper for consideration. The no necessity for any departure this scheme.

"The suggestions made have canvassed with the President, Secretary of War, and the Post ter General, and they are in a with the view that additional f should be made available to this partment and that they should b pended through existing machin

Rutabagas for Succulence

Kindly compound a ration following feeds: Bran, ground ley, oil meal, and if improving it terially could put in some gr oats. Have about 3 tons rutab early cut and best cured clover timothy mixed hay and some alf Cows are giving 20 to 30 lbs. testing 4 to 5% fat. Have no s this year.

Elcho, Wis. A.

We would suggest that each be fed daily about 30 to 35 lbs. of abagas, and we would advise fee 45 to 50 lbs. if the supply is suffi to last through the winter and grass comes. In connection with let each one have all the timothy clover hay she will consume wit waste.

A mixture consisting of 300 bran, 300 lbs. ground barley, 100 ground oats, and 100 lbs. oil meal supplement this roughage very Feed about 1 lb. for each 3 to 3½ of milk produced. Cows produ 5% milk require a little more g feed than those producing 4%.

Jersey Cattle Notes

For week ending November 29 Number of animals registe Bulls, 143; cows, 486; total, Number of transfers recorded: B 125; cows, 408; total, 533.

Sale Announcements

Dec. 14—Jerseys. D. V. Vandiver, Columbia, Mo.
Dec. 18—Guernseys. G. W. Adams, Nashotah, Wis.
Dec. 19—Holsteins. Sanborn & Rigby, Fonda, Iowa.
Jan. 7-8-9, '19—Holsteins. Moyer's Holstein Sale, Earlville, N. Y. H. A. Moyer, Director, Syracuse, N. Y.
Jan. 7, '19—Holsteins. Rock Brook Farms Dispersion at So. Omaha, Neb. H. C. Glissmann, Sta. B., Omaha, Neb.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Live Stock Sanitarians Meet

HE twenty-second annual meeting of the United States Live Stock nitary Association was held in Chi-go, December 2, 3, and 4. The rpose of this association is to dicate infectious diseases from live ck of the farm. The membership is de up largely of sanitary officers d veterinarians and a few live ck owners. The subject of destroy-g disease among our live stock is of al interest to the owners and more them should have a part in the rk of this association.

This year's meeting had a large tendance and was made up of repre-ntatives from all parts of the Unit-States and Canada.

In a gathering of this character ny of the subjects discussed are chnical and have little application r the owner of live stock. But out these discussions is coming a bet-r understanding of the handling of ntagious and infectious diseases of ve stock, and this is what concerns e practical stock man. Many of the en who belong to this association e engaged in experimental work and nsequently present much material r discussion and there follows nat-rally much difference in opinions. It only when investigations have been rried far enough to establish facts, ncerning the handling and treat-ent of a disease, that the entire embership agrees.

The work accomplished in establish-g tuberculosis-free accredited herds encouraging. It has taken many ars to come to a common under-anding of this disease and to provide uniform system of tuberculin test-g and handling tuberculous herds. ast year rules and regulations were lopted by the association for eradi-ting tuberculosis and establishing berculosis-free herds and they have en adopted in all the states. This as systematized the work of tuber-ulosis eradication and splendid prog-ss has been made during the last ar. This year the only modification at was made in the rules and regu-tions for tuberculosis-free accredit-l herds was the striking out of the word pure-bred. This was done for the purpose of permitting all grade herds as well as pure-breds to be accredited, if their owners so desired.

Contagious abortion, as in former years, was discussed but nothing new was offered as a treatment. No cure for this disease has been found, but isolation of aborters from the herd, proper sanitary conditions, that is, clean barns, stalls, etc., the use of disinfectants, and proper feeding have brought satisfactory control in many herds. There are those who hold that the feeding of mineral matter, such as bone meal, ground limestone, peat, and a salt of potassium, is of value. Milk is rich in mineral matter and it is reasoned that the high producing cow requires more mineral matter than her ration provides.

Much discussion was given to controlling the sale of tuberculin, hog cholera serum and virus. Permitting everybody to buy these products has in some instances produced fraud and spread disease. Tuberculin is used by unscrupulous veterinarians for hiding tuberculosis in animals suffering from the disease. The practice of dishonest men brings the tuberculin test into disrepute and makes the work of the honest veterinarian more uncertain and often valueless. Resolutions were passed requiring that the sale of tuberculin, hog cholera serum and virus be placed in control of state and government officials. The purpose being to prevent the incompetent and dishonest veterinarians from purchasing any of these products.

It was again brought out at this meeting that the best way for the live stock owners to keep their herds free from disease is through cleanliness. Keep the barns and yards free from manure; whitewash and disinfect the barns and stalls; and quarantine sick animals. Dirty hog wallows are conducive to many hog diseases.

The officers elected for the ensuing year are as follows: President, Geo. W. Dunphy, Lansing, Mich.; vice-presidents, John H. McNeil, C. B. Fitch, J. H. Anderson, O. H. Eliason, and A. W. Whitehurst; secretary-treasurer, S. H. Ward, St. Paul, Minn.

lational Dairy Council Meeting

The annual meeting of the Nation-Dairy Council was held in Chicago hursday, December 5th. About 75 ersons were present, including mem-ers and others interested in the de-elopment of the dairy industry. The mmittee of seven appointed by Mr. . D. Aitken, chairman of a dairy nference held in Chicago last May, ade its report. In substance, it rec-mmended that the Board of Direc-rs of the National Dairy Council e enlarged in order that a greater umber of representatives of nation-and state dairy organizations uld have a place on that Board. The commendation was accepted. A otion was then made and carried to mend the constitution of the Na-onal Dairy Council so that a larger oard of Directors could be provided.

In discussing the committee's re-ort, two views were held regarding ays of securing confidence and sup-ort of the National Dairy Council. ne group advocated that the en-rging of the Board of Directors so at national and state dairy associa-ons could have a representative on ie Board was the quickest and best ay of getting the Council into active ervice. These men held that this ethod would provide a representa-ve Board of Directors.

The other group believed in calling gether dairy representatives selected from the several states for the purpose of reorganizing the National Dairy Council and making it from its inception a representative organization of the dairy industry of the nation. Those who believed in the plan of calling together representatives from the several dairy states were in the minority, and the meeting proceeded to elect the Board of Directors by those present.

It was impossible under the system advocated by the first group to complete the Board of Directors on the day of the meeting, as it will be necessary for several associations to select their representatives upon the Board. The Minnesota and Iowa State Councils, having been advised of the meeting, were prepared to elect directors on the Board, but the Wisconsin Dairy Council, not having notification of the meeting, was not prepared to elect its member upon the Board of Directors. There was no uniform method for providing a Board of Directors. When the committee of seven was appointed, it was generally understood that it would provide plans for a larger educational campaign in behalf of dairy products and would suggest ways of bringing about a larger co-operation of the dairy interests. We have the same organization and the directors were selected in much the same manner as before by the Council, except that a few national and state organizations will be permitted to select their own directors on the Board.

It is our opinion that a splendid opportunity for advising the various branches of the dairy interests regarding the purpose and object of the National Dairy Council has been lost. It would have been to the benefit of the dairy industry to have called together representatives from the various dairy organizations of the several states that they might discuss the importance of an educational campaign in behalf of dairy products, and in this way come to a higher appreciation of the work of the National Dairy Council. Every state, where dairying is at all prominent, has dairymen's associations, state breeders' associations, and a few states have dairy councils, and there are various other state organizations. The colleges of agriculture, dairy and food commissions, secretaries of children's welfare associations, superintendents of public instruction of the several leading dairy states should be invited to attend a meeting of this character. There are, also, national organizations which would be only too glad to select men to represent them at a great national gathering.

It does not seem to us that the wisest and broadest course was followed for bringing about harmony and confidence in the work of the National Dairy Council. It was held by those who desired to elect directors of the Council with the few present that it would be next to impossible to bring about a representative meeting of the dairy interests. We can not agree with this view, for we do not know of any subject that is of deeper interest to all men who are concerned with dairying than the educational campaign to inform the consumers of this country regarding the food value and importance of dairy products. The few men who gathered at this annual meeting were not chosen representatives of the dairy industry of the states from which they came. Most of them came to the meeting of their own free will and proceeded to elect a board of directors to carry on the work of the Council. Good men were selected, but not in the way to make them a representative body of the dairy interests.

The National Dairy Council has a splendid work to do and the dairy industry needs the support and leadership of such an organization. We hope that it will be able to serve the dairy interests effectively and in time become a representative organization of the nation's dairy industry. This can be accomplished if every state will organize its forces and select a director and every national organization be given a representative on the Board.

The Wisconsin Short Course

Many intending farm students learned too late that the first term of the Short Course in Agriculture, at the University of Wisconsin, started November 14. Many others who wished to attend the course were prevented from doing so by army service or obligations, or the necessity of finishing the season's work on the farm. All of these young men, and others who desire education in agriculture, will be glad to learn that they may enter the second term of the Short Course, starting Dec. 30, and receive full credit toward graduation for all of the work they do in that term and the third term which runs from Feb. 3 to March 6.

All men who started the course last year should not miss this opportunity to finish it as quickly and completely as possible, for very busy and prosperous days are ahead of the farmer and the world looks to him for greater efforts than ever before in food production. The prospects are so bright for the farming business of the present and future that all farm boys and those from the city who are inclined toward farming, should earnestly endeavor to fit themselves in a scientific and practical way to take up this line of work and carry it on to the best advantage. The Short Course in Agriculture offers instruction in all of the subjects pertaining to farming and is fully equipped to make such instruction up-to-date and practical.

Catalogues giving full particulars regarding the course may be had on application to Assistant Dean J. B. Borden, Madison, Wis., who will also be glad to answer any special questions on the subject.

A Land Clearing Contest

HOARD'S DAIRYMAN:—Radisson and Exeland, Wisconsin, were hosts to a very distinguished lot of visitors on Tuesday, Nov. 19th, at the meetings that marked the close of the Second Southern Sawyer County Land Clearing Contest. The contest commenced October first and was for a period of six weeks, or until Nov. 15th. Fifty-three farms were registered in the contest. The territory covered was divided into two districts: The Couderay-Radisson district and the Meadowbrook-Exeland district. The rules of the contest made provision for all work done in bringing the brush covered acres into cultivation, whether cutting brush, picking up down material, blowing stumps, or breaking the land in preparation for next year's crop. A score card was used in the judging, and the judges scored the clearing on every farm.

First prize in the Meadowbrook-Exeland district was won by W. D. Compton, and he received $30 in cash, 1,000 ft. hemlock lumber, and 100 pounds of dynamite; 2nd prize, L. F. Hobbs, $25 in cash, 3 rolls of barb wire, and 75 pounds of dynamite; 3rd prize, J. E. Shinn, $20 in cash, 2 rolls of barb wire, and 50 pounds of dynamite; 4th prize, J. G. Hendrickson, $15 in cash, 1 roll of barb wire, and 5 bushels of pedigree seed oats; 5th prize, David Sinclair, $10 in cash and one Duroc-Jersey pig.

In the Couderay-Radisson district the same prizes were awarded, 1st, Simon Opsal; 2nd, Wicinty Smigilisk; 3rd, Wicinty Mosor; 4th, Blazus Kowalski; 5th, A. E. Thorhaug.

It is estimated that a total of 250 acres were cleared by the registrants in the contest during the six weeks. Some farms reported as high as 14 acres in the six weeks. With what was cleared last spring during the first contest and that done during the intervening period, approximately two thousand acres were cleared up in the two districts by all the farmers during the season of 1918. This means no small service to the nation at this time of keen food shortage. Southern Sawyer County has given her answer to the cry for more food.

Wisconsin. W. N. CLARK.

Bulletins of the Week

Marketing Practices of Wisconsin and Minnesota creameries, by Roy C. Potts. Bulletin 690, U. S. Dept. of Agr., Washington, D. C.

Suggestions on Marketing Live Stock, by Andrew M. Soule. Circular 37, Extension Division of Georgia State College of Agriculture, Athens, Ga.

Grazing Crops for Hogs, by S. H. Starr. Bulletin 146, Extension Division Georgia State College of Agriculture, Athens, Ga.

Selection and Storage of Seed Corn, by W. L. Burlison and E. A. White. Circular 225, Illinois Experiment Station, Urbana, Ill.

Swine Husbandry, by R. L. Shields. Extension Bulletin 40, South Carolina Experiment Station, Clemson College, S. C.

EDITORIAL COMMENT

CONSIDER THIS A MOMENT

The Corn Products Co. tells the dairy farmer that his real grievance is against the low producing cow and not against the feed or the price of the feed. We wonder if that is not true, always true, with this provision—that you feed your good cow the right kind of feed and enough of it so she can make you a profit.

The assertion can be backed up by the facts. Even at the high prices of feed the good cow is making money for her owner. That is proved in all the states east and west. The great leak is the low producing cow. What a lot of farmers are blindly and persistently attached to the notion of keeping the poor cow! The wide prevalence of this attachment is seen in every community where a cow testing association is formed and in every community where they refuse to form one. Of all the delusions that ever affected the farmer his delusion for the poor, unprofitable cow is the strangest, most unaccountable, and the hardest to dispel.

Not long since a friend told us of the reply a Wisconsin farmer made to an agent of a cow testing association: "If I keep nothing but good cows I'd have nothing to feed my coarse fodder and silage to."

Can you beat that for sheer economic delusion? And there are such men, lots of them, keeping cows and swearing at the feed dealers.

A BETTER AGRICULTURE

The National Board of Farm Organizations is attempting to formulate a plan which will assist farmers to conduct their affairs upon a proper and businesslike basis. This organization desires to bring about co-operation between the farmers and to have them extend their influence in national, state, and local affairs. It is not only interested because it wants the farmers to be more active in their co-operation and in directing the affairs of the state, but because it desires agriculture to be put on a permanent basis. This organization put the following question to us: "What changes are necessary to bring about permanent agriculture?"

We replied to this question in substance as follows: We need a change of attitude upon the part of farmers, a new understanding, a larger realization of the agricultural situation by those engaged in this industry. We need to unfold before them the opportunities of agriculture and the necessity for co-operation. In some communities we must wait until the melting pot has established American citizens. We have had, in this country, little Russias, little Germanys, little Italys, and little Norways. On these islands attempts have been made to hold fast to their mother countries. They have not been willing to accept American ideals, American institutions, and American conceptions. They haven't put away their foreign souls to grow American souls. There is little hope of getting such communities to have a part in any great national movement for the betterment of agriculture until they have become true American citizens and until they understand the meaning of our government and until they realize the duty they owe to their community, state, and nation.

Every farmer must comprehend the power and necessity of co-operation,—that farming is a business and requires the application of business principles; and that intelligence, and not ignorance, is necessary to a successful rural life.

DAIRY COW SITUATION

During the past year or two would-be savers of the dairy industry have been going up and down the country trying to make dairy farmers believe that dairy cows were being sold to the butcher in such large numbers that the dairy situation was becoming serious. They tried to alarm everybody, to create discontent, and to bring about the idea that the men selling these dairy cows to the butcher were criminals and unless something could be done by the government to stop it, our country would be in serious straits. Bills were proposed to enact into laws that would force dairy farmers to raise all their calves. Nothing could be more ridiculous than to try to force farmers to raise dairy calves. The dairy farmer will raise calves and keep them when they are unprofitable but he is too sensible to raise them or keep them if they are not profitable.

Just prior to the war, in the year 1913, there were fewer cows than in 1912, but since that time the dairy cow population has increased continually. This situation illustrates the necessity of farmers doing some of their own thinking and being careful as to what source their information comes from when they are forming opinions in the conduct of their business. It is very easy for any man with a good voice, pleasing appearance, etc., to stand before an audience and make erroneous and misleading statements, to stir up feelings, and to lead men to think that things are going to everlasting smashup. Such men should be muzzled, for they not only depress the feelings of their audience but they bring about wrong attitudes. In some instances, they lead good men to think the world and all there is in it is bottom side up.

We should draw valuable lessons from the statements of the men who had all the dairy cattle marching to the slaughter house, because our government census of the cow population proves their statements were false. The same men, or others like them, would have the dairy farmers believe that the dairy industry was in a serious condition, when the facts in the matter are it is in better position for making money than it has ever been in its history. Let us take renewed courage and hope since the dairy cow is coming to her proper place.

CRITICISM

We believe in constructive criticism. We make progress through criticism if it is made in the right spirit and in the right way. Criticism without offering a constructive plan to correct evil and wrong practices is of little or no benefit. We do not hesitate to criticise our governmental institutions or individuals and when we do, we like to make constructive suggestions as to what may be done to adjust and right the things we are criticising.

Human beings are constantly making blunders and if we are wise we will profit by them. There is little value in referring to the blunders which have been made unless we gather valuable lessons from them. Simply stating that blunders have been made does not help to solve problems; it simply serves to agitate and bring about discontent, which is a splendid thing, but discontent must be directed properly or anarchy follows.

We are living in a time of sharp criticism. Our agitators are busy, and discontent is to be observed in nearly all walks of life. It is not a dangerous situation when people are discontented, providing it is the discontent which leads to progress and to better things. Discontent which leads to discouragement and to ignoring well defined principles of society and to disregarding right principles of business leads to destruction.

In the reconstruction period of agriculture, which is now before us, we must not lose sight of certain fundamental principles. We must remember that no human laws can be passed that will regulate the prices of farm products or any other commodity. To attempt such regulation would be as difficult as to overcome gravitation by law. We must bear in mind that supply and demand in every field regulate the prices unless combinations are made to interfere with the working of this law. It should be our concern as farmers to see that the law of supply and demand is not interfered with. This means that the farmers should unite and cooperate in directing their own affairs, and that they should have an interest in their state and national government. Forces which interfere with the law of supply and demand interfere with the progress of agriculture. Such forces should be criticised and plans offered for their elimination. There are those who believe laws can regulate all human endeavor, but the work of the Food Administration under war conditions indicates it is impossible to do this.

THE COUNTRY SCHOOL

The country school has been in a rut for many years. It has not made the advancement that it should or kept pace with its opportunities. It may be too soon to bring about a school that will serve the community both as a social and educational center, but it would seem that there are localities where schools of this character could be established. Such institutions as these would not only make country life more enjoyable, but would bring to it an inspiration that is so highly desirable in any industry. Elsewhere in this issue, we publish an article by Mr. George F. Comings regarding the rural school as a community center and what it may do to improve rural life.

Schools are nothing more or less than a co-operative enterprise, and on a whole our school systems have been successful, but there are tremendous opportunities for improving them and making the country schools of greater service to the fa- er and his children. The reason we do not have stitutions where a broader education may be tained, where a greater social relationship may enjoyed, is due to the lack of interest on the p of those living in the country. The farmers America have been slow in extending co-opera effort, and this may be attributed to several r sons. The farmers of Denmark, to whom Mr. C ings refers, were forced to form co-operative ganizations of various kinds in order to save th selves from starvation. They have accomplis much through co-operative effort.

We are not ready to agree with Mr. Comi that the Danish farmer is the most intellig farmer in the world. We can say that he co- erates better than any farmer in the world. American farmer, with all his difference to operation, to rural improvements, schools, so centers, produces more food per man than other farmer in the world. The farmers of Am ca have not been forced to see the necessity of operating. The splendid opportunities and the r soil have not made it necessary for them to w together like the farmers of Denmark.

Mr. Comings speaks of the decay of agricult taking place in the United States. In this, we not agree with him. We believe agriculture is m ing forward and upward, and that a better syst of farming is being practiced today than ever fore. Everywhere we can see opportunity for proving methods of farming, but gradually teachings of our leaders in agriculture are find their way to the farm. It is not uncommon now find farm houses with all the modern convenien barns with sanitary equipment, and other mach ery for facilitating work. A better class of stock can be found anywhere than was possi only a few years ago. Our fields are receiving l ter treatment and crops are being improved.

We commend the article of Mr. Comings beca it discusses matters which should be of vital int est to rural communities. It suggests what can done to make country life more profitable and joyable. It has a Christian purpose.

POOR COWS AND FALSE ECONOMY

The high prices of feeds have led some dairyn to practice false economy. We are informed t there is only half as much milk being received a certain cheese factory this fall as in former ye although the same number of cows are supply milk. The patrons of this cheese factory are t ing to make money by feeding their cows spari ly. We have never found a dairyman who made money by scant feeding. It may be cal lated on paper that to deny a cow a liberal rat will yield a larger profit than correct feeding, in practice the dairyman who feeds his herd erally is the one who is making money. That what men keep cows for.

The prices of dairy products are now wholly keeping with the prices of feeds. If there w money in dairying before the present advance prices of both feeds and dairy products, there su ly is money in dairying now. If the farmer fi he has not sufficient roughage or can not obtain adequate supply of feed for his entire herd, i better for him to dispose of a few of his poo cows and feed and care properly for those that retains. There was never a better time to disp of unprofitable cows than now and it is noth short of ridiculous to urge anyone to keep an profitable cow. The world is short of grain forage for cattle. The prices of cattle for beef high. This makes it advantageous for the n with unprofitable cows to dispose of them thereby save the forage so the good cows may h an adequate supply.

If the patrons of the cheese factory mentio above would dispose of one-half of their cows, the poorest, and feed the animals remaining so t they would produce twice as much milk as they when on a poor system of feeding, it would m a larger net profit and a saving of at least 25 more per cent of the feed of the patrons of t cheese factory.

It has been demonstrated beyond doubt tha dairyman who feeds his cows liberally and eli nates the unprofitable cow will make money. T has always been true and it always will be tr We have a record in our office of a herd of 28 c fed sparingly that did not produce as much milk a year as a herd of 8 cows fed liberally and the cows consumed more than twice as much feed. T man who owned the 28 cows received only enou milk to buy his scrimpy ration, while the man w the 8 cows, feeding liberally, made a good pro

e ave many such instances on record that were t red from farms where the cows have been sfi. In the face of such evidence and facts, no n man will keep a lot of unprofitable cows or e his herd sparingly.

Fall Pig Rations

\iat is the best and cheapest and quickest way epare some pigs a month old for the market? e lots of barley and corn. How much of this l have to give them each day? How would a eeder work? How much of each should I put ; I will have plenty of skimmilk after Christ- but at present I only have a couple of cows ng. Round Christmas I will have 18. Please e know the best way.

nyon, Minn. W. F. K.

st assuredly corn and barley are two of the basal feeds that it is possible to allow to pigs. are the ones that are producing a great deal e pork throughout the country, hence this in- r is well fixed on the basal side.

r fall pigs, we believe they should be given a liberal feed, inasmuch as they need to be kept throughout the winter and inasmuch as when are fed liberally they do much better than they are fed scanty rations. We believe that the fall pig should never go hungry the time he comes into this world until he out of it.

e self-feeder will work fine and in that case orn should be allowed shelled. We would not it, but the barley should be ground. It would good plan to allow both corn and barley in ate self-feeders, inasmuch as they would be umental in saving some of the tankage and necessary. We find that where pigs have ac- to both corn and barley that less of these high d superb feeds, such as milk and meat meal age, are needed.

r the present, therefore, the inquirer can de- upon tankage, allowing four feeders in the one containing shelled corn, another ground y, another meat meal tankage, and still an- salt.

give an idea as to some of our results along line, some experimental figures are in order. started out some fall pigs one year weighing s. and carried them to a weight of 250 lbs. or r.

t 1 received shelled corn self-fed, 60 per cent meal tankage self-fed, rock salt self-fed, all choice" style.

ter 123 days of feeding, these pigs weighed lbs., they having eaten per head daily 5.7 lbs. elled corn, .41 lb. of meat meal tankage—an age of 3.96 lbs. of grain for 100 lbs. live weight . They required for 100 lbs. of gain, 370 lbs. elled corn plus 27 lbs. of meat meal tankage, al of 397 lbs. of concentrated feeds. This is a good showing.

wever, it was improved upon by the addition ilk from the churn, which was fed at the rate ie pound per head daily, in addition to exactly ame ration as fed to Lot I.

ese pigs had somewhat better appetites for and ate 5.9 pounds instead of 5.7, but the ad- n of one pound of milk per head daily de- ed the tankage consumption from .41 to .36 d, or practically 12 per cent. The feed re- d for 100 lbs. of gain was 368 lbs. of shelled , which is a little less than where just straight and tankage were used, 22 lbs. meat meal age, which is some 5 lbs. less than where no was fed, plus 62 lbs. of buttermilk. On the dry er basis, it took a little less feed to produce lbs. of gain where the milk was added.

w the question arises if one pound of milk did how much better would 7½ lbs. per pig daily We tried that and with these results: The pigs 123 days were the heaviest of all, weighing lbs. The feed eaten daily was 5.5 lbs. of corn .21 lb. of meat meal tankage, in addition to the lbs. of buttermilk. The tankage here was de- ed practically 50 per cent or one-half as much eaten as where just straight corn and tankage allowed. In other words, the addition of 7½ f milk to the corn and tankage ration was in- nental in displacing practically .2 of a pound rn plus .2 of a pound of meat meal tankage, h was a good showing for the milk on the of average daily feed.

wever, the big showing comes in the feed re- d for 100 lbs. of gain and this showing is by neans the most practical. The feed required 00 lbs. of gain was 323 lbs. of corn plus 12 of meal tankage, plus 439 lbs. of buttermilk. ing this in the form of an equation, it is found contrasting this group of pigs with the pigs ving no milk at all, 439 lbs. of buttermilk, h, by the way, is the equal of skimmilk if not red too much, saved 47 lbs. of corn plus 15 lbs. of meat meal tankage; or, more simply stated, 100 lbs. of buttermilk saved in round numbers practically 11 lbs. of corn plus a little over 3 lbs. of meat meal tankage.

Assuming this corn to be worth 2½ cents a pound or $1.40 a bushel and the tankage 5 cents a pound or $100 a ton, the saving to be credited to 100 lbs. of buttermilk amounts to close to 45 cents. In addition, the pigs receiving buttermilk weighed more, showing that they did better; in other words, the test showed clearly that milk has some nutritional properties evidently that corn and tankage do not have, or at least that the addition of milk to this ration, even though fed in small quantities, was instrumental in increasing its efficiency.

When the 18 cows come fresh around Christmas time, therefore, and this man has plenty of skimmilk to feed to these fall pigs, they will go ahead and do splendidly and will let up on the meat meal tankage about in proportion to the milk given, although not exactly so.

In raising fall pigs some other things should be watched carefully in addition to the feed allowance, and it is well to state a few of the precautions which should be observed. These are:

1. See that the pigs are all eating well before they are weaned.
2. Wean the pigs after they have a good start.
3. Have a warm place for them always in the winter time where they may sleep and rest.
4. Keep their beds dry.
5. Keep their houses sunned and well-ventilated.
6. Feed the pigs in a nice, warm place. Do not make them go outside in the cold.
7. Keep them free from lice and worms. Use crude oil and santonin to do this.
8. See that the water is kept in fresh, flowing condition.

When the pigs are fed well and these things are done, they should get along splendidly.

It is well, however, to emphasize in closing that these fall pigs had best not be allowed too large a run. If they are kept in small yards about one-half acre that will be sufficient. If they run all over the farm, they are liable to venture out on days that they shouldn't and thus get a set-back.

Iowa Experiment Station. JOHN M. EVVARD.

Spreading of Canada Thistles by Seeds in Manure and Otherwise

Kindly advise as to the spreading of Canada thistles through seeds in the manure. The last tenant had a patch of a half acre in the small grain which were threshed into the grain and strawstack. If the manure is piled in the yard for a year some claim the heating process will destroy them. Again others claim thistles do not mature seed every year and especially in small grain will not ripen enough to grow.

Middleton, Wis. A. G. F.

Next to quack grass there is no doubt but that the Canada thistle is the most serious of noxious weed pests now in Wisconsin. For many years very little attempt was made for their eradication, and solid fields of Canada thistles for many miles in extent could be seen, especially in the lake shore counties. Since a definite system of rotation has been put on to nearly all farms and war waged on the Canada thistle otherwise, there seems to be a decided decrease in the size of patches and extent of the same. It is now up to every farmer to fight this weed pest in every way possible.

Canada thistles are spread to a greater extent upon the farm by the root stalk than by seeds. It is only occasionally that the Canada thistle will fully mature seed when it is being grown with the small cereals. By disturbing the Canada thistle through plowing in the fall and again by disking or cultivation in the spring, it interferes with it to such an extent that only an occasional plant will go to seed. However, some years seem more favorable than others and more Canada thistle seeds may be found at harvest with the small grains than in other years. Where Canada thistles are so harvested and are run through the threshing machine and get into the straw, these seeds are apt to be carried over in the bud quite persistently unless the manure goes through a rotting process for at least a year. The contents of the bud is such that it gives considerable protection to the seed, and consequently it requires considerable heating and decay before the seed would entirely lose its vitality. This is particularly true where considerable straw is left in the manure.

Rather than to leave the Canada thistles grow in the field it would be much better to cut those particular patches in the field just at the time they come into blossom. This would prevent all seeding. Farmers should watch their fields carefully and when Canada thistles appear should wage war upon them. Through constant cultivation during the dry spells throughout the year, Canada thistles can be entirely eradicated. Also fields of Canada thistles are eradicated by securing heavy stands of alfalfa upon the fields. Very seldom will Canada thistle stand more than two or three years of alfalfa, and many acres are now being taken out by the growing of this plant.

Wisconsin College of Agr. R. A. MOORE.

Congested Udder—Care of Cows at Calving Time

Why does a cow's udder cake at calving time? Is it good practice to feed a cow, particularly a heifer, with her first calf regularly up to calving? Does this have any bearing on the caked udder? Will cold water cause caked udder? I never have any great trouble getting rid of the cake in a few days, but it is a nuisance and takes lots of time that I need elsewhere. I have a heifer due to freshen December 5th. She has developed nicely and I want to keep her coming without any setbacks. I have been told that high priced cows are blanketed as soon as they freshen and are kept that way for twenty-four hours. Though I have no high priced ones, perhaps not exceeding $200 each, they are high testing, large producing grades, and getting 15 cents per quart for whole milk. I feel they are deserving of the best care and feed I can give them.

St. Joseph, Mich. H. R. B.

Our veterinarian makes the following suggestion: "It is best to stop all grain feed for six weeks before calving and during that time feed bran and oil meal to keep the bowels active and also allow outdoor exercise every day. Heavy feeding and lack of exercise induce congestion of the udder. The condition described is not 'caked' udder, that condition constitutes mammitis or garget."

It is well to feed a cow a liberal amount of succulence and feeds like bran just before and after calving. It is not a good practice to let a cow have any cold water for several days after she has given birth to a calf. The chill of the water should be removed. Further, be careful not to expose an animal at the time of calving to cold drafts. If necessary, keep the cow blanketed, but in a warm barn this is not necessary.

Ration for Bull

Please balance a ration for a Guernsey bull two years old weighing 1,400 lbs. Feeds are: ground oats, $70 per ton; barley, $70; dairy chop, $40; oil cake, $80. I have lots of mangels and lots of clover hay.

Which is best, box stall or yard to run in?

New Westminster, B. C. J. W. W.

Give the bull a liberal allowance of clover hay and perhaps from 5 to 10 and possibly 15 lbs. of mangels besides. We do not think it a very good practice to feed the herd bull very much succulence or feeds rich in carbohydrates. He must have a high protein ration if he is to be a sure breeder. We would suggest a mixture of grain consisting of 400 lbs. ground oats, 100 lbs. ground barley, and 100 lbs. oil meal. We would feed enough of this grain to keep him in good physical condition but not fat.

We think it is a good practice to provide a bull with some exercise either in an open yard or by the use of a treadmill. If the bull is kept in a barn, a box stall which permits him to see the other animals of the herd should be provided. We think barring his view of other cattle is not conducive to a good disposition. It may be stated that the yard should be so made that there is opportunity for him to observe the other cattle when they are outdoors.

Value of Skimmilk

I am using my skimmilk for raising pigs and in my accounts want to give proper credit for same to the cattle department. Will you kindly advise me what is considered a fair price to put upon skimmilk under present conditions?

Liberty, Mo. G. B. D.

Skimmilk is ordinarily figured to be worth from 50 to 85 per cent of the value of a bushel of corn. For feeding high grade calves it may be worth somewhat more than this, but the ordinary rule is that when fed to pigs at a rate not to exceed three pounds milk to one pound of grain, 100 pounds skimmilk is worth one-half bushel of corn or, in other words, 100 lbs. skimmilk will replace a half bushel of corn. In figuring the value of the skimmilk, the value of the corn on the farm should be used rather than the price prevailing in the grain centers.



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THE R. & L. SHOE CO. 187 Hanover St., Boston, Mass.

New York Milk News

HOARD'S DAIRYMAN:—We have some strange conditions here and there in the milk business. A case has just come out where two concerns operated at one plant and on one platform. These two concerns paid different prices, one operated under League prices and the other paid less. So far as the farmers were concerned they hardly knew to whom they were selling. It was simply a dealer's trick to buy milk cheaper. Not that a dealer is necessarily up to tricks or that all care to resort to them. Every now and then some such plot is unearthed. In this case there was a remedy. The League officers went to the head office and argued that the condition was unwise and unfair. The company's officers said they would not change. The League said, "Very well then, you will get no milk at that plant nor at any other plant of yours." League members at the other plants said they would stand by those at the one plant noted. The concern held out until the last minute and then consented to capitulate. They saved a milk strike in all their territory, at all of their plants by so doing. Had it not been for strong organization the farmers could not have won their rights.

There were interesting incidents in this as in most cases. When the League was negotiating for all patrons of that concern to stand with the ones injured, they came across one local officer who said it was no concern of his about the men so far away. He was getting League prices and so were his neighbors and that was as far as it concerned them. Mr. Kershaw who was looking after the matter illustrated the point in this way: "Suppose there were four American divisions near each other, and suppose that the Germans attacked one division and could put it to route. After that was done they could attack another division and put it to flight and finally all would be subdued. Suppose, on the other hand, that the idle divisions came to the rescue of the one attacked and routed the enemy, then all would be saved." This appealed to the delinquent local man and he said that he was willing to go in with the rest and would see to it that all the others in his branch did the same. It is all a matter of co-operation as soon as one has a right case.

Organization among our dairy farmers seems to have come and if mistakes are kept at low order we can win every time. Fortunately, it seems to me, we are getting a national organization. It is true that the national affair is pretty large, but labor is so organized and dairymen can be if careful in doing it. The national organization has much to do, but stabilizing prices over the country is one of them. If Chicago or Boston lowers the price unduely it hurts all the others. There is a difference in the cost in various localities but these differences have been figured on and relative prices are now pretty well known. In making prices for any section it will be the policy to confer with other sections through the association of producers in nation and eliminate one troublesome feature.

We think that the Dairymen's League is the biggest and best of them all, but that may be a matter of opinion. It seems that our strength may be due as much to the financial system that we have as to anything else, probably more. The collection of one cent a hundred has been somewhat troublesome, partly due to the attitude of opposition to the League on the part of dealers. Even now some are not paying, but most are, and the cases that are delinquent are being looked after. It requires money to make an organization strong, for work has to be done and that must be paid for as well as expense accounts. In this the League has done wisely in providing from the first for substantial financing. We are all willing to contribute to the expenses but we need a more complete accounting system that will make collections and disbursements plain to those who pay the bills.

As I write on the 22nd of November the League in conference with the dealers and with Judge Lamb of the Food Administration as umpire have practically agreed on the price of December milk. It was the first meeting where there has been practically no scrambling for advantages and there has been of almost a perfect, friendly nature. We are told by those who know that had Judge Lamb instead of Dr. King acted for the past few months there would have been fairer treatment of dairymen and less loss of temper, both on the part of the League officers and of the Food Administration. That spat last month was bad. It put the Food Administration in a very bad light with dairymen just as have certain other acts of subordinates in the Food Administration aroused the ire of farmers elsewhere. I have yet to hear a well-informed man says things uncomplimentary of Mr. Hoover personally, except that he has been very unfortunate in the selection of some of his helpers.

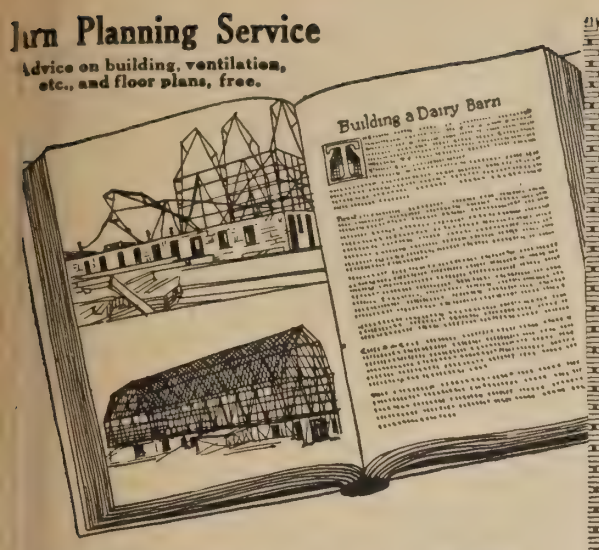
About our December prices, I can only say that on this date they have not been officially announced but one day or more may get them. The point to-day in controversy is the allowance for the work of women and children. All the other labor items have been adjusted and feed costs also. There will be no particular delay over the one item, and the price of December milk will be around four dollars for three per cent test. (It was fixed at $4.06.) So far as I can determine dairymen will be satisfied with this.

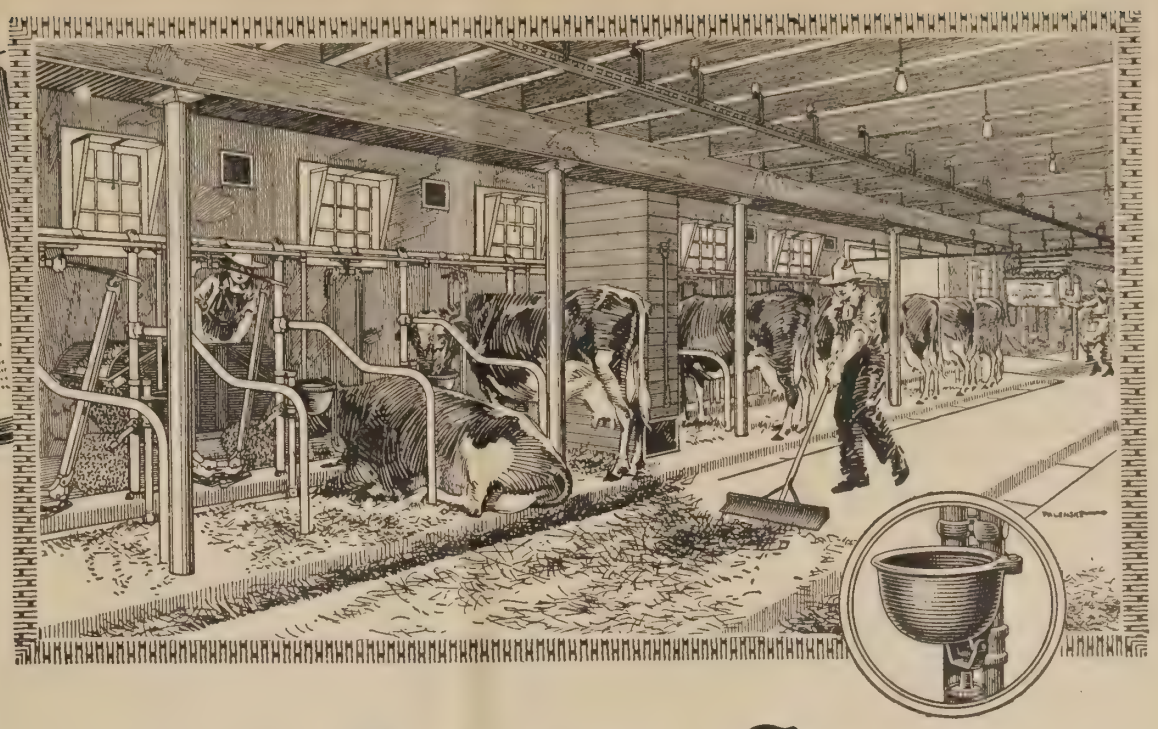
Another feature in the milk situation has just developed. The mayor of New York City has directed the district attorney to make an investigation of milk dealers and producers and to jail any convicted of unjust profit making. The district attorney replied that producers are now exempt from such prosecution under a law passed at the last legislature. What the mayor and the city food administrator will try next no one knows. They will not inform themselves of the real cost of producing milk, nor will they accept proof. That has been tried without success.

This attitude on the part of the mayor and the administrator is very unfortunate in one way. It creates prejudice with the public, particularly against the farmer, and it will tend possibly pretty strongly, to reduce the consumption of milk. As dairymen if for the money we may have little cause for complaint in this, but taking the food value of milk into account the situation is bad. Milk should be used more rather than less. Mr. Dillon has the city press and the consumers with the farmers, but now the tendency is rather the other way. No one of our friends seems to have any way of overcoming this tendency. Add the requests of the Federal Administration to conserve dairy products, and we have much to overcome. We fear the end is not yet. Business interests have a desire to keep the cost of farm products down to the lowest and, if they can, they will cause some method of food control to be continued after the present administration goes out with the signing of peace. They can do this unless dairymen and other farmers get more strength through organization. There is more medicine to be taken or more fighting to be done.

New York. H. H. LYON.

Bee keeping may not seem a very important branch of agricultural work. Yet one New York State man sold $13,000 worth of honey this year





MORE MILK THE JAMES WAY

JAMES
Mor-Milk
Labor Saving
Barn Equipment
TRADE MARK

LESS-MILK THE OLD WAY

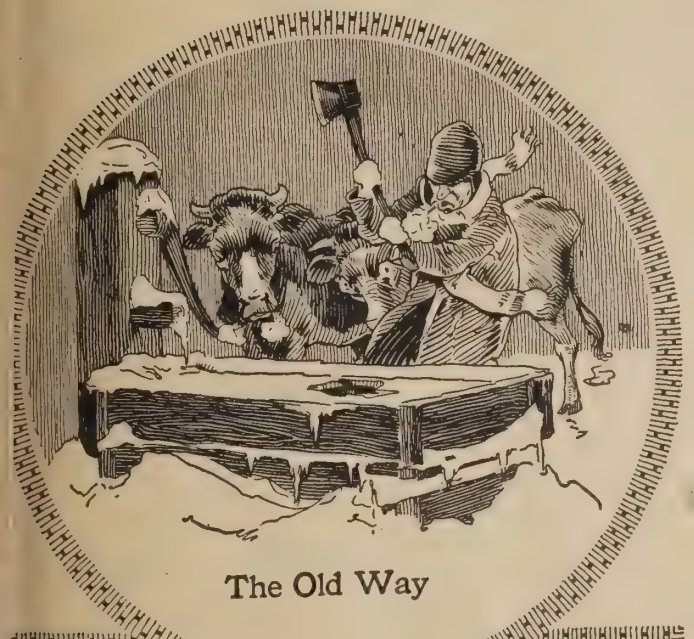
— James Cups — *Make More Milk Save Work and Fuel*

Four billion pounds more milk—$140,000,000 added profits—may be had ***this winter*** by farmers in the principal dairy states, simply by watering their cows properly.

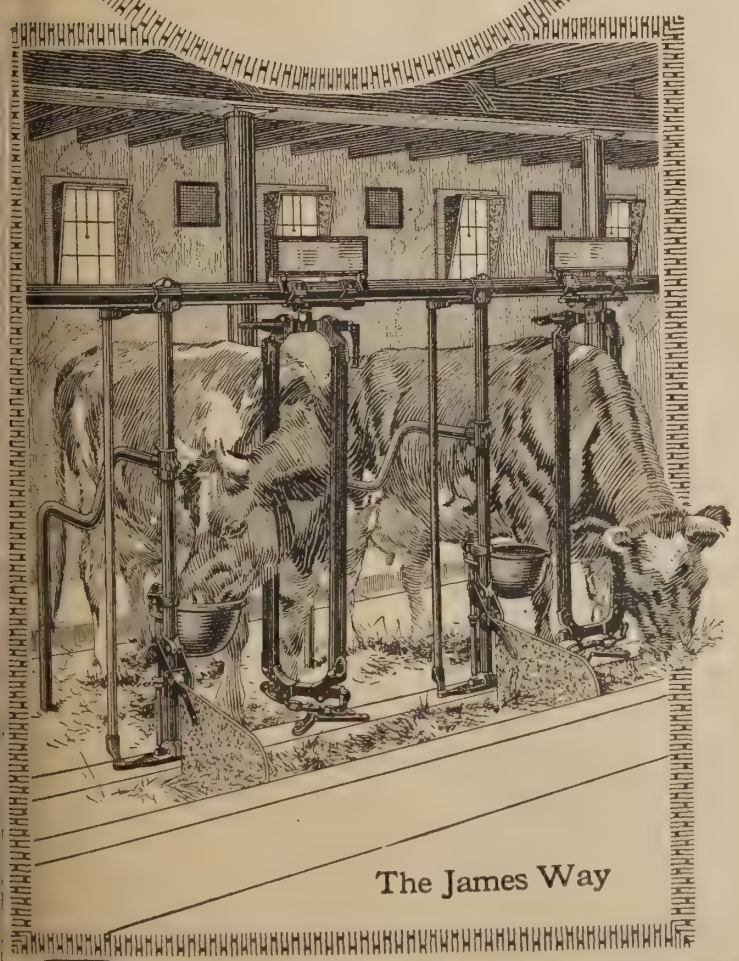
A sensational statement, yet 'tis but simple fact proven by cow testing and other milk records in many herds.

Water—the simplest means of increasing milk yields, that element which is almost as free as air yet as important as high priced feed—is usually disregarded by dairymen.

Those dairymen who realize how greatly milk flow is increased by James Drinking Cups are reaping huge profits on their investment.



The Old Way



The James Way

Reports based on milk records of 27 herds, 739 cows, show an average increase per cow per day of 2 45-100 lbs., a saving each winter of $2.50 in labor and 56c of fuel. 2 45-100th lbs. per day is 490 lbs. for the season, which at $3.50 totals $17.15.

One herd reports increases of 5 to 10 lbs. per cow; three report 4-lb. increases; three say 3 lbs.; six 2 lbs.; three 1½ lbs.; one ¾ lb.; one $8.56 during the winter; one $5.00; one $10.00; one reports 3% increase; one 8%; two 10%; one 12½%; one 20%; and one says 33⅓% increase.

These reports are checked and confirmed by other reports and other investigations. Besides, there is practical unanimity of judgment that James Drinking Cups help prevent spread of disease and improve cow health.

Write today for booklet giving full details regarding James Cups and the James Free Trial Offer.

Other James inventions that increase milk yields, save labor and save feed are the Mor-Milk cow stalls, stanchions, mangers, ventilators; the James steel pens for cows, calves, bulls, sheep and hogs; manure, feed and milk can carriers; swinging cranes; bull staffs; floor scrapers; and supporting columns.

Barn Planning

Whether you intend to build, remodel or just make alterations or additions—either now or later on—the experience, special knowledge, advice and counsel of the James Barn Planning Department is at your service.

Free Book

The 320-page book "The James-way" tells all about these James inventions that save labor, increase milk yields, promote better cow health and prevent spread of disease, protect against dangerous bulls and make simpler the care of calves and sick cows.

Mail the Coupon

Let James Equipment solve your barn problems. Send for the book—mail the coupon now—get full details of how you can cut barn work in half and make more milk.

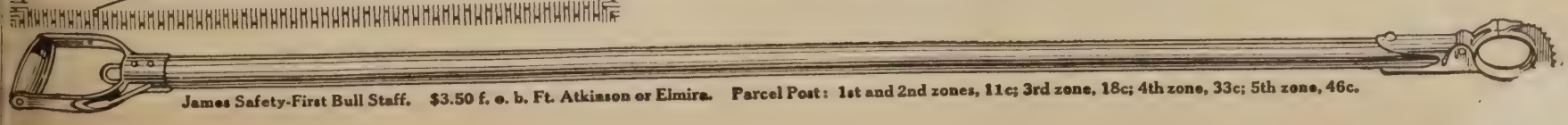
James Mfg. Co. Ft. Atkinson, Wis. Elmira, N. Y.

TEAR OFF COUPON

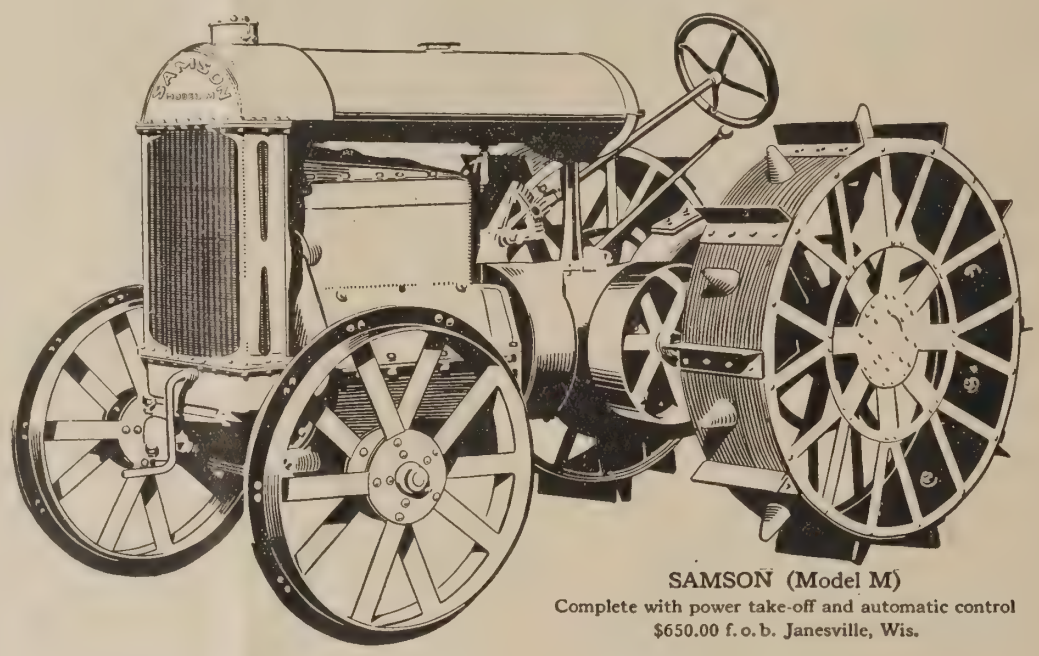
James Mfg. Co., Ft. Atkinson, Wis., or Elmira, N. Y. H. D.-S-2.

Please send me your free book on barn planning, ventilation and equipment. Also the James Barn Magazine (free).

I have ..... cows. I hope to build ..... remodel.....
about ..... Am interested in Stalls ( ), Stanchions ( ), Carriers ( ),
Drinking Cups ( ), Ventilators ( ), Steel Pens ( ), Bull Staff ( ).
Name .....
R. R. Station ..... P. O. .....
R. F. D. ..... State .....



James Safety-First Bull Staff. $3.50 f. o. b. Ft. Atkinson or Elmira. Parcel Post: 1st and 2nd zones, 11c; 3rd zone, 18c; 4th zone, 33c; 5th zone, 46c.



SAMSON (Model M)
Complete with power take-off and automatic control
$650.00 f. o. b. Janesville, Wis.

SAMSON TRACTOR $650

THE above announcement, which appeared in a recent issue of this paper, resulted in receiving thousands of inquiries. Everyone of these we propose to answer in detail. The enormous amount of work involved in classifying these inquiries will, of necessity, delay our replies. On the opposite page, you will find a copy of our letter and the form, which we are asking you to fill out and return to us.

We also invite those who have not answered our first advertisement to fill in blank on opposite page and receive further information.

SAMSON TRACTOR COMPANY, Janesville, Wisconsin

SAMSON TRACTOR COMPANY
JANESVILLE, WISCONSIN

Dear Sir.

In response to your valued inquiry, we are enclosing a blank form which we will ask you to fill out and return promptly to us. Our object in obtaining this information is to determine whether or not the Samson (Model M) is suited to your needs and to what extent your particular locality lends itself to the use of tractors of the Wheel Type.

To be perfectly frank and candid with you, and to have you know what we are driving at, we beg to offer the following in explanation:

WE DON'T WANT you to buy a Two-Three Plow Tractor if it would be to your advantage to buy a Three-Four Plow Tractor. If your farm is better adapted by reason of acreage, crop rotation or soil conditions, to the Three-Four Plow type, we want you to have it, because it will be a more economical investment and will produce 25 per cent. better results with the same amount of labor.

Note: In this connection we wish to advise that we have designed and are testing out a Three-Four Plow Tractor which we expect to offer to the public within the next few months. This will be known as Samson (Model A) and the price will be in the neighborhood of $900.

WE DON'T WANT you to make an investment in Samson (Model M) Tractor if the Samson (Model M) actor is not the best type for your particular purpose.

WE DON'T WANT you to make an investment in Samson Tractor of any model unless by so doing can reduce expenses and make your burden lighter.

WE DON'T talk draw bar pull or attempt to confuse you with horsepower rating. Draw bar pull ittle value and means nothing to you if the tractor will not do your work.

WE DO WANT you in the Samson family—a satisfied and continuous customer for SAMSON SAVING AND MONEY SAVING DEVICES.

WE DO WANT you to investigate and (regardless of any high powered, land breaking tractors that buy or own) purchase a Samson (Model D) light, high frame, direct drive tractor, for which we are now ders. Price $450.

It will be to your interest to own the Samson (Model D)

BECAUSE this tractor will handle every horse drawn farm tool which you are now using;

BECAUSE we will be prepared to furnish the more important types of farm tools, made especially to amson (Model D), at just one-half the price which you will have to pay for these farm tools when you ice them;

BECAUSE the Samson (Model D), in connection with a ground-breaking tractor of any type and a ruck, will eliminate every horse on your farm.

METHOD OF ALLOTTING SAMSON (Model M) TRACTORS

e demand for Samson Tractors from all parts of the world is enormous. Our production for nths will not exceed 10,000 tractors. If applications and contracts were filled in h they are received, our entire production might be absorbed by s. For the purpose of obtaining a wide distribution, n opportunity of investigating the product and nance, we are allotting a certain number to each per Township distribution, locating the samples nt for the greatest number.

pplication, accompanied by your orde- or other- best consideration.

Very truly yours,

SAMSON TRACTOR CO.

Information necessary so as to enable us to advise the purchaser of the proper Tractor he should buy

Name.....

Post Office.....

Township..... County..... State.....

Number of acres in farm..... Acres in corn.....

Number of acres improved..... Acres in cotton.....

Level or rolling surface..... Acres in small grain.....

Character of soil..... Acres in hay.....

..... Acres in pasture.....

How many horses do you employ to handle your farm work?.....

Do You own a tractor?..... If so, what make.....

Mail this blank to SAMSON TRACTOR COMPANY, Janesville, Wis.

DISPERSAL SALE

Wednesday, Dec. 18th, '18

of entire herd of

35 - Pure-bred Guernseys - 35

An excellent opportunity to secure stock of some of the best producing families of the breed at your own price. Several fresh cows and some close to freshening. All stock over six months old tuberculin tested. Send for catalog. Auto meets all trains at Nashotah and North Lake.

G. W. ADAMS, OWNER, NASHOTAH, WIS.

J. R. LOVE, AUCTIONEER.

HOLSTEIN CATTLE

I own or have option on 150 head of Holstein heifers and mature High Grade Holstein cattle. Have 100 head of fine six-month old to second calf heifers, prices ranging $45 to $125. Special prices on 10 or more. Buyer must pay cost of crating on single animals. Can price you any kind of Holstein you may want. Everything guaranteed as represented.

PINE GROVE DAIRY FARM, V. H. Hollingsworth, Gilberts, Illinois.

A Bull For Christmas!

Put this fellow at the head of your herd—he will make a most acceptable gift—and get results that count.



Photo at 8 months old.

KING MADRIGAL BEETS LYONS

Born Dec. 17th, 1917.

SIRE:—King Beets Lyons, whose ten nearest dams average 31.28 lbs. butter in 7 days.

DAM:—Lady Dio Madrigal, A. R. O. record 27.77 lbs. butter in 7 days.

Ready for service—a handsome individual with a wealth of good breeding. His two nearest dams average 30.1 lbs. butter in 7 days.

Your Chance—Own a Good Bull—Improve Your Herd.

Send for extended pedigree, photo and price.

ELMWOOD FARM HERD,

U. L. Lashbrook & Sons, Northfield, Minn.

Registered Holstein Bull Calves

We have a number of bull calves up to eight months of age. They represent the very best of breeding and individuality. We will exchange them for heifer calves of good breeding. Write for pedigrees and any further information.

RED CLIFF DAIRY, - Blackville, S. C.

WANTED A Holstein Bull

30 lbs. or better—either a yearling or an aged bull of outstanding conformation, quality and prepotency and with calves to show. State price and breeding. JOHN B. MARTIN,

901 G. R. Savings Bank Building, Grand Rapids, Michigan.

COWS WANTED

We have a good market for cull pure-breds and grade cows. If you have cull cows and heifers that are healthy and will stand the *Federal Test* you can sell them to advantage by corresponding with me. LOUIS A. WILSON,

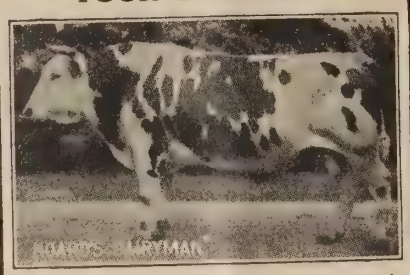
National Livestock Auctioneer, Logan, Ia.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

MAKE OUR BREEDING YOUR BREEDING



Sons of *Beauty Pietertje Prince* (56435) will increase your production and raise your test. His 36 A. R. O. daughters have average test 4.07. We offer BEAUTY PIETERTJE PRINCE 20TH, Born Feb. 27-18, out of 26.9-lb. dam that has a 30.62-lb. 2-yr.-old daughter (world's record when made). Price $400. BEAUTY PIETERTJE PRINCE 22ND, Born Mar. 6-18, out of a 15.7-lb. 2-yr.-old dam Price $225. On Oconomowoc Farm.

CARNATION STOCK FARMS,

Oconomowoc, Wis. - Seattle, Wash.

RAVINIA AYRSHIRES



Our purchase of the entire milking herd of Willowmoor Farm, Redmond, Wash., is the major event of this decade in Ayrshire history.

This is a herd of show individuals backed by the world's greatest consistent production; a herd that has bred more world's record cows than any other and which now holds more world's records than any other. It is the greatest collection of record production Ayrshire cows in the world today.

In offering Ayrshires of all ages from this herd, we divide our wonderful heritage with you. If you want the best, write today

GOSSARD BREEDING ESTATES

Martinsville, Ind. Preston, Kans. Axial, Colo.

Address all correspondence to the General Offices, 1007 So. Michigan Ave., Chicago.

Cresmont Farm AYRSHIRES

Are offered in choice bull calves, cows, and heifers. "Finlayston", and "Baron's Best of Bargenoch" breeding. We have what you want at reasonable prices.

W. H. DRUCKEMILLER, Sunbury, Pa.

SWEET SPRINGS GUERNSEYS

Herd Bull—Jacqueminot of Linda Vista.

Sire—Langwater May King.

Dam—Langwater Rosie. 72423 lbs. fat.

A number of bull calves six weeks to one year old, sired by this fine bull for sale at reasonable prices; also a few cows and heifers each year.

Herd Regularly Tested For Tuberculosis.

SWEET SPRINGS FARM

TROY, OHIO.

"Self Providers"

A statistical report published in the German press and dealing with the effect of war food on the human constitution shows briefly that farmers and their families lost no weight during the war, but that persons living in large cities were affected to a serious degree.

According to Bavarian doctors, the average person in cities lost about one-sixth his pre-war weight, but in small towns the loss has been only about one-twentieth.

"Self-providers," as farmers are called, lost no weight during the war and this observation applies to both men and women. Among city consumers, however, men lost about one-tenth their pre-war weight and women about one-fourteenth.—U. S. FOOD ADMINISTRATION.

Fits

We have a litter of pigs 8 weeks old. One week ago one of them would not come to eat with the others and I took it away, and put it in a separate pen. He tried to bite on a wooden partition, scratch with one or both of his front legs, fall backwards, walk backwards, dance around in a circle as if drunk, fall down, tremble like a leaf, stretch all four legs out as if dying. Then he would get up again, sit on his hind legs, hold his head up, have his mouth wide open so that water runs out, and act as if choking, then he would go around as if in a normal condition but would not eat. Then a little while after the same thing would happen again.

Connecticut. L. A. I.

Indigestion is causing the fits and the feed is to blame. Give each pig a dose of castor oil in milk; then feed milk containing a little flaxseed meal and an ounce of limewater per pint. Gradually add wheat middlings and ground barley or rye to the milk as the pigs improve. Allow free range and supply alfalfa hay as an additional feed.

Cows' Resting Period

I have some Jersey heifers that were bred quite young. They will be milking 10 and 11 months when freshening again. Which would give the best results, to give them three months' or six weeks' rest? And if you give them three months' rest would they have a tendency to go dry too soon next time?

Phoenix, Arizona. R. R. S.

As a rule it is not good policy to allow a cow to go dry much over six weeks if it can be helped. Too long a period of rest often makes it difficult to get the cow in calf, while too short a rest lessens likelihood of a full flow of milk. Six to nine weeks' dry period should suffice in the cases mentioned, provided the cows are well fed.

Loss of Horns

Through an accident a Jersey heifer of mine lost the shell off her horn. I immediately cleansed and sterilized everything thoroughly, put the shell snugly on again, and fastened it to the core with small sterilized screws. What are the prospects of this shell growing permanently fast again? If I should lose it and remove also the shell from the other horn, would these cores become sufficiently hard and smooth to be dressed up into a nice matched pair of shapely horns, as they were before?

Chicago, Ill. H. J. R.

What happens when a human nail is knocked off? It grows again from the pododerm and, in the same way, a new horn forms from the sensitive core or matrix. Injury, however, may cause the matrix to secrete an abnormal or deformed horn. Examination, no doubt, will show that the sloughed horn is simply acting as a shield for the new horn forming upon the vascular core.

DAIRY MARKETS

CHICAGO, Ill., Dec. 5—Butter—Creamery, extras, 67c; standards, 62¼@62½c; dairy, firsts, 59@66c; seconds, 54@57c.

Eggs—Ordinary, 58@65c; firsts, 64½@66c.

Cheese—Twins, 35½@36c; Young Americas, 37@37½c.

MILWAUKEE Dec. 5—Butter—Creamery, tubs, 64½c; prints, 64c; extra firsts, 63c; firsts, 59c; dairy, fancy, 45@50c; poor, 25@35c.

Eggs—Fresh firsts, 61@63c; cases, new, included, 60@62c; ordinary current receipts, 49@52c; dirties, 32@35c; checks, 30@32c; April recandled, 44½@45c.

Cheese—Twins, 35c; Daisies, 26¼c; Longhorns, 36c; fancy Brick, 33c; Limburger, 1 lb., 29c; Limburger, new, 2 lbs., 29c.

APPLETON, Wis., Dec. 3—Five factories offered 101 boxes cheese on the local call board on Tuesday. Sales were 46 boxes Twins 35c; 55 boxes Double Daisies at 36c.

HIGHLAND, Dec. 3—Sales on the board of trade on Tuesday were 162 Twins. All sold at 35 cents. This was the last meeting of the season.

SPRING GREEN, Wis., Dec. 3—Offerings of cheese on the Spring Green dairy board on Tuesday were 421 boxes Single Daisies. All sold at 36⅜c.

SHEBOYGAN, Wis., Dec. 3—On the Wisconsin cheese exchange at Plymouth several factories offered 1,331 boxes of cheese and sold as follows: Sixty-nine Twins at 35 cents; fifteen cases Young Americas at 36½ cents; Daisies at 36¼ cents; 200 Double Daisies at cents; 327 cases Longhorns at 36 cents; squares at 36⅝ cents. Board will meet in two weeks until further notice.

NEW YORK, Dec. 5—Cheese—Strictly state milk common to specials, 28@37c; skims common to specials, 12@27c.

Butter—Dull, easy; receipts, 4,614 creamery, extras, 67½@68c; state dairy, 50@67c; imitation creamery, prints, 47@

Eggs—Firm; receipts, 7,704; nearby fancy, 93@95c; nearby mixed fancy, 68@ fresh firsts, 69@75c.

MORE Hand Separator Crea

WANTED

SWEET OR SOU

Tag a can to us toda

SHIP BAGGAGE

SATISFACTION ASSURED.

We solicit shipments wit radius of 125 miles of Milwauk

The Geo. C. Mansfield C

4th and Poplar Streets,

MILWAUKEE, - - W

Established 1860

Quality has been kept up on Brown's Beach Jacket



Reg. U. S. Pat.

and we have maintained standard which has put jacket in a class by itself cold-weather garment for Our guarantees are as s as ever.

Ask your Dealer.

Brown's Beach Jacket

Worcester, Massachusetts.

FOR SAL

REGISTERED

Duroc Jersey B

$50.00 to $75.00

Will Ship on Approval.

McCanna's Edgewood Stock Farm, Burlington,

Ear Tags FOR STOCK 515

Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.

F. S. Burch & Co., 156 W. Huron St. Chicag

Australian Dairy News

RD'S DAIRYMAN:—The wheat ry is down in the dumps. The rs have been told that there is g very definite about the British ment buying the wheat surplus oming season, estimated at two i tons. Two causes contribute to sappointment—the bumper crop nerica and Canada, and the ge of shipping. If there was any e space for it, it would not so much, but every energy is provide shelter for a lot of the illion tons bought and paid for British government. A number farmers foresaw a possibility a glut and they turned stock heir cultivation paddocks last The feeling is hopeful, however, the time the crop is ripe that r circumstances in the fighting ill release enough shipping to the outlook.

t is the most talked-of land t in Australia, inextricably up with dairying. Price fixation he ruling passion just now, the government yielded to popumand and declared a meat e, despite the difficulties which the industry and do not apply products as wheat and butter. ck owners at once protested at es as spelling great losses to ho had bought during the year open market. They emphasized ttitude by declining to market tock and so fish and rabbits the diet of the big centers. At the government backed down g rates on export parity.

butter pool inaugurated last to be magnified to a complete of the whole of the Australian , estimated to be worth fully 00. The imperial purchase ill be on the basis of recent A board, consisting of three and three federal governominees, will take control, in every issue. Being really a o-operative matter no factory ng with standards will get any ge. Grading will be in official The system has already been ation and has proved to be a on to the industry, for each which trucks in low grade nust shoulder the risk, as the are no respecters of persons tories. Dairy produce lends asily to co-operative bargainl the deeper the control, the ientific must the base of the ecome.

McGarvie Smith, the discoverer anthrax vaccine, is dead at an d age. He left his patent his laboratory, and an endowf £10,000, to the people of ia, with the New South Wales ent as trustees. The data of ratory belong to the work of seases. A peculiar feature of is as to who is to be made the laboratory secrets. Probcourts will be invited to settle es.

Friesians are surely climbing e ladder of popularity, though ny years they were here a d dairy entity. The lift is ene to merit, capped just now by ndid performance of the New cow, Westmere Princess Pielonging to the Friesian stud of n MacDonald of Westmere. Her ield in 365 days was 2420 galting 3.88 fat, yielding 940 lbs. inning on her fourth calf, she gain 36 days after completing . Though typically Friesian, esses all the milking characterf the Jersey. Her performance entitles her to the championship of New Zealand, all breeds. She comes of American blood and is from Netherland Princess by Paul Pietertje.

Since the war the price of rennet has run up fabulously as the whole of Australian dairying depended upon outside sources. This scarcity whipped up investigation and now Dr. A. E. Finckh, of Sydney, is reporting success with his formula, under the aegis of the Agricultural Department. The trials have thoroughly tested the specific's coagulating powers as against standard rennets and on that last occasion the report stated that "the samples used at the rate of 3½ ounces per 100 gallons gave results as good as other rennets used at the rate of 4 ounces per 100 gallons." The cheese so treated has kept as well as any other.

Australia. J. S. DUNNET.

(Editor's note: The above was, of course, written prior to the signing of the armistice terms, which will materially affect the Australian market.)

Short Course for Herdsmen

Young men with a leaning toward the pure-bred live stock industry will find opportunity to make special preparation for that field of work in the Herdsmen's Short Course at Iowa State College, Ames, beginning January 2, next, and running for ten weeks.

This will be the second course of the kind offered at Ames. The first, offered a year ago, won the approval of live stock men the country over. "We have had letters from many different states urging us to offer the course again," said Professor H. H. Kildee, head of the animal husbandry department of the college. "They are anxious to send young men for the training we offer."

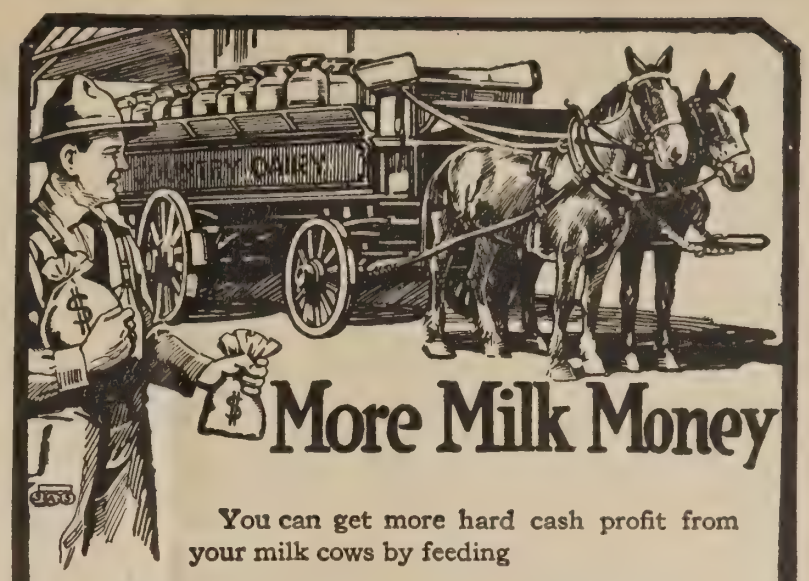
The course is thoroughly practical and meets the requirements of the best breeding establishments. A young man will save time in setting aside ten weeks for the course instead of depending solely on his experience with a herd for his training. The instruction combines schooling in herd and flock management and related subjects, with practical work with the fine live stock of the college. It will be given by the members of the animal husbandry faculty with the assistance of the college herdsmen, horsemen, and shepherds, and of many prominent live stock men who will give special talks and demonstrations. R. V. Ogilvie, president of the American Clydesdale Association; Ed. Davis of Iowa City; Geo. Potts of the Bell Bros.' horse establishment at Wooster, Ohio; Professor Frank Kleinheinz of the University of Wisconsin; Axel Hanson, herdsman for J. B. Irwin of Minneapolis; E. X. Russell, swine expert of the Bureau of Animal Industry; W. A. Barr, swine breeder of Ames; John Lethan, special representative for the American Hereford; and Ray Arnold of Hargrove & Arnold, Norwalk, Ia., will be among these special speakers.

To Iowa young men tuition is free. A moderate charge is made to young men from other states. Write to H. H. Kildee, Ames, Ia., for further information.

The Man Behind

They sing about the glories of the man behind the gun,
There's something sort o' thrillin' in the wonders he has done;
And it makes you want to holler when the boys go marchin' by;
And the books are full of stories of the flag that's wavin' high.
But when the shoutin's over and the fightin' done, somehow
We'll find we're still dependin' on the man behind the plow.

S. E. KISER.



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Happy Cow Feed

High feeding costs and uncertain values have put the dairyman strictly up against it, but Happy Cow Feed will set you right again. Results prove it.

Happy Cow Feed is a complete dairy ration which contains, in correct proportions, all the elements needed for economical milk production. Made with or without molasses, as you prefer.

It's a high-grade feed, composed of alfalfa meal, cocoanut meal, wheat bran, cottonseed meal, velvet bean feed, corn meal, unhulled peanut oil feed, rice bran and polish, and ½ of 1% salt.

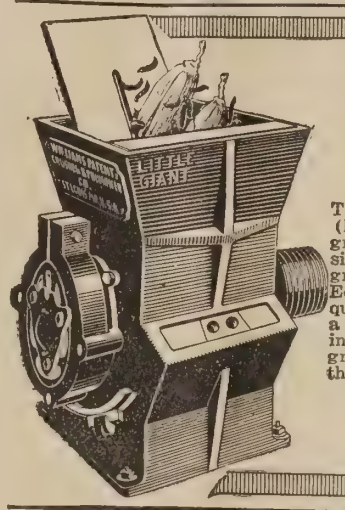
When you begin to get the maximum yield from your cows and at a greatly reduced cost for feed, you will simply open you eyes and wonder why such a feed has not been offered before.

A life-long experience in making and feeding good feeds proves to us that Happy Cow Feed produces milk at lower cost than any other ration. Write for samples, prices and name of nearest dealer.

Dept. 30

Edgar-Morgan Co., Memphis, Tenn.

No3



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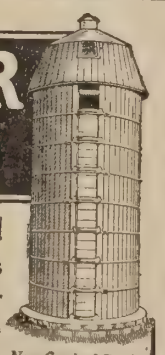
With the Williams Patent LITTLE GIANT GRINDER

The Little Giant Grinder will grind your Ear Corn (husk, cob and all), your Oats, Wheat, or any other grain, into either a fine, medium or coarse meal as desired. It will not merely crack these grains but will grind them into a real meal.

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Owing to rising costs of materials and labor, we will shortly be compelled to advance prices. Orders placed in December or January will have the benefit of present prices. Buy now and save money.

Write for free book telling all about Silage and the Harder Silo.



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Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

HOARD'S DAIRYMAN JUNIORS

A DEPARTMENT FOR THE DAIRY FARM BOY

Bob's Experience With Pure-Bred Corn

BOB Ramsay was just an ordinary American lad, fourteen years of age, living with his father and mother on their 160-acre farm. Bob was an ambitious fellow and whenever he made up his mind to do a thing he saw it through to the best of his ability. He played the game square and this is what he did.

One day in late autumn as Bob and his friend, Joe Peters, were hustling along over the frozen road to school, they noticed a big poster tacked upon a tree. The boys stopped to read it and started on again without making any comment. Bob was the first to speak. "Say, Joe, do you think teacher would allow us to be absent from school one day next week? I have just got it into my head that I would like to spend a day with father at the farmers' institute advertised on that poster. I don't think father knows about it yet, but I'll bet he will go because he doesn't like to miss anything that is good, and that looks like a good program to me, Joe."

"We wouldn't learn anything there, Bob," replied Joe. "That is just for old people."

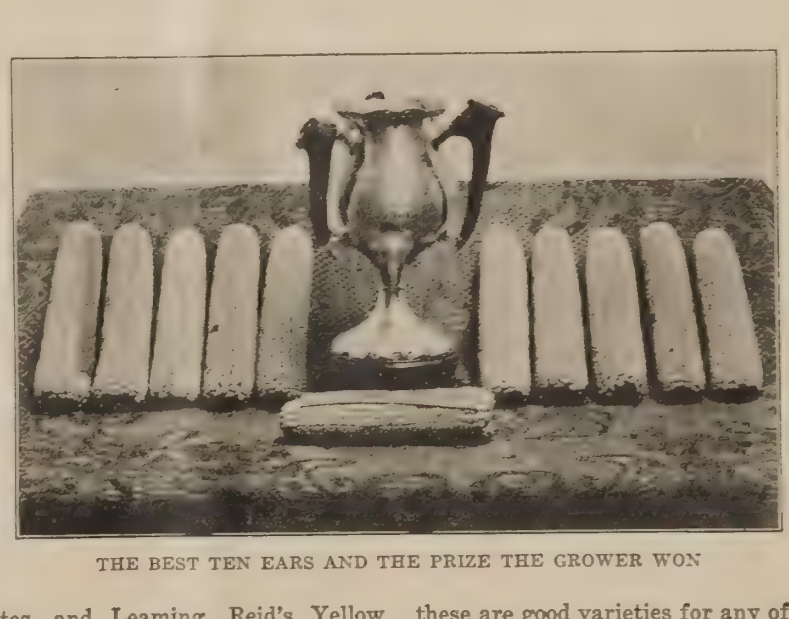
"But Joe, it says come and bring the boys with you. They must figure on something good for us or they wouldn't invite the young folks. I am going to ask Mr. Anderson to give us fellows a chance to spend one day at that meeting and I'll bet he'll say yes. You know how enthusiastic he is about stock and grain shows, and there is going to be a big corn and grain exhibit there."

That afternoon as the boys were reciting in their agricultural class, Mr. Anderson mentioned the Farmers' Institute and Corn Show. Now, thought Bob, this is my chance to ask him. "Mr. Anderson, Joe and I noticed on our way to school this morning that there is going to be a big meeting here next week and we made up our minds to ask you to let us attend for one day. I am sure father will not object and I can go with him." Mr. Anderson answered by saying that he had planned to permit the agricultural class to spend at least one day there in order to see the splendid exhibits of corn and grain which would be on display. The boys were delighted and Bob could hardly wait until he got home that night to tell his father.

Bob's class had been studying some things about corn in their agricultural work and he had learned that corn experts at the State Agricultural College had bred some standard varieties of corn that were especially adapted to certain regions of the state. Bob was very much interested in these because he figured some of them must be much better than the kind his father was growing which matured only a few years out of several. Besides, his father was disgusted with his crop that season because it was no where near ripe when the first frost turned the entire field white. Their silo was only partly filled and Bob knew it would not be the best kind of ensilage either and this meant that their fine herd of cattle would not do well that winter on account of the poorer quality of feed. Mr. Ramsay had remarked several times to Bob that he intended to get a different variety of corn for the next season if he could find the seed.

"I know there are many better kinds of corn, father. Mr. Anderson says so, and he has been teaching us about the special varieties that are recommended for our state, and that nearly every state that grows corn has some varieties which are much better than others. Why, he told us that there are nearly one thousand varieties of dent corn and that there were as many differences as there are between breeds of cattle." He says it is up to every farmer to grow the best kind of corn for his conditions and that the Agricultural Experiment Station will be glad to recommend the best variety for the farmers if they will ask them."

"Then he showed us some ears of the best kinds. Gee, but they were great! I never saw such nice corn and I'll bet if we grew corn like that, I could win a prize in our Junior Club Contest next winter and besides I could pick enough seed corn for ourselves and some to sell too. He mentioned Silver King, Golden Glow, and Early Yellow Dent for the northern states, and Leaming, Reid's Yellow Dent, and Boone County White for the corn belt states. Of course, we would want one of the first three."



THE BEST TEN EARS AND THE PRIZE THE GROWER WON

"I would like to try that Golden Glow kind. They call that Wisconsin No. 12 too. It is surely fine looking stuff. The ears are such a pretty golden yellow with a bright, cherry red cob. They are not so very long,—about eight or nine inches. But then, we can't expect to raise any larger ears this far north. It isn't a rough corn either, the dent in the kernels is just a little crumpled. Johnny Smith said he saw a lot of this corn at the state fair so there must be a good many farmers who like it. I do hope that they will have some of this corn there at the show next week. I'll bet you will like it as well as I do, father. Mr. Anderson says it only takes 110-115 days to ripen it, so you see we ought to always get ripe corn from this."

It had taken some time for Bob's father to grow out of scrubby cattle into a fine herd of good producing Holsteins, and in so doing Bob had learned a valuable lesson; that if there was a best cow, so too there must be a best variety of corn for them, and he was out after it.

Bob was up bright and early on Tuesday morning, the first day of the meeting. He had all of his chores done up by eight o'clock of that morning,—it usually took him an extra hour to do the same work. He was so happy to-day that he even slipped his pet colt a little extra oats and gave the horses a little more rubbing than they were accustomed to.

It was just ten o'clock when the team carrying the Ramsay family whisked into town, and at ten fifteen Bob with his father was seated in the hall among one hundred or more other farmers and their boys.

The program started. The speaker announced that he was to discuss some important points concerning the corn crop. Just what Bob was interested in. "If we are to get the most out of our silos, we must put into them corn that is just about mature," the speaker said. "This means the selection of a corn that will mature under our conditions."

"Exactly what our teacher said," whispered Bob to his father.

"I have here, three excellent varieties of corn, each bred to mature in different regions in these northern states. Of course I am speaking quite largely for Wisconsin conditions, but these are good varieties for any of our northern states growing corn under similar conditions."

"This Golden Glow corn is grown very successfully through the central part of Wisconsin and also in the same latitude in South Dakota and Nebraska. It ripens early and produces large yields, and is excellent for silage."

"Yes, sir," commented Mr. Brown in the audience, "I grew that corn this year and it got ripe. My silo is filled with it and my boy has about ten bushels of fine seed which he picked himself and cured. Why I'll bet his sample of Golden Glow corn will take the first prize at this show."

"You are correct in your judgment, Mr. Brown. The corn has already been judged and your boy has carried off the honors. I noticed that the blue ribbon was on his sample." Everybody gave three cheers for Billy Brown as the champion corn grower. And when Billy announced that he had ten bushels of seed for sale, Bob was not slow in getting him to promise to save enough for him. He paid for it himself because he had a little ready money which he had earned helping Joe Peters' father during harvest time.

"Well, Bob, did you learn very much to-day?" asked Mr. Ramsay as the family sat about the fire that ev- ing.

"Yes siree! I am surer now th- ever that we have been fooling o- selves for a long time about this co- business. And if Billy Brown c- grow prize corn, why can't I? N- father, what do you suppose I d- You remember that five dollars th- Mr. Peters paid me this summ- Well, I gave that to Billy to-day f- one bushel of his fancy Golden G- seed. I only want enough to plant a- acre and then you can have the re- and I want you to rent me an ac- of land because I am going t- join the Corn Acre Contest next su- mer and win some honors for us. If Billy Brown can do these things I can too. I don't like him to beat m- out in everything; you know he a- ways stands higher than I do in ar- metic. But, I believe I can put it o- him in growing corn."

"I'll give you the use of one ac- Bob, for this season. You see this is a kind of an experiment for both of us and if this fancy Golden Glow is wh- they crack it up to be, we'll make a farm, The Golden Glow Farm."

"No, father, I am going to pay y- rent for that acre. This game is goi- to be played square or not at all." So it was agreed that Bob should pay his father $10 for the use of the land an- he was to do all of the work himse-

The next day Billy delivered th- bushel of seed and Bob got busy an- tested every ear. "Billy was rig- father. Every kernel grows and se- how strong they are."

"I call that mighty good seed, Bo- Why you'll get nearly one hundr- per cent stand of plants."

"Billy says this is all heat-d- seed too, and that is another reas- why it is so strong."

It was a beautiful, warm day on th- tenth of May. Bob had spent two da- upon his acre of corn land gett- ready to plant. He hauled out ten lo- of manure and spread that on bef- plowing.

"It seems to me, Bob, that you ar- manuring that acre pretty heav-

"Corn is just like a cow, father. I- get more milk by feeding alfalfa h- and corn ensilage and I'll get m- corn and it will ripen sooner if I g- the soil well. I want it to grow st- when it once comes up and the mo- food it can get the faster it will gro-

"Don't you think you had be- wait a few days before planting? T- soil is a little cold yet and your s- may not grow very fast."

"I am going to take my chances t- plant to-day," answered Bob. "Y- know they told us last winter at o- institute that with good, strong s- there is little danger in planting a few days earlier."

Bob grew a bumper crop. He w- proud of it. He kept it clean. Ha- a weed could be found. Mr. Ander- brought his class out to see it and p- explained just how he grew such a fine looking crop.

On the tenth of September he started to pick seed. Joe came over to help him. They selected twenty bush- of the choicest ears that day. "Nic- ing doing, Joe," as he began to str- Bob's fine seed on the windmill fra- "We don't let our cows stay out- on cold winter days and in a- weather. My corn can't be treated that way either. Why, those lit- plants inside of the kernels mu- freeze to death before they were de-



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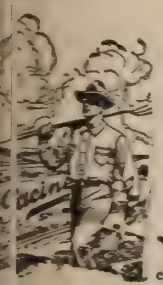
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out, and then what would I do for seed next spring? No, sir! this corn is going to be hung up in that room over the kitchen. There is lots of heat comes from the stove pipe running through that room."

Bob husked the rest of his corn and found that after weighing it up, allowing 80 pounds for one bushel because it was not yet dry, that he had seventy bushels more. He sold this to his father at 75 cents a bushel. "I am making money pretty fast," Bob figured. When all of the yields of the contest were in, Bob found his name heading the list. He raised ninety bushels to the acre and that was two bushels more than Billy Brown had produced.

One rainy, cold day in November Bob went through his twenty bushels of seed and selected the twenty-five best ears he could find. He was making up a sample of corn to exhibit at the Junior Contest to be held in December. With the twenty-five best ears before him, he set out to match up ten of the best.

"Why don't you take this ear, Bob, for one? It looks better than that last one you selected."

"I know that. But I am afraid it has some mixture in it. Those kernels with the white crowns, I believe, are mixed with white corn and I know how it happened, too. Jim Rogers grew white corn right near ours and that is how they got mixed. I'm going to get him to grow this kind next year. It's better, anyway, than that white stuff of his. No, I can't use that ear. I don't want the judge to rule my sample out on account of mixture. Pure corn or none at all in my sample. I am going to play square."

Bob's sample took second prize, for which he got five dollars. "Well, I guess we are even now, Billy, I raised more corn than you did, but you made up a better sample. I am going to try this experiment again next year and you'll have to look out, because I have already sold seed corn to a lot of the other boys and they are coming in on the Acre Contest too. This is great sport, Billy, and I am learning more things about corn than I ever dreamed of."

Junior Letters

Hoard's Dairyman Juniors:—I am 12 years old now and in the 7th grade. The principal teaches me arithmetic and the assistant principal teaches the rest of my studies: 94 is my lowest mark so far. There is one more examination yet.

There are plenty of gray squirrels around here but not many rabbits. The hunters might shoot some of my tame rabbits if they happen to see them. Some of my rabbits got out when they were small and we were unable to catch them. They are large as wild rabbits now.

I have taken my calves from the pasture and I hardly knew them when I saw them. I thought that some of our neighbor's calves had got in with our cows.

We have lost one horse, two cows, one yearling, and one or two calves this year.

Well, my letter is getting rather long so I will have to close for this time. If any of the juniors would like to write to me my address is Carbondale, Pa., R. F. D. No. 1. Wishing the juniors good luck. Myrle Lee.

Hoard's Dairyman Juniors:—I have just finished my chores and am writing a few lines to let you know I am still a junior.

We live on a 52-acre farm. We have 10 milch cows. One is drying up and will freshen in December. We have 2 horses, 18 hens, 1 pure-bred registered Guernsey bull, and a grade Guernsey heifer. My heifer has given nearly 4,000 lbs. of milk since freshening in March.

I am buying a $50 Liberty Bond with the profits of my heifer. I have joined the Christmas Club. I am in the fourth grade in school and 9 years old. I help on the farm. I feed the horses and the hens and the cows. I can cut corn. I go to the milk station every morning alone. Our school is closed on account of the influenza. It is bed time now. Wishing all the juniors good luck.

New York. George A. Earl, Jr.

Hoard's Dairyman Juniors:—I have been plowing. I have about 33 acres plowed now and have 13 acres of corn land left to be plowed. We milk 12 cows in the morning and 13 at night. I milk 4 cows in the morning and 5 at night. I sold one of my boar pigs yesterday for $55. We have 4 work horses and a 2-year-old colt.

Minnesota. Eddie J. Anderson.

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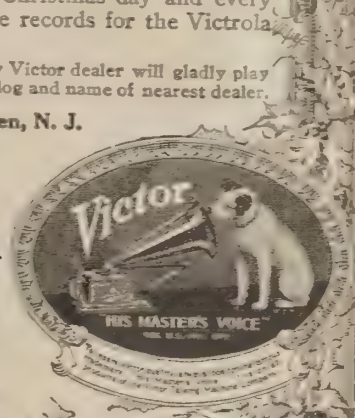
Another moment and in come Elman, Jascha Heifetz, Kreisler, Paderewski, Powell, Zimbalist, and other famous instrumentalists to play for you. Then there follow the Boston Symphony Orchestra, Philadelphia Orchestra, Sousa's Band, Pryor's Band, Conway's Band, Victor Herbert's Orchestra, and other celebrated musical organizations to entertain you. And you have, too, Harry Lauder, Marion Harris, Raymond Hitchcock, and other comedy "headliners" to cheer you with their merry music and wit.

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Registered and high grade Holsteins. We have a very choice car of high grade springers four to seven years old at from $100 to $130. OAKGROVE FARMS, Oxford, Wis. 19-8

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

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High grade Holstein calves $13.50 each crated. MAPLE LANE FARM, Cassadaga, N. Y. 18-tf

For Sale—Three weeks old high grade Holstein heifer calves, $20 crated. YOHN'S STOCK FARM, Watertown, Wis. 18-4

One February 24, 1916 Holstein bull for sale. Registered with better than 28 lbs. of butter in seven days on his mother's side and 31 lbs. on his father's side. Price $300. H. W. KELLER, Dallas Center, Ia. 18-4

For Sale—Registered Holstein bulls ready for service. Tuberculin tested. Our breeding. S. E. JONES, Watertown, Wis. 19-8

Registered Holstein bull born March 5. King Segis Pontiac breeding. A. B. ANDERSON, R. 4, Red Wing, Minn. 20-3

A. R. O. registered Holsteins. Ten head aged two to seven years, springers. M. E. MOORE & CO., Cameron, Mo. 20-4

Waukesha County Holstein-Friesian Cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 20-13

For Sale—Sixteen heifers, grade Holsteins, will be 2 years old in March and April and of good size, well marked and to freshen in April or May. SAMUEL DAVIS, LeRaysville, Pa. 20-tf

For Sale—One hundred choice high grade Holstein springing cows and heifers. J. A. KNORR, Blanchardville, Wis. 20-8

Registered Holstein bull calf 12 months old, choice breeding, $150. Also pure-bred S. C. white Leghorn cockerels, $2.50. ED. SUBROD, Burlington, Wis.

Holstein bull, born March, 1918. Great grandson of King of the Pontiacs and Friend Hengerveld DeKol Butter Boy. Dam a 13-lb. two-year-old; grandams average 94 lbs. milk per day. Price $150. N. E. SHANOWER & SONS, Burton, Ohio. 21-tf

The Department of Dairy Husbandry, University of Illinois, Urbana, Illinois, has for sale a few pure-bred Holstein, Jersey, Guernsey, and Ayrshire cows and heifers. Many of these have good records and excellent breeding. Herd tuberculin tested by federal authorities. Descriptions and prices given on request.

Registered bull calf, sired by son of Friend Hengerveld DeKol Butter Boy, calf's grandam has record 25 lbs. Price $30; also grade heifers, by a 31-lb. bull. KYGER BROS., Oxford, Ohio.

Daughter of 31.91-lb. grandson King Segis, age 5, due Jan. 1. Bred to 32.47-lb. son of Judge Segis, his full sister 37 lbs. Heifers, young bulls from this bull. Good high producing dams. Prices right. LLOYD SMITH, Guys Mills, Pa. 21-2

A carload of choice heavy springing high grade Holstein cows, priced for quick sale. Also registered Holstein bull, ready for service. H. F. McNUTT, Oxford, Wis. 21-5

Splendid foundation herd registered Holsteins. Five cows, four heifers, of best blood lines. E. R. SHANNON, Sharonville, Ohio.

For Sale—(Clintonville, Wis., J. P. Smith, R. F. D. 3). Sixteen pure-bred and grade Holstein cows and bred heifers. Fresh milkers and springers.

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEE-WAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, high grades, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 19-tf

STOCK FOR SALE

High grade Guernsey herd for sale—sixty head. Will sell any, or all. H. R. LOBDELL, Mukwonago, Wis. 4-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Three registered Guernsey bulls for sale, sired by Langwater Frederick and Dairymaid Glenwood of Pinehurst 3rd and from A. R. dams; 740 lbs., 529 lbs., and 510 lbs. fat. Sale list. HOMER F. RUNDELL, Livingston, Wis. 19-tf

Guernsey Bull—Registered, ten months old, first class in every way. Write us today. $110. GEBHARDT BROS., Palmyra, Mo. 20-2

$40 buys Guernsey bull calf, world's record breeding, mostly white. RICHARD F. KLEMM, Baraboo, Wisconsin. 20-2

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

For Sale—Six grade Guernsey heifers coming 2 years old, all well marked and bred to pure-bred bull. $80 per head if taken at once. JOHN BUTTERAS, Rewey, Wis.

For Sale—Registered Guernseys; herd sire three years old, one yearling bull, good backing. NELSON PECK, Doylestown, Wis. 21-3

Young Jersey bulls for sale, registered. Bred and priced right. Liberty bond taken. O. R. SCHMELING, Watertown, South Dakota. 20-3

For Sale—Jersey bull, eleven months old. Dam's record 500 lbs., sire's dam, 819 lbs. butter in one year. Sire is grandson of Eminent's Bess. Price ninety dollars. M. EMERSON & SON, Wheeler, Wis.

For Sale—Two good pure-bred Brown Swiss bull calves five months old. W. BURKENHAGGIN, R. 24, Orfordville, Wis. 21-2

For Sale—Entire grade herd Brown Swiss headed by registered bull. Seven milking, four fresh calves by side extra. Large and good milkers, tuberculin tested. Sixteen head fifteen hundred dollars. J. H. GREEN & SON, Clinton Junction, Wis. 21-2

STOCK WANTED

Wanted—Carload fresh or springing Holsteins. Must be big type, good dairy conformation, show heavy production, clean and healthy. Ordinary quality not considered. Give full particulars at once. CLAUDE W. DAVIS, General Delivery, Fayetteville, Arkansas.

Ten good grade Holsteins fresh. Give full particulars, price, reference. BOX 244, Cincinnati, Ohio.

Wanted—Registered Guernsey bull ten to sixteen months. Good dam, color, size. Minute description, extended breeding, best price in first letter. A. HALDEMAN, Malvern, Iowa.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

David W. Williams, Lake Forest, Illinois can buy you dairy cows of any breed. 20-tf

SWINE

Duroc Jersey boars: Large type. FRED SNYDER, Marion, Ia. 20-tf

Big type O. I. C. fall pigs. Price $10 each. AUG. NEITZEL, Bloomer, Wis. 20-tf

HORSES

For Sale or Exchange—3 Percheron stallions 6 months, 1 and 2 years; color black. E. A. & R. D. SPRAGUE, Caledonia, Minn. 21-3

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Collie pups wanted—I want to buy a few good pups. Address MISS ELIZABETH CLARK, Albia, Iowa. 21-3

POULTRY

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 21-4

Pure-bred, single comb, Rhode Island Red cockerels with size, shape, color. Foundation stock. UNIVERSITY WISCONSIN, $2.50 each. JOHN H. QUALE, Mondovi, Wis. 21-2

Large, vigorous, farm-raised White Rock cockerels. Strictly pure-bred. Also hens and pullets. Save money by ordering before Jan. 1st. B. H. FUITEN, New Richmond, Wis. 21-2

White Wyandottes for sale. Pullets and cockerels at $1.50 each. W. M. KNIGHT, Eagle, Wis.

SEEDS

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

A Splendid Spring Wheat for Sale—We offer for sale a limited quantity of the Blue Ribbon variety of spring wheat, only 70 bushels. Our record with this wheat is as follows: Last spring we sowed two bushels on two acres of land. The return, threshers' measures, was 76 bushels which grades uncleaned, 61 lbs. per bushel. We will sell this wheat well cleaned for seed for $3.00 per bushel. Bags furnished at 60 cents each. Order early to avoid delay by freight. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis. 16-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.70 per 100 lbs. Sacks free. Price of Hansen Cossack $80 per 100 lbs. AT TRIANGLE RANCH, Cottonwood, S. Dak. 21-tf

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

MACHINERY

For Sale or will exchange for pure-bred Holstein calves or mules—Killen-Strait caterpillar tractor, 35 H. P. Waukesha motor, used one season, good condition. HAWTHORNE FARMS CO., Barrington, Ill. 20-2

For Sale—17-unit Sharples milking machine, complete and in first class condition, sell in units of six. Also two "Chilly King" coolers and Davis 2x6 bottler. ARCADY FARM, Lake Forest, Ill. 20-3

For Sale—One new Double-unit Calf-Way milking machine including vacuum pump and tank. Best outfit on the market. Have gone out of machine business, will take $280 to close. Regular price $350.00. First come first served. Address BOX 317, care Hoard's Dairyman. 20-5

Litter Carriers—Price only $14.95, write for catalogue to O. A. TORGERSON MFG. CO., Baldwin, Wis. 21-4

For Sale—3 Strait's tractors 15-30 H. P. Waukesha motors. Used 3 months. Half price. C. R. DENNISON, Savanna, Ill. 21-3

FOR RENT

First class dairy farm to let on half shares. Adjoining grade at Borden Plant. Will keep 50 to 60 head of stock. Only experienced manager need apply. HERMAN F. BERGER, New Milford, N. Y. 20-2

WANTED TO RENT

Wanted—To rent large dairy farm on shares. I have five boys A No.-1 milkers. I sold out last year the 22nd of March on account of three of my boys going to war. They still are in France but will be home soon. Any reference desired and some means to start with. Experienced farmer for thirty years. Address BOX 83, Ada, Mich. 21-4

Young couple, practical farm people, one large child, want to operate equipped or partly equipped farm on shares. L. L., 2622 Schaal Ave., Terre Haute, Ind. 21-2

Wanted—To lease dairy farm for cash; stock on hand, $10,000. C. G. BURGER, Mt. Vernon, Ohio.

CREAMERIES

For Sale—A thoroughly equipped creamery and ice cream factory in northwestern Pennsylvania, ample storage and ice plant, accessible to three (3) railroads for shipping facilities. In the heart of the dairy section. Make all inquiries to BOX 335, care Hoard's Dairyman.

PARTNER WANTED

Must know cows; money making dairy farm Southern Pennsylvania. BOX 320, care Hoard's Dairyman. 20-3

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Farm Wanted—Have large number buyers. Your farm may suit some of these people. State size, stock, price, mortgage. WALTER MILLER, 320 Brumder Building, Milwaukee.

Farm wanted by agricultural college graduate. Large proposition only. Must be stocked, equipped ready for business. Eastern states preferred. Full particulars first letter. References exchanged. BOX 62, Kent, Ohio. 21-2

HAY

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

FARMS FOR SALE

Booklet on request presenting facts b Commissioner of Agriculture describi Mazarn Valley in the Ozarks, ideal fo ing and stock farming. Address M. VALLEY LAND COMPANY, 847 Ave., Hot Springs, Arkansas.

For Sale—60,000 acres cutover land i ern Wisconsin. $20 up per acre, $10 d forty and $10 per month or balance p extended, provided you do required am work. We have a few eighties with b ready for use. To purchasers of these rent teams and tools on community ba advance money for cow, pig and when you can supply feed; also grubst during farming season providing you tire time to developing your farm. HAWK LAND CO., Box L, Tomahaw

If you wish a farm in the best grass of the south where alfalfa and all the including Red White, Alsike, Sweet Crimson and Japan grow to perfecti soy beans, cowpeas, peanuts, velvet corn, oats, wheat, rye, and barley, w have a creamery making fine butter a ing Elgin for butterfat, and where the bovine tuberculosis nor cattle ticks; in munity of northern farmers, write t GURLER, Macon, Miss.

Farms in the Mississippi Prairie Belt and clovers. Corn, hay and live stoc sition. Ideal climate, good neighbors, churches, good roads. Main line of Close to large markets. Write now. HANSEN, Macon, Miss.

Fine Farms and Land Cheap—120 acres clearing; large house, log barn 235 acres with buildings; 45 acres und $5,600. 40 acres bushland $500. $1,000. 240 acres $3,000. Write for to THE E. L. C. CO., D-M, Dept. 31, Wis.

Ideal Farm Home—165 acres well i 3 miles Nashville, fine oiled pike, lays deep rich soil, 75 bushels corn per a watered, excellent neighborhood, mode equipment. Cheap at $225.00 per acr terms. Might take clear land up to $ as part payment. T. E. HALE, Route ville, Tenn.

For Sale—98¾ acres good soil, goo room house, two barns, two miles tow reason for selling. D. D. BENNET Mich.

For Sale—Splendid, cleared, dair near Sault Ste. Marie, Michigan, at lo Best of soil, water and market. Goo We are not in the land business, but v ly answer all questions regarding this ful dairy section. SOO CREAM PRODUCE CO., Sault Ste. Marie, M

So little money necessary to buy farm in Aitkin county where the boys home, can all have farms. Better be around now. First send for our tim trated literature describing this distri the biggest opportunities are and see company can do for you. It's impo describe the many advantages in a tisement. Write today and read. T act promptly will get first choice Write ARNOLD, Land Agent, Roc Railway, 154 Wolvin Bldg., Duluth, M

300-acre farm with 12 cows and b ers, poultry, brood sow, wagons, farming tools, hay, potatoes, grain vegetables; only 3 miles to R. R. t acres productive loam tillage, 30-co fenced, spring-watered pasture, estim eral thousand cords wood, 50,000 tim sugar trees, 150 apples, 50 plums, ot New 7-room home, 60-ft. basement st other buildings, good condition. Retiri sacrifices complete for $4,400, less down, easy terms. Details page 28 St catalogue, bargains 17 states, many stock, tools, crops, fitted wood for co winter; copy free. E. A. STROU AGENCY, Dept. 3001, Marquette B cago, Ill.

For Sale by Owner—One of the f improved 120-acre farms in St. Croi Wisconsin. An ideal home. Write a LOCK BOX 62, Hammond, Wis.

320-acre dairy farm. Fine impr 26 cows, 25 heifers, bull, 3 horses, ment. Milk 20c. One dairy supply 5,000, also permanent military ca $100 per acre. BOX 513, Arcadia, F

By owner—Modernly equipped fa section Jefferson County, 173 acres; near market. Fall plowing done. March 1st. Price will surprise. ROUTE 6, BOX 75, Watertown, Wis.

MISCELLANEOUS

Xmas gifts for farmers and h Farm and household accounts simplif cial holiday offer. Address OTIS A BOOK CO., 1822 Chadbourne Ave., Wis.

Raise Guinea Pigs for us. We sup Laboratories need thousands. Big m easy and inexpensive to raise. Partic book ten cents. DR. J. A. ROBER ORATORIES, Oconomowoc, Wis.

Yes Sir, we have a special opport you during spare time, an opportun some good work in your neighbor the betterment of dairy farming, tha you in cash for the effort you put fo for our "Special Opportunity G gether" folder. Address HOARD'S MAN, Fort Atkinson, Wis.



Advertising in this department is 5c p Remit in advance.

HELP WANTED

Wanted—A good steady, reliable y for general farm work. Must be a er. State wages expected. J. M. VA 9, Box 65, Waukesha, Wis.

HELP WANTED

anted—Working foreman on large farm. who is willing to work and can handle wife to board from 5 to 10 men. Good z quarters furnished. House has all rn conveniences. Must have references. wages expected in letter of application. THORN FARM, Hawthorn Farm P. O., County, Illinois. 19-4

anted—A good chore man on a ranch in rnia. Good pay. Address BOX 290, care d's Dairyman. 16-6

nted—Man who can successfully and eco- ally raise calves and feed dairy cows ably. Everything modern, herd consists 00 head Jerseys. Applicant must be ly sober, married, and agreeable. Salary year $100 per month with house and gar- together with a bonus at the end of the year if results are satisfactory. Location e foot of famous Lookout Mountain in ssee. Climate moderate, very healthful. ss ASHLAND FARM DAIRY INC., Al- ark, Tenn. 19-4

nted—A man and wife for dairy work. must be able to operate four double Em- nits, woman to cook for ten men. Wages undred dollars per month with twenty- dollars per month for a year's service. HERS BROS., West Sacramento, Calif.

nted at Once—Married man with small y for general farm work. Must be good r and teamster and understand farm ma- ry. Must have good habits and not to work. Cleanliness in tenant house ially desired and want wife to board one o single men. Good opportunity for right y. Willing to pay according to ability ork. References desired. Write or call. FOX, Waukesha, Wis. 21-tf

nted—A man qualified by training, ex- ice and personality to promote the pro- n of better milk among the patrons of a condensed milk company. A man with ng along the lines of a county agent is d. Address BOX 329, care Hoard's Dairy- 21-2

nted—A married couple to work a 160- farm and care for pure-bred Holsteins. be a good dairyman. Give salary wanted eferences. JOHN B. CHRISTGAU, Owa- , Minn.

nted—An experienced man, preferably ith dairy schooling and veterinary train- desired by a well known company for rps of dairy inspectors. In replying, training, experience and salary desired. ss BOX 328, care Hoard's Dairyman. 21-2

nted—Dairy house man, capable running ry machinery whole milk shipping plant ern Arizona. Write for details. BOX are Hoard's Dairyman.

POSITIONS WANTED

ntifically educated farm manager desires n. Salary or shares. Dairying a spe- . L. A. WOOD, R. R. 3, Muncie, Ind. 20-2

ition Wanted—Working herdsman, capa- taking charge of any size herd. Under- certified milk production. Good feeder, aiser, dry hand milker. Single. Neither bacco nor booze. State particulars. Ad- BOX 325, care Hoard's Dairyman.

ition wanted as herdsman. Single, ex- ced in A. R. O. work, best of refer- only Holsteins considered. BOX 331, oard's Dairyman.

POSITIONS WANTED

Situation wanted as superintendent on large grain farm; married, no children; understand rotation of crops and handling of men. At present time on grain farm which will be sold soon. Can make a change Feb. 1, 1919. Address BOX 330, care Hoard's Dairyman. 21-3

Farm Manager or Superintendent—Young man, single, American, desires permanent position. He had good practical experience in general farming with modern machinery. Address BOX 115, Kennett Square, Pa. 21-3

Wanted—Work in dairy barn in northern Minnesota by young man 23; not very strong but steady; good home more than big wages. WALTER HAUSCHILDT, R. 1, Red Wing, Minn.

Farm manager, thoroughly experienced crops, machinery, gas engines. A. R. O. fitting and testing. Agricultural college graduate, age 29, married, no children. References. First class proposition. BOX 327, care Hoard's Dairyman. 21-2

An experienced American herdsman of 50 is open for engagement January 1st. Understands every branch of dairy and record work. Can take full charge first class modern position only. Address BOX 324, care Hoard's Dairyman.

Two young, steady, unmarried Americans want work on farm in South. One experienced hogman and poultryman, other herdsman and dairyman. Both had general farm experience. Not smokers or boozers. References furnished. Write particulars for prompt reply. ELI LIFTER, 44 Cherry St., Quincy, Mass.

Wanted—Position as working farm manager. Young married man resigning commission in army. Has had ten years' experience with dairy, hogs, and alfalfa. Best references. Pennsylvania preferred. Address BOX 326, care Hoard's Dairyman.

Position wanted on dairy farm in Iowa. An experienced milker, single. Use neither liquor nor tobacco in any form. HOWARD C. BENSON, What Cheer, Iowa.

Wanted—A position on a large dairy farm. Good dry hand milker. Use no liquor. State wages. WILLIAM STEWART, Spring Green, Wisconsin.

Experienced dairy and live stock farmer, age 37, desires position as manager. Understands balancing rations, soil fertility, etc.; also designing and erecting modern farm buildings. Will consider developing new farm and invest in young stock. H. ROSSMAN, Goodells, Mich.

Wanted—Position as farm manager by energetic, intelligent American; married, 2 sons. Agricultural college man. References. Eastern or Southern states preferred. State particulars. BOX 333, care Hoard's Dairyman.

Farm superintendent desires situation; thoroughly understands modern farming, dairying, swine, orcharding; wide awake, hustling man with constructive mind and executive ability to handle a proposition of any size. BOX 334, care Hoard's Dairyman.

Farm manager—Scientific, reliable, energetic on large farm where ability counts. Experienced in Advanced Registry, pure-bred stock, orcharding, modern farming and machinery; 5 years last position. Strictly temperate. Excellent references. BOX 332, care Hoard's Dairyman.

Hollander, single, thirty years, wants charge small herd, Jerseys or Guernseys. Good milker, experienced, sober and honest. State wages. E. FABER, 208 Passaic Ave., Clifton, New Jersey.

ome War-time Factors in Southern Dairying

ARD'S DAIRYMAN:—A market existed for more dairy products southern dairymen can put out. s are not unsatisfactory—per- much better than in most other ons of the country.

the feeds are produced on the and are to be valued at only they cost to produce, the south- dairyman finds that his velvet s, sorghum, and corn silage, cow- and sorghum hay have cost him o much more than ordinary. If eeds are purchased, then to the t that they are purchased has und the war no promoter of his erity. Last year, and even be- last year, the cottonseed meal s advanced in a way that dairy ucts either did not have the or the ability to follow. But government interest in the mat- f cottonseed meal there came a stabilization, while dairy ucts sought very slowly and hesi- gly for higher levels.

e large number of cantonments South has enlarged the demand iry products, a demand that has een fully met. Soldiering is as- ed with some deprivations, so ldiers began with denying them- of milk and butter,—until they a restaurant in town. Officers, ver, who control their food sup- ave created a demand at the nments which has been of no proportions, which, when added e regular local demand, could e properly supplied.

r-time feeding has been the main concern of dairymen. The velvet bean has been resorted to as a very present help in the time of high prices. Depending upon how near the beans were grown to the dairyman and upon the desire to market them, prices varied and in some places were unfavorably high. As a whole, however, velvet beans have helped out very materially. Where legume hays are being fed, such as cowpeas or cowpea and sorghum combined, velvet beans have been considered rich enough in protein to solve that part of the feeding problem. Where silage and velvet beans have been available, the practice of adding cottonseed meal is considered correct.

While some dairymen claim to have obtained good results from feeding no other concentrate than velvet beans, it is not generally believed that this is a wise practice, especially when cottonseed meal is ranging around its present price. Therefore, while the dairymen have been bearing down on the velvet bean heavier than usual and saving themselves some cost, as a rule a combination of silage, velvet beans, and cottonseed meal in right proportions, will give better results.

Dairymen are finding that beans soaked for a few hours give quite as good result as feeding them ground, hence a saving in labor. How generally this practice has proven its merit, is not known, but some carefully conducted experiments recommend it.

Labor has been the one cost in dairying that has advanced most. Because it is an early and late sort of labor, it has been difficult to supply. Even when a sorry kind is obtained, competition is so great that it is hard to hold it. Dairying, therefore, has had to stand a greater increased cost in labor than probably any other industry.

Dairying in the South has suffered from losing quite a number of the government and college specialists in extension work. Much of the extension work of all agricultural lines was being performed by young men who were among the first to go to the war. It has been no easy matter to replace these workers, and projects which they had well under way are languishing. One of the results of the loss of these workers has been less interest in purchasing pure-breds than would otherwise have been the case at this time.

Georgia. CHARLES A. WHITTLE.

War Pork on Soy Beans

HOARD'S DAIRYMAN:—Dollars may come, but dollars do go in these war times. Most men are patriotic but we cannot expect a farmer to be patriotic and raise more pork unless he receives a reasonable return for his efforts. How the eastern farmer may get these returns is shown by the results of an experiment finished October 20, at the Delaware Experiment Station.

Ten crossbred Berkshire-Yorkshire pigs averaging 157.5 lbs. each were placed in a five-eighths acre lot that had been seeded broadcast to Wilson soy beans on May 3. The beans were hardened and the pods turning when the pigs began the operation of converting them into pork on September 10. The forage was exhausted on October 20.



GUERSNEY BULL, LANGWATER EMIGRANT, OWNED BY H. W. BATEMAN, WASHINGTON

The sire of this bull is Jethro Bass, that is out of Imp. King of the May and Dolly Bloom; and his dam is by May Rose King and out of Imp. Pride of Home. His four nearest dams have A. R. records averaging 677.65 lbs. fat. Mr. Bateman is not afraid of an aged bull, for Langwater Emigrant was ten years old when he recently purchased him from Calkins & Riggs of Oregon. Note that exercise is provided for this animal.

In addition to the forage these pigs were given constant access to hominy feed and digester tankage in separate feeders. The table below tells the whole story:

Number of pigs raised	10
Number of days fed	40
Average initial weight September 10	157.5 lbs.
Average final weight October 20	228 lbs.
Total gain of group	704.7 lbs.
Average daily gain per pig	1.76 lbs.
Total hominy feed consumed	1953 lbs.
Hominy feed eaten per pig daily	4.88 lbs.
Total tankage consumed	148 lbs.
Tankage eaten per pig daily	.37 lbs.
Total grain consumed	2101 lbs.
Total grain eaten per pig daily	5.25 lbs.
Hominy feed consumed per 100 lbs. gain	277.1 lbs.
Tankage consumed per 100 lbs. gain	21 lbs.
Total grain consumed per 100 lbs. gain	298.1 lbs.
Grain cost per 100 lbs. gain	$7.98
Total soy bean forage consumed	.625 acre
Forage required with grain per 100 lbs. gain	.0886 acre
Pork from one acre of soy beans with grain	1127.5 lbs.
Cost of grain to produce 1127.5 lbs. gain	$89.97
Value of pork produced on one acre of soy bean forage with grain, pork selling at $20	$225.50
Returns from one acre of soy bean forage	$135.53

The five-eighths acre of soy beans furnished good forage for the ten head for forty days. At this rate one acre would pasture twenty-one and one-third pigs for thirty days, and this is about the proper length of feeding period to get the most out of the forage.

The pigs gained 704.7 lbs. during the period at the rate of 1.76 lbs. each daily, and finished at the satisfactory market weight of 228 lbs. Their condition was prime and their dressed percentage excellent when they went to market.

The feed consumption is a very pertinent question here. What did these pigs do? They ate on an average 4.88 lbs. hominy feed and .37 lb. tankage daily beside their dessert of soy beans. To make 100 lbs. increase in weight they only require 298 lbs. of grain. Figuring hominy feed at $50 per ton and tankage at $100 the cost of grain for 100 lbs. increase in live weight is $7.98.

Five-eighths of an acre of soy beans was consumed by the ten pigs in forty days. The area of forage required with grain to make 100 lbs. gain was .0886 acre. The amount of pork produced on one acre was 1,127.5 lbs. To make this 1,127.5 lbs. of pork there must be an outlay of $89.97 for grain. These pigs sold for $20 per hundred weight. The value of the pork from one acre of soy beans amounted to $225.50. The net return from an acre of soy beans is the neat sum of $135.53.

The above results are not overdrawn but represent what can actually be accomplished by ordinary business-like methods. The fact that the self-feeder was used and that the pigs gathered part of their own feed is no small item when labor is at a premium. Moreover, the manure was deposited over the pasture lot free of charge. Can there be a more inviting field of service for the farmer in these strenuous times than the making of pork on forage crops?

FRANK A. HAYES.
Delaware College of Agriculture.

Breeding Paid

HOARD'S DAIRYMAN:—At a sale last week where a herd of dairy cows was dispersed, eight cows of unknown breeding sold at an average price of $61. Sixteen grade Guernsey cows and heifers sold at an average price of $150. The sixteen grades were sired by a son of one of the famous bulls of the breed. The extra cost of the pure-bred sire was returned many times in the extra $90 that was received for each of his offspring, to say nothing of the increased production.

Maryland. G. E. WOLCOTT,
Dairy Husbandman.



This Champion

Brown Swiss

—a five-year-old, has made the remarkable yearly production record of 16,804.4 lbs. of milk and 727.64 lbs. of butterfat. Not every dairyman has a cow that could equal that record, but almost every one has several cows that could produce far more than at present, if they were as perfect in health as this animal.

No matter how well you feed or care for your dairy cows, you must remember they have vital organs that get out of order, just as human beings have. And nowadays there's

A Premium On Health!

Never before has it paid so handsomely to get every extra pound of milk from every cow in the dairy. You can see the profit in milk, now.

The digestive and genital organs are the seat of practically all disorders in cows. Barrenness, Abortion, Scouring, Retained Afterbirth, Lost Appetite, Bunches and other cow ailments usually arise from "forcing" the cow's production without aiding nature in the rebuilding process.

KOW-KURE has met with great success in the treatment and prevention of cow diseases because it acts on just the organs that the troubles start in—toning them up and aiding the cow to produce and reproduce with regularity. And the value of KOW-KURE for the prevention of these diseases is no longer questioned by dairymen.

Send today for your free copy of our book,

"The Home Cow Doctor"

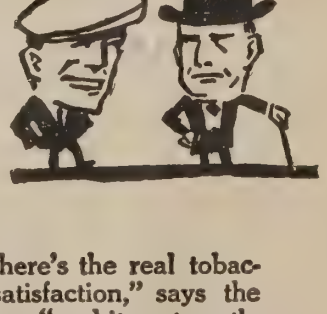
It tells proper treatment for each disease and gives much general information of value to dairymen.

Buy KOW-KURE from feed dealers or druggists; 60c. and $1.20 packages.

DAIRY ASSOCIATION CO.
Lyndonville, Vt.



Mike laughed at the Judge



for chewing Gravely.

The Judge came right back at Mike with a friendly chew—just a couple of little squares off his plug of Real Gravely.

Mike found that the chew stayed with him for a long while, and the more he chewed the better it tasted.

"There's the real tobacco satisfaction," says the Judge: "and it costs nothing extra to chew this class of plug."

• • • •

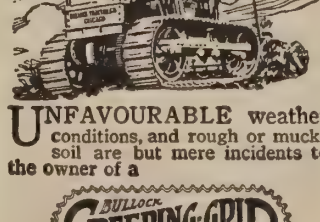
It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND

Real Gravely Chewing Plug

each piece packed in a pouch

P. B. GRAVELY TOBACCO CO., DANVILLE, VA.



UNFAVOURABLE weather conditions, and rough or mucky soil are but mere incidents to the owner of a

BULLOCK CREEPING-GRIP TRACTOR

Protected by U. S Patents

Like the British Battle Tank, of which it is THE PROTOTYPE, it will "Go Over the Top" of any soil in any weather. Therefore, the CREEPING GRIP is on the job every month of the year. It increases your profits because it works when there is work to do, and because it eats no high-priced grain when standing idle.

The BULLOCK CREEPING GRIP promises to do more and better work than three men and six horses on any farm. Will you give it a chance to make this promise good?

A three or four bottom tractor, depending on soil conditions. Write for catalog TODAY.

BULLOCK TRACTOR COMPANY
1809 Diversey Parkway, Chicago
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FROZEN FISH

Write for prices on complete line Frozen, Smoked, Salted and Spiced Fish. Lowest prices and best quality. Badger Fish Co., Dept. 1, Green Bay, Wis.

When Writing to Advertisers, Mention Hoard's Dairyman

A Well Managed Dairy F

(Continued from page 693)

the spring. Since he has been co ing the cement with planks there been no serious udder trouble in herd. Another practice not comm observed is that of mixing salt the feed before giving it to the c He believes that cows appreciate feed and salt mixed just as human

Raising Calves

Mr. Beelman is especially suc ful in raising calves. At the pre there are 21 calves in the barn. calves have been lost during the year and but two or three in the preceding years. Regularity and in feeding receive the credit fo fine looking calves now in the After birth the calves are left their mothers for three or four They are then fed two parts v milk and one part skimmilk. The portion of skimmilk is graduall creased so that the calves are re ing no whole milk when they three weeks old. At that age young stock are taught to eat Grain is thereafter fed in quan sufficient to keep the young an growing thriftily. By feeding immediately after skimmilk, it been their experience that the c do not suck one another. With so high in price the manager that he can economically feed skimmilk until the young animal one year old. Much sickness a the calves is avoided by having e thing absolutely clean. All pail of which the calves are fed are ilized daily and then allowed to in the sun.

Disposition of Product

The product is all sold as crea a fat basis. When the milki about two-thirds done the sepa is started so that the separatin be finished very soon after the ers are through. The motor that the separator also pumps water runs through cement tanks. cream cans are placed in these where they are immediately As soon as the cream is thorc cooled it is hauled to the railroa tion where part is shipped to cream factory and the remainde local creamery. Because of the tary conditions which prevail thr out the entire barn and milk the cream is sold at a premium the ordinary market price.

Interesting Dairy Notes from

(Continued from page 691)

$135 and higher prices prevai Curiously enough heifer calves little demand. At one sale brought less than real prices, i ing little faith in the future. dairy stock represented here pr half of the total is Jersey blo lowed by Holsteins and a few seys. Mostly, however, we scrub stock and the redder a and the broader across the the more we bid for her at Some folks would call them "s but when we try to sell them w to them as "milking Shorthorn

In general in the southern section conditions for dairyi the present and immediate look promising and it should b vorable time to locate here fo one who has capital, cows, a ability to handle them. The is moderate, requiring but co tively small expense for housin or feed; the market is good likely to remain so; and the s yield heavily of the crops of the dairy cow is fond. In fact are only two things necessary t this a great dairy country, some cows and some dairymen

HE BADGER LINE of FARM FEEDS



THE FEEDS WITH A HOMINY FEED BASE

[IVE famous ger Feeds, made from oved formu- the result of s of careful feed- tests by practical ers.

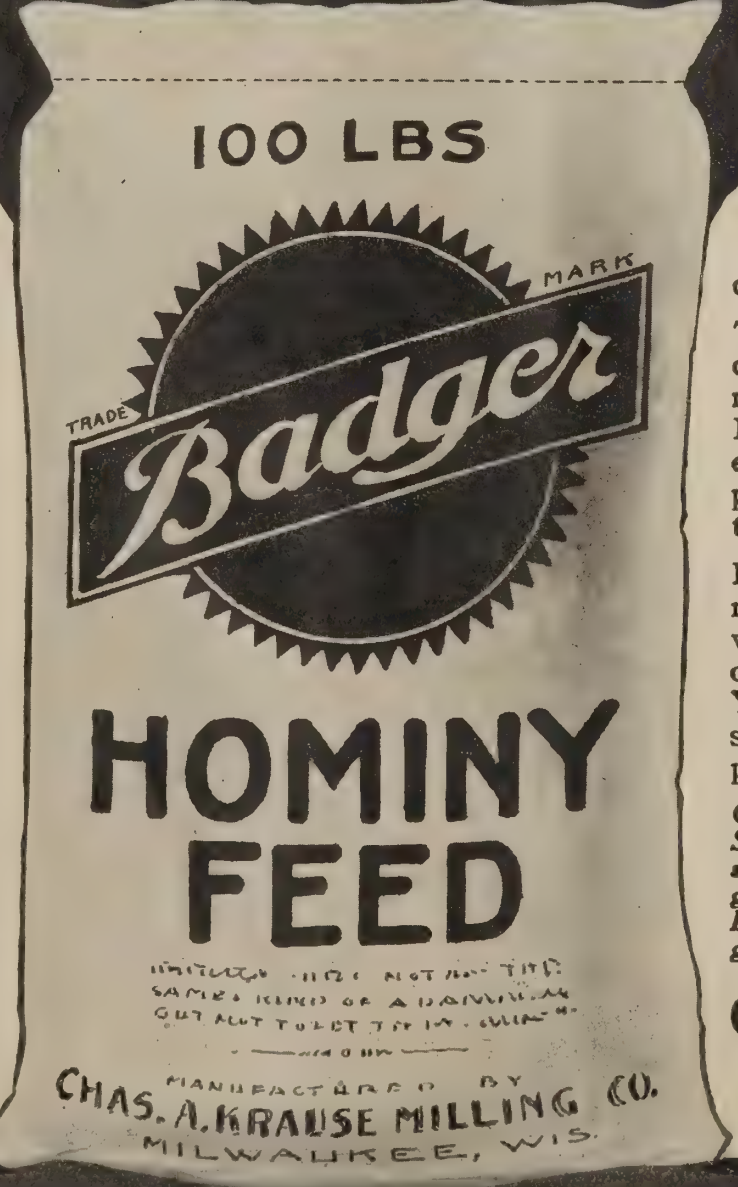
the base of each Bad- Feed is ***Badger Hominy l, the most nutritious sin- feed stuff known.***

ger Hominy Feed needs no in- uction. It has been known and for many years by the most essful feeders in the country. It carbohydrate feed that can be for all live stock—no other feed will take its place.

ger Hominy Feed is superior in ing value to the natural grain use it contains a larger percent- of tissue building material than whole corn and in the process of ng is partially cooked which es it more digestible. In it is included the mill run of Corn n Meal—the germ or fatty part ne corn from which the oil has partially extracted. This makes ger a far more valuable feed any other ordinary hominy feed he market.

uable as Badger Hominy Feed is base, it is too rich to be used nomically alone except in a very cases.

secure the correct proportions of eins, fats and carbohydrates,



Badger Hominy Feed should be combined with various other feed stuffs.

But in these times of extreme labor shortage, successful feeders cannot take the time to mix their own feed. They know also that the feeds they mix themselves cannot be as scientifically accurate and dependable as feeds that are prepared under tested and approved formulas and are chemically correct.

The proteins, fats and carbohydrates contained in different feedstuffs differ not only in quantity but in quality. Each Badger Feed contains a different combination of ingredients so proportioned as to make it exactly the right feed for its special purpose.

Badger Feeds are proved money makers, to which thousands of feeders will testify. They will cover the needs of every class of stock on your farm. You will find them absolutely reliable, splendidly adapted to their specific purposes and unvarying in quality.

Get your supply of Badger Feeds now. See your dealer at once. Send for free samples and literature covering Badger Cream City Dairy Feed, Krause Dairy Feed, Badger Calf Meal, Badger Hog Feed and Badger Stock Feed.

Chas. A. Krause Milling Co.

Manufacturers of the Badger Line of Farm Feeds

Milwaukee, Wisconsin



Applied Patriotism

Woman has made herself indispensable to the Nation's war activities. This is being demonstrated daily in many splendid ways. The telephone operator takes her place in the front ranks of our "national army" of women.

Back of the scenes, invisible, her war work is to make telephone communication possible. Through her the Chief of Staff in Washington speaks to the Cantonment Commandant in a far-off state. The touch of her fingers forges a chain of conversation from Shipping Board to shipyard, Quartermaster General to supply depot, merchant to manufacturer, city to country, office to home.

Without her this increasing complexity of military, business and civil life could not be kept smoothly working. Hers is patriotism applied. She is performing her part with enthusiasm and fidelity.

The increasing pressure of war work continually calls for more and more telephone operators, and young women in every community are answering the summons—cheerfully and thoughtfully shouldering the responsibilities of the telephone service upon which the Nation depends. Each one who answers the call helps speed up the winning of the war.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY
AND ASSOCIATED COMPANIES

One Policy *One System* *Universal Service*

Maine Dairymen and Breeders Meet

(Continued from page 669)

lege of buying them. Maine could then have her children back home.

Secretary Houston spoke of the war and the causes leading up to it and closed by praising the farmers for what they had done to help in the feeding problem. Last year the acreage under the plow was 23 million more than in 1917 and the outlook for the coming year was still better. His department was ready to aid in the betterment of rural life in every way.

Maine. MARY B. AIKEN.

Lice on Little Pigs

We have 19 little pigs two weeks old and we notice they have lice. For the mothers we use kerosene and creosote, but don't know what to put on the little fellows.

Denver, Colo. W. A. W.

Make a solution of coal tar dip according to directions given by the manufacturer and add enough crude petroleum to make a thick scum on the surface of the solution. Dip the pigs in this solution and repeat the treatment when seen to be necessary. Provide new, clean beds. Use the solution warm and afterward protect the pigs against chill until dry.

Watertown Holstein Sale

The Watertown Holstein Sales Co. held their seventh semi-annual sale at Watertown, Wis., Nov. 21-22. One hundred forty-two animals sold for $34,390, a $242 average. This included 110 bulls and 32 females, the former averaging $188, the latter $257. The ten highest priced animals in the sale brought a total of $7,265.

One of the best animals in the sale was Salma Gewina Crescent Beauty, a 2-year-old heifer in W. H. Reed's consignment. She is sired by a 29-lb. son of King Segis Pontiac and her dam with a 31-lb. record has three times made over 30 pounds. Then, too, the heifer is in calf to Sir Korndyke Bess, a grandson of Sir Korndyke Hengerveld DeKol and from a 33.23-lb. daughter of Sir Pietertje Ormsby Mercedes and Spring Brook Bess Burke. Finally, the heifer herself is an excellent individual so that it was to be expected she would command a good price. She was purchased by the Pabst Stock Farm for $1,350.

The highest priced bull in the sale was a 9-month-old double grandson of that famous sire, King Pontiac Champion. His sire is a 31-lb. son of Champion and his dam, with 29.81 lbs. butter in 7 days, 898.59 lbs. in 1 year, is one of Champion's good daughters. The calf was consigned by the Pabst Stock Farm and purchased by E. W. Marty, Wisconsin, for $800.

Cattle from the sale were purchased by buyers from five different states, with R. Glenske of Wisconsin the heaviest buyer.

Haeger, Mack, Hellen, and Donovan did the selling, with S. T. Wood in the box.

Following is a list of all animals selling for $200 or more, prices, and buyers:

Fred Weffenbach, Wisconsin	
Salma Longfield Crescent Beauty	$700
O. J. Len, Wisconsin	
No. 1½	$230
No. 12½	215
Pabst Stock Farms, Wisconsin	
Salma Gewina Crescent Beauty	$1,350
George Hetts, Wisconsin	
Aaltje Grace Hengerveld	$1,035
John Masche, Wisconsin	
Salma Sir Pietertje Bess	$290

(Continued on page 720)

Clean Out Abortion

From Your Herd

IT CAN BE DONE BY THE PERSISTENT USE OF

Hood Farm Abortion Remedy

and

Hood Farm Breeding Powder

Hundreds of breeders have saved valuable cows and their calves by giving the Abortion Remedy promptly and freely on the first sign of abortion.

This Remedy strengthens the weak parts and helps hold the foetus. Its success has been remarkable.

Injection with Hood Farm Breeding Powder every day for 21 days before service, then every day for 21 days after service, destroys abortion germs, disinfects the organs and keeps cows in normal, healthy breeding condition.

PRICES: Abortion Remedy, prepaid, $1.25, $2.75 and $9. Breeding Powder, prepaid, $1.1 $2.75 and $5. Injection Tube, by mail, cents. One medium Breeding Powder, one m dium Abortion Remedy, one Tube, prepa $5.75.

Write for full information. Mention this p per.

C. I. HOOD CO., Lowell, Mass.

Calf Enemies

WHITE SCOURS BLACKLEG

Your Veterinarian can stamp them out with **Cutter's** Anti-Calf Scour Serum and **Cutter's Germ Free** Blackleg Filtrate and Aggressin, or **Cutter's** Blackleg Pills.

Ask him about them. If he hasn't **our** literature, write to us for information on these products.

The Cutter Laboratory
Berkeley, Cal., or Chicago, Ill.
"The Laboratory That Knows How"

ABORTION IN CATTLE



PREVENTED AND CURED PERMANENTLY
YOUR COWS MADE PROMPT, REGULAR BREEDERS BY
STERILOID

Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion and make your cows regular, health breeders with STERILOID.

GUARANTEE We will refund money in every case where STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY
Dept. A2. 398-408 Columbus Ave., New York City
Reference Colonial Bank.

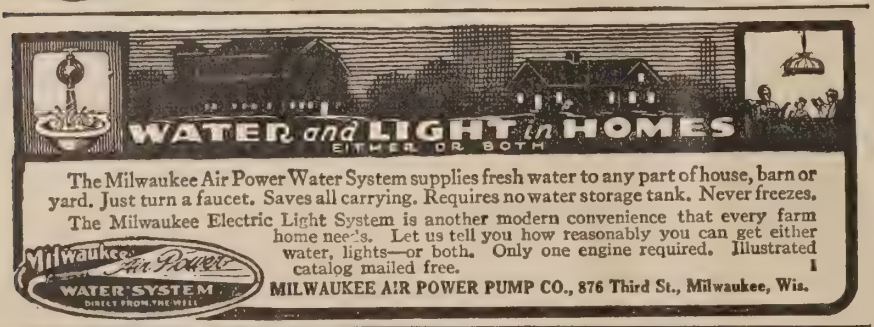
Valuable Information

You will find valuable information in the following booklets—they are based on the latest and best medical knowledge.

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
50 Broadway, New York

Send me without charge the booklet checked

- ☐ "THIRTY FEET OF DANGER" Constipation-auto-intoxication in adults
- ☐ "AS THE TWIG IS BENT" Constipation in infancy and childhood
- ☐ "THE DAYS THAT GO BEFORE" Constipation in pregnancy and nursing
- ☐ "WAGES OF NEGLECT" Constipation as a cause of piles
- ☐ "AS THE SHADOWS LENGTHEN" Constipation in old age



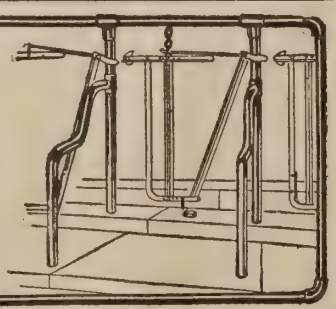
The Milwaukee Air Power Water System supplies fresh water to any part of house, barn or yard. Just turn a faucet. Saves all carrying. Requires no water storage tank. Never freezes.

The Milwaukee Electric Light System is another modern convenience that every farm home needs. Let us tell you how reasonably you can get either water, lights—or both. Only one engine required. Illustrated catalog mailed free.

Milwaukee Air Power WATER SYSTEM DIRECT FROM THE MILL

MILWAUKEE AIR POWER PUMP CO., 876 Third St., Milwaukee, Wis.

$7.60 Buys this Harris Sanitary Cow Stall



complete with Stanchion. The Stanchion has adjustable neck space—will fit anything from a small calf to a big bull. Wood-lined—no cold steel touches the neck. It is equipped with Sure Stop Bar and absolutely cow-proof latch. The Stalls are made of genuine, large-size (1½ in. inside diameter) steel pipe. Complete—any width—$7.60. Write today for descriptive folders.

Harris Mfg. Co., 540 Main St., Salem, O.

SHIP US LIVE POULTRY DRESSED POULTRY AND CREAM



LARGEST CASH BUYERS IN THE TWIN CITIES
PAY HIGHEST MARKET PRICE. NO COMMISSION CHARGED. PROMPT RETURNS. WRITE US FOR SHIPPING TAGS AND GIVE US A TRIAL
OUR MOTTO "A SQUARE DEAL"

DE SOTO CREAMERY & PRODUCE CO., MINNEAPOLIS, MINN.

Lump Jaw



The farmer's old reliable treatment for Lump Jaw in cattle.

Fleming's Actinoform

Sold for $2.50 a bottle under a positive guarantee since 1896—*your money refunded if it fails* Write today for FLEMING'S VEST-POCKET VETERINARY ADVISER A book of 197 pages and 67 illustrations. It is FREE.

FLEMING BROS., Chemists, 255 Union Stock Yards, Chicago

Chickens Sick?—Use Germozon
Roup, colds, bowel troubles, sore head, limber neck, At dealers or postpaid 75 cts. with 5 book Poultry Libr
GEO. H. LEE CO., Dept. 425, OMAHA, NE

When writing advertisers please mention Hoard's Dairyman.



The Spirit of the Red Cross Should Enter Every Home

THROUGH the Red Cross all the love of kindred and country, which gives our National soul its greatness, finds expression.

Those who love America, believe in humanity, and have faith in God, must count themselves proud to answer "present" at the Red Cross Christmas Roll Call, December 16th to 23rd, during which period the privilege of membership is to be extended to every loyal American.

Let us grasp this opportunity to make this a Red Cross Christmas.

Let us be able to tell our boys at the front, when we send them our Christmas greetings, that America stands solidly behind the Red Cross—*their Red Cross*—with full membership in every home.

Let us tell them that this beautiful spirit of love, and compassion, and generosity, and unselfish service, has entered every home in our land—from the smallest farm in Maine to the largest ranch in California.

No other message we can send will give them greater courage or encouragement. They know what the Red Cross means to them.

Join the Red Cross

All you need is a heart and a dollar

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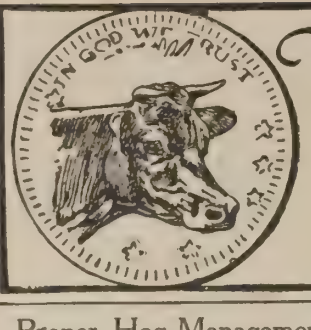
This space contributed for the Winning of the War by

HOARD'S DAIRYMAN

1919

Wear Your Button

Fly Your Flag



The JER$EY MAKES A DOLLAR WORTH MORE

Poor cows are like poor help—the more you feed them the less profitable they are. Jerseys make a dollar worth more because they give the biggest yield with the least amount of feed. In these days of conservation, the Jersey is the only breed for the working farmer who wants to lay something by for a rainy day. The least expensive breed to keep the most beautiful and satisfactory breed to have. Buy one Jersey and you will never be satisfied until you have a herd. Write to Breeders for pedigrees and prices. Ask us for the facts that have changed many a cow barn from a liability to an asset

THE AMERICAN JERSEY CATTLE CLUB 351 WEST 23rd STREET, NEW YORK CITY

Proper Hog Management to Avert Pneumonia

Swine Plague or Septicemia Hemorrhagica has been prevalent among hogs in Indiana for the past six months. A heavy death rate is uncommon except in such herds where pneumonia develops. Changeable weather is always favorable to pneumonia and especially when the resisting power of the body is lowered by exposure or some other disease. Damp beds, draughts, dust, and allowing too many hogs to pile up in one bed affords an excellent opportunity for pneumonia to strike its deathly blow.

We are now approaching the time when severe weather may visit us and we can help eliminate a possible chance of pneumonia developing in our herds by resolving:

First: To clean and spray interior of house with a strong solution of disinfectant.

Second: To eliminate all drafts.

Third: To bed with plenty of straw and change frequently.

Fourth: To divide large herds, thus preventing piling up and the hogs getting too hot.

Very few take the precaution they should in warding off disease. We should never lose sight of preventive measures and trust to any marvelous cure to be administered after pneumonia has found its way into the herd. About the only thing that can be done for such unfortunate herds is good nursing; therefore, if such time had been spent in advance of the disease the herd most likely would have escaped trouble. Proper management is bound to avert disaster.—INDIANA COLLEGE OF AGRICULTURE.

The United States exported 14.6 per cent of its wheat crop in the five years preceding the war, 1.7 per cent of the corn, 38.3 per cent of the tobacco, and 69.1 per cent of the cotton. In the three years before the war, this country exported 1.1 per cent of its oat crop, 4.4 per cent of the barley, 2.3 per cent of the rye, and 0.5 per cent of the potatoes.

WE OFFER

Three Young Island Bred Cows

—strong in the blood of Oxford Lad, Oxford Majesty, Gamboge's Knight and Golden Maid's Prince,—which we are pricing attractively. They are carrying calves, sired by sons of Oxford Lad and Royal Majesty and will freshen during the winter. Address

FINCH FARM, - DAYTON, OHIO.

We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order. Ashland Farm Dairy, Inc. ALTON PARK, TENN.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.

BULL FOR SALE

Island bred and ready for service. Dropped March 18th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 642.92 lbs. butter. Write for particulars or come and see him.
OAK GROVE JERSEY FARM,
W. M. KNIGHT, EAGLE, WISCONSIN.

Burn Brae Jerseys
Ibsen's Chief
HERD SIRE
High class bulls for sale—all ages.
CHAS. A. PETERSON, ROSENDALE, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

FOR SALE

Straight Island Bred 5-yr.-old granddaughter of Eminent and Noble of Oaklands. A show cow and producer. Bred to Mable's Noble King 146295, to freshen in January.
G. D. Gilbert, Ceylon Court Farm, Lake Geneva, Wisconsin.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale
Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY. BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea R. 2, Box 99, Baraboo, Wisconsin.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over
700 Pounds of Butter in One Year
These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of
1132 Pounds of Butter in One Year
If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.
ROYCROFT FARM, SIDNAW, MICH.

Meadside Farms
Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

SOPHIE'S TORMENTOR JERSEYS
"Production" Our Watchword
BULL CALF FOR SALE

Our No. 252, dropped April 29, 1918; solid golden fawn with black tongue and switch; well grown for his age and an excellent individual in every respect.
SIRE—Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. 85% butter, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM—Van's Warden Lady 336390, an excellent individual of extremely good dairy type. Write for particulars.
FAIRVIEW FARMS, INC.,
R. L. PIKE, Genl. Mgr. P.O. Box 1404
ATLANTA, GA.

AYRSHIRES

THE PERFECT COW

For Information write to
AYRSHIRE BREEDERS ASSOCIATION
BRANDON, VERMONT



World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicohn.
A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.



ALTA CREST FARM AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

Ridgewood Farm
WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr.

REGISTERED AYRSHIRE FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ill.

Willowmoor Ayrshires

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle)

RED POLLED

Closing Out of Red Poll Herd

Consisting of Herd Bull, seven years old, 11 cows and six heifers, all bred; one two-year-old not bred, two heifer calves, one bull calf. Sell to make room for Holsteins.
RICHLAND COUNTY ASYLUM FARM
Chas. W. Snyder, Supt., Richland Center, Wis.

BROWN SWISS

Walhalla Farms
Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years experience is back of every one. Write us.
F. FREEMYER, WALHALLA FARMS, Middleburgh, N.Y.

FOR SALE
Brown Swiss Bull Calves

8-10 months old. Good individuals. Sired by a bull whose dam milked over 16000 pounds of milk. Priced to sell.
Hawthorn Farm, Hawthorn Farm P.O.
Lake County, Illinois.

SWINE

POLAND CHINAS

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Ex

Herd boars and farm boars, open gilts shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell what you want. We can please you. Many pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, Pa.

Cedar Crest Farm Berkshires
Cholera Immune

The wonderful bargains we offered in Berks were so quickly taken advantage of that we have single boar of serviceable age for sale and only brood sows, weighing 250 to 300 lbs. bred for the or second litter and a limited number of unbr gilts. Our stock is right and our price is right. us today for complete information. Remember come first served—the quicker your order is plac better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Vi

Kilehurst Farm
DUROCS OF QUALITY

We have a limited number of choice Spring Boa Gilts left. Order now. Prices right. We will you. Kilehurst Farm, Elwyn F. Bradley, Manager, Momence

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.

His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.

His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE H'LL FARMS, Spencer, Massachusetts

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent
Cooperstown, New York.

GUERNSEYS

ıbulations made by the U. S. epartment of Agriculture show at the average income over cost feed from one cow that oduces 450 lbs. fat is equal the average income over cost of feed om 20 cows that produce 100 lbs. each. ıe average of all official Guernsey recds is 450 lbs. fat. Learn more about ese profitable cows. Ask for our free oklet "The Story of the Guernsey".

ıe American Guernsey Cattle Club
x H Peterboro, N. H.

ION'T DELAY MAY ROSE!

Breeding, individuality and production. Grape Lawn May King 45483 for sale. Dropped December 9, 1913, sired by Langwater Cavalier 21[illegible] A. R., a double grandson of King of the May, and sire of a number of first calf heifers with records from 500 to 700 pounds A. Dam, Lassie of Ledyard 19105, A. R. 417, a former double class leader. Has two A. R. daughters and one A. R. son, another son with a 501-lb. two-year-old. One of her daughters in one month made 64 lbs. fat in Class D, second calf. This bull is good enough for anyone. Government tested.

W. H. Gould, Grape Lawn, Burkeville, Va.

IPLAND FARMS

Ipswich, Mass.

ffers for sale a Bull Calf dropped ebruary 4, 1918.

red by—*Langwater Cavalier* No. 012. (A Double Grandson of ıp. King of the May 9001.)

am—Imp. Chywoone Eulalia No. 538. Record of *10,686.8* lbs. Milk *558.62* lbs. fat in Class B.

rice and full particulars on reest. F. P. Frazier & Son, Props.
W. K. Hepburn, Supt.

bamont Guernseys

Headed by

n Diavolo of Linda Vista the Great $10,000 Bull

oicest young bulls and several heifers for at reasonable prices.
S. Bureau Animal Industry Health certie with all animals over 6 mos. old.
. HAARTZ, 10 High St., Boston, Mass.

reenway Farm Guernseys

WARE, MASS.

ng bulls of May Rose breeding out of A. R. and cows now on test. Herd tuberculin ed. Prices low.
GEORGE H. TIMMINS, Prop.

he Mixter Farm

325 GUERNSEYS 325

cellent bull calves for sale at exceptionally low . It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

ILLSWOLD FARM

Shrewsbury, Mass.

gistered Guernsey bull calves for sale. Dams in nced Registry and tuberculin tested. Prices right nimals guaranteed to suit. W. A. Cloues, Mgr.

ERAR GUERNSEYS

Production
Reproduction
Quality.....

ecial offer until November 1st. Bulls from weeks to one year for $75.00 to $400.00.
is McL. Merryman, Cockeysville, Md.

Choice Young BULLS

MELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Backed by Production at reasonable prices.
Raemelton Farm,
Mansfield, Ohio.

ung Cows, Heifers and Bulls

the greatest prize-winning herd of the Guernsey d, at reasonable prices. My catalogue tells what want, or come and see. L. V. AXTELL,
Homestead Farm, Perry, Ohio.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.
17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

619 POUNDS FAT

is the average of our first nine Advanced Register Records

FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175. Full particulars and pedigree from

Falcon's Flight Farms, Litchfield, Conn.

N. B.—No contagious abortion in over five years; no tuberculosis.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Mound City Farm GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.

Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

A Bargain in Guernseys

I am offering for sale several excellent young bulls up to 9 months old, sons of Hilda's Pride of Riverside, he an A. R. son of Lord Waukesha. All of these youngsters are from A. R. dams. They are well grown and good straight individuals. I am also offering 4 heifers by the same sire; 3 are 15 months old, one 4 months old. My herd is accredited. These animals are priced to sell. Write at once for pedigrees and prices. **Maple Heights Guernsey Farm, Frank E. Swan, Waukesha, Wisconsin.**

Elderwood Guernsey Farm

Offers For Sale the Following Pure-bred Animals

1 2-yr.-old heifer just fresh, whose dam is an A. R. cow with a record of 389 lbs. fat at 2 years.

1 heifer calf and bulls up to 10 mos. old from A. R. dams. **Roy Burton, Eagle, Wisconsin.**

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

Waukesha County Guernseys

Are of unusual merit and good type. Wild Wood Point offers some attractive bargains in service bull and bull calves. Some of these are from A. R. cows and cows on A. R. test. Herd has been established for 26 years and is one of the oldest in Waukesha County. Write or come and see what we have. If we cannot suit you here, we will gladly furnish conveyance to any herd in the county that you may desire to visit. Address,

WILD WOOD POINT, NASHOTAH, WIS. G. W. Adams, Prop. A. M. Sersted, Mgr

He's Ready For Heavy Service

For Sale: A two-year-old son of Kedge Anchor of the Glen from a granddaughter of Imp. Raymond of the Preel VI. The dam was first and junior champion at the 1915 Wisconsin State Fair and a real dairy cow. The bull himself is a splendid individual, very well grown. He is a brother to Polly's Beauty, 774 lbs. fat at 4 yrs. (class leader) and to Kedge Anchor Queen of Sunny Side, 505.88 lbs. fat.

Write us for full information.

Maple Hill Farm, Fruit Bros., Waukesha, Wis.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

Birchwood Guernsey Bulls For Sale

Old enough for service and younger; out of A. R. dams and sired by A. R. bulls. These bulls are good colors and good individuals. Herd on the state accredited list. Send for sale list.

M. L. WELLES, - ROSENDALE, WIS

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

We Are Offering 2 Registered Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by "Pencoyd's Golden May Secret" (39626) a son of Nella Jay 4th.

W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.

HOMER RUNDELL, LIVINGSTON, WISCONSIN.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

Registered Guernsey Bull For Sale

Dropped June 29th, 1918

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat. Dam:—Agnes of Sarnia 34514 A. R. 7373.3 lbs. milk 325 lbs. fat at 2 years. She is a daughter of Selma's Glenwood 12596. Sire of 14 A. R. daughters and a half brother of Dairymaid of Pinehurst 910 lbs. fat. Price $150. For pedigree write

FOLLY FARM, - LIBERTYVILLE, ILL.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.

"McLERAN OF MINN. WRENSHALL"

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

Dispersion Sale

Thursday, Dec. 19th

70 Head Registered HOLSTEINS 70

Sanborn & Rigby, Fonda, Ia.

Mostly young cows and heifers.

Some choice young bulls of outstanding quality and breeding.

A few older cows of good foundation stock. Several A. R. O. cows.

Large, growthy, 2-year-old heifers promising to be good producers. Granddaughters of King of the Pontiacs, King Segis and Colantha Johanna Lad.

Herd bull is splendid 3-year-old son of Spring Farm Pontiac Cornucopia and Orfa Pontiac, 31 lbs. butter. He shows wonderful individuality. Many of his calves are in this sale and show the quality which promises high production. The cows and two-year-old heifers are in calf to this great sire.

This herd has been built up here on the farm. Everything is to be sold. Sale will be held in a comfortable tent on the farm one-half mile south of Fonda, Iowa.

Trains will be met and free transportation furnished for visitors. A free lunch at noon. Write for catalog.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World, Duchess Skylark Ormsby

Sons of Sir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Ormsby Skylark fast enough to take care of the inquiries which we are receiving.

MAXWELL FARMS, WATERLOO, IOWA



We Will Sell One-half Interest in King Korndyke Sadie Vale 24th No. 163939

He is a son of *King Korndyke Sadie Vale* from a 20-lb. 2-year-old daughter of *King Segis De Kol Korndyke.* The only reason we are selling him is that we have purchased *Woodcrest Sir Clyde* 20179 to breed on his daughters. We will test and develop daughters of King and will not sell to any party that will not do the same. Write for particulars. A few good sons of King for sale.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from a world's record dam in yearly division. Breeding, size, individuality and price that will meet your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

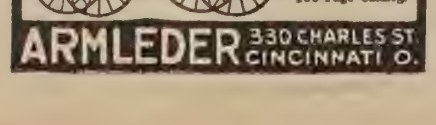
L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.



Safe and Sure

catches easily and locks firmly. Has straight pull—no twisting. Your bull will respect the

KEYSTONE BULL STAFF

Shepherd's crook, automatic latch, easy to release, taper socket riveted fast to 5-foot heavy ash handle.

Guaranteed.
Write for free circular.

M. T. PHILLIPS, BOX 109B, POMEROY, PA.

ARMLEDER MILK WAGONS

Satisfy For Years

Convenient Terms
Prompt Shipment
303 Styles & Sizes
Write for Free 100-Page Catalog.

ARMLEDER 330 CHARLES ST. CINCINNATI O.

FOR SALE

Pure-bred

Holstein Bull

Six months old. Dam's seven-day record: 32.63 lbs. butter from 657 lbs. milk. Sire's dam's seven-day record: 31.82 lbs. butter from 625 lbs. milk. Dam now on semi-official test, and at the end of her sixth month she was milking 70 pounds per day and had to her credit 12,700 pounds of milk and about 570 pounds of butter. Will make attractive price to move soon. Might sell his 21 months old full brother that we have been using slightly in our own herd. Federally tested for tuberculosis. No abortion. AVALON FARMS,

E. D. Curtis, Owner. Bantam, Conn.

GET-A-WITTE

Kerosene Engine

Buy on your own terms. Save $15 to $200. Catalog FREE.

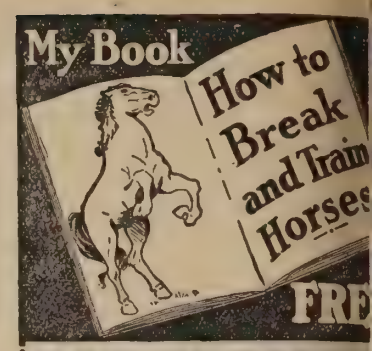
WITTE ENGINE WORKS
1640 Oakland Ave., Kansas City, Mo.
1640 Empire Bldg., Pittsburgh, Pa.

Watertown Holstein Sale

(Continued from page 716)

John L. Fisher, Wisconsin	
Kayewood Martha Johanna	$275
Gem Rigtje Johanna Bonheur	$205
Hertz & Douglas, Louisiana	
DeKol Pietertje Vale	$225
R. D. Marshall, Wisconsin	
No. 6	$200
Wisconsin Star DeKol Mercedes	455
La Kota True Lass DeKol	330
Creole Belle Hiawatha Segis	260
E. H. Deikson, Illinois	
Pearl Nephele 2d	$350
No. 146	205
Aaggie Greene Korndyke DeKol	265
Henry Schlicher, Wisconsin	
Belle Flora Wayne	$385
Watson Josie 2d	300
John D. Hetts, Wisconsin	
Mercedes Johanna Hengerveld 2d	$710
O. B. Hamabagon, Illinois	
Pinehurst Rose	$420
A. W. Fisher, Illinois	
Tyranena American Ivy	$870
Courtland Korndyke Rose	415
N. W. Peabody, Wisconsin	
King Segis Pontiac 26th	$300
R. Genske, Wisconsin	
Mercedes Foxey Korndyke	$300
Berty Segis Korndyke	260
Coral DeKol Beryl Wayne Lass	300
Maud Blanche DeKol	425
Violet Farm Pet Pontiac Ormsby	320
Beauty Ormsby Burke	300
J. C. Bolger, Wisconsin	
Green Valley Princess DeKol 3d	$240
Green Valley Princess DeKol 4th	240
King Canary Oak Fern Johanna DeKol	235
F. Gronert, Wisconsin	
King Canary Wayne Akkrummer	$265
A. Daws, Minnesota	
King Canary Oak DeKol Mercedes	$225
No. 77	230
Heilo Aaggie Canary 2d	310
Anton S. Omerson, Wisconsin	
Harvest Beets DeKol	$320
Courtland Korndyke Gewina	415
John Friday, Wisconsin	
Antoinette Aaggie DeKol	$270
H. O. Olson, Illinois	
Aaggie Tiekje Countess 3d	$380
Rhoda Mercedes DeKol Homestead	250
S. E. Jones	
Leda Snowflake 2d	$405
Mutual Pride Bessie Homestead	265
Idylle Haven Kash Pietertje	335
No. 163	250
A. A. Thornson, Wisconsin	
Wild Rose Hengerveld DeKol	$225
Colantha Hengerveld Elsie	205
Chas. Hauser, Illinois	
Harvest Beets Agatha Pontiac	$295
L. W. Frey, Wisconsin	
Almeda Hengerveld Johanna	$350
Colantha Hengerveld Fobes	265
J. P. Torry, Wisconsin	
Colantha Johanna	$430
John Winkler, Wisconsin	
Meadowview Nettie Homestead	$280
Highland Mercedes Polkadot	250
Theo. Luck, Wisconsin	
Johanna Boy Tivisk	$255
James Healy, Wisconsin	
Maude Aaggie Mercedes 2d	$285
Fair Lawn Stock Farms, Wisconsin	
Maid Mercedes Jane Pride	$300
Maid of Oak Grove Mercedes 2d	255
Herman Ludke, Wisconsin	
Rosa Maid Terzoal	$255
O. M. Harahbarat, Illinois	
Polkadot Pride	$325
Louis Nehles, Wisconsin	
Sir Nixie Wayne	$250
Dewitt Owens, Wisconsin	
Sir Piebe Belle Pinehurst	$265
W. F. Wick, Wisconsin	
Piebe Laura Segis 2d	$200
Heilo Aaggie Diploma Canary	300
L. J. Garske, North Dakota	
Beauty Sunnyside	$330
Lorea DeKol Wild Rose	235
Agnes Johanna Inka	305
Korndyke Wisconsin Johanna	200
S. Uhert, Wisconsin	
Westmoreland Clothilde	$440
Emil Tesch, Wisconsin	
Dolie Pontiac DeKol	$205
Royal Haul, Wisconsin	
Clothilde Piebe	$200
John Wehinger, Wisconsin	
True Homestead DeKol	$300
Bente Bros., Wisconsin	
Maggie Ace Beets	$200
J. W. Mullen, Wisconsin	
Lizzie Peggotty Oak DeKol	$260
Ettie Angeline DeKol	350
O. J. Stauffacher, Wisconsin	
Sally Brass Ace Beets	$260
Jacob Schlicher, Wisconsin	
Estata Homestead DeKol 2d	$240
Allrite Piebe Laura	225
A. W. Starke, Wisconsin	
Piebe Estata DeKol 6th	$260
Yeslet Champion Pontiac	210
Reed & Kriesen, Wisconsin	
Princess Star Fobes	$260
J. C. Wanda, Wisconsin	
Inky Korndyke Estata DeKol	$200
O. G. Morris, Wisconsin	
Richard DeKol Cornucopia	$300
E. W. Marty, Wisconsin	
Pabst Pontiac Anthony	$800
Louis Nelson, Wisconsin	
Madam Johanna 3d	$200

People who cease to fight do not cease to eat.

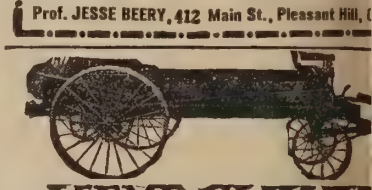


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MY free book will amaze you. See the money that is being made by thos taught my famous system of horse break and training! Wild colts and vicious, unm ageable horses can be picked up for a so By my methods you can quickly transform them gentle, willing workers and re-sell them at a big pr You can also earn fat fees breaking colts and trai horses for others.

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KEMP-CLIMAX SPREADER

Pays Big Profits to User

SPREADS all kinds of barn manure, fertilizer, lime, etc., evenly, quick with least draft. **Flat Tooth—Inclos Cylinder,** shreds in wide, uniform stri does not clog or bunch manure. Teeth reversible, flat, self-sharpening.

Sells On Its Merits.

ONLY TWO HORSES PULL IT EASI

Write for catalog and prices. Ask for "Sav and Application of Manure", by the inventor the manure spreader. We have a g proposition for dealers.

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25% AND MO
O NEVER LE

We never have known a gle instance in which Wa sha Limestone failed to increase production enough to pay at leas on the lime cost.



For Agricultural *an* Horlicultural Purpos

Don't get the idea that it have helped *some* land, but w help *yours. It will*—and one plication will prove it. Get our boo "How You Can Do More". It cost you a cent and will show you others — *absolutely every one* — done in increased profits.



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Ear Tags, Bull Staff and Rings. Description and prices sent on application. 300,000 of these ear tags have been sold without adverse criticism. 500 of these BullStaffs areused by the best breeders in the business.



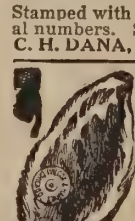
H. A. Moyer, Syrac



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The "STAY THER

Aluminum Ear Mark

are the best. Being made of alum they are brighter, lighter, stro and more durable than any othe any part of the ear. Nothing to ca feed trough or other obstacle. name, address and any series of bers on each tag. Sample tag, c and prices mailed free. Ask for

Address Wilcox & Harvey Mfg 568 W. Randolph St., Chicag

CANADIAN RANCH FOR SALE

One of the finest wheat and stock ranch Alberta for sale. Contains 800 acres—250 in tivation. Elaborately improved; good w If you want a farm and home that will pa itself in one year, see this. Priced for quick at $35 per acre. Terms—for photos an information, write owner,

BOX 13, - BIG VALLEY, A

Sir Inka Prilly Segis Albino

Born Dec. 3rd, 1917.

Real Bull For Some Small Breeder.

IF YOU ARE A SMALL BREEDER or beginner in the Holstein business and in the market for a herd sire, here is one that is worthy of your best consideration.

JUST A YEAR OLD—Ready for service. He is well grown, a splendid individual with faultless topline and marked nearly all white. As an individual he will suit the most particular.

SIR INKA PRILLY SEGIS, his sire, is one of the famous sons of the great King Segis, who has proved himself to be one of the greatest, if not the greatest, transmitting sires of the breed.

THE DAM OF SIR INKA PRILLY SEGIS is Inka Prilly with a record of 30 lbs. in 7 days. She is from a 25-lb. daughter of old Prilly and sired by a grandson of this same famous foundation cow.

THE DAM OF SIR INKA PRILLY SEGIS ALBINO is Princess Douglas Urmagel, a 24-lb. four-year-old daughter of Sir Urmagel Burke, a full brother to the 35-lb. cow, Urma Burke, and from the 31-lb. cow, Urmagelsche 2d A.

PRINCESS DOUGLAS URMAGEL is from a 29-lb. four-year-old daughter of DeKol Beets Segis, another well known son of King Segis.

THE THREE NEAREST DAMS of this young bull average over 28 lbs. Two of them being only four-year-olds. His seven nearest dams average 26.93 and his eighteen nearest dams average 26.77.

HE CARRIES THE SAME RELATIONSHIP TO King Segis as Segis Fayne Johanna, the only 50-lb. cow, Fancher Farm Maxie, the world's champion heifer with 47 lbs., and Mabel Segis Korndyke, former champion four-year-old with 40.32 lbs.

HE CARRIES A DOUBLE CROSS of both King Segis and the famous foundation cow, Prilly,—both animals familiar to breeders from coast to coast.

AND WE ARE OFFERING this young bull to you for $650, guaranteed sound in every respect and tuberculin tested by Federal veterinarians.

IF YOU WANT HIM, do not wait to write but send us a wire instructing us to hold for you.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owa'onna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was ***Grand Champion*** of a ***National Dairy Show.*** A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. POYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — **HOLSTEINS** — **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.28 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Royal Oak Pontiac Lad

Born June 3rd, 1918.

A bull calf you would like. Individually good all over, inheriting the type of his sire, Aaggie Pontiac Grahamholm Lad, a show bull of great merit. He is dark in color, but so are some of the greatest cows of the breed. Dam, a 15-lb. Junior two-year-old, who milked 69 lbs. milk in a day. Her two nearest dams average 29 lbs. butter in 7 days. Price $125. Send for pedigree and photo. **U. L. Lashbrook & Sons, Northfield, Minn.**

A Beautifully Marked Baby Bull of Ormsby Breeding and Quality

from an A. R. O. dam. He's a choice youngster that you'll be interested in.—Yours for $150.00. Write for full information concerning him. Remember our herd is and has always been absolutely clean. **Poplar Hollow Stock Farm, P. O. Station F. - Minneapolis, Minn.**

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

Born November 1916 Black and white ❖ Born February 1917 Black and White ❖ Born May 1917 Black and White ❖ 3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

Arden Farms Winter Sale

Have You Read of Our Recent World's Records?

We Dislike to "Toot Our Own Horn," But Surely You Cannot Blame Us for Being More Than Proud of the Records We Are Making.

ARE *YOU* THINKING OF STARTING IN THE PURE-BRED BUSINESS? OR ARE YOU LOOKING FOR A SIRE TO HELP IN MAKING *YOUR HERD* ONE OF THE PROMINENT ONES?

THE BULL

IS WHAT YOU WANT. Not *A* BULL, but *THE PROPER BULL* WITH THE PROPER BLOOD LINES TO USE ON THOSE HEIFERS OF YOURS.
WE HAVE RECENTLY GOTTEN UP A LITTLE BOOKLET OF "HOLSTEIN FACTS", WHICH WE ARE QUITE SURE WOULD BE OF INTEREST TO YOU. WE CAN SHOW YOU PROOF POSITIVE OF *WHY PURE-BREDS* AND *THE BEST PURE-BREDS* PAY.
WE HAVE MADE A THOROUGH STUDY OF BLOOD LINES AND WILL BE GLAD TO OFFER YOU SUGGESTIONS AS TO THE *LOGICAL* BREEDING OF *YOUR* NEW SIRE.

WE OFFER:

BULLS FROM DAUGHTERS OF *KING SEGIS PONTIAC COUNT*, WHOSE FIRST TWENTY-FOUR DAUGHTERS TO FRESHEN BROKE MORE THAN ONE HUNDRED WORLD'S RECORDS. A SHOWING NEVER EQUALLED BY ANY OTHER SIRE OF ANY BREED. Surely you have read of the recent yearly records made by two of his daughters. THEY FAR OUTCLASSED THE FORMER RECORDS IN THEIR CLASS FOR BOTH MILK AND BUTTER.
SONS OF *PIEBE LAURA OLLIE HOMESTEAD KING*. Some of them out of the famous daughters of KING SEGIS PONTIAC COUNT. This bull is a splendid show type, which he transmits to his offspring. We thought enough of him to use him on the daughters of our GREAT SIRE. CAN WE SAY MORE THAN THAT FOR HIM?
BULLS SIRED BY *SIR ORMSBY HENGERVELD KORNDYKE*, SON OF THE FAMOUS COW, PIETERTJE MAID ORMSBY.

What More Could You Ask For?

WE OFFER YOU THE BLOOD LINES, THE A. R. O. RECORDS AND THE INDIVIDUALITY TO MAKE RECORD-BREAKING, PRIZE-WINNING HERDS.

Isn't That What We Are Looking For?

Write us for Particulars and Pedigrees, and any other information or advice which you may desire.

J. M. Hackney, Arden Farms, 601 Merchants Bank Bldg., St. Paul, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by this royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Minn.

Young Bulls From Yearly Record Dams

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official records of 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Schroeder and other noted herds. These bulls are well marked, heavy bone, straight and large for their age. We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association. J. V. Bopp, Fergus Falls, Minn.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

FAGERENG FARM

Offers a son of an

18½-lb. 7-day A. R. O. Cow

Her dam, sister of world record cow, Pietertje Maid Ormsby. Sire, son of King of the Black and Whites with many 30-lb. dams. This promising young Bull was born Mar. 18—¾ white and beautiful show type. Price reasonable. Write to **K. Olaus Finseth, Kenyon, Minnesota.**

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

CHOICE HOLSTEIN BULLS

A Few Ready for Light Service

We have a few choice young bulls for sale. They are nearly ready for service, are from A. R. O. dams and by one of Minnesota's good Holstein sires. We are short of room and so are pricing them to sell rapidly.

Write today for further information. They won't stay here long.

Fleck's Registered Holstein Farm, Ed. Fleckenstein, Mgr. Faribault, Minn.

Do You Need a Bull

We have a few mighty good ones for sale. They're backed by yearly records on both the sire's and dam's side because we know yearly production is the kind that pays. What's more their dams have been bred for a high fat test; they're the 4 per cent kind. Write today for full information. **Hargrove & Arnold Holstein Company, Norwalk, Iowa.**

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Why Not Buy Colantha Aaggie Perfection

whose dam produced 13.8 fat in seven days and 450 pounds butter in ten months, for your herd sire? Write for price and pedigree.

J. DIEDRICH, - SUMNER, IOWA.

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related to King Segis Pontiac Count and Colantha Johanna Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.**

256 STEERS FOR SALE

1, 2 and 3 years old, Herefords, Angus and Shorthorns. Weight 600 to 1,250 pounds. Choice quality. If interested, write me your wants.

HARRY I. BALL, - Fairfield, Iowa.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. **C. I. Reamer, North Liberty, Indiana.**

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.
RAY MEEKER, MUNCIE, INDIANA.
P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

10% Discount for December

On account of not being able to complete our new calf stable this fall, we have decided to sell our young bull calves at a *10%* reduction during the month of ***December*** in order to relieve our present congested quarters.

Here is an opportunity to purchase some great young sons of the noted KING PONTIAC CHAMPION and KORNDYKE SEGIS JOHANNA at unusually low figures. Send for our price list.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.

Bulls—Bulls ALL AGES

Johanna and Ormsby Breeding.

Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY
Sheboygan Falls, Wis.

Cedar Lawn Farms

A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
C. A. SCHROEDER & SONS, West Bend, Wis.

Six Bulls 10 to 13 Months Old

Sired by bull whose dam is full sister to Pietertje Maid Ormsby out of A. R. O. dams. Also 15 females from 1 year to 8 years old. Write your wants. Satisfaction guaranteed. **FAIRVIEW STOCK FARM,**
W. G. Marshall, Proprietor. Whitewater, Wis.

A Rare Chance

To secure a few choice Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. **E. A. POWELL,**
904 W. Genesee St., Syracuse, New York.

At Laurel, Mississippi

40—HEAD—40

of high class grades and pure-bred registered Holstein cattle, all ages, males and females; some are fresh, some to freshen soon. Priced for quick sale. For further information and prices write **H. H. Wickwire at Laurel, Miss. or write him at Hubbardsville, N. Y.**

BULL CALF

Dam's Record (3 yr.) 23.63 lbs.
Sire's Dam's Record 34.56 lbs.
Seven Dams Average 29 lbs.

Calf born April 6th, 1918. Fine individual, beautifully marked. Write for photo and full pedigree. Delivered express prepaid any point in U. S. A. Price $250.00.
HARRY L. BENEDICT,
R. D. No. 1, East Syracuse, New York.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

FOR SALE 27 HEAD

Pure-bred and 15-16 Pure-bred Holstein Heifers

2 and 3 years old. Well marked. 18 head to be fresh soon. Sired by a 30-lb. bull and in calf to a 30-lb. bull. A very choice lot—all my own raising.
A. H. BOSWORTH, DIXON, ILL.

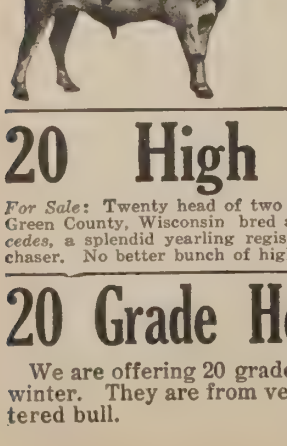
Buffalo Creek Farm

OFFERS A SON OF
Prince Hengerveld Fayne No. 77461

A 33-lb. son of King Fayne Segis. Dam's record is 18 lbs. as a 2-year-old and 24 lbs. as a 3-year-old, with a semi-official record of 13,471 lbs. of milk and 520 lbs. of butter. Pedigree and price on request. **Albert R. T. Lillie, Supt.,**
Arlington Heights, Illinois.

MILLIONS

Of dairy cows have been slaughtered in the old world. When this war is over dairy cows and products will command unheard of prices. Now is the time to get in. Send for our free price list of 100 head of choice females or if interested in a bull ask for bull list.
WOODLAWN FARM, Sterling, Illinois.



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.
JOHN PULS, - HARTFORD, WISCONSIN

20 High Grade Springers 20

For Sale: Twenty head of two and three-year-old high grade Holstein heifers, tuberculin tested. Green County, Wisconsin bred and due to calve in next three months. Also *King Mandane Mercedes*, a splendid yearling registered bull. Would agree to keep cows until January 1 for purchaser. No better bunch of high grade cows in Illinois. **W. S. Middlesworth, Shelbyville, Illinois.**

20 Grade Holstein Springers For Sale

We are offering 20 grade Holstein Heifers due to freshen late this fall and early winter. They are from very high grade cows and are carrying calves by a registered bull. **Geo. W. Callahan, R. F. D. No. 1, Knoxville, Tennessee**

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

A Chance to Buy a Son of King Korndyke Sadie Vale

At less than half his value, because he is dark in color. $400.00 buys King Korndyke Segis Johanna Ormsby, born Aug. 17, 1918. He is a large growthy fellow and a fine individual. His dam and sire's dam average over 35 lbs. butter in 7 days. Sire:—King Korndyke Sadie Vale, regarded as the greatest sire of his generation. His daughters, still heifers, are making wonderful milk and butter records. One K. K. S. V. Topsy made over 40 lbs. butter as a 3-yr.-old. He also has two other 3-yr.-olds with records over 30 lbs., and two 4-yr.-olds over 30 lbs. He is the sire of the youngest 29-lb. heifer of the breed. Dam:—Anna Johanna Ormsby, A. R. O. record as follows, butter 7 days 29.35, 30 days 122.30 lbs. She is one of the best daughters of Sadie Vale Sir Ormsby. Thus this young Bull has a double cross of old Sadie Vale Concordia.
W. D. ROBENS, POLAND, NEW YORK.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON,**
Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. **G. G. BURLINGAME, Cazenovia, N. Y.**

You Can Still Get One But Act Quickly

Nearly all of our sons **and** grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

THE TRAVERSE HERD

We have what you want in

BULL CALVES

the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dams' records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.
Traverse City State Hospital, - Traverse City, Michigan.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?
PONTIAC STATE HOSPITAL, Pontiac, Mich.



Butter Making In Holland

Butter making the chief business of the Holland Dairymen, the originators of the Holstein Friesian breed of cattle. Upwards of forty million pounds of butter per year is exported from that little country which is more per cow, and more per acre, than does any other country export.

If interested in **HOLSTEIN CATTLE** Send for our booklets—they contain much valuable information.

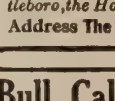
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

BULL CAL

Born Feb. 4, 1918

One-half white, a good individual, tuberculin tested. Sire, a 31-lb. son of King of the Pontiacs. Dam, a daughter of King Colantha Pontiac Korndyke. Priced to sell.
O. A. Thomas, Cedrrdale Stock Farms, Rutland, Ve

HOLSTEINS AT AUCTIO



Send for information about the s of healthy, reliable, registered cat held at **Brattleboro, Vermont, First Tuesday and Wednesda every other month, Feb. 5-6; Apr. 2-3; June Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to B tleboro, the Holstein-Friesian Capitol of Amer*
Address The Purebred Live Stock Sales Comp

Bull Calf, Born Jan. 6, 1

Sire—Colantha Johannn Champion 45674. 39 A. daughters. Son of Colantha 4th's Johanna lbs. butter in 7 days, 1,247.82 lbs. butter in 33
Dam—Emblagaard Colantha Mahomet 279872 b antha Johanna Champion 45674. Record at 2 2 months, 9 days: Butter, 7 days, 14.67; milk, butter, 30 days, 59.53; milk, 1,546.30.

This calf is three-fourths white and weighs 666 11 months. The price of this bull is exceeding! We must make room in our calf barn.
EMBLAGAARD DAIRY, Marquette, Mic

Lisle Farms C

Offer High Class

Holstein Bull

Every dam with an A. R. O. C. T. A. record. Herd tuberc tested. Prices right.

Send Today for Bull Sale List.

H. C. Barker, Herd Mgr., Lisle, Illin
Farm 25 miles West Chicago, on C. B. & Q. R.

Bloomingdale He

...HOLSTEINS...

For twenty-five years have been bre large production and good individuality. Fayne Johanna, the first 50-lb. cow, is breeding and made her first 30-lb. record in our herd. Many of the large producer been bred here. Foundation stock a spec
A. A. Courtelyou, Somerville, New J

"NO HORNS"

Naturally Polled Holstein-Friesian bull sired by a son of the **World's Record senior 4-** 1294.7 lbs. butter in 365 days, at $100 and up. Des catalogue for stamp.
GEO. E. STEVENSON & SONS, Clarks Sumn

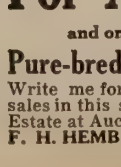
Holstein Pedigre

To Holstein breeders who appreciate p ness and accuracy in pedigree work, th *consin Live Stock Advertising Co.* will a genuine service.

We make a specialty of *sale catalogs* price is $2.50 a page including pedigree f of 500. Write for particulars.
WISCONSIN LIVE STOCK ADV.
413-14-15-16 Pioneer Bldg., Madison

Pocket Herd Register

Fits the pocket—very complete—durable. Five-ring leather cover and 100 sheets. Order today.
Live Stock Printing Company, La Grange, Il



AUCTIONEE

For pure-bred livestock and farm sales. Write me before on an auctioneer for your sale. dealing and satisfaction assured ences, State Bank of Honey Cree 15 head of pure-bred and gra steins, including herd bull, at K Farms, Oconomowoc, Wis., Sa Nov. 2nd. **FRANK DRUM**
Honey Creek, Wis.

For An Auctione

and one that knows values of both

Pure-bred and Ordinary Live S

Write me for dates as I have 95 per cent sales in this section of country. Also sel Estate at Auction.
F. H. HEMBROOK, - Chetek, Wis

33 Lbs. Butter— 13,747 Lbs. Milk

he yearly record made by Segis anna Creamelle at 3 yrs. 9 mos. age. Her 7-day record, same is 21.86 butter from 495.7 lbs. . She is dam of a fine bull calf ave for sale, born July 12, 1918. sire is a 25-lb. son of King s Pontiac and her dam a 30-lb. ghter of Vikina Johanna who e at 14 yrs. 39.43 and is dam of world's record 50.-lb. cow, Segis ne Johanna.

sire of this calf is Sir Henger- Korndyke Ormsby, son of ertje Maid Ormsby 35.56 but- 7 days and full brother to Miss ndyke Maid Ormsby, 1,255.62 er and 25,419.3 lbs. milk in a .

7 nearest dams average 30.14 er and 25,419.3 lbs. milk in a . white and a splendid individ- He represents the best breed- obtainable and is offered at a reasonable price. For furth- articulars write.

WALCOWIS FARMS,
ckinson & Son, Lake Geneva, Wis.

k River Valley Farm

Awarded

RST PRIZE

Wisconsin Dairy ow Competition

Vinner, Queen Juliana Dirkje, produced year as a 3-year-old 1,021.72 lbs. but- % fat.) Over 30 yearly record cows in aded by Mutual Piebe DeKol.

young bull calves from these cows sired bull for sale. (Herd tuberculin tested.) HETTS, FORT ATKINSON, WIS.

35.43-lb. Sire

Born Feb. 1st, 1918. Dam has a record of nearly utter 7 days. Best days milk 75 lbs. Bull is individual especially high rump, half and or. Price $175.00 delivered. No. 2. Born Feb. Dam has 20.20 lbs. at 4 years, second dam 5 lbs. 7 days. A little more white than black. ly he's a dandy. Price $200 delivered. For rticulars and pedigree address NDERSON, - WHITEWATER, WIS.

Holsteins $25

thousands of satisfied customers and t you as one. Buy the best. Five ld, 15-16 pure, $25 crated. Express O. D. Write us for anything in cattle. Roberts Stock Farms, Oconomowoc, Wisconsin.

lstein Bull Calves

. dam at 3 years 4 mos. King of the Pontiacs, d De Kol and Johanna breeding. 19 years nd selecting a producing herd. Write or bet- nd see. M. F. Peck & Sons, Marshall, Wis.

ULLS READY FOR SERVICE
l bred yearling bulls for sale. Two are by a na King of Rock, he from Queen Juliana lbs. butter in 3 years. The others trace Kol 2d's Butter Boy 3rd and Lord Netherland nous century sires. Also grades and pure- r lots and some dandy $25 heifer calves. Write ck Co., Jefferson, Wis. "A reliable dealer."

ALE—A YEARLING BULL

ding, whose dam's 3-yr.-old record with three nearest dams and his sire's three ams, average 29.62 lbs. butter in 7 days. om a daughter of Hengerveld De Kol, by a son of K.P. Pontiac Lass. His dam son of Colantha Johanna Lad. Also, s sired by a son of King Segis Pontiac, e dam is a daughter of Pontiac Korn- ed for quick sale. For further informa- GLENN WILSON, Wanatah, Ind.

Bull That Will Suit You

ed by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, ire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna e made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is hort and long time records. Individually he's a dandy, nearly half white, just the kind you've been Other young bulls by the same sire and from A. R. O. dams for sale. Write STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

SALEM STOCK FARM

We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot grown and nicely marked. This stock is priced to sell in single or car lots. Also offer tock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, s for just what you want in Holsteins or Polands. We can please you. Farm located ity Limits.

J. D. McDONALD, WEST SALEM, WISCONSIN.

. O. Holstein



make room in our barns we a number of cows and heifers cked by large official milk records. They are bred to IN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to ED. M. SCHULTZ, Hartford, Wis.



Sir Korndyke Fytje Pietertje. Sire: Sir Korndyke Hengerveld De Kol. Dam: A 23.15-lb. junior 2-year-old daughter of Sir Pietertje Ormsby Mercedes 783 lbs. butter in 1 year as a 2-year-old. Owned by Chas. J. Will, Menomonee, Falls.

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to

W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A. R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

BONAIR FARM HOLSTEINS

2 bulls ready for service. A. R. O. of dams 23.85 lbs. and 23.29 lbs. Sire's dam 23.15 in 7 days and 18431 lbs. milk and 783 lbs. butter in 1 year at 2 years old. He is the only bull whose sire, dam and full brother have all been first prize winners at any National Dairy Show. Bred for type and production. $150 each.
C. J. WILL, - TEMPLETON, WIS.

Heifers For Sale

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write
CONNELL BROS., COLGATE, WIS.

Holstein Bull 10 Months Old.

Sire, a 30-lb. son of Rag Apple Korndyke. Dam, an 18-lb. Ormsby bred cow. $150.00 takes him. Also two 9-year-old cows cheap on account of slight defects. WM. F. MIELENZ, 312 First National Bank Building, Milwaukee, Wisconsin.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old

out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. Aitken Bros., Waukesha, Wis.

SIR PIETERTJE ORMSBY MERCEDES 43rd

heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, - - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull Maplecrest King DeKol 2nd. A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Need a Bull?

Write and ask us how to get the use of a good bull for two years, sired by a 34-lb. bull—KING SUPERBA, 176125, or PABST KING PONTIAC LAD 129298, and dams with 7-day and yearly records. Dr. David Roberts Stock Farm, Waukesha, Wisconsin.

KING SUPERBA

Those who did not meet his sons and daughters at the Wisconsin State Fair have seen by the report in agricultural papers how they took the firsts and Junior champion. Individually they are correct, from A. R. O. dams.
W. J. Mann & Sons, R. 1, B. 16, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

YOUNG BULL FOR SALE

I am now offering an excellent young bull dropped February 27.

His Sire: A son of King Segis Pontiac Polkadot, that has 100% the same breeding as K. S. P. Alcartra, and from one of the good daughters of Korndyke Wayne Paul De Kol. **His Dam:** Rosa Queen Herbert De Kol, a 22.5 lb. junior, 4 year-old. This calf is well grown and a remarkably fine individual.

A few other bulls up to 11 months old, and several females for sale. Every animal guaranteed.
HALSEY SEDGWICK, Limeridge, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

For Sale—Registered Holsteins

We still have left two young bulls, excellent breeding, one about eight months old, the other about eleven mos. old, backed by splendid seven day as well as yearly records. Also four beautiful heifers, two of them about 18 months old, sired by Johanna King Segis the 40-lb. sire and out of a good A. R. O. dam. Another one about thirteen months old, her dam a show cow; sired by a 30-lb. sire. Another one about a year old, granddaughter of the $15,000 Sire. Very classy stuff. Must sell because of shortage of feed. Breeders, not dealers.
Elm Leaf Stock Farm, Bear Creek, Waupaca County, Wis.
James McKone, Prop. William Lucia, Mgr.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.

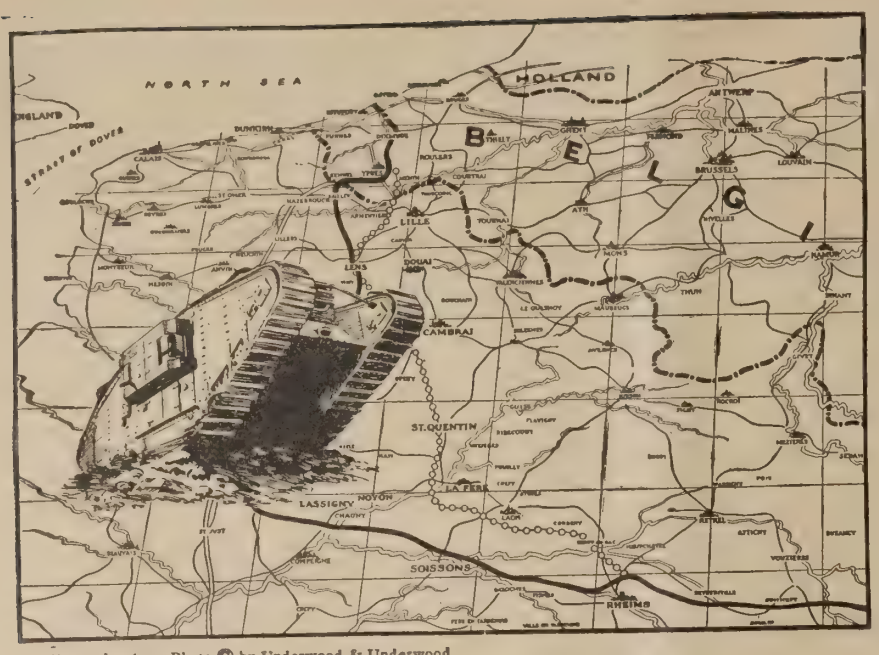
GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.



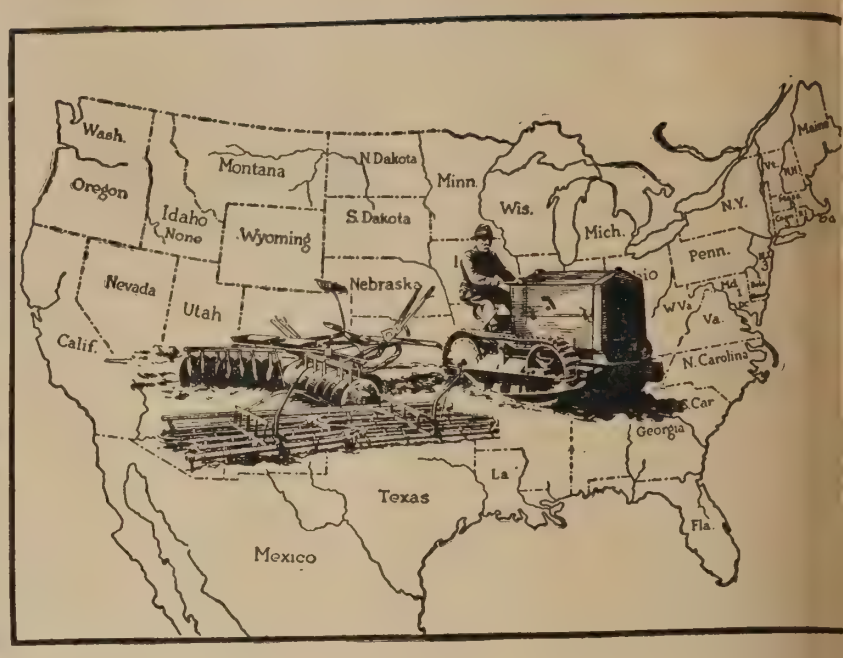


Illustration from Photo © by Underwood & Underwood

"They also Serve"

BATTERING away at the Huns' defense—the tanks have proved themselves great engines of civilization.

Dragging into position the huge guns to blaze the way to victory, are the gun tractors.

Bringing the German surrender!

Hard at work on thousands of American farms, drawing plows, planters, harvesting machinery, etc., are other engines of civilization—the American farm tractors.

"They also serve."

The tank was the outgrowth of the American farm tractor—War's adaptation of the machinery of Peace.

It would be hard to say which has the greater part in winning the great conflict—the tank and the gun tractor on the western front or the tractor on the American farm.

The part of the tank is spectacular. It thrills us in every fibre.

Crashing through death and destruction in battle, these engines of war must never fail. They must work always—smoothly, efficiently.

The most important single factor in the operation of a tank is Correct Lubrication.

The Allies know this. Practically every British tank on the western front has been lubricated with Gargoyle Mobiloils.

A Captain of the British Army (Tank Corps) recently said:

"Many a time I have gone into battle sitting on a can of Mobiloils and pumping death into the Boche."

Up in Hartford, Conn., one day a photographer was taking a picture of the British Tank "Britannia," recently used in exhibitions in this country. He asked one of the crew to remove the can of Gargoyle Mobiloils that was lying on top of the tank.

"Nothing doing," said the gunner. "It's just about lunch time and the old lady wouldn't know what to do if she didn't have some Mobiloils handy. Snap her as she is."

LESS spectacular in helping to win the war, but none the less important has been the American farm tractor—forerunner of the tank.

The tractor does its work here at home—a very vital work.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safest to purchase in original packages. Look for the Red Gargoyle on the container. If the dealer has not the grade specified for your tractor, he can easily secure it for you.

For final victory hangs as much upon food as upon money, munitions or men. Even with the war won, the world will require vast quantities of American food.

It is the tractor's part to speed up the production of food on American farms.

Like the tank, the tractor if it is to operate efficiently must have Correct Lubrication. And the tractor *must* operate constantly, efficiently.

Every breakdown on a farm tractor means loss of time—and loss of food.

The loss on any one farm may seem small, but multiply that loss by the number of tractors in operation and the total is staggering.

Tractor manufacturers and tractor owners have proved to themselves that the correct grade of Gargoyle Mobiloils used in their tractors results in greater power—less fuel consumption—less oil consumption—and fewer stops for repairs.

At the Salina, Kansas, tractor demonstration this last summer, every one of the 47 tractors exhibited was lubricated with Gargoyle Mobiloils. With their tractors on trial before the watchful eyes of thousands of people, the manufacturers were taking no chances with the efficient lubrication of their machines.

On the farm the Correct Lubrication of tractors is vital. For it is upon the farm that the foodstuffs are being produced which helped turn the foe back in the hour of need.

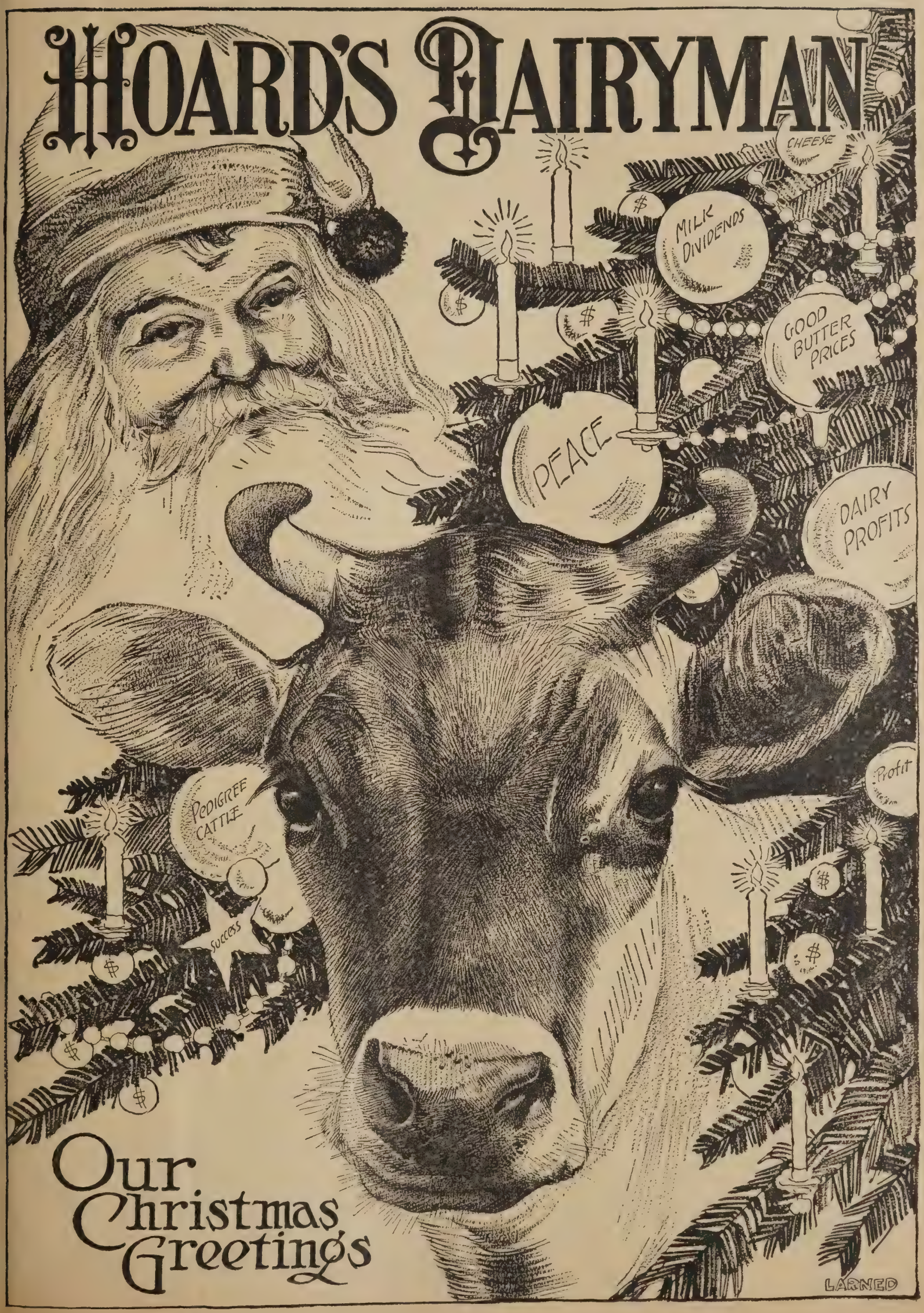
VACUUM OIL COMPANY, New York, U. S. A

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world.

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HOARD'S DAIRYMAN



Our Christmas Greetings

Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Ayrshire Cow, Canary Bell, Completes Big Record

The Ayrshire cow, Canary Bell, the ten-year-old champion cow of the state of Kansas and owned by the Kansas State Agricultural College, celebrated the signing of the armistice by completing another good A. R. record. Already holding all state records for Kansas, she made another mark for would-be rivals to aim at, finishing a mature record of 19,863 lbs. milk, 744.51 lbs. fat.

Canary Bell was born August 2, 1908. She was bred by Sam Jones & Son, Wisconsin, and owned and tested by Kansas State Agricultural College. She already had four records to her credit:

Milk Lbs.	Fat Lbs.	Milk Lbs.	Fat Lbs.
10,092	371.81	17,375	667.10
12,809	490.74	19,863	774.51
15,252	559.29		

A grand total 75,391 lbs. milk, 2,863.45 lbs. fat in five lactation periods or an average for five years of 15,078 lbs. milk, 572.69 lbs. fat. Her records show a steady increase year by year and with age she has developed into a strong, vigorous animal, capable of still greater work.

This cow's records are all the more attractive because she has produced offspring which promise to rival her. Melrose Canary Bell, a daughter, has a record of 13,891.1 lbs. milk, 505.5 lbs. fat as a two-year-old.

Canary Bell has the highest record of any living cow in the state and her new record is the highest milk production recorded in the Ayrshire Association's mature class this year.

J. G. WATSON.

Management of barnyard manure on farms differs greatly in the same locality and the best yields are usually found where it is given the best care.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

Christmas in the Dairy

By rights, if we but did our part,
In justice to the dairy herd,
We'd go, with overflowing heart,
And pass them out a Yuletide word.
We'd wish them "Merry Christmas" too,
"Good will," and all the other things,
And mix them up a special brew
Of which our Christmas poet sings.

We'd deck the barn in garlands green,
With sprays of holly on each stall,
And sprigs of mistletoe between,
As tho' it were a banquet hall.
We'd have a tree—a tree of light,
On which the balanced rations hung,
And while the world outside was white
We'd have some summer carols sung.

A separator, new and fine
Might make a very welcome gift;
Or milkers or some pans to shine,
Some hay that May and June have whiffed.
For, bless the herd, it often makes
Our own glad holidays come true.
Why not give back the good one takes,
When Christmas prompts the heart of you?

I've eaten so many velvet beans this past year," said Uncle Silas, as he sat down to Christmas dinner, "that I feel as if I was plush-lined inside."

This Christmas you might make some holiday gifts to the dairy. Perhaps it's a new silo or a cream separator or add some pedigreed stock to the herd. It's the sort of gift-giving that keeps saying "Thank You" at the bank window all through the year.

Appropriate Dairy Farm Gifts

To Mother—A cream separator that will churn butter at the same time.

To Father—Some new rubber bands for the wallet he will carry next year.

To Brother Will—Substantial proof, with a sprig of holly stuck in it, that life on the farm is more profitable than city life.

To Sister Bess—A year's pass to the movies in town.

To the Hired Man—An alarm clock that refuses to go off earlier than eight o'clock p. m.

To the Prize Holstein—One of her own silver cups filled with lush grass sent from the Sunny South.

"'Twas the night before Christmas and all through the house, not a person was stirring—not even a mouse"—but the rats were holding a Yuletide celebration in the corn crib.

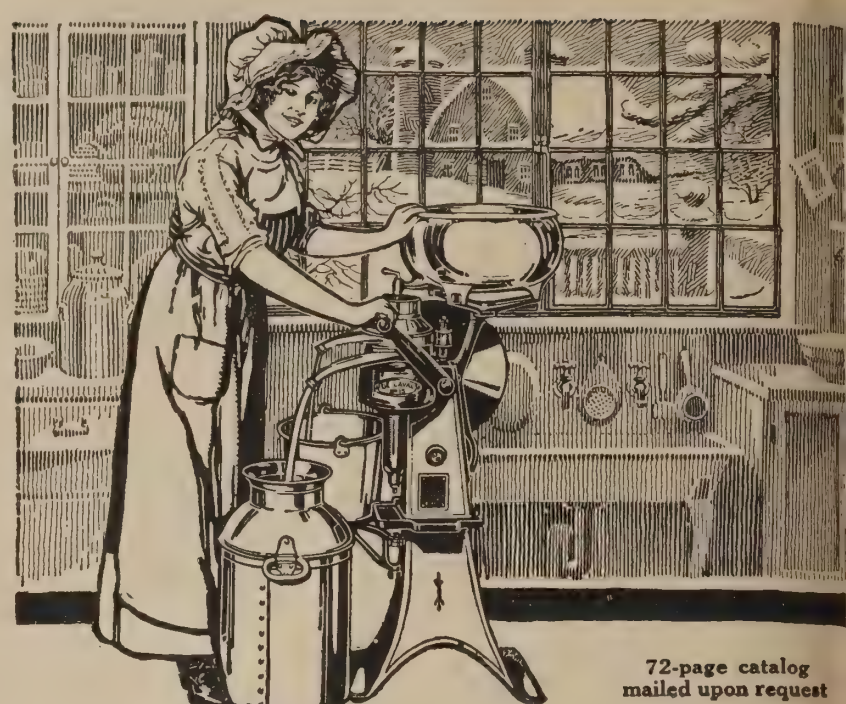
The Good of Giving

Christmas time means giving—
Giving from the heart,
That keeps souls a-living,
It's a holy art.
All year through we're selfish,
Do things for ourselves;
But when spruce and holly,
Show us all our folly,
Come the "Present Elves".

Christmas time means loving,
Grudges set aside.
Quit our growls and shoving,
Hearts are open wide,
All year through, self-centered,
It is always "me".
But when Old Kris Kringle
Makes our good thoughts tingle,
Happiness is free!

If no one anywhere gives any Christmas presents at all this year, peace will go a long ways towards making us satisfied with what we have already.

"Speaking of Christmas presents," said Uncle Ezra, "why not begin to order fertilizer early if you want to play Santa Claus to the new acreage you intend to plant this coming spring?"



72-page catalog mailed upon request

DE LAVAL

CREAM SEPARATORS

Save Cream, Time and Labo

Save Cream: If you are trying to ge along without a crea separator, or are using an inferior or half-wor out machine, with butter at 60 to 70 cents pound, a De Laval would soon save enoug cream to pay for itself.

Save Labor: A good cream separat is a big time and labo saver. And this year, more than ever befor time saving and labor saving on the farm mea money saving.

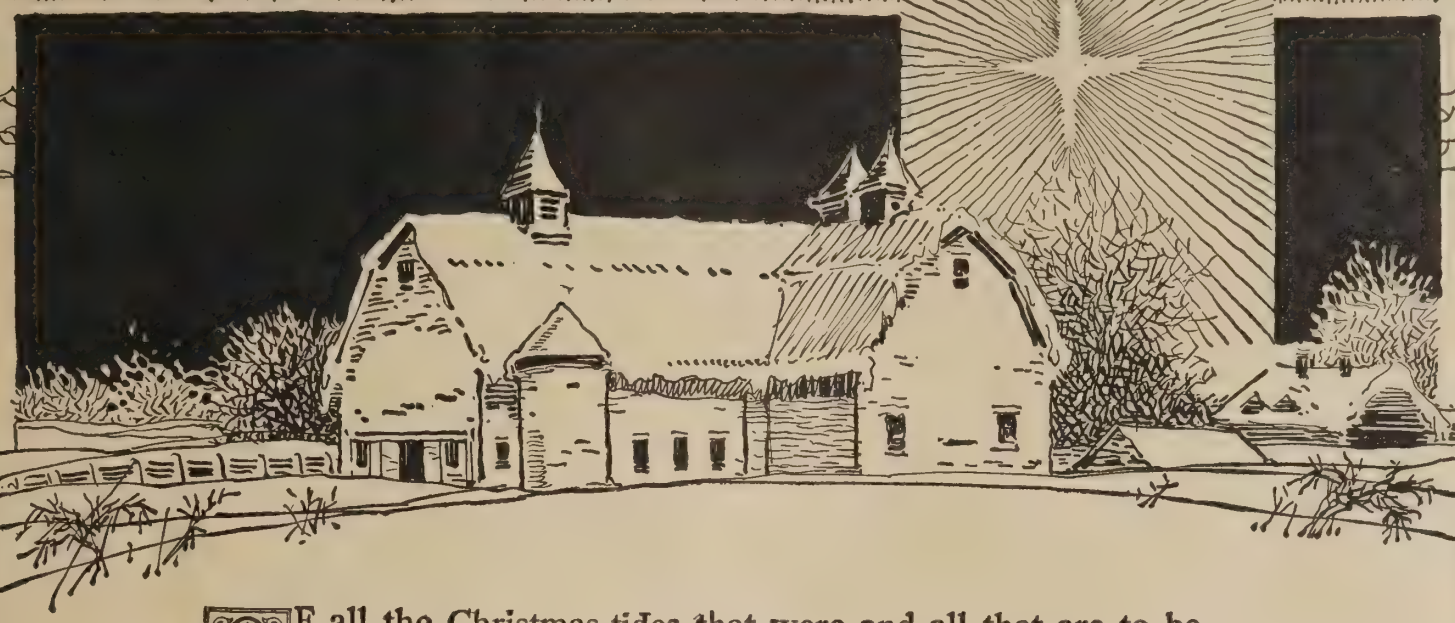
There is no other cream separator that ca compare with the De Laval in clean skimmin capacity, ease of operation, freedom from r pairs, and in durability.

Order your De Laval now and let it begin saving cream for you right away. Remember that a De Laval may be bought for cash or on such liberal terms as to save its own cost. See the local De Laval agent, or if you don't know him, write to the nearest De Laval office as below.

The De Laval Separator Co

165 Broadway, New York. 29 E. Madison St., Chicago.

TWO CHRISTMAS STARS



OF all the Christmas-tides that were and all that are to be,
This Yuletide brings a greater joy—a sweeter sympathy.
The world will look on it as such—the holiest of days;
A landmark, down the aisle of time, in many magic ways.
For it is doubly fine and fair, and doubly rich in song,
And stars of Heaven blaze its trail the snow-white miles along.

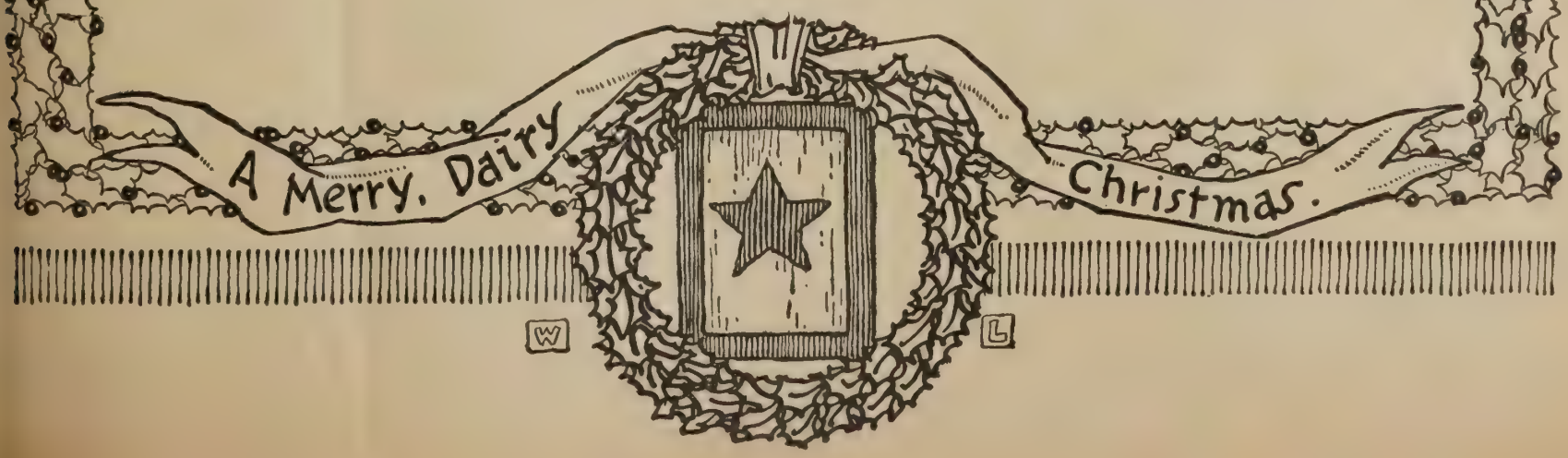
Above the home cot and the barn, the silo and the sheds,
God's twinkling children of the night shine in their fleecy beds.
The fields that once were plumed with grain, lie radiant and still.
And pasture lands, as white as ghosts, beneath the moonbeams thrill.
It is a pretty scene—and pure—an etching on the snows;
A canvas holy hands have wrought from every wind that blows.

The farm is beautiful in June—when there is bee and bloom,
But fairer still, I always think, when caught on winter's loom—
When lights in windows, glimmer red—when boughs are crystaline;
When wreaths of holly smile at you and spruce has scent and sheen—
When, as you listen at the door, youth, from the world apart
Is writing songs of happiness that echo in its heart.

High in the arch of Heaven's grey one star supremely shines,
Its dim trail lost on mountain peak; in fir and upland pines.
A star that takes you back, to-night, to mangers, dim, serene,
The star that wise men of all years, for centuries have seen.
A sacred star—a holy star, a star, high-hanging there,
That brings the lips and souls of us to consecrated prayer.

Another star! The one that shines against the window pane!
The service star of one who went—but back with us again.
We fold him in our eager arms! Joy is so kin with grief,
And happiness so close to tears, in our heart-tuned relief
That, somehow, none of it seems real—Twice over do we pray,
That God's star and the boy we love have come this Christmas day!

—*W. Livingston Larned*



WAR-ROUND TABLE-RECONSTRUCTION







MILO D. CAMPBELL



MILO D. CAMPBELL

THESE are big words with big meanings. Undoubtedly before this communication is in print, guns and swords will have quit their part in this, the most awful of the world's tragedies. Then will come the Round Table, to be followed by reconstruction. In the first act of this bloody drama, boys and men from the soil have been found in every trench and going over the top in every victory achieved by our armies. No vocation or calling has furnished a greater proportion of its youth and manhood for the battle line and posts of danger than that of agriculture.

At the Round Table will be statesmen of all nations. From that table will come a new Ark of the Covenant, a new Magna Charta of human liberty that will assure to the world both individual and international justice.

Reconstruction

At the Round Table the farmer will not be in direct evidence, though fairly represented. Questions there considered will not especially concern him more than men of other industries.

But already in the red dawn of reconstruction, we can see the wonderful changes that are imminent in almost every line of industry. This period will be one of intensive contest, but not with guns. It will be one of wits, of politics, and of industrial advantage. It was partly because of this coming change that milk producers, who are furnishing one-fifth of the food of the nation, saw the necessity of preparedness.

As a nation we do not believe in radical socialism or in over paternalism. We are willing to allow the battle of wits and of individual accomplishment a chance to prove their merits. But this war has taught the people a lot of new tricks. First, it has taught them that organization of industries, of armies, of force in every direction is necessary. It has taught them the futility of anti-trust laws. The farmer had found this out long ago; for he knew that the big fellows, through gentlemen's agreements, consolidation, and by devious other methods, were escaping and that none of them had ever served a day in jail for their sins.

Before the war the International Harvester Company was compelled to divide up its business into separate companies. Now it is again a consolidated company, without objection of the government. The law has not been changed.

Milk producers are the only people who have been molested in the United States for claimed violation of anti-trust laws since the war began. These laws were not invoked by the federal government, but by city politicians. They were used as a cudgel to intimidate farmers who were producing milk at much less than cost, and who had the temerity to ask their reasonable cost of production. This war will burn a whole lot of dross out of our laws and from the business methods of the country.

Regulation will take the place of anti-trust laws, whether we like it or not. This lesson of governmental power in war will surely find expression in peace.

The consumers of the farmer's produce, when prices are high, will not inquire whether such price is caused by drouth, pestilence, scarcity of labor, or other actual cause; they will demand regulation of price and lowering of cost. This is all in the reconstruction future and must be met, either with docile submission on the part of the farmer or preparedness to meet the change.

If we as farmers expect to secure a standing, to maintain a semblance of dignity among the essential industries of the country after the war, we must organize for the purpose. Not to become a political party, not to become obstructionists, not to destroy, but to insist that we have some rights in fixing the price of the products of our labor. It is because of this necessity that the National Milk Producers' Federation came into existence. With its hundreds of thousands of members, it has already accomplished much, but its work is yet in its infancy.

What It Has Accomplished

When the National Milk Producers' Federation was incorporated under the laws of Illinois, it was organized to serve producers of milk. It was purely voluntary and is without profit or capital stock,—just an association for mutual help. Its work has extended over about fourteen months of time since incorporation.

It now includes all the greater milk producers' associations of the country from the New England States to the Pacific,—California, Oregon, and Washington being the latest to join.

The first principle enunciated by the Federation was one that ought to have found universal favor, that of "cost plus a reasonable profit" to be fixed by the government (during the war). The Federation has since shown to the government, by collating the results of hundreds of cost investigations, what it taxes the farmer to produce milk.

Formulas have been worked out, so that under varying prices of feed and labor the average cost can be approximately found. There have been those who, for ulterior reasons, have argued that because the cost varies with different farms, therefore the formulas were not reliable. Such reasoning could be applied to every production of farm and manufacture. It is specious and unjust.

The Federation, through the associate organizations, has shown to the farmers themselves what it costs them to produce milk, and has brought them to realize its proper place among farm productions. Heretofore milk production has been a parasite living upon other farm productions. The farmer himself was not aware of it. It has been instrumental in teaching the consuming public the real value of milk in the diet of the world. It has fought the city politicians who were profiting upon city votes by prosecuting and persecuting farmers, and has secured from the honest press of the country a proper recognition of the farmers' position.

It has obtained for the milk producer better prices for his milk, though not one-tenth of the milk produced in the country is yet sold for enough to cover its cost of production.

It has accomplished yet more for the nation than for producers in preserving the herds of the country. It is now known that the race would wither, if not perish, without milk and milk products. It is also known that milk at the highest prices known to any city is yet the cheapest food to be had. Knowledge by the farmer of what it costs him to produce milk is not dangerous, except to the profiteer who has been reveling in ill-gotten gains.

Ignorance of production cost kept the farmer producing milk at a loss. He used the labor of his wife, children, and hired help before and after regular work hours and no account of this labor was ever taken. Now we are asked to preserve scraps, to eat but half an ounce of butter at a meal, to conserve in everything, and the farmer has found that scraps of labor are worth something.

These are but some of the accomplishments in a short year of the Federation's work.

The Unorganized Field

There is yet great work for the Federation in fields outside of city zones, and much inside. During the war, we were pledged to "Carry On" every war measure, to be loyal in every action, and do nothing that could be construed by the most critical as unpatriotic.

Our greatest difficulty is in making those having charge of our business understand its nature. They look a quart bottle of milk that has them fourteen to sixteen cents compare the price with some ye ago, and use colored words aga the farmer.

In the first place, the whole incre is charged to the farmer, while matter of fact he has received for quart but 6 or 8 cents, delivered at station. No thought is had of price of grain fed to the cow, of lage, hay, forage, of labor that more than doubled in cost, of cows that become useless through ease or accident, of the worthless that have been raised to maturity a hundred items of expense that to the dairyman, of the slaver creates for the men and women care for the cows and their milk.

This education has not yet been parted to those in charge of our prices. There are no farmers, know these up-hill conditions, sit in the conferences. The men who

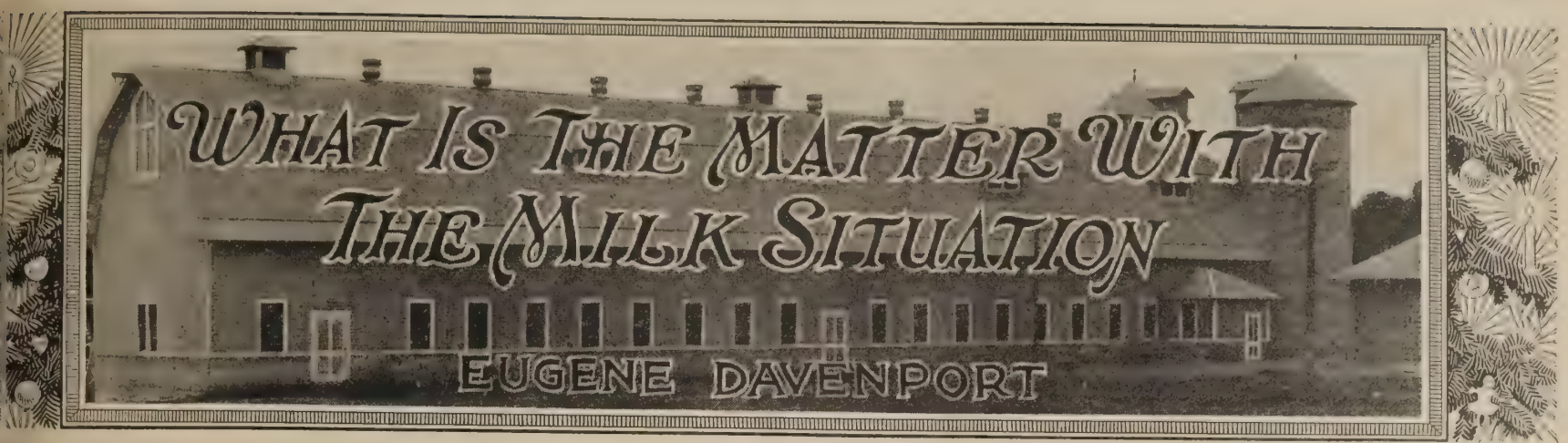


THE END OF A PERFECT DAY

poisoning the minds of the far court are men who are either p ing upon the low prices or are i ested wholly in consumers. This of government must yet have a tion. Unfortunately, neither the tional Milk Producers' Federatio any other association of milk pr ers has had men within its nu who were able to go to Washi and sit in the Food Administr for one dollar per year. They not board at a grocery and sleep garret in Washington for less $800 a year. Manufacturers of products, representatives of b cheese, and condensed milk man turers have been sitting there.

Naturally, only the personal ests of these men have been u most in their thoughts. They been limited in their profits, but er below cost of production. A the price paid them has been suff to cover the price paid to the f for milk and all other costs. schedule of these costs have

(Continued on page 760)




NE DAVENPORT

WHEN the farmer asks this question, he means "Why is the price of market milk such as to barely return the cost of feed and incidental expenses?" When the consumer asks it he means, "Why is the price double of a few years ago?" There is a in both questions, and both in- certain facts that ought to be generally understood.

The Farmer's Side

the farmer's side, as bearing the unusual cost of production, o be counted the early frost of ear cutting the corn crop, and rought of the present summer, greatly shortening the feed sup- hich is usually produced upon rm. To these facts must be add- e lessened amount of mill feed o our reduced consumption and gh milling percentage of wheat. f these incidents have resulted ably in greatly increasing the f production; yet the facts are enerally known, nor is their in- e properly appreciated by the mer.

scarcity of labor and its in- d cost have made themselves ot only directly in the expense ed to the making of milk day by ut also indirectly in the cost of grown feed, the greater outlay achinery, and the general ex- s of operation. This phase of ituation is scarcely appreciated e city consumers, even by the active of those who are engaged ll further increasing the pay of and reducing the hours of work. theless, these facts all appear accounting and the results will r or later, in one way or anoth- rn up in the milk bill.

demoralization of transporta- ast winter, due to war conditions, ed in filling to overflowing the of condensed milk which is the absorber of the surplus city Without a free market for this is, prices are bound to be demor- as the excess supply of market is forced into the channels of production, entailing inevitable

sely akin to the above in its ef- upon price is the reduction in mption which invariably fol- a rise in retail price, amounting to as much as twenty per cent. reduction is due not so much to ity to pay the increased price as sentment against what the con- believes to be a virtual con- y on the part of the dairyman he distributor to fleece the pub- exacting a fictitious and un- nted price for one of the essen- of life, particularly for babies nvalids.

wever incorrect this belief, it is none the less effective in rapidly making a bad matter worse for both producer and consumer—for the producer by cutting down the amount consumed and consequently the price; for the consumer in the long run because the dairyman is forced to so reduce production that by the time the public returns to its normal demand the supply is insufficient, sending the price upward. So does the consumer by reducing his consumption below the normal injure both the producer and himself.

There is no conspiracy. Of this fact let the consumer be assured, and every means possible should be taken to educate the public about all the facts that enter into the production and distribution of market milk. It is not so much that everybody will remember all of them but rather that, with a widespread understanding that there is nothing to be concealed, the opposition will die a natural death.

The Consumer's Side

In general the consumer does not appreciate the food value of milk but looks upon it instead as a kind of culinary necessity like salt or soda, nor does he realize the difficulties in its preparation and delivery. He underestimates the situation at four exceedingly important points:

First: He does not understand that milk is a standard article of diet and even at the highest price ever paid, it is yet the cheapest of all forms of animal food.

Second: He does not understand the special value of milk for its fat soluble vitamines, not only for children but doubtless for adults as well, especially when recovering from disease or in resisting those temporary periods of physical depression that so easily open the road to infection.

Third: He does not stop to consider that milk is an exceedingly perishable food that must be delivered fresh every day; that it is heavy, and that the container is both costly and breakable.

Fourth: He does not realize the need of special sanitary precautions in handling a food that serves as a successful culture media for every kind of disease germ that may chance to find access.

Back of all this problem lies the question: "Why does the consumer get so much more excited about what he regards as a high price for milk than he does about high prices for meat?" The obvious answer is that he does not realize that, considered from the standpoint of food values, milk is always cheaper than meat. Obvious and true though this may be, the larger element in the situation is doubtless psychological.

When the consumer pays a big price for a steak or a chop, all the family enjoy the feast, and even though smarting under the "extortion" they all agree that it is "worth the price". Not so when the price of milk goes up. For the most part milk is not consumed directly and by all members of the family. A few adults drink it regularly, but for the most part milk is consumed by children or it disappears in the cooking, and the adults, who pay the bills, are not conscious of special enjoyment or advantage in its consumption.

Speaking psychologically therefore, and from the standpoint of those who pay the bills, milk wastes itself by merging its benefits into the general family welfare. *Pater familias* will storm about "extortion" and "conspiracy" even when smoking a cigar that costs him more than ever before, though no delicate problems of sanitation and daily delivery are involved in its production, no member of the family but himself is benefitted in its consumption, and nothing that is essential to good health or effective living is concerned. Psychologically, our friend, the milk, does not stand a ghost of a chance in the rising market as against "My Lady Nicotine".

There are various phases of the milk business connected with delivery that are not understood by the consumer and that operate powerfully to stiffen resistance to what is regarded as extortion and against which the consumer uses no defense but reduced consumption.

For example, many of those who buy milk by the pint cannot understand why a pint of milk should cost more than half as much as a quart, and yet when the fact is pointed out, it is easy to see that the expense of bottling and distributing is practically the same for a pint as for a quart. If the unit of sale were the pint, then the buyers of quarts would be pleased, for they would regard the difference as a reduction in their favor. But now that milk is sold by the quart, everything is standardized around this amount, which is too large for many consumers. It is inevitable that they should regard the difference as an imposition, whereas the fact is that if dealers sold only pints at prevailing prices, they would speedily go out of business; in other words, they get no credit for what is in reality a discrimination in favor of the small consumer.

In general the consumer lays his troubles at the door of the dealer whose agent he sees every day, rather than upon the farmer who is a somewhat hazy creature existing somewhere back in the nimbus of his consciousness. If he ever gets into the matter, his worst suspicions are confirmed when he learns that the distributor gets about as much for bottling and delivery as the farmer does for production. "What! The farmer raises the feed, stables and milks the cows, hauls the product to the plant, and then the dealer gets as much and sometimes more for putting it into bottles and delivering it to the back doors!" His wrath is kindled against the dealer and he feeds the fires of his indignation until he reads one day of a milk strike by the farmers. Soon after, milk goes up again. "Could evidence of conspiracy and extortion be more complete?" So he reduces his milk order in a blind determination to smoke out both of them. As he nurses his righteous resentment, the consumer does not know and nobody tells him of the expenses, the trouble, and the losses of the distributor.

For example, he does not know nor stop to think, and nobody tells him, that milk bottles are costly, and that every one of them must be gathered up every day from the back door of the customer, carried back to the factory, and sterilized in an oven with live steam. He does not know that the breakage is extreme and that there exists a regular organized business of stealing bottles and selling them to the junk man, not to mention their

[Continued on page 738]



WOMEN HELPED IN WAR-TIME DAIRYING

To the farm woman the city milk consumer owes much, for if she had not gallantly entered the breach left when the boys went to war the dairyman would have been compelled to further reduce his herd and there would have been a much more scanty milk supply for the cities. The milking machine helped to increase her efficiency, and it is interesting to know that this illustration shows the interior of a Minnesota barn on the farm of L. K. Frederickson.



CO-OPERATIVE BULL ASSOCIATIONS

JOEL G. WINKJER



J. G. WINKJER

"DEWITT is my name. My neighbors, when they get chummy, call me Do-it. I came over this morning for some information on a problem I have in running my farm. I have seen that much information is given out by the government, and when I came here and asked for information regarding the purchase of a pure-bred bull for my dairy herd, I was directed to you."

"Glad to meet you, Mr. Dewitt. Do-it is my middle name; therefore I have no doubt we shall get along nicely. Have a chair. How much of a farm have you, Mr. Dewitt, and what is your line of farming?"

"Well, now, let me tell you my story. I lived in the city, but quit my job, sold the house I owned, and bought a hundred-acre farm near the same place Tom Moore is from. You know Tom, don't you?"

"Yes, know him well."

"I have gone into farming, and from my reading I came to the conclusion that in order to do general farming successfully it was necessary to include dairying. I started with two cows, and now have six. It is my plan to have ten or a dozen. I am now considering the purchase of a pure-bred bull and have come for advice. You see, up to this time I have used my neighbor's bulls. The first two years I went over to Bellew's Creek District for one. Almost five miles over there, and at that it was only a scrub bull. The next year I went across the hill to Dick George's Guernsey bull. He was nearer, and Dick had been told it was a thoroughbred. Dick could not use him any longer because he did not want to inbreed, and besides the bull showed signs of being ugly; and he was not going to get another one."

"Now, lately, a neighbor about two miles off has let me use his grade Holstein. This bull also showed signs of getting ugly and he sold him to the butcher. My cows are all grade cows. I would like to know if it would pay me to buy a pure-bred bull, and what can I buy one for?"

"These are puzzling questions, Mr. Dewitt. I know pure-bred bulls to have been given away, and there is also record of one being sold for $106,000. It is not uncommon to hear of bulls selling for $10,000."

"Ten thousand dollars! Why, my whole farm is not worth that much. If I bought one for that price I would have to sell my farm to raise the money, and I would have no farm to keep my bull on. I have no doubt I could raise such a bull, and also use the money that it sells for, but just now I have only about $175 or $200 that I might put into a pure-bred bull if it is good business to do so."

"You say you have $200 to invest in a pure-bred bull. Now let us see what that means in your case. In addition to your first investment comes the cost of keep. What will it cost you to properly feed and care for a bull a year?"

"According to prevailing prices I could not do that for any less than $75 a year."

"You can keep your bull two years, then you have to dispose of him and buy another bull. That means that the cost of the bull and care for two years amounts to $350. The money you get for your bull when you sell him at the end of two years must be subtracted from this. The question is, what will your bull sell for at the end of two years? If you have kept yearly production records of your cows you will be in position to tell, when you get a similar record of the daughters, if your bull is any good. But here is the rub, it will take two years more before you can know the daughters' yearly production. It costs you $75 a year to keep a bull, so it is out of the question for you to keep him more than two years. You will have to sell him and the one who buys the bull doesn't know any more about him than you do, so the chances are you sell him for beef prices. He may be worth more than a thousand dollars but no one knows, and so it happens over and over again that you hear some dairy farmer refer to the good bull he once had, but when he tried to get him back he found the bull had been butchered. We are, therefore, up against the proposition of selling the bull for beef prices. What do you think he will sell for, Mr. Dewitt?"

"About $125."

"It has already cost you $350 to provide bull service. You get $125 out of this investment so your net outlay for two years' pure-bred bull service is $225, $112.50 per year, or $18.75 for each cow. It looks now as if neighbor Dick had some other reason than that bulls became ugly for not keeping another one. Yes, Mr. Dewitt, the farmer with a small herd has quite a big handicap placed on him. It would be quite different if you had sixty cows. The cost would then be only one-tenth, or $1.87 for each cow."

"Yes, but I do not have sixty cows, and, what is more, have no possible chance of getting that many."

"From what you say there are some neighbors of yours that have cows, possibly as many as sixty cows could be found among your neighbors. If those neighbors would agree to use one bull, pay their share in the purchase, and later the keep, you would then be about on the same basis as if you had sixty cows of your own."

"That is what you call a co-operative bull association, is it? I have heard of that kind of an organization."

"No, Mr. Dewitt, that is not a co-operative bull association. It is only a part of one. It requires at least two other such blocks. You see, we call each of those parts of an association a 'block'. Before you get a co-operative bull association with its benefits, you must have three of these blocks and it is better if you can have five or six blocks."

"I do not suppose we can form such an association in our county but I would like to know more about them. I have found that I cannot ask too many questions regarding farming, even if it does not seem at first to be of any use to me. In order for us to form an association we would have to get Bellew's Creek neighborhood buy a bull and a neighborhood some other place to buy another, then we would have a co-opera bull association, is that the idea?"

"Yes, and no; in a general way have the idea but there must be an organization according to that have been used in the most cessful associations. Unless you it right in all respects you may in the same fix as a man who ha four wheels on his wagon but no to hold on the wheels; when he s to drive, the wheels go each in d ent directions, according to the they get into, and then there is ble. Unless the organization is right the chances are that some will go wrong.

"Experience has shown that tr arises if each block buys its own To avoid this trouble the associ is first organized, a director is s ed from each block, and thes rectors together transact the ness of the association. One of first duties is to buy bulls for a blocks of the association. You readily see the reason for this w tell you that the bulls are kept block two years and then each into the next block where the again kept two years. This is re ed as many times as there are in the association until all have, at some time, used all bulls. It is, therefore, nece that these bulls be of the same breeding and as nearly as po equal in value."

"You said that the bull changed from one block to a every two years. Does that mea I get the use of another bull aft years without additional cost?"

"Yes, that is exactly wh means."

"Then is it also right that have four bulls—four blocks— have the use of a good, pure-bre for eight years without payin more than the first payment a keep of the bull after that?"

"Yes, your part of the keep bull."

"Then the following figure right. Sixty cows in a block $200 bull for that block mean $3.33⅓ per cow has to be p have six cows and $20 would share."

"Yes, if you have sixty cow block. If you have less than cows, of course the amount p would be higher. The average ber of cows per block in all the ations in the United States is eight. You would have to add the cost of keep of the bull. much do you think that would Dewitt?"

"Why not charge the same did in the first place, $75 per y

"That is fair, $1.25 per cow sixty cows in your block. The

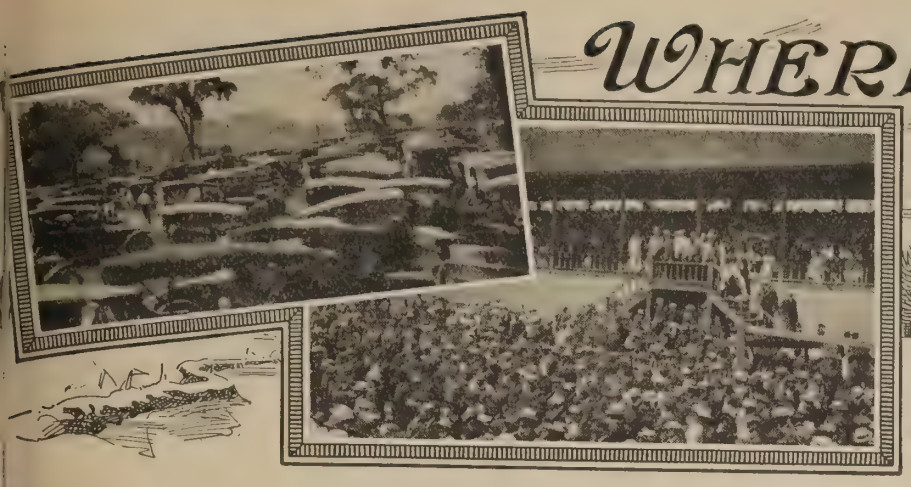
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THE RESULTS OF A GOOD BULL

Six daughters of this bull each produced in one year 1,695 lbs. more milk and 93 lbs. more fat than their dams.

Through the co-operative bull association the services of a good bull are made available for many years.



WHERE SHALL WE GO FROM HERE?



E. R. EASTMAN

HERE is an old Dairymen's League story about two frogs. One was an optimist, and the er a pessimist. In the course of a , both fell in a pan of cream. The simist cried, "It's all over, it's all r," and immediately turned over l gave up the ghost. But the opti- stic frog cried, "Where there's life re's hope, where there's life there's e," and began kicking so vigorously h both legs in co-operation that he n churned the cream into butter l, climbing on the butter, hopped of the pan.

For fifty years and longer the farm- of America have been in a pan of am. The last two or three years we e shown some tendency to hop out means of co-operative organi- ions, and I am optimistic enough to ieve that we are going to succeed; we are by no means out yet, and re is grave danger that the pessi- ts will not drown before they dis- rage all the rest of us.

We as farmers stand today at the atest crisis and at the same time h the greatest opportunity in the tory of agriculture. We have found machinery that, if properly used, l make us equal to our opportunity, that will determine not only the ure happiness and the prosperity of ners, but of all other classes as , for agricultural success is fun- ental in the end to all other happi- s.

ur machinery is our organization. ing the war farm co-operative anizations, large and small, have ng up by the hundreds all over country. So far they have been essful. They have given us better es for our products, they have red for agriculture some recog- nition, and above all they have given us some confidence in one another and in our leaders, which is fundamental to any united action.

Will We Get Our "Second Wind"?

But are these organizations here to stay? So far, enthusiasm at their start has carried them along and enabled them to secure their first successes. These successes have been easy to see, it has been easy to secure new members, and older ones have had little to grumble about. But we are through with this first period of easy sailing, and have entered the period of readjustment when we must learn that true co-operation means the supression of too strong individual notions, forbearance of the other partner's faults, and real self-sacrifice. We have arrived at the time when we have stopped to get our "second wind" in learning to give the long pull and strong pull together. We have the machinery for obtaining for agriculture and for farmers the recognition in the political, economic, and social life of the nation. But the machinery is still very crude and we have not yet learned to operate it.

Any individual or organization can succeed when all goes well. Anyone can be a fair weather friend. Can we as farmers remain active, loyal supporters of our co-operative organizations in the downs as well as in the ups? Can we stick together through thick and thin? Can we learn that there can never be something for nothing and that, if our organizations are to succeed, there must be personal service and sacrifice? These are the questions that we must answer in the affirmative and if so answered the future of farming in America is assured.



PRIMITIVE EQUIPMENT, BUT THEY CARRIED ON

During the milk strikes of some two years ago, farmers and farmers' wives gave evidence that they would stick to their organization through bad weather as well as through fair weather. When the call came to keep their milk at home, many a dairyman got out the equipment of other days and sought to make the best use of the milk on his own farm that heretofore he had shipped to the city. He showed that he was loyal to his brother dairymen even though it meant the temporary loss of profit and considerable inconvenience. Another interpretation of this illustration would be the concluding paragraph of Mr. Eastman's article in which he says: "Where shall we go from here? We shall go right on doing business on the same good old place, but not in the same bad old way."

Although farm organizations are young we know from experience certain principles that must be followed if we are to succeed. A few of these principles, taken mostly from the actual experience of the Dairymen's League and other co-operative organizations, are briefly outlined in this article.

What Organization Has Done for Labor

What has happened to labor in the last four years? Compare the average wage now and a few years ago. Is not the workmen's dream of an eight-hour day a fact? Look at the new laws on the statute books in favor of labor. What happened? Organization. When Samuel Gompers goes to Washington, is he received and does he get what he goes after because he is Gompers, the individual, or is it because as president of the American Federation of Labor he has 2,000,000 men as a unit back of him? There are 30,000,000 farmers in America, but what do we get at Washington or anywhere else? We get what we deserve for not getting together.

It is not enough to merely join an organization, and then sit back and find fault because the millenium is not immediately brought to pass. There must not only be membership but it must be active, paying its dues toward the support of its organization and rendering personal service to make it a success. It seems hard to believe, but there is quite a large class of farmers who refuse to join an organization or, if they have joined, refuse to pay dues because they can get the benefits without paying, benefits that others have earned for them. What shall we do with these slackers?

There are others who refuse to render any personal service to help along the local organization, and thus aid their own public business. They expect a few officers to do it all but are the first to find fault. They expect something for nothing.

Farmers could obtain justice and respect—we want nothing more—if we could only lay aside some of our narrowness, some of our individualism, organize every community solidly with real members, join those communities in large democratic associations, and then federate all the different associations in the country. Suppose we had a president of a farmers' federation representing 5,000,000 organized farmers, and this president should say to Mr. Hoover or to Congress that a certain policy could not be accepted by the American farmers. What would happen to the policy?

Who is Running Your Public Business?

To be successful, organization must be built and run from the bottom up, not from the top down. Local action and initiative are essential, and this local action should be definite in form to serve as a guide for the leaders. The only way for farmers to get local action is through meetings, yet a majority of farmers will not attend meetings. Of course, there is some excuse, for farmers are busy at home and there is always work to do and evenings after work men are too tired to drive several miles to a meeting, yet, what is the use of doing the work at home if you are not paid for it? We have stayed home so long and let the other fellow run our public business that he has blame near run it in the ground so far as we are concerned. Farming is a two-sided business, consisting of production and marketing. To attend to the marketing side, organization is necessary, and organization isn't any good without frequent, well attended farm meetings.

But speaking frankly, the average farm meeting is a joke. Our meetings are not well advertised so that only a few know about it. A few of us meet and maybe an hour after starting time we attempt to do a little business. Many times the meeting is not even called to formal order; the officers assume no leadership and the minutes are not kept or read. There is no parliamentary procedure. Subjects are discussed that have no bearing on the business in hand, and we adjourn without coming to any definite conclusions. Incidentally many of us do not go again, for the meeting was a waste of time. There should have been a regular program of business, each topic handled in a business-like manner and definitely disposed of. The results that concerned the parent organization should be immediately forwarded to it. How many times have I attended a local meeting and found that the secretary either was not there at all, or had forgotten all of his papers that should have received attention at the meeting. Think of this happening in a Board of Commerce meeting in a city! I predict that as long as we farmers will not try to run our public affairs with some degree of business methods, some other class will run them for us, and to our detriment.

Leaders Do Not Lead

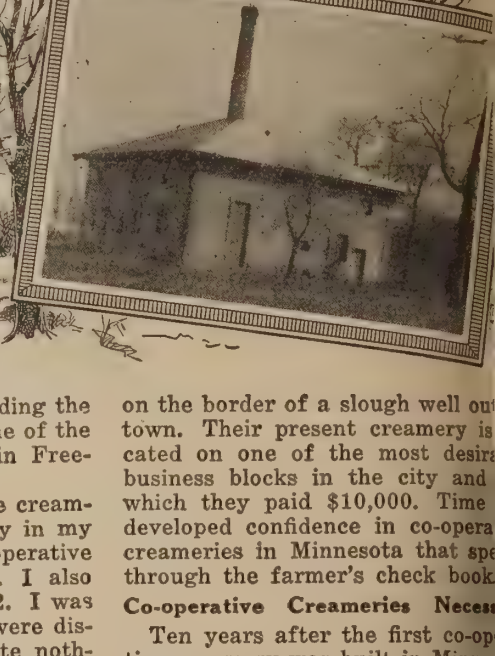
Then there is that important question of leadership. One of the hardest problems of farm organization is to get both local and general leaders, men with ability, experience, and public spirit. There are men in every community who want to be leaders who should not be, and those who should be, who are not anxious for the job. We are making progress, for more and more the good men in the community are coming to realize that they must show some public spirit and sacrifice for the common cause.

It has also been difficult to get general leaders because there are few men with farm experience and point of view, who have business experience enough to run a great co-operative movement; but we are getting a few such leaders, for the experience has now been acquired at the cost, naturally, of some mistakes. We are gaining in the number and quality of our leadership, but we as farmers have still to learn that a "laborer is worthy of his hire." A large salary looks especially big to farmers because their

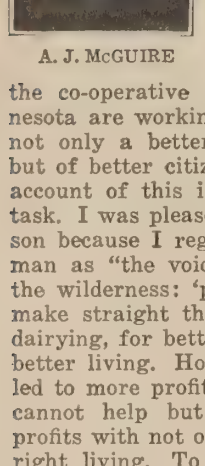
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CO-OPERATIVE CREAMERIES of MINNESOTA



A. J. McGUIRE



A. J. McGUIRE

I WAS much pleased a month ago to receive an invitation from Hoard's Dairyman to write an account of the co-operative creameries of Minnesota. I was pleased for two reasons: First, because I believe the co-operative creameries of Minnesota are working out the future,—not only a better business farming, but of better citizenship. To give an account of this is surely a pleasant task. I was pleased for a second reason because I regard Hoard's Dairyman as "the voice of one crying in the wilderness: 'prepare ye the way, make straight the path'" for better dairying, for better farming, and for better living. Hoard's Dairyman has led to more profitable dairying and I cannot help but associate greater profits with not only better living but right living. To live right in these times a farmer needs to make money. Poverty is no longer a virtue.

By Their Fruits Ye Shall Know Them

Co-operative creameries have been in operation in Minnesota for 28 years. There are 643 in the state. They have been given the test of time and of number and they are more successful and prosperous and profitable today than they have been at any time in their past history, and they have always been successful.

Minnesota may pass judgment on the usefulness and the success of the co-operative creamery system. The co-operative creameries are scattered throughout the state and are operated under a great variety of conditions and in comparison with other systems that are not co-operative.

The Test of Time

The first co-operative creamery organized in Minnesota was the Clark's Grove Co-operative Creamery in Freeborn County. It was built in 1890. Last year, or 1917, this creamery took in 264,540 lbs. of butterfat for which it paid its patrons a net price of 50.45 cents. The average price of butter for 1917 (New York extras) was 43.55 cents. This creamery paid its patrons an average price of 6.9 cents above New York's extras for the year. I visited this creamery to make a study of co-operation in 1902 and found them paying a little below New York extras or, to be exact, in the year 1901 they paid an average net price of 21.31 cents. The price of New York extras for that year was 21.50 cents. Note the improvement in 16 years. Not the difference in price but the difference of what they paid in comparison with New York extras. In 1917 they paid their patrons $23,644.06 above New York extras on their total business. That co-operative creamery is standing the test of time, and it is only one of the 26 co-operative creameries in Freeborn County.

I have another co-operative creamery that stands out distinctly in my mind—the Farmers' Co-operative Creamery at Waseca, Minn. I also visited this creamery in 1902. I was looking for creameries that were distinctly successful but I wrote nothing about the Waseca creamery. It was but as a private in the rear rank (important but not noticeable). This past year that association built a new creamery (their third) that expresses the new era in co-operation. They put $43,000 into their new creamery; a price undreamed of, impossible in the early years of co-operation. Their first creamery with its equipment cost $3,000. Their present creamery with its equipment cost $33,000. Their first creamery was built down on the border of a slough well out town. Their present creamery is cated on one of the most desira business blocks in the city and which they paid $10,000. Time developed confidence in co-opera creameries in Minnesota that spe through the farmer's check book.



REAR VIEW OF FARMERS' CO-OPERATIVE CREAMERY AT WASECA, MINNESOTA

This creamery has two delivery platforms. The patrons of this creamery deliver their cream as is practiced by nearly all Minnesota co-operative creameries.



FARMERS' CO-OPERATIVE CREAMERY AT MILACA, MINNESOTA

This creamery has the largest business of any co-operative creamery in Minnesota. In 1917 it took in 653,635 pounds of butterfat. Fifteen years ago land around Milaca could be had for a song. The sawmill had just moved out and the town was supposed to be dead. The business men got together and moved the saloons out and invited dairy farmers in. Today there is more butterfat produced per square mile around Milaca than in any other section of the United States. There are five other co-operative creameries within a radius of six miles of Milaca. (And some of them will not be rated second to Milaca except in amount of business.) The largest and most successful co-operative dairy bull association in the United States is also in this community.

Co-operative Creameries Neces

Ten years after the first co-op tive creamery was built in Minne there were 500 in operation in state. They were built fast bec they were necessary. Before the operative creameries, the Minne farmers had no dairy market was worth mentioning. They b creameries in co-operation in early years, not because they beli the co-operative creamery sys best, but because there was no o system that would provide a mar They grasped co-operation out of cessity, but after 28 years the and file of Minnesota dairy far still hold that the co-operative cre ery system is necessary—absolu necessary, and not only necessary by all means best.

Twenty-eight years ago Minne farmers found co-operative crea ies necessary to get their butte the world's best market. Today believe their co-operative cream necessary to keep their butter t

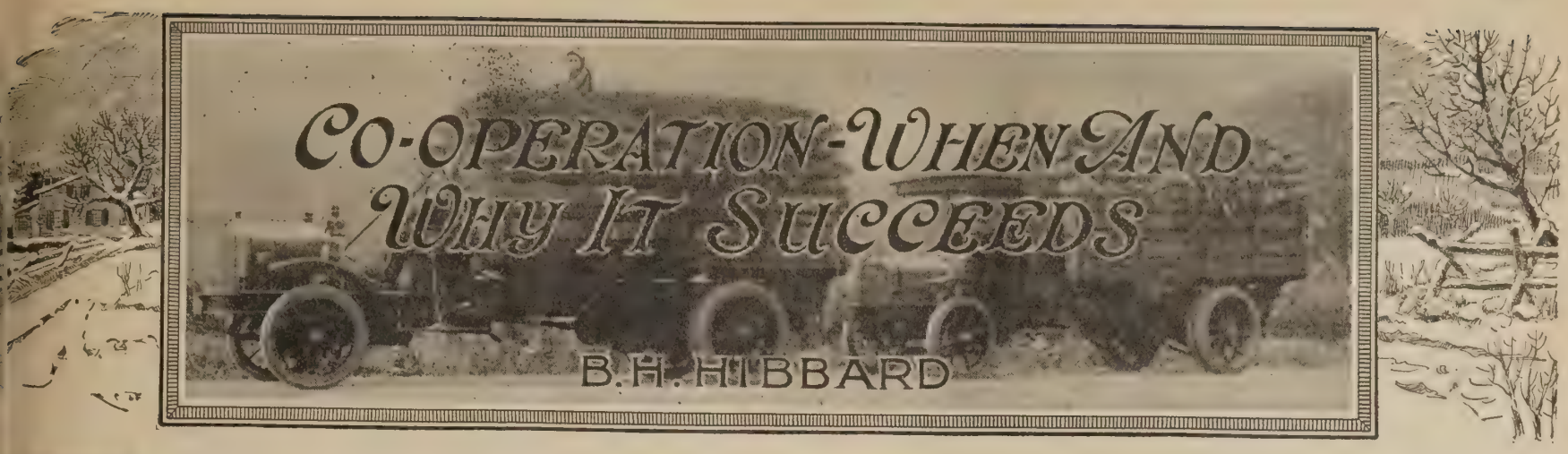
Minnesota has built up its ma through the quality of butter duced and it is the co-operative cr ery system of the state that has the high quality of the butter p ble. Minnesota through her co-o tive creameries lays claim to ma the best butter in the world and proof of this is in the fact that ter made in Minnesota co-oper creameries has won first place i of the 17 national butter contes

The co-operative creamery sy gives to every community where is a sufficient number of cows, means of having its butter in th and in a refrigerator car on the to the consumer the day after the terfat has been produced by the In this system lies quality—pure, flavored butter for which there substitute in the world. Whe dairy farmer loses sight of this ty he forgets the very foundati his business. People can get without poor butter, but they wi get along without good butter wh is possible for them to have it. co-operative creamery is necessa insure the production of good bu

Co-operation Works

"The farmers won't work toge is an expression of the ignorant lie manufactured to discourage The farmers can work together operation. Co-operation is wo and must be extended to all prod in all industries if "democracy is safe". While the common peopl fuse to work together there wi ways be some tyrant waiting to them. The co-operative creameri Minnesota have done more to co-operation—to teach democra you please (rule of the majorit the good of all)—than the highe stitution of learning in the land

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B. H. HIBBARD

IT is easy to get testimony either for or against any plan of operation that has been tried by so many people, over so long a period of time, and under so many circumstances. For those who believe, or who wish to believe, that co-operation is a failure, the testimony abundant. For those who be- e it a success the testimony likewise abundant. During the ; forty-five years there have n started a great number of perative companies which have n ready for the undertaker soon r birth. But the trouble was in t cases due to a bad presentation incongenial surroundings. There no reason to expect the mortality to be any lower than it actually

he troubles which brought these y efforts to such untimely and y ends were for the most part few umber and negative in character. t is to say, the failures were not ften due to the presence of some esirable quality as to the absence some desirable quality. In other ds, it was not so often disease as er-nourishment that caused the lities.

Must Be Born of Necessity

here are a few conditions that t substantially always be present o-operation is to succeed. One of first of these may be called the essity that something be done. ess there is a real occasion for a rm or a change of some impor- character, the organization of a perative company is not called This is only a matter of com- sense. If there is nothing to be ed, why take the trouble to main- an organization? It is a clear , that there must be something to lerived, some goal to be reached, o-operation will be of no use. To titute co-operation for the usual ods of doing business merely be- e some one, or a few, farmer ves in co-operation is far from . Sentiment of this kind may be helpful along with other facts conditions. It cannot of itself the interest alive and the ma- ery in operation. The tendency r trade to run into private chan- unless there is something positive ep it turned in another direction. is because there is the energy push of private initiative in the uit of gain on the part of a pri- enterprise which is wanting in a perative company where the re- l is small and where, moreover, it ared by many. There must then omething tangible in sight if co- ation is to prosper. A somewhat statement of the case is to the t that successful co-operation be born of necessity.

second consideration is that there must be business enough in prospect to warrant the undertaking. No matter how great may be the need of a better system of marketing, judged from the margin of loss on a given volume of business, this volume must in itself be great enough to furnish the basis of transactions such as to afford support for a new enterprise or it had best not be undertaken. The same rule applies to any business venture. There may be great loss due to lack of good facilities for marketing butter, but if the amount of butter produced be only half enough to enable a creamery to run economically there is no use in hoping that a co-operative creamery will be able to better the situation. It would serve only to transfer the loss from one account to another.

Simplicity, Leadership, Organization, and Management

Other fundamental conditions necessary to the success of co-operation may be mentioned without discussion.



A WISCONSIN CO-OPERATIVE FEED AND COAL WAREHOUSE

The success of a farmers' co-operative endeavor is largely dependent upon the necessity for its existence and the volume of business it can command. The demand for its being should come from the farmers themselves and their interest should be vital in it. Good leadership and proper organization are other essentials, but the heart of the whole matter is the character and ability of the manager.

The business must be of a simple character, permitting the farmer to participate in it without taking too much of his attention from his farm. It must, ordinarily, pertain to matters in which the farmer has a vital interest, thereby insuring intelligent support. There must be a spirit of co-operation within the men who undertake to co-operate, or failure is certain. A goodly measure of leadership is of prime importance. The desire for the organization should come from within the group, or at least it should not come from a promoter who advocates the project for the sake of gain. The promoter companies nearly all fail.

Closely in line with these prerequisites the company itself must be carefully organized. No business runs itself, much less a co-operative business. The loose, careless methods which may succeed in the case of a man who takes charge of his own affairs cannot be tolerated in connection with a co-operative company. This is true because the owners are at home taking care of their farms and seldom does any one of the farmers involved take a great amount of interest, so far as personal supervision is concerned, in the co-operative company of which he is a member. Hence, the businesslike nature of the company is of very great importance. Closely associated with the manner of doing business, and of even more consequence, is the character of the manager. Here, indeed, is the heart of the whole matter. With a first class manager all manner of faults in other matters may be overcome. With a poor manager, a company otherwise perfect may fail. The manager should be a man acquainted with the work to be done. He should be a man of experience. Having found such a man it will be necessary to pay him what he is worth. In the first instance this means what he can command in the market of competing private companies, or more likely a little more than a competing company will pay. The value of a manager should be reckoned on the basis of what he is worth to the company employing him, taking into account the gain from good service performed, rather than on the mere matter of what another company is willing to pay. When it is remembered that the members of a co-operative company really co-operate with the manager much more than among themselves, it is plain that hardly too much care can be taken in finding the right man and paying him enough to keep him satisfied and enthusiastic. He must want the company to succeed.

It has been evident for some time, but never so much as during the period of the war, that co-operation is the solution of many of the troubles of the farmer. On the other hand, there is no magic about co-operation. It is a means to an end and, properly used, a most effective means.

Collective Bargaining Demanded

When the neighborhood was self-sufficing and the most of the produce of the community was sold at the village store, each farmer was competent to sell his own goods. During a similar period each laborer could bargain for the sale of his own labor. But just as labor was long ago compelled to join forces in order to make a fair deal, so the farmers are learning that the individual is incapable of looking out alone for his interests. For example, in the sale of milk the individual can no longer argue his case with the city milk dealer. The dealer is too far away and is too independent to pay much attention to one consumer. It does not follow that the dealer is making too much money even though he may be buying milk at a very low price, since his competitors are likewise buying at too low a price. The whole level of the trade needs readjusting. This was the case in 1916 and 1917. But the different milk producers' associations were, at the opening of the struggle, powerless to cope with the issues because they did not include within their numbers a sufficiently large proportion of the farmers of the community to say what they would or would not do and live up to it.

The history of the struggle over milk prices during the past two and a half years has been full of interest, and leaves some facts and lessons clearly impressed. In the first place, it shows that unless the farmers contend for their rights, they will not get them. In the second place, it is just as clear that no group of farmers, no matter how well they may be organized, can hope to get much more than fair prices for produce. This is true because of the wide territory covered by farmers, their great numbers, and the willingness of many to work for a small profit. In the third place, it is clear that the way to succeed in the new field of effort is through collective bargaining. By this means a few representatives may voice the sentiments of the many who otherwise would never be heard. By this means the truths of the markets may be made known. This includes the truths on both sides. The representatives of the consumers may make plain the limitations as to the increase in prices, the demand side of the market. The producers may make clear the limitations of the lowering of prices, and show why a given price is necessary or a proposed price perhaps disastrous. Somewhere between the two extremes a bargain will be made.

Fallacies of Costs in Price Fixing

This method, it will be noticed, leaves little room for cost-accounting as a means of arriving at a price basis. The hearing on milk prices in Chicago a year ago should convince anyone short of a veritable crank that prices are not, and cannot be, directly made out of costs or cost accounts. Costs to begin with are extremely difficult to discover. They vary greatly from farm to farm. Should all the costs be known it would be entirely impossible to determine

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Co-operation Solves Dairy Marketing Problems

MOGENS R. TOLSTRUP



M. R. TOLSTRUP

No matter what is said about co-operation, one will have to admit that whenever any really serious problems arise, co-operation is the one remedy which will surely and safely overcome the difficulty. The present world-wide war is proving this beyond a doubt. Germany tried to dominate the world and subject it to military power by hitherto unheard of brutality; but she failed because she run up against a united force, co-operating, and willing to give their all if need be, in order that equal rights and liberty may forever replace military force and autocracy as world standards.

At Middlebury, Vermont, there is a splendid example of how real co-operation can be used in the dairy industry in order to market the dairy products to best advantage. It is well worth while, to say the least, for those interested in the economic progress of agriculture to study the story of the Addison County Co-operative Dairy Company.

Early Conditions

For quite a number of years, the farmers in the vicinity of Middlebury had two outlets for their dairy products. A local creamery, co-operative in name but not in nature, stood ready to receive either milk or cream and make returns as best it might. A milk plant operated by a New York firm was located at the railroad siding and ready to buy all the milk it could get hold of. This milk was pasteurized and bottled before it was shipped to New York City for distribution. The prices paid farmers were announced in advance for definite periods. In this way, there was a chance for the farmers to choose whether to sell whole milk or cream and conditions were fairly satisfactory until one day last winter the milk company went into bankruptcy. The farmers patronizing the plant were informed that they would be without a market and that some $15,000 which the company owed them might not be paid.

Left Without a Market

This was not a pleasant situation for the patrons to be confronted with. In addition to the prospect of losing a few hundred dollars each, they were left practically without any market for their milk. The local creamery had also changed hands, although it would still buy the cream, and as far as capacity went, even skim the milk for the farmers. Still there was no outlet for the skmmilk. Many of the farmers had for years been accustomed to sell their whole milk and had, therefore, not enough hogs and other live stock to consume the skimmilk advantageously. Also, many of the dairymen did not even have hand separators with which to skim the milk.

Farmers Take Action

It was evident that something had to be done and done quickly in order to prevent too great a loss of milk and money and to avoid recurrence of such conditions. A few of the more progressive farmers got together at once and talked over the situation. They called on the commissioner of agriculture, who advised calling a meeting of all the patrons in order to see if it were not possible to form a co-operative organization, similar to the one so successfully operated at Richmond. To this meeting he promised to send his marketing specialist to explain the nature of a co-operative organization and to help carry the work along.

This idea appealed to the farmers and a meeting was called the next morning. At this meeting the principles of a real co-operative organization were outlined, and the advantages and disadvantages fully explained. As the proposition seemed feasible, a temporary organization was formed, but it was decided to make a survey of the conditions before the organization was made permanent. The survey was to include such data as the number of cows available and the number of shares, at the rate of $5 per cow, each farmer would be willing to take. The farmers themselves were to do this work and appointed men in each locality to secure the information. The county agent helped at large where most needed and another meeting was scheduled at which the reports were to be handed in.

Form Co-operative Organization and Buy Plant

While the survey was being taken, the officers of the temporary organization did not waste their time but hustled around to see if it were not possible to secure in one way or another the money which was outstanding. As before mentioned, the receivers of the bankrupt firm would not guarantee to pay the money, but the farmers were able to secure an option on the plant and equipment.

At the following meeting it was found that over fifty farmers, representing some 1,200 cows, were willing to send their milk and subscribe stock. In addition to those guaranteed, there were available 1,500 to 1,800 cows within the territory which might be available after an organization was perfected and successfully operating. The conditions there were no different from those prevailing elsewhere. There are always some people who are willing to s port an organization which is ben cial to them, but who are unwilling help it along until it is an assu success.

On account of the encouraging sults obtained from the survey, it decided to form a permanent orga zation. This was done, officers w elected, and the association incor ated under the state laws of Verm on the one-man-one-vote plan, v no proxy voting allowed. A comm tee was appointed with power to the plant from the receivers, e though it might be necessary to pa rather high price for it. Since o parties were interested, the plant equipment were bought at once $17,000. The farmers realized three important factors were in t favor. First, it would insure that money the former company o them would be saved; second, would, to a certain extent, elimi outside competition because o parties would hesitate to come in build a plant where one or two already in operation; third, could start to operate at once an this way save considerable mone preventing waste of produce. M over, owing to war condition would be both difficult and expe to build a plant, although a more able one might have been planned

Pattern After the Richmond

In making up their organiza and framing their constitutional laws, the Middlebury farmers terned after the Richmond co-o tive plant as much as possible, making such alterations as were essary to suit local conditions.

The association was incorpo for $50,000 divided into 2,000 s at $25 each. At present they h total investment of $20,000 with capital stock of $6,800. The inv money is returning 6% int which is all that the by-laws The paid-up capital stock is small because the rate of subscri mentioned is $5 per cow. Bu



ADDISON COUNTY, VERMONT, FARMERS' CO-OPERATIVE CREAMERY

Note the neat appearance of the creamery grounds, also the large ice house, and the office which is located next to the receiving room. The little shed at the extreme right was used f canning kitchen last summer. Note three different ways of delivery—automobile, individual, and co-operative.



PASTEURIZING AND SHIPPING ROOM AT THE ADDISON CO., VERMONT, FARMERS' CO-OPERATIVE CREAMERY

The milk is properly cooled here (pasteurization is done only when requested by the buyers) before it is canned and shipped in iced refrigerator cars to New York City.

ıers thought it best to incorporate ın amount large enough to cover re buildings and equipment, as as to provide means for other rities, such as buying of feeds, lizer, etc., should they prove de- ıle adjuncts.

Method of Operation

ı April 1, 1918, the Farmers' Co- ative Creamery at Middlebury .n to operate. They started to sell : milk in New York, where it is sold, although under a different ract. At present they have a six ths' agreement, whereby they re- : New York Dairymen's League :s, plus an additional stated sum cwt. to cover operating expenses.) begin with, there were 58 pa- s, which number has already been :ased to 86, and there are indica- ; that more will be added short- Some of the newcomers are not stockholders but will automatic- become so whenever their share he sinking fund becomes large gh to pay for their shares, should choose to wait that long before ng the company. This is a good ıgement because, besides being to the producer, it helps to safe- d the co-operative association as

ıother good feature of the consti- n and by-laws is that when tron for one reason or another draws his products from the nery, he will forfeit his shares ock, together with his interest in ›roduct on hand and in the sur- fund. All shares of stock offered ale for any reason shall first be :d to the organization at par val- nd can be sold only with their nt.

ticle XI of the by-laws deals the care of the products as fol-

:tion 1. "Milk or cream shall be ıced and cared for by the patron cleanly manner and delivered to :reamery frequently enough so it will be sweet. The directors embers shall formulate and en- by suitable penalties reasonable concerning the production, care, lelivery of milk and cream."

:tion 2. "In case a patron de- ; cream which is sour or unfit for ıg the best quality of butter, he receive five cents less per pound ıtterfat. The directors or their ; may reject any cream they find for buttermaking."

the stipulations in the above ar- were followed out in every ıery and milk plant in the coun- s well as they are at Middlebury, ıould not have any difficulty with quality of dairy products and ıeutralizing question would be :ked out" forever, and the competing value of the various butter substitutes greatly reduced.

Secure Competent Manager

One of the most important reasons for the success of the creamery is that the Middlebury farmers avoided the mistake, which is too often made by farmers' organizations, of hiring a cheap manager. On the contrary, they searched the country for the best man they could get and were successful in securing the services of N. C. Nelson, formerly of the Grove City, Pa., creamery. In addition to knowing the details of handling the milk and cream and keeping the plant in first class condition, he is constantly on the lookout for the best interests of the organization. He sees that the products leave on time and are in proper condition before they leave the plant. He is also planning for the future, by getting the creamery furnished with butter and cheese making equipment and suitable refrigeration facilities so that they may ever be ready to handle their products to best advantage, should emergency cases demand it.

Make Good Returns

Owing to the excellent quality of the product sent out from the creamery, they have no difficulty in securing a ready market at highest ruling prices. Although having run only a short while and with all the difficulties, inconveniences, and unavoidable losses in starting a new organization, they have been able to make good returns to the farmer. The increased patronage indicates this and the prices prove it. In August, for instance, they paid 13c more for butterfat than the local creamery and for the following months a similar difference may be expected.

As soon as the creamery began operation, the Bureau of Markets system of accounts was installed and helps greatly in keeping the records straight. In this way, he is able to tell at any time just how the business stands. It is unnecessary to mention, of course, that Mr. Nelson takes care that daily tests for butterfat and weekly sediment tests are made.

New Avenue for Co-operative Creameries

A description of the Middlebury Co-operative Creamery would not be complete unless mention is made of a rather unique way in which this creamery has proven its value to the community. The home demonstration agent of the Farm Bureau, Miss Emma Fuller, conceived the idea of a community canning kitchen in which to do canning on a large scale and prevent loss of much valuable food products in the shape of fruits and vegetables which might otherwise spoil. However, she met with little response until one day when she approached Mr. Nelson on the subject. The trouble was that there was no available money or suitable place to carry on the experiment. Mr. Nelson saw that here was a chance to improve an opportunity, so he requested the directors that they allow Miss Fuller to use a little store-room shed, adjacent to the creamery. They consented and promised to provide space, use of equipment, and steam free of charge in order to help the project along. A few extra pipes were purchased and with these Mr. Nelson fixed up a couple of old steaming tanks and a suitable canning kitchen at the small cost of $15.

The experiment proved a success. Over 1,000 gallons of vegetables, fruits, and meat were canned. The farmers brought in their produce, furnished jars and paid for the actual cost of canning, which in the early part of the season was 3c a pint, 4c a quart, and 7c for two quarts, but during the latter part of the season, the charge had to be increased to 5c per pint, 6c per quart, and 10c for two-quart jars, as help was more difficult to get then. Boys and girls from the graded and high schools did the work and were paid 8c per hour. An experienced woman had charge of the work, for which she was paid regular wage, while Miss Fuller donated her services. It is estimated that one-half of the products canned would have been wasted had it not been for this canning kitchen and much money and labor was saved for the already too busy housewives in the country. Owing to sugar shortage, the amount of fruit canned was not as large as usual. However, people from ten towns took advantage of getting their canning done and the work will be continued on a larger scale next year. Drying of fruit and vegetables, a little of which was done this year, will also be continued.

While it was some bother and expense to the creamery to have the work done there, they undoubtedly profited by it, because in addition to proving their public spirit they also got people acquainted with their organization and interested in what it stands for.

Other Co-operative Creameries Do Well

Middlebury is not the only co-operative creamery in Vermont which is doing well. Within the last couple of years, about a dozen have been organized and all of them are a benefit to the farmers in their community.

At Richmond, Vt., they have been operating for over two years and are meeting with increased success. Last year, it will be remembered, they paid their patrons over $10.00 more per cow than any other creamery in the state and this year the prospects are fully as good. Their patronage has been nearly trebled and two other creameries have been organized and put under the management of Mr. Edwards with good results.

While the unusually high prices for milk and the comparatively low prices for butter have made it difficult for the small co-operative creameries to hold their patronage, a number of them have been able to do so by selling part milk and part sweet cream. At Richmond they have been able to handle most of the produce from three

(Continued on page 747)



RECEIVING AND TESTING ROOM AT THE ADDISON CO., VERMONT, FARMERS' CO-OPERATIVE CREAMERY

Each can is washed and steamed before it is returned to the farmer. Mr. Nelson stands with the sediment tester which is frequently used as is also the acidity test in determining the quality of the milk.



FARMERS' CO-OPERATIVE CREAMERY AT RICHMOND, VT.

This plant is strictly co-operative and has now been running successfully for two years. The first year it saved its patrons over $10 per cow after having paid higher than any other creamery in the state last year. December 1, 1918, the results will be still better. Receiving room is 10 ft. higher than work room floor and all milk flows by gravity. Milk, sweet cream, butter, and various cheese are handled whenever most profitable.



A DAIRY FARM ROMANCE

RUDOLPH R. KREBS

NATHAN Feinwell took off his heavy shoes and put them down beside his chair, yawning audibly as he did so. In his stocking feet he shuffled over to the water bucket and took a deep drink. Then without a word he moved over to the bracketed kitchen lamp, turned it down, and blew out the light.

The young people in the parlor waited in silence. They heard him slowly climb the creaking stairs, heard the shuffle of his stocking feet as he groped his way along the unlighted hall to the front bedroom. Then, at last, the protesting squeak of the springs directly above them came as a signal that his day was ended, and that his troubles would soon be smothered by snores.

From her corner of the hard horsehair couch Doris Feinwell sighed, and young Jim Simmons breathed a breath of relief.

"I can't seem to get next to him, somehow, Doris," the young fellow said. "Heaven knows, I've tried hard enough, but he won't meet me half way; he won't even come part of the way. I'm sorry, girlie. It makes it mighty hard for you."

Doris' eyes, that usually were dancing and gay when she was with Jim, reflected the trouble in her young heart. She reached out and covered Jim's hand with her own.

"It does, Jim. Sometimes I think I can't stand it much longer, and, if it weren't for poor mother, I—Oh, I musn't say that! It's Tom Ostberg, Jim. Dad's set on my marrying him. He thinks I ought to be tickled to marry a man with as big a farm as Tom has. He thinks I ought to jump at the chance of joining our farm with Tom's. That's all he thinks—land, land, land, and more land! And what has he or mother ever got out of it? Nothing but work and worry and scrimping and saving all their lives. And Dad's against you because you've gone away to school and—"

"And haven't any money," Jim finished for her, a little bitterly. "Lord, Doris," he groaned, "it's almost a crime to ask you to pass up a man with money for a worthless cuss like me. I've got a pretty good job, and will come out all right some day, but it will be hard sledding for a few years until I get a farm of my own."

Jim's shoulders sank dejectedly. But Doris, loyal little trump that she was, sidled a little closer to him, and pressed his fingers reassuringly.

"Dad worked himself to death on the old farm trying to make things go in the old hit-and-miss way, and if it hadn't been for the land increasing in value year by year there wouldn't have been anything left for me to go to school on when he died, because Dad never made any money on his crops or on his herd. Every crop was eaten up before it was harvested. Even as a kid, it seemed to me that there was more to farming than just that hand-to-mouth existence, that it was the finest business in the world if it was managed right. And I believed that so strongly that I determined to make a smashing big success where Dad had failed. I knew that a man could become a good farmer through the mistakes and successes he made on his own farm, but it would take fifty or sixty years to do it. And it seemed to me to be such a wasteful way of getting anywhere. And I resolved then to go to school and get the scientific as well as the practical side of my business. Then Dad died, and the debts against the place almost swallowed up everything. But I stuck to my determination. I've told you all this before, and I guess there's really no need of going over it again."

"But, Jim, you are getting somewhere. You're doing a lot of good for the farmers in your county. You've broken down the prejudices of these farmers in your county who were most opposed to having a county agent, and now you haven't stauncher friends than those very men. And some day—"

"Some day, Doris, I'm going to have the best farm in this part of the country. I'll have the best fields, and the best herd, and the best barns—Ah, I've dreamed about that time many a night. I've pictured a cozy farm house, with shrubs and flowers around it, and a soft green lawn sloping to the road in front; electric lights and running water, and good steam heat, and everything just as convenient as could be for you. For I've pictured you as sharing this with me, just you and me, girlie. And I'd be working only to make you happy. That's my dream for you, and it's the biggest thing that could happen to me.

"But I'm only a county agent, with irregular government pay, and I guess Tom Ostberg could give you more than I could right now. You'd be here near your mother, and—well, Doris, if you want to change your mind, why, it's all right. Little girl, I'd rather see you happy than anything else in the world!"

Jim Simmons snatched at the little hand and pressed it fervently, and then picked up his hat and bolted for the front door, a thousand little aches tugging at his heart. But as he turned the knob, a soft hand closed over his, and a voice whispered in his ear:

"Jim, don't you want me? Jim, what's the use of my waiting for you until your dream comes true? Why not let both of us have the fun of waiting and working for it to come true? Take me, Jim. After it's all over Dad can't object."

Jim stretched out his strong young arms.

Some time later—an hour or so, or maybe two or three, what's time to two young folks?—young Jim Simmons stepped out into the night, treading on air, his head bared to the cool night wind, his whole being suffused with the great joy that had come to him. And Doris, feverishly excited and frightened a little, crept softly past her father's door to her own room. She lay for a long time staring unblinkingly into the darkness overhead, planning, and wondering whether she dared tell her mother that the morrow was her wedding day.

Contrary to Doris' half-formed expectation, however, Nathan Feinwell did not come forward with the customary parental blessing. He had set his mind and heart on her marrying Tom Ostberg, not because of any personal liking for the plodding Tom, but, if truth were told, because it would have been a good match from the financial standpoint.

Doris had always been a dutiful daughter. She had been a good girl, not much given to frivolity, nor to extravagant ideas as regarded clothes and luxuries. These last qualities Nathan had long subconsciously recognized. He and his daughter had not been mutually affectionate. In a dumb, dormant way, no doubt, he loved her, and would have given anything rather than have seen harm come to her, but he had never manifested outwardly any affection. He, when he considered her at all, regarded her as "just one of the women folks".

Her unceremonious departure and brazen thwarting of his will had at first filled him with a seething, unreasoning rage. But, later, when his rage had expended itself in blind, feverish work, he was smitten with a sudden sense of loss. He began for the first time to realize how big a part his little daughter had played in the life of the farm. And, though he brooded over it, foolish, obstinate pride restrained him from revealing his true inward feelings to his wife.

Doris' mother, on the other hand, though she felt hurt at the girl's unconfided departure, was secretly glad on the whole that she had chosen and done as she had. Her married life had not been as pleasant as it might have been.

First there had been the mortgage on the original homestead that had to be paid off, and when that was accomplished and she had looked forward to a less strenuous existence, Nathan had saddled them with another eighty acres. And by the time that indebtedness had been liquidated, she had become so accustomed to resigning her hopes that she had offered little objection when Nathan declared his intention of taking over another eighty "to round off the farm for the girl", as he speciously suggested. So she gave up the idea of living in a comfortable home, of lightening her labor, of making the farm the place she wanted her daughter to grow up in. And so she had toiled and saved uncomplainingly, buoyed up with the hope that her daughter, dowered with the fruits of her sacrifice, would have things easier than she had had.

When Nathan had hotly forbidden Doris the house, Mrs. Feinwell's hope seemed suddenly turned to ashes in her breast. She did her work mechanically, silently, her mind fixed on the little girl-wife in her own home now, only a few hours' drive away in the adjoining county, but separated from her by the iron wall of ostracism Nathan had reared against her. The fall days seemed interminably long now, the nights long-drawn out hours of aching sleeplessness.

It was on a late November morning that her pent-up longing finally beat down her timidity.

Nathan sat alone at the table in the little kitchen and gulped down the hot coffee she had set down before him, but he refused to eat. When he had finished, he silently reached for hi hat and coat, preparatory to goin out to the barn. His face seemed un usually haggard and drawn this morn ing.

"Pa," said Mrs. Feinwell, with nervous little break in her voice, "pa why don't you give in? It ain't th work that's wearing on you. It ain' because Hank left last week and yo can't get another man to help yo with the chores. It's Doris. Wh don't you let the girl come back t see us? She's just as lonesome for u as we are for her. But she's like you She won't admit it."

A red flush mantled Nathan's thi cheeks.

"Well, then she'll never come!" he declared hoarsely. "D'you thin I'll get down on my knees to her an to that danged educated college dud with his new-fangled notions of farm ing? Guess I got along all right s far without any scientific help, and guess I can get along some more. don't need his advice nor help, and don't want it!"

"But, pa," pleaded the white-haire woman, "he never was meaning to b uppish. All he ever said was to Dori And he never mentioned you nor th farm either. And you know that h was right in what he said, too, but yo won't admit it. Pa, please tell Dor she may come back."

"I won't, and that's final. She made her bed and she can lie in it.

"She didn't do right, pa—I kno that," Mrs. Feinwell continued. "Sh knows she shouldn't have run off lik that, and she's sorry for it. You kno she is. And, and you can't blame he for wanting him instead of Tom Os berg. You know Tom Ostberg. He work her like his father worked h mother. But young Jim, I'd be prou to marry him myself!"

Nathan shook his head impatien ly.

"Now it's no use arguing any mo about it. I wouldn't see her in re want, but she can't come back he as long as she sticks to that whel He won't get this farm to monke with."

"He doesn't want it," flashed Mr Feinwell. "He didn't marry Doris f the farm, as your Tom would ha done. He married her to give her home of her own, a home in which h could lavish all his love on her. H doesn't have any money, and yet he giving her a better place to live than she's ever had here. What d we give her here anyway? Thr meals a day and a bare room in whi to sleep. There in town she's got w ter right in the house; she's got ele tric lights; she's got a furnace th keeps the whole house warm; a she's got a husband who isn't worki right along for the almighty dolla but who's working because he lik his work, and because the harder h works the nearer he'll get to having farm of his own on which he can gi Doris the things he wants her to hav I got a letter from Doris yesterda Here it is. Read it, and if you c still steel your heart against her a him, you're crueller than I'd ever b lieved you could be, Nathan Fei well!"

Nathan took the letter she thru out at him without being aware th he did so. His wife's outburst to

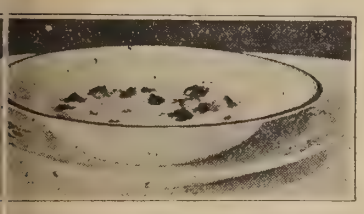
(Continued on page 756)



DAIRY DISHES

JESSIE M. HOOVER

WHY is it," a traveling man asked me this fall, "that the farm diet is so monotonous? I've been going from farm to farm for over a year now demonstrating a cream separator and almost everywhere I was certain to find the same things—meat, potatoes, and vegetables day after day, sometimes fruit, till I fairly dreaded mealtime. The queer part of it is that most of those farms kept at least one cow, but I could count on my fingers the times I saw milk on the table. Finally, one hot day, my wife longing for a glass of cool buttermilk and I powered me and I asked my host if she ever made butter. 'Yes' I made butter. 'And the butter-milk?' I asked. 'Fed to the hogs,' was the answer."



BUTTERMILK SOUP, A FOREIGN DISH TO TEMPT THE AMERICAN'S PALATE

The more I thought about the traveling man's story, the more I wondered why the live stock got all that buttermilk and the wholesome skimmilk that were left as by-products of butter. We have such a gigantic task ahead of us, that of feeding the world, that it seems as if such a thing as skimmilk should be used largely for human consumption. Despite the fact that transportation often makes it difficult for the woman on the farm to obtain substitutes for use in cookery, she is the envy of the city woman; her farm resources offer such possibilities for a varied diet.

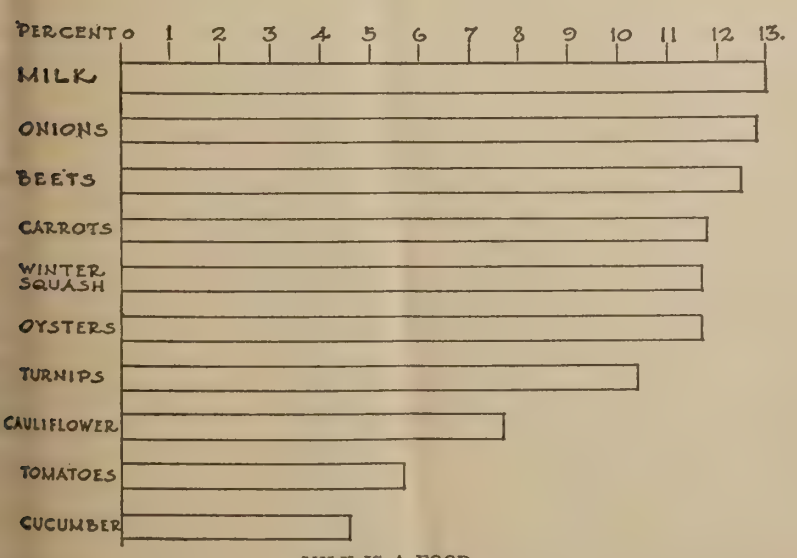
Take milk, for instance; it is rich in protein, needed for muscle and tissue growth; rich in lime, needed for bone; and it contains important growth-promoting factors. Few people think of fluid milk as being a food, yet milk contains more solids than any of the foods shown in the accompanying chart.

Hot Drinks That Satisfy

Do you remember the hot ginger tea that was steaming on the stove when you came in from coasting or skating and how it warmed you to your very toes? Many a person likes hot coffee on a cold night because it is stimulating. Did you ever discover that hot milk had the same effect? The French prepare a drink they call "Cafe au lait". They heat milk piping hot and add to it a little coffee which has been prepared four times its usual strength. Why not try this some night when the men come in nipped by the cold? It will be a reminder, perhaps, of the days of ginger tea and not only is it stimulating, but it is nutritious and has the real coffee flavor as well.

There are many recipes for cocoa, probably the one below is not new to you but it has a large amount of milk, which makes it extra good.

COCOA (enough for two):—3 teaspoons breakfast cocoa, 3 teaspoons sugar, ⅓ cup boiling water, 1⅓ cups milk, scalded, few grains of salt. Mix cocoa, sugar, and salt. Add hot water gradually, stirring constantly. Bring to boiling point and let boil one minute. Turn into scalded milk and beat for one minute with Dover beater. If more nourishment is desired one egg may be added. To do this, beat the egg until light and frothy. Add hot cocoa gradually and continue beating. This should be done quickly in order not to allow the cocoa to become cool.



MILK IS A FOOD

Milk, though a liquid, contains more edible solids per hundred pounds than other foods that the average person calls "solid foods". Considering this, makes plain the slogans: "Eat Milk", "Milk is Food and Drink". The length of the lines in the chart tells the story, as it indicates the comparative amount of edible solids in various foods, and many others could be shown.

Making Eggnogs Tasty

I was once confronted with the problem of giving large quantities of milk to a convalescent patient who had taken a great dislike to it. After many trials I learned that this patient was especially fond of chocolate, and so, by adding a teaspoon of chocolate syrup made by the recipe below, I was able to obey the doctor's orders and please my patient at the same time. Add a little chocolate syrup to your eggnogs and milk shakes. They will taste as good as soda fountain drinks to the youngsters.

CHOCOLATE EGG AND MILK SHAKE: 2 tablespoons finely crushed ice, 2½ tablespoons chocolate syrup, 1 egg, ⅔ cup milk. Put ingredients in glass and shake thoroughly (using one of the shakers that may be bought at any kitchen furnishing store), and strain into another glass for serving. Either grated nutmeg or ground cinnamon may be sprinkled on top if desired.—FANNIE MERRITT FARMER.



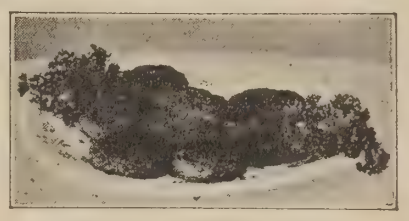
PIE—AMERICA'S MOST POPULAR DESSERT

CHOCOLATE SYRUP:—4 squares Baker's chocolate, 1¾ cups sugar, 1-8 teaspoon salt, 1½ cups boiling water. Melt chocolate in double boiler, add sugar and salt, stirring until well mixed, then pour boiling water gradually while stirring constantly. Stir until smooth, bring to the boiling point and let boil 5 minutes. Cool, turn into a jar, and keep in an ice box or cold place.

COCOA EGGNOG:—White of 1 egg, 1 teaspoon sugar, 1 teaspoon cocoa, ¾ cup cold milk. Beat egg white until stiff and add gradually, while beating constantly, sugar, cocoa, and salt. Add cold milk to one-half of the mixture, beating constantly. Turn into a glass and pile remaining egg mixture on top.—FANNIE MERRITT FARMER.

Milk for Soup

Milk lends itself to the most simple one-dish meal as well as to the elaborate course dinner. If the men have had a cold drive in the snow a hot milk soup at the beginning of the meal will go a long way toward warming them up. The foundation may be whole milk, skimmilk, buttermilk, or any of the prepared milks. Such soups are usually called cream soups, because they resemble the consistency of cream. Thicken the required amount of milk with flour, (wheat, rice, or bean) cornstarch, or crackers as desired. To 1 quart of milk add 2 tablespoonfuls of flour, 1 to 2 tablespoonfuls of butter, and 1 teaspoonful of salt. Prepare as for gravy and cook thoroughly, being careful to avoid lumping. For flavor, use a few dried celery leaves, a slice of onion, or chopped parsley. Add to this foundation finely divided portions of anyone of the following: Cooked potatoes or vegetables, meat, fish, cheese, corn, tomatoes, ground chicken, minced clam, or oysters. The proportion required is about as follows: 1 quart of cream soup foundation to 1 cup or 1½ cups of pulp of any of the above. Heat thoroughly after combining and serve in hot soup dishes. For tomato soup hot tomatoes are slightly neutralized with a little soda before combining with the hot milk, and after they are combined the soup is served at once without further heating. Serve crisp crackers or toasted bread with cream soups. A spoonful of whipped cream adds to the flavor and appearance of any cream soup.

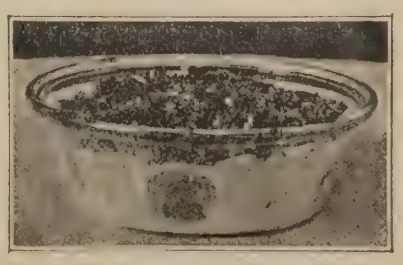


COTTAGE CHEESE SAUSAGE
It's hard to convince people that these aren't real sausages.

Denmark is a great dairy country and it is only natural that the Danish people use milk in large quantities in their diet. I have been told by a native of that country that once a week, without fail, buttermilk soup finds its way to the table. Does it sound strange to you? However, it is a most tempting dish and the next time you churn butter save some of that valuable buttermilk and make this soup for the family. There is a pleasant surprise in store for them.

BUTTERMILK SOUP:—1 quart buttermilk, 2 tablespoonfuls flour, ½ cup raisins, currants, or other dried fruit, a few pieces of cinnamon, ¼ cup of blanched sliced almond meats, 2 ta-

(Continued on page 746)



ESCALLOPED EGGS MAKE AN APPETIZING SUPPER DISH



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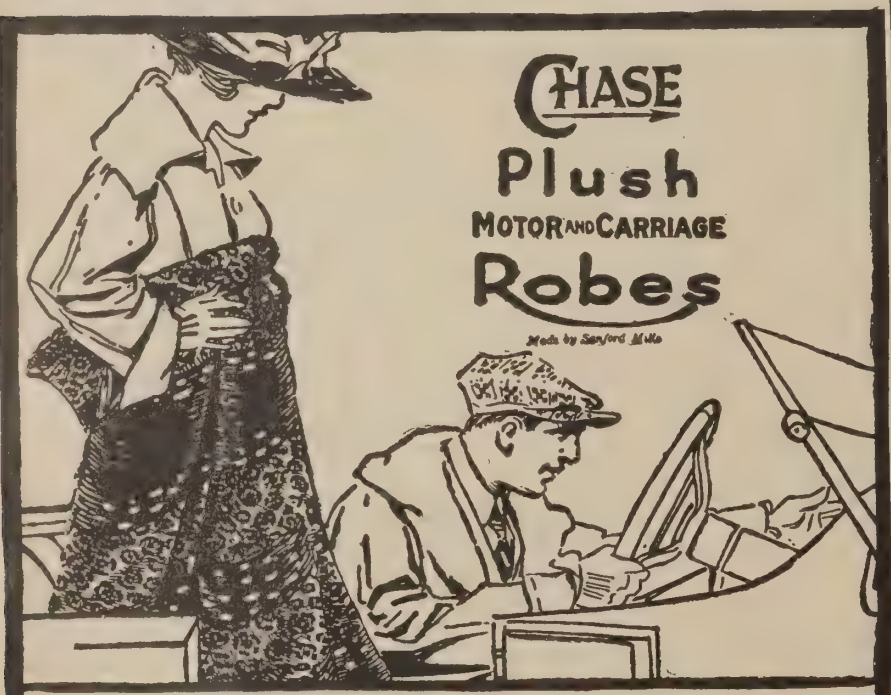
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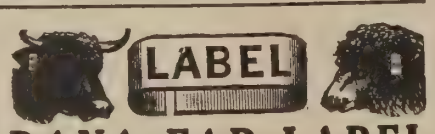
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What is the Matter With the Milk Situation?

[Continued from page 729]

mysterious disappearance during the fruit canning season.

The consumer fails to understand because he does not know the expense of icing and hauling the goods by rail, of the upkeep of wagons and teams driven rapidly over the pavements every day in all kinds of weather, nor of delivery when the drivers' union sets the wage and the extra pay for excess delivery.

Nor does the consumer discriminate sufficiently between the delivery of milk and the delivery of his package from the down-town store. In the case of the merchandise, the buyer himself went to the store, made the purchase, and paid the bill so that nothing remained but to make the actual delivery,—a job that almost any boy could perform.

In the case of milk, however, the consumer stays at home and bargains with the milkman. Now this milkman is not so much a delivery boy as a perambulating dealer. He must not only keep on as good terms as possible with his customer while receiving complaints and explaining delays, but he must also keep a weather eye open for new business and also collect before it is too late from the customer across the street when the moving van stands backed against the curb. This is salesmanship, and actual delivery is a mere incident. It is a full man's job that costs money to the dealer.

This is one of the principal reasons why milk costs so much more in a city like Chicago or Philadelphia than in outlying towns where delivery is often made by the farmer himself at whose farm the milk was bottled with more or less attention to sanitation, if indeed the delivery is not made by a boy peddling from a worn-out family buggy.

Again, the consumer never heard of the surplus—that excess over the daily demands that nobody wants, that the farmer cannot use, and that the dealer must after some fashion get rid of in ways that will not entail too much loss. It would surprise the customer, too, to know that in general both farmer and dealer lose money in the winter and try to make it up in the summer. Never having heard of these matters, they do not concern the consumer who has troubles enough of his own, hence they do not go into the reckoning as he keeps the account against his natural enemies.

Somebody ought to explain to the consumer why it is that the price of market milk is so much above the relative price of butter, and why it is that milk is often notably cheaper in outlying creamery sections than in the districts that supply the city trade, When this is done he will understand that the butter of the country is made mostly from "summer milk", produced from pasture grown on land largely unsuitable for cropping and that it is often a by-product of general farming. City milk, on the other hand, is "winter milk" made largely from purchased mill feeds or farm grown grains—the most expensive of all known cattle feeds.

When he knows all the facts, he will know that there is little milk to be had at any price from the creamery districts in the winter time because most of the cows are dry, while it is the flush season in the districts that cater to the city trade. In short, that winter milk in creamery districts represents not a real business, but a commercial accident like a remnant sale—such as the "pound calica" of other days or the bargain counter of today.

From Dairy to Grain

So far as present conditions are concerned, conditions which have grown largely out of the war, the city consumer was not prepared a year ago to realize the extent to which dairy farmers would turn grain raisers in the face of a shortage of labor, with an increased wage, and in response to the government call and a higher price for wheat.

The consumer did not know that many eastern and middle western farmers had once been grain raisers but had been driven into dairying by the competition with the excessibly cheap wheat from the Great West, nor did they appreciate the readiness with which, under adverse conditions, they would return to their first love, the wheat field, and "take a rest on milking".

It was this general ignorance of the facts which was responsible for the consumer's savage frame of mind last winter and which in spite of all that could be said or done drove him into an attitude which not only injured the business of dairying, but which is already reacting in the form of higher prices than would have prevailed if he could have been persuaded to take a more rational view of the situation.

The city consumer did not believe the farmer when he pointed out the inevitable result, for if grain raising were so attractive why should he be insistent upon a higher price for milk. He did not understand the reluctance to sacrifice herds that had been many years in building up, and yet the farmer yielded to the inevitable as all intelligent prophets predicted.

A reduction not only in herds but in numbers of existing herds has taken place at a rate easily foreseen by the well informed, but not expected by the consuming public,—a lesson in industrial adjustment which the country cannot afford to teach itself too often because it means not only a lessened supply, but consequently a higher price.

The Cost of Milk

Fortunately we have reliable information upon the cost of producing market milk. It is not so easy to say what summer milk is worth because it is produced largely upon pasture and often on land that is of little value for other kinds of farming But market milk is produced the "year round", which means in practice that the bulk of it is made of grain and hay grown or bought for the purpose and having an established value in the markets. Cost accounting methods have given us also the amount of labor involved, so the problem of the cost of milk is reduced to the same form as that of producing shoes or machinery out of raw materials and labor.

Data obtained from various sources differ somewhat as to the labor item but as milk making on the part of the cow is a physiological function, the amounts of feed are practically constant. The following table states within a very narrow limit of error the cost of producing milk in terms of materials and labor, other items such as taxes, housing, and general upkeep being offset by returns other than those from milk; for example from manure, old cows, etc. The feed and labor include the cost of keeping a sufficient number of calves and heifers to replenish the herd as it wears out.

Approximate Cost of Producing One Hundred Pounds of 3.5% Milk

44 pounds of grain or mill feed
50 pounds of hay
188 pounds of silage or its equivalent
40 pounds of roughage—straw or cornstalks.
2.4 to 4 hours labor

The only problem is to assign values to these items after which the money cost of one hundred pounds

ilk or forty-six quarts ready for the ottle can be derived.

The values of grain and hay are xed in the market, but many ac- ountants object to allowing the farm- the market price for the product his fields upon the ground of double rofit. This may be a point for ac- ountants to quibble over, but the ractical fact is that while the farmer ay feed steers at a rate which will eturn only market prices for his feed nd do it willingly for the sake of eeping the fertility at home, he will ot milk cows unless he can make a rofit on the feed over and above what would bring in the open market. airying is a laborious and confining siness and it is not followed as a astime.

The value of silage is well known nd the only feed item of uncertain alue is the straw, cornstalks, or her roughage worked over and used r bedding.

Labor presents a more difficult roblem. In the discussion before the arious milk commissions last winter e farmers claimed thirty cents an our. In some cases it was allowed, others not. In Chicago, for ex- mple, the price was held at twelve nts a quart, which netted the farm- about twenty-two and one-half nts an hour even though fifty, sixty, nd seventy cents an hour were recog- ized and paid to union labor.

If the farmer had been allowed the inimum wage of the soft coal miner, n the basis of an eight-hour day with me and a half for overtime, milk ould have cost Chicago last winter bout seventeen cents a quart. The ty was willing to pay but twelve, nd at that, cut the consumption to ighty per cent of the normal. Result: he farmers, being unable to sell the rplus at enough to repay the cost of roduction, were forced to reduce the ield by cutting down the herds and many cases by going over to grain rming. Consequence: Chicago is aying now fourteen cents a quart or out a cent more than would have een necessary had that city support- l the industry instead of paralyzing

From the Public Point of View

The producer, the dealer, and the nsumer alike are interested in the abilization of the dairy industry. o far as it provides a standard food pply, it is too important to jeop- rdize. So far as it is a form of farm- g, it is too valuable to the country be injured and it is too laborious nd too expensive to be trifled with, r men cannot go in and out of the iry business upon short notice ex- pt disastrously. As a distributing siness it is one of the most delicate- balanced lines of trade and one of e most expensive and exacting to rve, involving all kinds of people nd all kinds of weather every day the year.

It would be to the advantage of all a campaign of education should be ndertaken with all the thoroughness a German propaganda, the purpose which should be to take the public to entire confidence in all matters ncerning the production and dis- ibution of market milk, its value as standard food, and its peculiar ace in the dietary, especially of chil- en and invalids. Let the merits of ean milk meet the eye as often as stum or Quaker Oats or Cream of heat, and soon the troubles between e dairyman and the dealer upon the e hand, and the customer upon the her will largely disappear.

In all this matter the press should nd its powerful influence. The con- mer should be made intelligent, and ove all he should be kept good na- red. His patronage should not be ified with by hasty statements of lf-informed writers bent on creat- ing a sensation rather than establish- ing trade.

Money spent in a campaign of education would be well invested, and the producer as well as the distributor has a story to tell the consumer. Above all, let confidence return to the trade and let distrust and recrimination be put aside as too childish to enter into so important a matter as the milk supply.

We are at the beginning of what promises to be a new era in many of the relations of life, an era when, hopefully, selfishness shall not be the ruling passion, but in which the interests of the public shall be the guide to business; an era in which the production of staples is to be recognized as a public asset to be nourished and developed and established.

Controlling Influenza in Horses

The following extract from a letter written Wayne Dinsmore, Secretary of the Percheron Society, by an experienced horseman who has had more than six months' service in an Army Remount Depot, offers some very valuable suggestions to horsemen who have to deal with influenza. The final method mentioned has been adopted in practically all the Remount Camps and is giving good results everywhere.

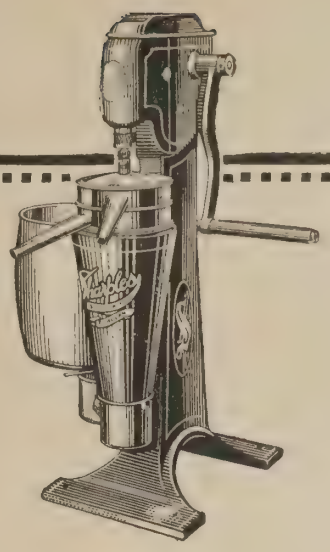
"When you speak of influenza you hit the most troublesome knot in our whole remount business here. Weather conditions here were bad. Cold, then warm. Some snow all the winter but most of the time melting. A great deal of sleet and always mud, ankle to belly deep.

"The first trial control was a shot of vaccine at point of shipment followed by vaccine on arrival. Stabling and open corral handling were both tried. This treatment seemed without results. Next the animals were given a large shot of vaccine when shipped and none on arrival. Results the same. Then no vaccine was given and results were about the same.

"The final method and the one which seemed to be the best—at least both percentage of sick and percentage of death rate dropped a good deal—might be summed up as isolation and sanitation. Cars were disinfected before shipment and one side closed. Plenty of fresh air was admitted through the open side but no draft straight through. Corrals were disinfected by a special crew constantly at work with hand spray pumps. All corrals (feed racks, grain troughs, water troughs, and fences) were gone over weekly and sick corrals three times each week. A veterinarian with crew of men went through the new corrals twice a day. As stock came in it would be put in a corral for quarantine. Probably three days' arrivals could be put in each corral. They were held there for ten days. These I have termed "new" corrals. All animals showing symptoms of sickness were caught out and transferred to isolated influenza corrals. The influenza corrals each held around five hundred head.

"The old corrals or the stock released from the ten-day quarantine was gone over once a day and sick animals transferred.

"In the influenza corrals every effort was made to reduce the mud and water. No treatment was given. Daily the animals were run through a chute. The well ones transferred to the old released corrals, the very bad cases sent to open corrals to be blanketed and given stimulants, and the pneumonia cases sent to stable hospital. The balance left remained in the influenza corrals to be run through the chute the next day. The system of sanitation and isolation seemed to get results. Don't think I'd be exposing any secrets if I said the death rate dropped from well over a hundred a week to ten or less a week as a result."



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SHARPLES
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CREAM SEPARATOR

Barnesville Milk and Cream Producers' Association

W. H. VAN SOYOC, OHIO.

THE organization of the Barnesville Milk and Cream Producers' Association was the outgrowth of conditions that had become well-nigh unbearable, both to the dairymen and the creamery people. Previous to the organization of the dairymen of this community, each dairyman made his own contract with the creamery people. If the contract was made during a period when there was a shortage of milk, he received a fair price but if made when there was a surplus he received a low price; hence, there were almost as many different prices as there were producers. Added to this some of the milk was sold on a butterfat basis and some regardless of test with the result that some unscrupulous dairymen, and there are such, would skim their cans and make the cream into butter, sometimes enough for the family use, while the honest dairyman would sometimes have his test drop as much as one per cent below the actual test. The result of these conditions was a lack of confidence on the part of both the producer and distributor. Dissatisfaction had, indeed, become so universal on the part of the producer that on most any Saturday afternoon a constant stream of men could be seen entering the office of the dairy company, until life for the manager became a burden.

In the spring of 1915, conditions became so bad that a few of the producers met and decided to make an attempt to organize the dairymen of this community. Accordingly, a meeting was called and a membership of about fifty-five out of a possible one hundred producers was assured. The result has been, in some respects, unique in the history of dairy organization; out of chaos has come order, out of distrust has come confidence, out of seemingly diverse interests has come unity of purpose, until today every pound of milk received at the creamery is sold through the dairymen's organization, the creamery people refusing to buy any milk except through the organization.

The objects of the organization as set forth in the constitution are to stimulate the production of better and more sanitary milk, to secure a better and more uniform price for its product, to encourage consumption, and to guarantee to each individual producer that under the contract he will get every penny that belongs to him.

For the benefit of those who wish to know, I will give some of the most distinguishing figures of the organization. Perhaps the most unique feature, and, so far as I know, the first thing of the kind ever attempted by any dairy organization in the United States, and certainly the first of the kind in this section of the country, was the employment, by the association, of a tester and the installation of a complete steam testing apparatus in the creamery plant at Barnesville, Ohio.

At first the whole organization was looked upon as being the work of his satanic majesty and especially was this feature of the organization supposed to be the work of the devil, but after a few months' trial the dairy company became convinced that the purpose of the organization was to promote not only the interests of the producer but of the distributor and consumer as well, until now, after only three years, there has been established such mutual confidence, such unity of purpose, and such an era of good feeling that nothing would induce either party to go back to the method of the old days; instead of the stormy meetings between the individual dairyman and the manager of the dairy company, we have an executive committee which meets with the general manager, and while we generally spend the afternoon in friendly conversation and in discussing the great problems which now confront the statesmen of the world, most of which we have already settled to our complete satisfaction at least, I do not suppose that at any meeting during the past two years, except when the fool milk commissions have interfered, have we spent more than thirty minutes in actually making a contract.

I spoke of having a tester employed, but at the beginning of the organization such a step was not contemplated except as a last resort and so our first contract provided for a tester only upon the condition that the test of the company was not satisfactory. They evidently regarded this feature of the contract only as a bluff and determined to call the bluff as soon as possible, so for the first two months conditions, instead of growing better, grew worse. We then took the matter up with Professor Oscar Erf of the Ohio State University, and the dairyman's best friend, who at once became so interested in our organization that he came and personally supervised the installation of our testing plant consisting of a thirty-six bottle steam tester with all the other apparatus necessary to facilitate the work of the tester. So far, we have had in our employ four men, all certified by Professor Erf. Some have been called to fill better positions, some have been called to give their services, a precious heritage to their country, but all have done their work well.

Some of the duties of the tester are as follows:

(a) To see that the scales are kept in proper condition and to keep a daily record of all the weights.

(b) To take samples of each patron's milk daily and to test these samples once or twice a week as conditions may require.

(c) To send a weekly statement, to each patron, of the number of pounds of milk received from him daily and his average test for that week and at the close of each month the statement is to include the total shipment for that month and his average test for that month.

I will give a sample of the slips sent out:

The Barnesville Milk and Cream Producers' Association

Name .....

Dear Sir:

Your statement for this week is as follows:

.....

Date Pounds of Milk

.....

.....

.....

Total .....

Average per cent .....

Pounds of fat .....

Contract price .....

Tester .....

We have found that the sending out of these weekly statements has not only been a stimulus to production, but has been the means of keeping the individual dairyman in closer touch with the organization.

(d) In case of any injustice toward, or discrimination against, any individual it is the duty of the tester to notify some member of the executive committee, but fortunately no such need has arisen.

(e) It is also the duty of the tester to purchase all supplies, to look after all printing, etc. In short, he is our personal representative in the creamery. His salary and all other expenses of the association are provided for by an assessment upon each patron in proportion to the number of pounds of butterfat he sends. In the beginning the assessment ran as high as one cent per pound but now rarely exceeds one-half cent.

Through an arrangement with the creamery the check for the total assessment is sent each month, direct, to the treasurer of the association.

Our contract with the company also provides that in case any dispute shall arise in regard to the manner of testing, the matter shall be referred to the authorities of the Ohio State University, whose decision shall be final.

In the three years since our organization first came into being, we have saved to the dairymen of this community more than ten thousand dollars; but this, in reality, has been the least part of the work done. Before the advent of our organization we took our milk to the creamery and virtually said, "Here is the product of our own and our family's toil, take it and, if it is worth anything to you, pay us what you please."

But the old methods are changing now; under our present system the dairyman possesses a measure of independence that he never enjoyed before. He follows the product of his toil every step of the way until he gets his pay; there has opened to him a broader field and a clearer vision; a field in which his activities shall yet be recognized as a part and parcel of the great industries of our country and shall receive an equal compensation with them. A vision of the future importance and permanency of his calling, when he shall no longer be the serf and slave of others but a full partner in all the great industries of our country, sharing with them alike not only their burdens but their prosperity.

Such is, in brief, the story of our organization but it is not worth the telling if it does not inspire some other community with the spirit of cooperation. It had better be left untold if it does not, in some small measure at least, impress upon the dairymen who read these lines the absolute necessity of organization.

To the dairy industry, as to every other branch of agriculture, there comes, with peculiar force at the present time, the ever insistent question: "What of the future?" The answer to this question rests with the dairymen alone. I have faith in the future of the dairy industry. I believe we are at the dawning of a new, a brighter day, a day in which the dairyman and the agriculturist shall proclaim to the world the importance, the dignity and the preeminence of their calling. But this faith is not based upon any so-called uplift movements coming from the outside. Viewed from that angle,—the dairyman is doomed, his cause is absolutely hopeless; but my faith is based upon the fact that in the future the dairyman himself will be the compelling force that shall lift the industry from the dust into which demagogues and two by four politicians have trampled it and place it upon the same plane and upon an equal footing with the other industries of this country. Hence, in the years that are just ahead the three most important words in the dairyman's vocabulary must be: organization, **organization, ORGANIZATION,**—an organization so compact and far reaching that the dairyman of this country shall no longer be compelled to petition for his rights or plead his cause before his servants and even then be given a stone instead of bread from those who are his hirelings,—an organization so strong that he will not be intimidated by the threats of the mighty, or heed the mandates of those who arrogate to themselves authority which has never been granted them, or cajoled into silence or lulled into a sense of false security by the empty flattery of presidential proclamations or political mountebanks.

The need for organization has never been greater nor the time more opportune than the present. During the last two years the power of organization has been made manifest, the servile attitude of those in authority to the labor unions of the country. The standing invitation which Mr. Gompers had to visit the White House was not because of any peculiar brand of love the administration had for labor, but because Mr. Gompers held in his hands the millions of the labor vote. The failure to accord to the dairymen of the country a proper recognition of their rights and the appointment of committees composed of men from the unions, and whose sole qualification for the position was dense ignorance to arbitrarily fix the price of their products was not the result of disfavor or hatred on the part of the administration for the dairymen, but was due solely to the lack of organization on their part, hence they were not to be feared.

While the attitude of the present Food Administration toward the dairy industry has been a prolific source of confusion and, for the time being, has wrought infinite harm to the producer, yet it has taught the dairyman a lesson that otherwise he would have been long years in learning. Very often it takes a catastrophe to bring about a reform and if, out of the confusion into which the dairy industry has been plunged and the injustice heaped upon it, there should have been learned the lesson of cooperation and organization, the price paid will not be too high.

The past two years has witnessed more rapid strides in dairy organization than in any other branch of agriculture, but we are only at the beginning; we are just standing on the threshold. But when we consider that during the two years just past we have made greater progress in organization than during all the years of our previous history, we feel that we have great reason to be encouraged and that our faith in the future of the dairy industry is not founded upon a shifting point of sand. The work of organization must continue until it shall have leaped the boundaries of states, until it shall have crossed mountains and rivers and plains, until every dairy section of our country shall be united in a community of interest and of purpose. This will cost effort and it will cost money. Hitherto one of the great hindrances to dairy organization was the fact that while we were willing to reap the benefits of organization, we were not willing to pay the price.

We already have the leaders, such men as Professor Erf but we are well nigh helpless unless we have back of them with our money. If every dairyman in the United States would set aside 2% of his receipts for one year as a fund for organization and advertising, he would not only be paid manifold in a financial way but the future of the industry would be secure.

No matter how busy you may be it's time well spent to attend the farmers' institutes and community meetings.

Agricultural Press Pays High Tribute to W. D. Hoard

] Governor Hoard more than to any other hun-
e men, the great dairy industry of Wisconsin
s its growth. He preached dairying day and
g. He organized and led the movement which
c ed fair railroad rates for the dairy products
isconsin. He taught the people the value of
t r cows, and he instructed them as to the best
e ods of feeding. He proved the worth of his
a ings by maintaining a highly successful dairy
r of his own. By precept and practice he
ded into the consciousness of his hearers and
ers the fundamental principles underlying
c able dairy production and manufacture.
I 1888, without intention or desire on his own
r he was made the nominee of the Republican
r for governor of Wisconsin. He was elected,
erved the state well. It was during his admin-
ion that the law was enacted which required
e eaching of English in all public and parochial
ols. This law was resented by the large Ger-
a population in Wisconsin, and resulted in Gov-
r Hoard's defeat for re-election.
e commanding influence of the University of
onsin among the agricultural institutions of
e ountry is due in part at least to the wise coun-
nd guidance of Governor Hoard. As one of the
ats, he saw to it that the work in agriculture
ld not be overshadowed by the work of the
e departments of the institution, and as one
ie most influential citizens of the state he
it his business to see that financial support
ld be adequate.
rsonally, Governor Hoard was one of the most
al and companionable of men. As a platform
ker he was tremendously effective. Whatever
subject, and he seemed able to talk with author-
n about every subject in which people were in-
ted, he illuminated it with a fund of common
and a wealth of anecdote which his audience
d irresistible. His inimitable stories were al-
pat; they illustrated exactly the point he
ed to make, and his fame as an orator was al-
as great in the nation at large as his fame as
xponent of dairying. He was an omnivorous
er of the best literature, was well informed on
atters of human interest, a genial philosopher
found himself quite at home and welcome with
in all walks of life.
ie lives of W. D. Hoard in Wisconsin and
y Wallace in Iowa seemed to run in parallel
. Both were born on eastern farms in the year
. Both came west in early manhood. Both
a love for the soil, a passion for agricultural
vledge, and the desire to impart it to others.
started county papers, mainly for the
ose of building up a sound agriculture.
, with their sons, founded agricultural papers
h shortly became the leading authorities in
respective fields. Both devoted their lives to
promotion of agricultural truth. And both
at a ripe age, having lived lives of great use-
ess and power, and are universally mourned.
were warm friends who delighted to visit to-
er, the last occasion being in August, 1915, six
ths before Mr. Wallace died. After Mr. Wal-
s return, he received a letter from Governor
rd, which ended as follows: "Said the chief of
Illinois tribe of Indians to Pere Marquette:
sun shines brighter, O white man, for your
ing.' Such is our family message to you."
speaking of Governor Hoard, Mr. Wallace
said: "He belongs to a class now rapidly
ing, who in clear thinking and unyielding
ıfulness to their convictions, have laid broad
deep the foundations for the agricultural edu-
ɔn which the present generation needs."—
laces' Farmer.

⚜

ore than forty years ago Mr. Hoard saw the
ssity for a paper that would give the dairymen
Wisconsin reliable and accurate information.
e that time up till the time of his death, he
worked faithfully in the service of better
ying, and it would not be too much to say that
enviable reputation that Wisconsin has for the
quality of its dairy products, and the pros-
ty that dairymen, as a whole, in that state en-
are very largely due to the helpful and practi-
information given through the columns of
rd's Dairyman.
r. Hoard ever believed that example was better
precept. It was our privilege to visit Mr.
rd's dairy farm at Fort Atkinson some years
, and we found it a model for cleanliness.

Dairymen have lost a true friend and faithful servant in the death of Mr. Hoard.—The Canadian Countryman.

⚜

Governor Hoard was a leader of men. His vision was broad, comprehensive, and clear. He was a great student of nature, possessed unusual powers of reasoning, and arrived at definite, conclusive results. He was always seeking the truth as it applied to his dairy farm and its many problems, and as it applies to dairy farming generally, and to all the farming interests of his state and nation.

No man living has done more for the farming interests of Wisconsin and America than Mr. Hoard, and because of his untiring efforts for many years as a leader, Wisconsin stands first in the nation today as a dairy state.

Governor Hoard was the founder of the Northwestern Dairymen's Association and its president. He organized the Wisconsin State Dairymen's Association; was its first secretary, later its president, and a life member of its executive committee.

In 1873 he helped organize the Watertown Dairy Board of Trade, and it was Mr. Hoard who secured for Wisconsin a low freight rate on cheese from this state to the Atlantic seaboard and the use of refrigerator cars in which to ship the cheese.

He has been often honored by the people of his state. He held many positions of trust and has been obliged to decline acceptance of many others. —The Wisconsin Agriculturist.

⚜

A commanding personage in his own state he was known the nation over as the founder and senior editor of Hoard's Dairyman, published for many years at Fort Atkinson, Wisconsin, in the interests of the dairy industry. Governor Hoard was a pioneer in helping to make Wisconsin the prominent dairy state it is today. He labored for the development of that section and for the people whose prosperity rests upon the dairy business, not for personal advantage but for the public welfare. He was a man of vigorous opinions and sound sense, and generally speaking he was one of those forward looking men whose monument is the service he rendered mankind and the grateful memory of those who benefited by his having lived and worked among them. A prominent place in the temple of fame is reserved for Ex-governor Hoard, farmer, writer, thinker, publisher, and statesman. —Farmer and Breeder.

⚜

A great man; a benefactor of his race; a man of whom the late Henry Wallace said: "He belonged to a class now rapidly passing who by clear thinking and unyielding faithfulness to their convictions have laid broad and deep the foundations for the agricultural education which the present generation needs." Of his paper an admirer said only the other day: "While maintaining its reputation as a leading farm and dairy paper, it has not been content to print just what its subscribers want to hear. For instance, it has frequently decried the folly of spoiling a good farmer to make a poor business man." Both Hoard and Wallace left sons to come after them, worthy to continue their work and add to their benefactions to their countrymen; in which respect both were happy beyond the lot of most men.—The Price Current-Grain Reporter.

⚜

William D. Hoard's name was a household word —not only among country people, but with many whose homes have always been in town. At his death many of the large daily papers, which usually know little and care less about farm matters, printed very appropriate and appreciative studies of Mr. Hoard's life and character. Perhaps the best of them came from the New York Sun, and we can hardly do better than quote from it:

"On the roster of men to whom we owe the modern development of dairying, the name of William D. Hoard of Wisconsin, who died at his home in Fort Atkinson on Friday, will always have a high place. He was one of the first Americans to recognize that disaster must follow the robbery of the soil, one of the earliest to ignore the long cherished opinion that organization of farmers was not feasible, and one of the pioneers in the crusade for modern and enlightened methods in the cow barn and the pasture.

"Modern scientific dairying, with its intricate machinery and exact records, rests on the Babcock test, and Mr. Babcock, after years of study of the chemistry of milk, butter, cheese, and other milk products, and the intimately associated problems of cattle feeding for the sustenance of the cow and high production of rich, wholesome milk, completed the tester in 1890, not quite a generation ago. Mr. Babcock and Mr. Hoard were both natives of New York, always one of the greatest agricultural and dairying states of the Union. Mr. Babcock was born in Bridgewater, Oneida county; Mr. Hoard came from Stockbridge in Madison County. The inventor of the Babcock test had the advantage of a thorough academic training; Mr. Hoard, who was Mr. Babcock's senior by seven years, had to get along without this early advantage. But though Mr. Hoard lacked the training Mr. Babcock put to such distinguished use, his intellectual horizon was always a wide one, and he was mentally equipped for the task of leadership his disposition and the circumstances his interesting life brought to him.

"It is conceivable that no university instructor, no matter what his attainments in his specialty, could have done what Mr. Hoard did. Primarily, fundamentally, and continuously a farmer, his writings and his addresses were the expressions of intelligent concern for the farmers. He talked to them as one of themselves, not as a missionary from an alien sphere.

"Mr. Hoard lived to be 82. He lived to see the principles of farm management for which he contended in the face of thinly veiled distrust adopted without question. He had the satisfaction of being a prophet honored at home and held in esteem abroad.

"The salvation of the nation, the peace of the world, depend absolutely on the production of food. The most alarming incident of American life has been the abandonment of agriculture for other industries. The most hopeful national tendency now observable is the intelligent effort to which so many agencies, public and private, are contributing to re-establish agriculture on the plane on which it belongs. This is not to be brought about by sentimentalists, by ill-considered "back to the land" movements addressed to persons incompetent to plow a straight furrow, but by hard-headed, businesslike study of the problems of farming, by the employment of every aid science can bring to the cultivator and by the elimination of bad practices in farming. To this, men like Mr. Hoard are the most potent contributors and thus true benefactors of the race."—The Rural New Yorker.

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As the governor of his state, as the editor of Hoard's Dairyman, and as a private citizen, Governor Hoard wielded an influence such as is granted to very few men. Standing always for constructive development in agriculture, Governor Hoard was privileged to round out his eighty-two years of life by seeing the fulfillment of most of his prophecies and ideas with regard to agricultural progress. In fact, his vigorous and persistent advocacy of the principles of modern dairy practice in a large degree made possible the present status of the dairy industry. No one man ever made a larger contribution to the agricultural age in which he lived than did Governor Hoard and thousands of successful dairymen owe their progress and prosperity to the leadership of this great teacher.

Governor Hoard was not only a great agricultural leader and a great editor, but he was also a great citizen, a leader in the affairs of his state and country. In all of his activities he exercised that keen judgment and common sense that made him a leader among men. His circle of warm personal friends extended to all sections of this country and it was said of him that "he never failed to win a friend, and never lost a friend once made".

In the memory of his friends, in the dairy world, in the history of his state, and in the broad activities of life, Governor Hoard builded a monument of service and friendliness that will endure for all time. American agriculture would not be what it is today had it not been for the work of such able and far-visioned men as Governor Hoard.—The Farmer.

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The above are representative of the many kindly references to the life and career of the late W. D. Hoard.

EDITORIAL COMMENT

CHRISTMAS GREETINGS

This is the most joyous and happy Christmas season the world has ever known. For more than four years millions of soldiers have bled and died that the world might live in peace; devastation and starvation have been rife in many nations and the hearts of women and children have been crushed with grief. The ominous tread of the warrior is heard no more, for peace has come. The step of the soldier now means love and protection. Out of the carnage of war is rising a new earth and a new heaven. The long period of suffering has made peace sweeter and dearer to the peoples of earth than it has ever been before.

Right has triumphed over might, and mercy and tenderness are not ridiculed but are reverenced and honored. It has been demonstrated that brute force is not the great power in the world, and the people again trust in Him who created the heaven and the earth. Christ was crucified on the cross because he declared that the rights of people were divine; because he preached love, tenderness, and mercy, and because he advocated justice. The kings then, as the kings of yesterday, believed in the divine rights of kings and not in people; they believed in force and not in justice, love, and mercy. While Christ was crucified, His spirit has been guiding the minds of men for nearly two thousand years. It was through His teachings that the world was saved for democracy and that right was victorious over might.

The Christmas spirit which broods over land and sea has a deeper meaning to the world than it ever had. Its meaning and purpose have been branded by hot steel upon the hearts of all men, and especially those who were actively engaged in war. May we all at this Christmas season reflect upon its significance and try to appreciate what kind of a world we would have if the Yuletide spirit had been crushed to earth.

As we suspend for a moment selfishness and strife let us open our hearts that there may flow in the true meaning of the Christmas spirit and that we may appreciate the full importance of "Peace on Earth and Good Will to Men".

THE COUNTY FARM BUREAU

Peace has brought us the problem of readjustment of all our industries. Agriculture is not to be the exception, as it plays too important a part in the affairs of the nation to be left out of the great scheme of readjustment. Farmers everywhere are fast learning that individual effort is not going to meet the requirements of their business, for they must meet organized industries on every hand. These men appreciate that if agriculture is to protect its rights and is to be placed in the proper relationship to all other industries it must adopt the universal plans and practices of organization.

The county farm bureau, which had its inception a few years ago, is growing in number and in influence. In the beginning it was an organization of the representatives of the various industries of a county to raise funds to defray the expenses of a county agent and to concern itself with county agricultural problems. It has now become, in most instances, an organization of the farmers in a county and it co-operates with the county agent in conducting the agricultural affairs of a county. The county agent in most cases now receives his salary and expenses from appropriations made by the county, state, and federal governments. The county agent holds no office in the county farm bureau, but helps to direct and carry on the work of the bureau. He is the paid servant of the county and willingly co-operates with all organizations of the county, for through them he can do his most effective work.

The war brought forth a county agent or a county food emergency agent in nearly every county in the United States. The county food emergency agent will disappear, but we expect and hope that every agricultural county will employ a county agent. We do not believe agriculture can be effectively organized and conducted without regularly employed and paid servants. The county agent should become the leader of agricultural activities of a county, if he is the right kind of man, and as such he can bring together the various and special organizations, such as corn clubs, boys' calf clubs, etc., to work with the county farm bureau in matters of general importance to agriculture. The county agent in assisting in the work of these various associations becomes indispensable, for few farmer organizations have succeeded unless there was some directing force constantly and everlastingly on the job.

Through the county agent such organizations can be extended until every county that has a county agent will have a county farm bureau and its natural auxiliary associations. The county farm bureaus can be federated into a state organization and the states into a national organization.

The county agent has in many instances confined his efforts to the problems of production, but through county farm bureaus his activities are extended to all matters pertaining to agriculture, including the marketing of farm products, the organization of co-operative enterprises, assisting in social and economic functions, etc. The opportunities for service in this field are unlimited and we believe necessary to bring about a proper organization to cope with the problems of agriculture.

HOW THE FARMER ANSWERED

"The farmer will not buy bonds, he will not fight." This absurd charge of a truculent banker is well answered when the balance sheet is made up showing the farmers' participation in the war.

Just how many bonds he has purchased we do not know, but agricultural Iowa went over the top quickly and without the blare of circus bands and vaudeville acts. Despite their large war earnings and their big noise, the industrial East lagged behind their country cousins. It is also now known that the farming people sent a relatively larger proportion of its young men into the khaki clad ranks than any other trade or profession. If we are correctly informed, one-third of the boys who pledged their all to the service of their country and humanity came from farm homes, but father and mother have carried on.

Let us assess, for a moment, just what more the farmer has done. What do the agricultural statistics show? In the pre-war period the American farmer planted 209,036,000 acres of the ten important food crops—corn, wheat, oats, barley, rye, buckwheat, rice, potatoes, sugar beets, and sorghum. If to these are added his acreage of cotton, hay, tobacco, and flaxseed, he has to his credit 313,723,000 acres. In 1914 he increased his acreage of food crops 2% over the pre-war period; in 1915 and 1916 he increased it 8%; in 1917 he increased it 17%; and finally in 1918, despite the men he gave to the army and to higher paid industrial work, he increased his 5-year pre-war average by 18 per cent, having planted 246,475,000 acres of food crops and at the same time increasing his cotton, hay, tobacco, and flaxseed by 13½%.

Yes, the farmer has "come across". He has "carried on". It needs no invidious comparison with any other business or profession, for he has done more and better than could have been reasonably expected. For the future he will demand, and rightfully, a proper and adequate price for the product of his labor. Whether he is or is not in a better financial condition than four years ago is a matter of considerable argument, but consumers may as well realize now that in the future his exertions to produce will be dependent on the returns he can secure. He is still a patriot, but now that the nation's immediate necessities have been met, he will give more consideration to the condition of his pocket-book than to the world necessities for food.

STARVING COWS FOR PROTEIN

We find many dairy farmers feeding rations low in protein this winter. It has come about in this way. The price of protein appearing rather high leads these men to prepare for their cows home grown rations consisting of silage, timothy hay, oats, corn, and barley. If a liberal allowance of corn silage, timothy hay, and 8 lbs. of a mixture, equal parts by weight, of ground oats, corn, and barley are fed daily to a cow, she will be supplied with just about enough protein to produce 15 lbs. of average testing milk. A cow in reasonable flesh will draw upon her body and produce more milk than this for a short time, but the protein in the ration is so low that her production will ultimately fall to 12 to 15 lbs. of milk a day.

There is no profit in this sort of feeding and the reason a cow does so poorly is because the ration lacks in protein. If these farmers would feed a pound or two per day of some feed rich in protein like oil meal, cottonseed meal, gluten feed, distillers grains, etc., the cow with roughage and 7 or 8 lbs. of grain could produce 25 lbs. of milk instead of 12 to 15. Further, she would sustain her milk flow longer and remain in better physical condition and produce a stronger calf. It is not wise to limit a cow in the amount of protei receives as it is impossible for her to pr profitable flows of milk unless this element i plied in abundance.

Some farmers have purchased large quantit oat hulls, which is a feed low in nutrients. oat hulls were purchased because they were with other feeds and sold for about $25 pe We have found rations, where oats hulls ma the larger percentage of the meal po that did not contain enough protein to duce over 9 or 10 lbs. of milk daily. It is no der these dairymen complain that there money in dairying. There are many good feeds on the market and most of them have a It is not wise for a dairyman to buy a feed be it is cheap or rich in carbohydrates wh has nothing but corn silage and timothy h feed with it. If he has clover and alfalfa hay such a mixture is advisable, but with timoth and silage a mixture rich in protein is requi

A dairyman should first find out what fee needs to balance his ration with those he has farm and then proceed to buy the feed in the ket which will meet his requirements. It s ever be borne in mind that in order to produ eral flows of milk, a cow must be supplied w adequate supply of protein. If it is not provi the roughage portion of the ration, that is, ha the like, it must come in the meal portion should also be borne in mind that a mixture will supplement alfalfa hay will not suppl timothy hay. It seems strange in this age there are such opportunities for securing inf tion regarding the balancing of rations that men can be found everywhere, especially this starving their cows for protein.

STRENGTHENING OUR FOUNDATIONS

Agricultural America has learned many l during the war, not the least of which is the of organization. That she was able to fe world was due, in the first place, to the pa devotion of her farmers as they bent their ba the task. However, even with this we woul failed had there not been organization and tion. Three days after the declaration of Secretary Houston met the agricultural ext workers at St. Louis and this conference dr a program of food production and conser that was shortly adopted by congress.

In this program definite consideration was to the perfecting of the organization of ou cultural agencies. The agricultural extensio vice was made a permanent and nation wid tem, and it has so developed that President recently described it as "the greatest practic scientific agricultural organization in the w Congress was sufficiently impressed that it n special and additional appropriation of ove million dollars, so that in 1917 the total available for agricultural extension were million dollars and in the present year million dollars. This latter sum is made $6,200,000 as the national war emergency priation, $4,680,000 from the operation Smith-Lever Act, $2,500,000 from countie the remainder largely from agricultural co

These appropriations have provided for a expansion, which is indicated by the fact t April 1, 1917, there were 2,149 extension w of whom 1,461 were county agents; on J 1918, this number increased to 6,216, which i ed 3,001 county agents, 2,034 home demonst agents, and 1,181 boys' and girls' club wor

We are now entering a period of contr in expenditures and there is danger that th cultural extension movement may suffer unl friends bestir themselves. Not only must Co be assured of the value of the county agent a other extension workers, but the local fa reau should be strengthened and local sen crystallized that it may be solidly back movement for strengthening the foundation agriculture.

We take it that there is little need to arg value of the county agent. His usefulness a accomplishments speak for themselves. quick expansion of the movement doubtless weak men have found place, and in so doin in part discredited the work in their particula munities. As conditions again become norma will be more competent men available, and a goes on we hope to see the day when every will have a strong farm bureau organizatio will employ a trained man as their county In thus particularizing the county agent, not intend to slight the value of the other sion workers. The woman home demonst

as done excellent work and will have her
the building of a better farm life and in
ng the farm home. The boys' and girls'
e starting many a boy and girl in the right
n, and their teachings are valuable Be-
ey take the mind and spirit at a formative
ind guide it in the direction of a better
are.

xtension movement is bringing science to
n, is making available to the actual tiller of
and the maker of the home the discoveries
olleges and the practices of our best farm-
ere may be room for improvement in its
el, but taken by and large its workers have
ll and as farmers we do not wish to see
ograding movement. We trust that Con-
gether with the various states and the
, will continue to give it the loyal support
ly deserves.

ng 200-pound Hogs Without Milk

nd of mine who has been farming all his
who has not grown alfalfa, states that
not be brought to a weight of 200 lbs. at
nths of age unless fed a liberal supply of
in addition to corn. Is it not possible
ogs are pastured on alfalfa and given al-
y after September 15th, in addition to a
ed, they can be brought to this weight
the use of skimmilk? If this method can
ssfully employed, will you please state the
mixture of breeds of hogs you consider
ted and also the kinds and probable
of grain a hog would require to attain to
um weight of 200 lbs. under these condi-

ukee, Wis. N. L. G.

rse, we must emphasize at the outset that
ie grain supplements we have—whether
pplements be meat meal tankage or oil
wheat middlings or alfalfa pasture or red
sture or rape pasture or what not—that
test of all is whole milk and that the next
is skimmilk or buttermilk. Of course, we
ed the whole milk because it is too expen-
we can feed skimmilk and buttermilk to
and when we do so we know that we are
a supplement par excellence.

er, it is entirely possible and feasible and
to make 200-lb. pigs at 8 months of age
ny milk whatsoever but we think it is a
er to make them weigh that when we have
ilk.

e you some idea right along the line of
respondence, would submit some of our
e.

ar we had a group of pigs on pastures of
These pigs were fed throughout the winter
nd tankage or corn and alfalfa hay. We
these rations give good results at farrow-
and that the pigs come strong and hearty.
ie suckling period the mothers were given
run on pasture and in addition a little
l was allowed.

these pigs were 2½ months old, without
f any milk, they weighed 55 lbs. They
fed on until they reached the weight of
which is 25 lbs. more than your corres-
asked for. Remember, now, that these
practically 75 days old, but to be fair let
them 80,—the exact figures run right
ese two figures. How many more days
ake to make 225-lb. hogs out of them?
take the best fed group, namely the ones
falfa pasture at that age and fed, in sep-
-feeders, "free choice" style, meat meal
They took 121 days to reach the above
hich added to 80 days makes a total of
or practically 6⅔ months. Here, then,
igs reaching the weight of 225 lbs., which
more than your correspondent asked for,
months less than he allows for a 200-lb.

d required for 100 lbs. of gain was re-
342.7 lbs. of shelled corn plus 31.7 lbs.
neal tankage, plus .05 lb. of salt, a total
bs. of feed, in addition to the alfalfa pas-
ordinarily figure that an acre of alfalfa
at will yield five tons to the acre, as it
nd here, will carry about 15 to 20 pigs to
nd in addition hay cuttings may be made.
ie last year for alfalfa and we wish
it to the limit, we have used as many as
the acre, but the former method of pig
nd hay cutting is the most profitable.

similar group of pigs started at the
out of the same sires—litter mates in
on dry lot on shelled corn, meat meal
nd salt per "free choice" style, self-fed,
days but they ate somewhat more corn
derably more tankage or 354.2 lbs. of
100 lbs. gain in addition to 50.6 lbs. of tankage. They also ate .05 lb. of salt. This makes a total of 404.8 lbs. of feed for 100 lbs. of gain.

But notice that practically 19 lbs. more of tankage was required for 100 lbs. of gain than on pasture; in other words, the alfalfa pasture saved tankage, also it saved 9 days' time to the pig and it saved corn. These are important considerations and they are to the point in the answering of the propositions set forth by your inquirer.

It is difficult to answer satisfactorily the latter portion of this letter of inquiry.

We believe that the pigs best adapted to the corn belt are those that have considerable stretch and development in them; in other words, we prefer the kinds of pigs that approach the bacon type but yet have many of the lard tendencies. Such pigs can be found in practically all of the leading breeds.

Cross-bred pigs, of course, do finely but one gets into difficulties in keeping up a cross-bred herd unless he maintains pure-breds both on the female and male side. This is difficult. Cross-breds, however, are generally more vigorous than the pure lines but they cannot be used successfully because of the difficulties mentioned unless, of course, the swine operator operates on a very large scale.

From the time the pig is farrowed until he goes to market weighing 200 lbs. he should be able to make gains to 200 lbs. at an outlay of around 300 to 500 lbs. of feed for every 100 lbs. put on. One would have to add to this, of course, the feed fed to the sow during the period of breeding and gestation in order to get the total feed requirement. Some of our farm management figures in this state made by Munger and Lloyd indicate that for every 100 lbs. of hog marketed from the farm, there is represented an outlay of practically 473 lbs. of grain plus 49 lbs. of skimmilk, both of which are concentrated feeds, but these are for average hogs as marketed from the average farm, including discarded brood sows, pigs, boars, and so on.

Iowa Experiment Station. JOHN M. EVVARD.

Calf Stomachs for Rennet

I am informed that rennet is used in the manufacture of cheese and that it is obtained from the stomachs of young calves. As I will have quite a few veal calves to dispose of during this winter I would be pleased to have you advise if there is any market for these stomachs and where. I would be glad to have you advise also, how to prepare the stomachs for market.

Lone Rock, Ia. L. B. H.

Professor J. L. Sammis, who is in charge of the cheese work at the Wisconsin College of Agriculture, sends us the following reply:

"It is very important that all calves' stomachs be saved and utilized for the manufacture of cheese. The easiest way to do this in Wisconsin is to write to the Marshall Dairy Laboratory, Madison, Wisconsin, for directions for preparing calves' stomachs for this purpose. This firm buys calves' stomachs from all over the country and manufactures rennet extract in large quantities. It is the only factory making rennet extract west of New York State. Calves' stomachs bring high prices now and it is of the utmost importance that none of them be wasted, as they are all needed to help keep our cheese factories running."

Repairing a Tile Silo

May I use your columns to inquire of your readers what information they can give concerning hollow tile silos? I have been told that the acid in ensilge eats cement in which tiles are set and my own experience tends to confirm this as a fact. The first two years I had no trouble of this sort, but then the ensilage put in was too dry. This year, however, it was in prime condition and very juicy, but almost immediately the succulence began to pour out through innumerable tiny holes between the tiles. As fast as these were plugged up and cemented over, other leaks would spring. Of course, on outside surface cement will not hold. The main question then is, how to remedy the evil.

Centreville, Md. S. W.

We have little information as to just what may be the trouble with the tile silo but we give below a copy of a reply given by Professor White to a somewhat similar inquiry from one of our readers:

"The reason for silage spoiling in any type of silo is due to either improper filling or porous silo walls. In clay tile silos properly burned, the only possible chance of air passing through the silo walls is at the mortar joints. In some instances the mason who has constructed this type of silo has been careless in not using good mortar or has laid the tile poorly. In some cases, it is due to the tile having such narrow joints that there is nothing to which the mortar can adhere.

"There is no means of painting the inside of a tile silo that I know of which will prevent silage spoiling, provided it is due to poorly glazed tile. A good cement paint, of which there are a number of makes on the market, could be applied at the mortar joints and it ought to make them air-tight. If there is leakage at the joints to the extent that silage juices run out, it will be necessary to paint the joints both inside and out.

"In filling such a silo, it is very essential that sufficient moisture is added so that the silage will pack thoroughly. Special attention ought to be given to tramping the silage near the walls. This will prevent air from entering very far into the silage and as a result there will be a minimum amount of spoiled silage."

Feeding Brood Sows

Please inform me as to the best ration for keeping brood sows in good condition. How much should the ration be increased, if at all, when the sow is about to have pigs? Have blue grass and timothy pasture during spring and summer and rye pasture for late fall. Also have alfalfa hay which might be used if advisable. Is it best to slightly change the ration in winter, for instance feeding more corn to produce more heat?

Sedalia, Mo. L. W. W.

We have found it advisable to feed our brood sows during the winter on a fine quality of alfalfa hay. We make it a point to select the finer portions, the part that is sometimes picked up on the barn floor, and keep that in a rack before them. We supplement this by giving them a little skimmilk. If that does not keep them in flesh, we give them a little corn. The brood sow should not have a liberal allowance of concentrated food, or one that is rich in carbohydrates like corn. If skimmilk is not available, then we would advise a slop made of wheat middlings, to which has been added a small amount of tankage. Roots are appreciated by the brood sow and she will eat considerable quantities of them.

The principle to keep in mind in feeding a brood sow is to give her an abundance of bulky feed but not too nourishing and it should be rich in protein rather than in carbohydrates. Alfalfa is rich in protein and mineral matter and so is skimmilk. This is one of the reasons why our sows do so well when fed this combination.

Wood Ashes for Sandy Acid Soil

Are dry wood ashes a benefit to sandy soil which is acid? And what is best method of applying same? Have a field of rye and sand vetch. Could the ashes be sown to advantage? If so, how many pounds per acre?

Michigan. E. H. S.

Wood ashes contain some calcium and potash which are both beneficial to acid soils. The calcium is valuable in neutralizing acidity, and the potash is needed for plant food. At least 1,000 pounds per acre should be applied, and the best method of application is with a fertilizer spreader. If this is not available, a manure spreader could be used. Do not apply with manure, but apply on the top of the ground after the manure is plowed under, or if in spring it could be applied on top of the ground and then worked in. One harrowing would be sufficient to work in the ashes.

Would not advise applying ashes on a field of fall rye which is above ground as the ashes will have a tendency to burn the leaves. It could be applied on the snow in winter, and the caustic effect of the ashes would thus be neutralized before reaching the plants. One thousand pounds per acre is the least amount of ashes that is worth while to apply.

B. D. LEITH.
Wisconsin College of Agriculture.

Lice on Cattle

Please tell me what to do for cattle that have lice.

Neosho, Mo. E. W. McC.

There is no better way to rid stock of lice than to wash stock thoroughly in a two to five per cent solution of a coal tar disinfectant such as zenoleum or creolin. This should be repeated in about a week after the first washing. The animals should be rubbed dry after washing and then should be blanketed to keep them from taking cold, being especially careful in cold weather.

If the animals are to be kept free from lice the stables should be cleaned up, be thoroughly disinfected, and provision for light and ventilation should be made.

Co-operative Bull Associations

(Continued from page 730)

keep of the bull per cow for eight years will then be $10. The first cost when buying the bulls is $3.33 per cow, or a total of $13.33 per cow for eight years. That makes the total cost per cow each year, $1.66. Compare that with $18.75, the cost for the same service when you buy a bull alone."

"I am interested. Again I see it pays to stop, look, and listen. But it seems too good to be true. Is there not something about this organization that is not so desirable?"

"This organization is like a new machine that is to do things for you that you have been doing with your bare hands. There will surely be some difficulties with the machine that you did not have before. There are now forty-four associations in the United States that are glad to have the troubles of an association that they may have its benefits. It pays to go to a little trouble for a $10 value when you can buy it for $1.00.

"Great as this advantage is, there is at least one other advantage that is greater, and that is the opportunity to try out and discover the exceptional bulls, and when they are found, to use them to the greatest advantage. To the individual this is nearly always lost. This is shown in the case of Aaggie Cornucopia Count 13th that Mr. John Puls of Wisconsin used. When he found out what he was worth he went out to buy him back and found that the butcher had bought him for $50 when in reality he was worth $5,000. This is like selling $100 for $1.00. Similar instances are more numerous than you would imagine.

"There are other advantages too, as, for instance, the greater number of animals of one breed in a community, which is always an attraction to buyers. You do not use as much money in providing bulls in an association as for yourself. This leaves you with more money with which to buy a pure-bred cow. If a pure-bred cow is bought at the time you organize an association it will not be many years before you have a pure-bred herd. With the association in your neighborhood you can depend on the use of a pure-bred bull all the time. It is possible for a man with one cow in the neighborhood of this association to raise a pure-bred calf each year, and what is more the man with one cow will find, at attractive prices, a ready sale in his own locality for the pure-bred heifer calves he raises."

"I am more interested, and I am going home to see what can be done to organize an association; but tell me, how do you arrange for the keep of the bulls?"

"That is arranged by the members of each block. They find one man who will take care of the bull and then agree to pay him a stipulated amount for furnishing all or part of what is necessary to properly care for the bull. The members of each individual block can arrange this to suit themselves with only this condition to observe, that the bulls are the property of the whole association and must be kept according to the requirements of the association. It is in the hands of all the directors to see that the bulls are properly kept and the director in each individual block is held responsible for the proper care of the bull in his block."

"We will have to figure that out for ourselves, I suppose. I have been waiting for you to say something about contagious abortion. Is it not going to spread this disease, having the bulls used in so many herds?"

"That is what so many think when they first hear of this plan; but in reality the bull association makes better conditions. The objection is in the same class with the objection that you undoubtedly have heard put up against the use of ensilage, that feeding ensilage to the cows will rot their teeth and burn out their stomachs. Observations with bull associations show that there is less trouble, if anything, with this disease in bull associations than outside of them. The members in a bull association are working together under the best regulations in their by-laws for avoiding this disease, and it is very apparent that the organized condition of the farmers helps to control not only abortion but also other infectious diseases."

"I feel that this information has shown me a way out of one of my farm problems, and I am glad I came. May we come back with some more questions about how to organize a bull association if we find that there is enough interest in our district to organize one?"

"To be sure, but you may find this information nearer home by going to your state agricultural college. Remember this, however, such an organization does not organize itself. It takes some time to gather up your material and perfect the association; it does not build itself. You may find that your neighbors do not take hold of this matter at once. Some may feel that such an organization may not be practical, but there are 1,000 men in the United States who have proved the bull association to be very practical and successful. They are found in 18 states, and are members of 44 associations, and each association has, on an average, five blocks; and I hope that also you and your neighbors, Mr. Dewitt, will be the beneficiaries of such an association.

"The state or federal extension workers, or both, will give you assistance, if you ask for it; and here are several copies of a sample constitution and by-laws that may be useful in drawing up a constitution for your association. Call again."

Percheron Society of America

The annual meeting of the stockholders of the Percheron Society of America was held December 2nd, at Congress Hotel, Chicago. A goodly number of Percheron breeders were in attendance.

President White in his opening address expressed the deep thankfulness which all Percheron breeders feel in the close of the war. He spoke of the notable service which the Percheron breeders of France and America have rendered to the allied cause, furnishing horses, themselves and their sons, and food supplies, and re-emphasized the fact that food supplies had won the war. He spoke particularly of the lack of fats which, in the judgment of Chairman Hoover of the Food Administration, had lead to a nervous breakdown on the part of the Germans and their associates.

Breeders were urged to weed out rigorously and castrate the inferior stallions and to sell the mares of inferior character as grades to the end that the standard of the breed might be steadily improved. State aid in the form of subsidies to a limited number of high class stallions, to be approved by the stallions boards, was urged. The need for this grows out of the fact that no one farmer owns enough mares to justify keeping a stallion for his own use, and farmers are too busy to stand stallions for public service.

Secretary Dinsmore in his report stated that the registrations made during the last fiscal year were somewhat less than in 1917. 3,881 American bred stallions, 5,226 American bred mares, 63 imported stallions and 10 imported mares were recorded, a grand total of 9,180. 9,798 transfer certificates were issued during the past year and about 2,500 more transfers were embodied in rewritten certificates, or accompanied applications when tendered for record. The transfers were slightly in excess of those of the preceding year. The states, arranged in order, according to number of animals purchased by breeders residing within those states, is as follows: Iowa, 1,526; Illinois, 1,187; Canada, 770; Kansas, 754; Missouri, 618; Ohio, 528; South Dakota, 513.

In the election of directors, William Danforth of Minnesota, W. S. Corsa of Illinois, and Ed. Nicodemus were elected to succeed themselves, and Otho H. Pollock of Ohio was elected to succeed Lewis Slack of Ohio.

At the conclusion of the annual meeting of the stockholders the annual meeting of the Board of Directors was held in room immediately adjoining. President E. B. White, who has served the society during the bitter years of protracted litigation, was re-elected to succeed himself, U. L. Burdick of North Dakota was elected vice-president, C. N. Stanton of Chicago treasurer, and Wayne Dinsmore, secretary, re-elected for a term of three years. W. S. Corsa was elected as a representative from the Percheron society to the National Society of Record Associations.

WAYNE DINSMORE, Secretary.

Creamery Short Course at Purdue

The Creamery Short Course at Purdue University, Lafayette, will be held this year for eight weeks beginning December 30. The purpose of this course is to train men and women in the science and practice of creamery buttermaking, creamery management, market milk, ice cream making, and allied subjects.

There is a great demand for persons trained along this line. Many who are now working in creameries, milk depots, and ice cream plants will do well to avail themselves of this opportunity to better equip themselves in their line of work. The Purdue creamery and laboratories are well equipped with all modern machinery and other equipment which makes it possible to give a thoroughly practical course.

For further information, address Department of Dairy Husbandry, Purdue University, Lafayette, Ind.

Limit Off Lime

The United States Department of Agriculture calls the attention of farmers to the fact that they are now free to buy all the lime needed for fertilizing their soil, unless the state director of extension or other state agricultural official finds it necessary to exercise control of purchases.

The new conditions result from modification by the War Industries Board of its Circular No. 9, which covered the use of lime for agricultural purposes, and which required farmers to apply for permits when they wished to buy more than one ton of agricultural lime in a year.

New Victory Milking Machine



embodies the best features of the best milkers, Human and Machi without their faults. You know that it is natural for every ma facturer to claim that his machine is the best in the world, and everybody claiming to make the best machine, it becomes a tick job to pick the right one. We are not making any claim we can back up. If we or our dealer cannot prove that the New Victor the best suited to your needs, we cannot expect you to buy it. idea, therefore, was to build not only the best milker, with the advantageous requirements, such as simplicity, durability, sanitat low up-keep, easy installation, etc., but to so make and embod it qualifications that will fill the requirements of the greatest ber. We let the machine speak for itself. Let us send you our cata

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Wisconsin Dairymen's Association

E 47th annual meeting of the Wisonsin Dairymen's Association at omonie on December 5 and 6 il-ates again: "The best laid mes o' mice and men gang aft ey; And leave us naught but f and pain for promised joy." n County was enthusiastic and program for the meeting was as llent in promise as it was in fulent, but unfortunately the re-oc-ence of the influenza epidemic co-led with and reached its highest t at the time of the meeting. Mr. hes, who had the local arrangets in charge, was one of the unmates, as were also other mem- of the committee.

espite this untoward happening e was a fairly good attendance the meeting will be long remem-d because it followed so closely r the death of its founder and d champion, W. D. Hoard. Presi- McKerrow stated that we met r sad conditions and he missed old faces, but the association held to the spirit of progress as was well exemplified by its founders ly a half century ago. He be-d Governor Hoard to have been a of great foresight, yet he was inced that when he instituted the ement for a Wisconsin Dairy-'s Association he builded better n he knew. He could scarcely have seen that this organization would only become a pattern for other es, but that it should have moth- and nursed to lusty strength the m Institutes, the State Dairy ool, the Dairy and Food Commis-, the cow testing associations, and many other projects that have so ibly proved their value.

his words of welcome L. D. vey, president of Stout Institute, ed that he doubted whether the ational force of the Wisconsin ymen's Association was fully and erly realized. He then referred the organization of the Dairy ool and the other accomplishments he association and the virile men of it. As indicative of what has accomplished he stated that go-with an increase of 47% in cattle, dairy products of the state had led, showing better cows and bet-dairymen as a result of the educa-al forces at work. President Kerrow spoke of the chaotic world litions and paid deserved tribute he dairy farmers who had stuck heir colors despite the giving of r fighting sons, despite the labor city and its relative inefficiency, ite the rising feed and labor ges, and despite the resulting er returns. In explanation of why dairy farmer continued in busi- despite the diminishing returns, stated that Wisconsin farmers e not a shifting class but stuck ugh thick and thin weather. He d that this policy had won in the and his final adjuration was: ck to the line of business you go if you desire to reap ultimate ess."

he Men's and Boys' Judging Con- was under the capable direction Charles L. Hill, who after a short ess adjourned the meeting to the n of the county agricultural ol. Four Guernseys were brought each contestant placing them and ng reasons in writing for such ings. Then four Holsteins were ed in the same manner, and also Jerseys. The animals were rep-ntative and a credit to the breed-who went to no little trouble to ide this feature. The judge's rds were necessarily placed on conformation, and after noting the records of production Mr. Hill reiterated his often repeated statement that the one real way to judge a cow was to keep her record for a year or more. The winners in the men's class were W. W. Kenyon, J. A. Smith, and J. R. Vesper; while the awards in the boys' class went to Walter Olson, Theo. Roswell, and Carroll Harville. There were also several girl contestants, and though no provisions had been made for them a special award was made to Miss Mildred Miller.

The practicability of the milking machine is a matter of consuming interest and those who came to hear Professor C. Larsen of South Dakota discuss this question were not disappointed. His exposition of the subject was practical and illuminating. He held as fundamental that for the successful operation of the machine the cow, the machine, and the operator must work in harmony. The machine will extract the milk if the cow and the operator do their part. He feels that our dairy schools should institute a special course in the elaboration of milk in the cow's udder and its extraction by hand and by machine, particular attention in the latter case being given to the small mechanical details of milkers that so often spell success or failure. Professor Larsen does not believe in pail stripping, suggesting that the machine will milk the cow dry if the udder is massaged. He suggested placing the hands on the sides of the udder, lifting it up three times, repeat the same operation by placing hands at the front and rear of the udder, and then lift up on each cup. This procedure will milk each cow dry and permits the milking operation to be wholly completed at one time. In milking cows nearly dry he massages the udder and attaches the cups when the underside of the udder becomes warm. We expect to publish Professor Larsen's complete address in a future issue.

The cows of Europe have been so underfed and poorly fed that it will take them more than a year to recuperate was the opinion held by Helmer Rabild, who has general oversight of the dairy extension of the U. S. Department of Agriculture. He held that as land becomes more valuable we are moving by necessity to greater dairy product consumption, for the dairy cow is the most economical producer of animal food. He argued for a "profit at the pail" as the only true measure of a cow, therefore he would cull out the poor cows and then use bulls of dairy merit. Mr. Rabild gave many examples of what cow testing associations had accomplished, and we hope to give further space to his excellent address in the near future.

The illustrated lectures by Dr. E. B. Hart of the College of Agriculture were interesting and well received. They followed closely his work as has been heretofore described in the columns of Hoard's Dairyman. At this time we merely wish to point out one matter which he emphasized and which the dairy advocates should not omit. Milk not only contairs certain elements, vitamines, essential to growth, but is remarkable for its excellent proteins and desirable mineral content.

That "cost of production" will never solve the milk price question is the opinion of Professor B. H. Hibbard, who spoke on "The Basis of Milk Prices". He said the "wicked old law of supply and demand" was bound to operate, and though difficult to explain it still represents the truth. The cost of production is valuable for a man to know on his own farm in order to determine how he shall proceed, but is not a reasonable approach to a basis for setting milk prices. He spoke for a better organization of farmers and for their control of the operations incident to the marketing of their milk, for in this way they could be assurred of the fair working of the market demand and have it duly reflected in the price received.

Contagious abortion is one of the outstanding worriments of dairy farming and Dr. F. B. Hadley's discussion was received with interest. He described the causes of the disease, the different methods of treatment, how immunity was gained, and held forth the hope that by introducing the live germs the disease will be produced in a mild form and its ill effects obviated through the immunity thus gained. Dr. Hadley's address was in the nature of a summary of his recent bulletin 296 entitled, "Contagious Abortio Questions Answered." This bulletin may be secured by writing the College of Agriculture, Madison, Wis.

Pastures and good roughages make cheap milk and should be more fully utilized. Laxative rations make more milk but reduce the flesh. Seed rye and rape in last cultivation of corn if you want cheap feed. Most farmers make straw and not hay of clover, its feeding value being lost by the curing process. Do with clover as you do with alfalfa and it will produce as good results. "I would no more dairy without a silo than milk without a cow." "My northern grown Leaming corn will produce from 15 to 20 tons of silage per acre, when planted in drills. It won't have many well developed ears, but it will make lots of milk." "It is expensive to market hay and other roughage, therefore I feed these on the farm and sell my surplus grain." These short quotations from Mr. C. D. Griswold's address illustrate his practice in feeding cows for profit and indicate why he was kept busy answering questions till the president had to call time. We are preparing to make more extensive extracts from his excellent address for publication in the near future.

The sessions of the convention were closed by an address by Mr. E. W. Frost, advocating a League to Enforce Peace. Though pressed for time, Mr. Frost caught the attention of his hearers at once and held them to the close. His remarks were received with applause and a resolution adopted supporting the ideals represented by the league.

The officers elected for the ensuing year are: President, Geo. McKerrow; Vice-president, A. J. Glover; Secretary-treasurer, Paul C. Burchard; Directors: M. Michels, J. Q. Emery, C. H. Everett, and E. C. Jacobs.

The following resolutions were adopted:

Our friend, Ex-governor Hoard, has passed to the great beyond.

While we can but mourn his loss, we are grateful to the good Creator who has spared him through so many fruitful years of help and counsel to us. We are proud that he was a citizen of Wisconsin and commend the judgment of the committee that declared him Wisconsin's most eminent citizen. This association owes its very existence to his foresight and energy and much of its later success to his untiring efforts.

We commend to the dairymen of the state and the world the work of the committee which has in charge the erection of a permanent memorial to him. We feel assured every dairyman in Wisconsin will gladly contribute to the fund that will be devoted to this purpose.

We are particularly proud of Ex-governor Hoard's vigorous, aggressive Americanism. We rejoice that his wisdom in securing the enactment nearly thirty years ago of a statute protecting the language of our country and safeguarding the state against vicious foreign propaganda and his heroic though unsuccessful defense of that law are now recognized and approved alike by former opponents and supporters.

Your committee believes that no other permanent memorial would be so appropriate as a law to be passed at once making it unlawful to teach any foreign language in the grades of either public or private schools, requiring that English shall be the basic language in all schools of the state and that the teaching of any foreign language in any high school or college shall be incidental or subsidiary thereto. Therefore be it

Resolved, That the Wisconsin Dairymen's Association, in convention assembled, urges the 1919 session of the State Legislature to pass such a bill at the earliest possible moment, not only because recent experiences show it to be a wise and necessary public policy, but also because in so doing Wisconsin will honor herself in paying this tribute to the exalted leadership of that distinguished patriot, William Dempster Hoard.

WHEREAS, it is every day more apparent that a large part of the consuming public need a greater appreciation of the value of and comparative cheapness of milk and its products as human food, and because even dairymen themselves need this education, therefore be it

Resolved, That we commend the work of the National and Wisconsin Dairy Councils, and that we urge this latter to be untiring in its efforts to spread the gospel in Wisconsin, especially through the schools; also be it

Resolved, That we thank the state superintendent of public instruction and the University of Wisconsin for their co-operation in the effort already put forth.

WHEREAS, we feel deeply indebted to the people of Menomonie and of Dunn County for their hospitality and attendance at the meetings. Therefore, be it

Resolved, That we extend to them our thanks and appreciation for their efforts in making the meeting a success and especially to the people who favored us with the music.

Resolved, That the Wisconsin Dairymen's Association, in its 47th annual convention assembled in Menomonie, Wisconsin, approves the purpose of the League to Enforce Peace and tenders its support and best wishes for the early accomplishment of its ideals.

Resolved, That a copy of this resolution be sent to the Wisconsin representatives in the United States Senate and House of Representatives.

Indiana Dairy Association Meets

The annual meeting of the Indiana State Dairy Association will be held at Purdue University, Lafayette, Indiana, on January 16th, 1919, in connection with the Annual Farmers' Week. An interesting program including an address by Mr. D. D. Aitken, president of the Holstein-Friesian Association of America, is being prepared and all dairymen of the Hoosier State should attend. Problems of reconstruction and readjustment of the dairy industry will be the central thought of the convention. The dairy industry of the state has been working under war speed and war prices and in the readjustment period it must settle down to normal conditions. It is largely within the powers of the dairy interests to see that in this readjustment the dairy business should not settle into many of the old ruts and wasteful and uneconomic practices but that a firmer foundation should be built on which the industry can rest during future years. It is squarely up to you—men of the industry. With your help it can be done. Come to this important meeting and help start things.

C. R. GEORGE, Secretary.

Cow Sucks Herself

My best cow sucks herself. It seems difficult to find any means of breaking her or preventing her doing this. Kindly advise me what to do.

Jacksonville, Fla. T. T. A.

It is by no means an easy task to break a cow from the habit of sucking herself. Several schemes have been devised to overcome this habit, but many cows have been able to get around them. Probably as good a method to follow as any is to put a ring, with two or three links, in the cow's nose. These links will prevent her from getting hold of the teat. Another method is to place a sack over the udder.



The Engine Selected by over 150,000 Farmers

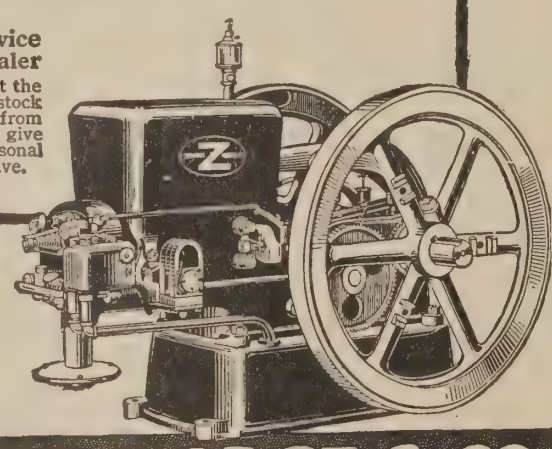
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Yet he says he gets more satisfaction out of his small chew of Gravely than he ever got out of a big chew of ordinary tobacco. "Real Gravely has a pure, rich taste," says Pete. "It's sweetened just enough, and one small chew holds its good taste so long. I figure that this class of tobacco costs me nothing extra—maybe less than I'd have to spend for ordinary plug."

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PEYTON BRAND
Real Gravely Chewing Plug
each piece packed in a pouch
P. B. GRAVELY TOBACCO CO., DANVILLE, VA.

Dairy Dishes

(Continued from page 737)

blespoons of sugar, salt. Heat the buttermilk with the fruit, nuts, cinnamon, and sugar. When boiling add the flour which has been mixed smooth with a little cold milk and thinned with the hot mixture, thus avoiding lumping. Beat while it boils. Serve in hot soup dishes with crisp crackers. The raisins and nuts may be omitted if desired.

CLAM SOUP:—1 quart milk (whole or skimmed), 1 small can minced clam, 2 tablespoonfuls of butter, ½ cup whipped cream, season with salt and pepper. Heat milk, add clams and seasoning, reheat. Serve in hot soup dishes. Put ladle of whipped cream on top. Serve with crisp crackers.

OYSTER STEW:—1 quart oysters, 4 cups scalded milk, ¼ cup butter, 1 teaspoonful salt, 1-8 teaspoon pepper. Clean oysters by placing in colander and pouring over them ¾ cup cold water. Carefully pick over oysters, reserve liquor and heat to boiling point, strain through double cheesecloth. Add oysters and cook until oysters are plump and edges begin to curl. Remove oysters with skimmer and put in tureen with butter, salt, and pepper. Add oyster liquor and milk.—FANNIE MERRITT FARMER.



"THE GREATEST FACTOR OF SAFETY IN THE HUMAN DIET IS THE REGULAR USE OF MILK."

Camouflaging Gives New Life to Meat Substitutes

In the middle of winter when it is hard to get into town, do you ever get tired of eating the same kind of meat day after day? Cottage cheese and Cheddar cheese are splendid meat substitutes and used in the recipes below they give a person that satisfied feeling which always comes after a good meal. Try some of these and see if the family doesn't come back for more.

COTTAGE CHEESE SAUSAGE:—1 cup cottage cheese, 1 cup dry bread crumbs or ½ cup cold cooked rice and ½ cup bread crumbs, ¼ cup peanut butter or 2 tablespoons savory fat, ¼ cup coarsely chopped peanut meats, ½ teaspoon powdered sage, ½ teaspoon thyme, 1 tablespoon milk, 1 teaspoon salt, ¼ teaspoon pepper, ⅛ teaspoon soda, 1 teaspoon finely chopped onion. The bread crumbs may be made from left-over corn, barley, or other quick breads. Cook the onion in the fat until tender but not brown. Dissolve the soda in the milk and work into the cheese. Mix all other dry ingredients thoroughly with the bread crumbs. Blend peanut butter and onion with the cheese, and mix with them the bread crumbs. Form into flat cakes, dust with bread crumbs or corn meal, and fry to a delicate brown in a little fat in a hot frying pan.

Variations—To utilize left over cereals, use one cup of cooked rice, oatmeal, or corn meal mush with ¾ cup of bread crumbs.

Dry corn meal or finely ground oat meal may be used for stiffening the above mixture, but in such case it is better to form into a loaf and bake it in the oven for about 25 minutes. Other seasonings may be used in place of the above.

The amount of liquid will vary in every case. The mixture should be very stiff, since the cheese tends to soften it during the cooking.

COTTAGE CHEESE OMELET:—2 eggs, ¼ teaspoon salt, 3 rounded tablespoons cottage cheese, 1 tablespoon chopped pimentos, 2 tablespoons milk, 1-8 teaspoon soda. Beat the yolks and whites of the eggs separately. Add to the yolks the salt, the milk, and the cheese with which have been blended the pimentos, finally fold in the stiffly beaten whites; pour into a hot frying pan in which has been melted about ½ tablespoon fat. Cook the omelet slowly until the egg has set, place in the oven for a few minutes to finish cooking, and fold over in the center. Garnish with parsley. Other seasoning may be used, such as chopped parsley, green pepper, or minced ham.

CHEESE SOUFFLE:—2 tablespoonfuls butter, 3 tablespoonfuls flour, (1½ corn starch) ½ cup milk, ¾ teaspoonful salt, few grains cayenne, yolks 3 eggs, whites 2 eggs, ½ cup grated American cheese. Melt butter, add flour. Blend well. Pour in milk gradually, stirring constantly. Bring to boiling point, add cheese, salt, and cayenne. Put over hot water and add yolks of eggs beaten until thick and lemon-colored. Cut and fold in the whites which have been beaten until stiff and dry. Cover and cook until firm.

TOMATO RAREBIT:—1 can tomatoes, 1 egg, salt, cayenne pepper, 1 tablespoon butter, ¼ lb. American cheese. Cook canned tomatoes down to half their volume. Cut cheese into small pieces; put all ingredients together and cook over hot water until smooth and thick. Serve on crackers or toast.

Creamed, escalloped, and au gratin dishes are prepared by cutting in cubes or slices vegetables, meat, poultry, eggs, or macaroni. For creamed dishes add a white sauce made as follows: 1 cup milk, (whole or skimmed) ½ to 1 tablespoon of flour, ½ to 1 tablespoon of butter or drippings, ½ teaspoon of salt. Melt the butter, add the flour, stirring until smooth, pour hot milk over this and cook in a double boiler, stirring to prevent lumping. Pour over the cubed vegetables or meat. Heat thoroughly and serve. Escalloped dishes are prepared as creamed dishes, except a baking dish is used and buttered crumbs are put over the top. Bake until thoroughly done and browned on top.

Au gratin dishes are prepared as the escalloped ones, but grated cheese is added to the sauce and sprinkled in the buttered bread crumbs.

Have you some red apples in your cellar? Wipe and core them and fill the centers with a mixture of cottage

and celery or local nuts. Serve ice leaves and you have an at- holiday salad.

ge cheese, with almost any vegetable, fresh, dried, or fruits, nuts, or olives, makes a s salad and lifts that dinner and potatoes out of its rut.

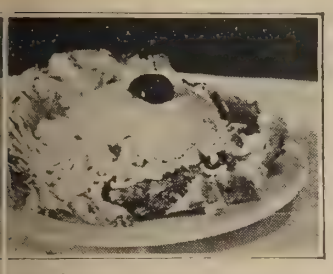
e cheese cakes make a delicious animent to the salad.

SE CAKES:—2 tablespoons but- tablespoons grated American whites of 3 eggs, 3½ table- flour, ¼ teaspoon salt, few cayenne. Melt butter, add nd stir until well blended. Re- rom range, add cheese, salt, enne. Fold in whites of eggs until stiff. Drop from a spoon ered sheet one inch apart. moderate oven 12 minutes.

ERADISH CREAM DRESSING:— heavy cream, 3 tablespoons , 2 tablespoons grated horse- root, ¼ teaspoonful salt, few pepper. Beat cream until it be- thicken; then add vinegar ly, continuing the beating. stiff, add seasonings and fold grated horseradish.—FANNIE FARMER.

'orget the Dessert Made From Milk

g the past year we have been ourselves dessert. It hasn't quite patriotic to have a sweet end of a meal. The resources farm, however, are such that make dessert a necessary and



UST AS GOOD AS IT LOOKS"— TAGE CHEESE AND APPLE SALAD

part of the meal. Take the plebian cottage cheese and a basis for a dessert which qual. Back on the shelf in the m there must be a jar of preserves. Serve these with cheese, or make it into a pie tch the small boys' eyes grow ask for a second helping.

GE CHEESE PIE:—1 cup cot- eese, ⅓ cup sugar, ⅔ cup yolks of eggs beaten, 1 table- nelted fat, salt, ¼ teaspoon Mix the ingredients in order Bake the pie in one crust. Cool ly and cover it with meringue y adding 2 tablespoons of nd ½ teaspoon of vanilla to ten whites of 2 eggs, then t in a slow oven.—NEW YORK OLLEGE OF AGRICULTURE.

there are custards which are good.

RAL PROPORTIONS:—1 quart eggs, 1 teaspoon flavoring, ¼ p sugar or substitute, ¼ tea- lt. (Yolks may be substituted, yolks in place of one egg.)

neral Rule for Custards

eggs should be thoroughly ut not beaten too light. The nd salt added to these and the milk added gradually.

rds must be cooked at a mod- emperature. Soft custards e cooked in a double boiler. stantly while cooking. When it will be thickened, will coat n, and all bubbles will disap- m the surface. Remove from once to prevent curdling. If d curdles, place in a pan of er and beat with a Dover egg ntil smooth.

stards should be strained, cup custards before and soft custards after cooking.

SOFT CUSTARD:—Scald the milk in a double boiler. Beat the eggs slightly, adding sugar and salt, and pour hot milk into them, stirring carefully. Cook this mixture in the double boiler, with moderate heat, stirring constantly until it thickens. When it coats the spoon and the foam disappears, remove at once from the hot water. Strain and cool before adding flavoring.

BAKED CUSTARD:—Use general proportions and rules, pouring the combined ingredients into custard cups. Set the cups in a pan of warm water. Place all in the oven to bake. Test by placing a knife blade into the custard, if it comes out clean the custard is done.

JUNKET ICE CREAM (Makes 2 quarts):—1 quart milk, 1 junket tablet, 1 tablespoon cold water, 1 pint cream, ⅔ cup maple syrup or honey, 2 teaspoons vanilla. Make the milk lukewarm, stir into it the sweetening and vanilla, then the junket dissolved in water. After stirring well, pour into the freezer can and let stand for 15 minutes undisturbed in warm room. Then pack around with ice and salt and freeze in a thick mush. At this point add the cream and continue freezing until finished.

Surprise the Folks

When that traveling man comes again or when the boys come home, have a surprise for them. If it be in the summer time, offer them cool buttermilk or send some iced whey flavored with a little lemon out to the men working in the fields. Put in a milk dish here and one there and before you know it, the man of the house will be telling about the new cookery to his neighbor and the neighbor's wife will ask you for the recipes.

By using milk and its products in larger quantities you not only have a variety in the diet, but are using an indispensable food, for McCollum says: "The greatest factor of safety in the human diet is the regular use of milk."

Co-operation Solves Dairy Marketing Problems

[Continued from page 735]

such creameries, the greater amount of material having made it possible to fill larger orders at better prices. A number of other co-operative creameries, equally as successful, might be mentioned, but the examples quoted are typical.

Generally speaking, it may be said that the co-operative creameries in Vermont are more than holding their own, and especially so when the management is alert and willing to keep pace with the time. The producers are beginning to realize that by working together and by having their own co-operative organization well managed and large enough to make an impression on the city markets, their interest will be served best.

Those who have studied the subject most are well agreed that not until the farmer's business organizations in general, and the dairy organizations in particular, become as well managed and operated as the organizations in other industries, will agriculture reach the position to which it is entitled. The progress made by the co-operative creamery organizations in Vermont is a step toward that end and very encouraging indeed. It not only is beneficial to the farmers in helping to solve their dairy marketing problems, but will be much more helpful now that the war is over.

Those who "get by" and then "stay by" are those who always work—There's nothing to this bluffing, the successful never shirk.—S. FISHER.

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There is a big difference between a good saw and a poor one and there is a big difference in the sort of work they turn out.

The difference in saws doesn't show on the outside—it shows in the way they work.

If you buy your saw the same way the carpenter does, it will do the work as well as the carpenter's saw.

Buy it by name—Disston. That is all you need to know. Quality *does show on the outside* of a Disston Saw. It is stamped on the blade and it is spelled like this—"Disston." Look for it. It is your guarantee.

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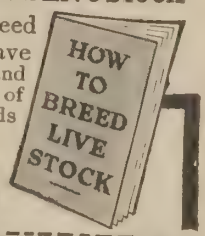
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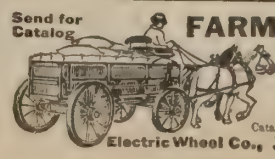
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Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time of going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Ill.	Lake Co. No. 2	R. Williams	Nov.	422	43	98.4	A. J. Stahl
"	Lake Co. No. 1	R. E. Porter	"	300	15	64.5	G. Farman
Wash.	Stillaquamish	H. W. Quimby	"	346	15	67.6	J. E. Wrage
Minn.	Pioneer	H. C. McMurray	"	775	51	77.9	T. Jensen
Wis.	West Bend	P. F. Krueger	"	374	12	65.9	Wm. Jaehnig
Colo.	Arkansas Valley	G. W. Barr	"	347	14	61.8	H. A. S. B. & I. L. Co.

Association Notes

Lake County, No. 2, Illinois:—This association started its second year's work with seven new members. Three of last year's members were transferred to the new association called Lake County No. 3. Three unprofitable cows were sold and two pure-bred Holsteins were purchased. In November market milk sold in this community for $3.68 per cwt. The average test required was 3.5%, and for each point above 4 cents were paid.

Lake County, No. 1, Illinois:—A few unprofitable grades were sold during the month and four pure-bred cows were purchased. The members are becoming more interested in pure-bred live stock every day and are showing a tendency to change from grades to pure-breds. In November market milk sold for $3.68 per hundred pounds, the average test being 3.5 per cent. Four cents were paid for each point above. Feed prices: Alfalfa, $32; bran, $38; oil meal, $66; ground oats, $40; ground barley, $45; gluten, $59; clover hay, $30.

Stillaquamish, Washington:—Members of the co-operative bull association purchased through the county agent seven pure-bred Guernsey cows of Langwater breeding. The dairy association is continuing in this section and promises to be of great assistance to the dairy farmer. Milk sold for $3.50 per hundred pounds in November. The average test required was 3.7% and for each point above, 8.76 cents was paid. Milk retailed for 13½ cents per quart. The condensery paid 87.6 cents per pound fat. Butter retailed for 70 cents per pound and cheese 35 cents per pound. Mill run cost $35 per ton; barley, $45; oats, $65.

Arkansas Valley, Colorado:—During November cows were turned out on alfalfa pasture. Besides this, beet pulp and beet tops have been fed. Cows have given good returns for the extra feed. The monthly milk flow shows an increase over last month of 85 pounds per cow. This month 14 cows produced over 40 lbs. fat compared with four in October. Market milk sold for $3.68 per hundred pounds, the average test required being 3.5%. Three cents were paid for each point above. The creamery paid 58 cents per pound fat. Milk retailed for 12½ cents per quart; butter 60 cents per pound. Feed prices: Alfalfa hay, $18 per ton; corn silage, $8; green beet tops, $6; beet pulp, $2; corn, $3 per cwt.; barley, $2.50; bran, $1.35; headed maize, $2.

Pioneer, Minnesota:—In November the creamery paid 71 cents per pound fat. Milk retailed for 12½ cents per quart and butter 72 cents per pound. Hay sold for $10 to $15; silage, $4 to $5; corn, $40; bran, $31 to $34; oats, $40; oil meal, $59 to $63.

West Bend, Wisconsin:—Four cows were sold for beef. Much improvement has been made in feeding by using balanced rations. In November the condensery paid 91 cents per pound for fat, the creamery paid 89 cents, and the cheese factory 89 cents. Butter retailed for 71 cents per pound and cheese 35½ cents. Feed prices: Oats, $44 per ton; bran, $37; Climax, $38; oil meal, $58; gluten feed, $58; hay, $35; barley, $40; middlings, $38.

New York Butter Market

NEW YORK CITY, DEC. 10:—While the record for prices of butter has again been broken during the past week the market is at present very nervous and fairly inactive. While many dealers have been predicting the seventy-cent mark for extras at some time during the fall or winter there were many more who felt that the consumer would not stand for such a price. However, that mark was reached yesterday but it was too high to stand as there was a decline of a full cent today. The week has presented a peculiar condition. After the decline which developed about ten days ago buyers were not interested in adding to their stocks as they sensed a further decline in values, but in that they were mistaken. While the quotation 67½@68c held from Tuesday of last week until the following Saturday there was an advance of a full cent on that day and the quotation 69c for extras became established. That was followed by the 70c quotation on Monday with the setting of the record price to date in the history of the butter market.

If the present condition of the market were considered singly there would be a marked lowering of quotations as retailers are hesitating before buying because of slightly increased receipts and because of the consumers' attitude. The consumer, in slang phrase, is backing up. Prices are causing him to cease purchasing butter and he is using substitutes. But in spite of his attitude and regardless of the fact that receipts were about 3,000 tubs greater today than yesterday, which were about the average for this season, there is no indication that values will go down to any marked degree. Receivers are constantly being advised that there will be a very great shortage of butter during the next few months as the make is shrinking each week and they believe it is best to prevent as much as possible the zigzagging of prices. While receipts were comparatively heavy today it has been found that much of the butter received was shipped to fill government requisitions and consequently would have no effect on the general market. Several cars of California butter have been received of late and have quickly been absorbed.

At the close today established quotations were as follows: Extras (92 score), 69c; higher scoring than extras (93 score or above), 69½@70c; firsts (88 to 91 score), 63@68c; and seconds (83 to 87 score), 58@62c. Unsalted butter is in somewhat less demand and the differential in price has been decreased to one cent over quotations for corresponding grades of salted butter. The quotation for extras one year ago today was 49@49½c. W. B. LIVERANCE.

The Tri-State Grain Growers' Convention

The twentieth annual meeting of the Tri-State Stock and Grain Growers' Convention will be held at Fargo, N. Dak., January 14 to 17. One of the principal addresses will be by W. O. Thompson, President of the Ohio State University. Mr. Thompson has been in Europe studying agricultural conditions and will take up the subject "After War Agriculture". There will be addresses on nearly every phase of agriculture by some of the best authorities.

DAIRY MARKETS

CHICAGO, Ill., Dec. 12—Butter—Creamery, extras, 67½c; extra, firsts standards, 63¼@64¾c; dairy, firsts, 59@66c; seconds, 54@58c.

Eggs—Ordinary, 54@57c; firsts, 62@63c.

Cheese—Twins, 35½@36c; Young Americas, 37@37½c.

MILWAUKEE, Dec. 12—Butter—Creamery tubs, 67@67½c; prints, 68@69c; extra firsts, 64@66c; firsts, 61@63c; dairy, fancy, 45@50c; poor, 20@30c.

Eggs—Fresh, firsts, 62@63c; cases, new, included, 63@64c; miscellaneous, 58@62c; dirties, 38@40c; checks, 34@35c; April re-candled, 46@47½c.

Cheese—Twins, 35@35½c; Daisies, 36@36½c; Longhorns, 36c; fancy Brick, 33c; Limburger, new, 1 lb., 29c; Limburger, new, 2 lbs. 29c.

NEW YORK, Dec. 12—Cheese— Stronger; state milk, common to specials, 30½@37½c; skims, common to specials, 12@28c.

Butter—Quiet; receipts, 7,528 tubs; creamery, extras, 69c; state dairy, tubs, 52@68c; imitation creamery, prints, 47@48c.

Eggs—Unsettled; receipts, 5,060 cases; nearby white fancy, 93@95c; nearby mixed, 70@76c; fresh firsts, 71@76c.

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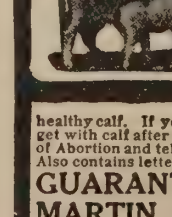
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Sale Announcements

Jan. 7-8-9, '19—Holsteins. Moyer's Holstein Sale, Earlville, N. Y. H. A. Moyer, Director, Syracuse, N. Y.
Jan. 7, '19—Holsteins. Rock Brook Farms Dispersion at So. Omaha, Neb. H. C. Glissmann, Sta. B., Omaha, Neb.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
Feb. 25—Holsteins. Dr. A. D. Blackburn, Cuba, Ohio.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

Minnesota Live Stock Breeders Meet

HOARD'S DAIRYMAN:—The annual meeting of the Minnesota Live Stock Breeders' Association will be held January 2 during Farmers' Week at University Farm. The program has been prepared so that the most important problems confronting the live stock breeders of the country will be presented.

Mr. R. J. Kinzer of Kansas City, one of the most widely known beef cattle specialists in America, will deliver an address on the present and future status of the beef industry.

W. W. Marsh, Iowa, will deliver an address on National Needs and the World's Food Problem. We are very fortunate in procuring the services of Mr. Marsh as he is one of the best informed men along these lines and every farmer in Minnesota should hear him.

Mr. D. D. Aitken, president of the National Holstein Association, will present facts concerning the farmer and dairy products in the future.

Alex Galbraith, of Canada, one of the oldest breeders and importers of draft horses in the world, and probably as well posted on the possibilities of the horse industry as anyone in America, will attend the meeting and present the future of the industry as he sees it.

On January 3 the dairy cattle breeders' associations will also meet at University Farm. Dr. W. L. Boyd will address all of the meetings on contagious abortion disease. Mr. D. D. Aitken will address the Holstein breeders and other speakers will present certain phases of breed problems.

The Minnesota Guernsey Breeders' Association will be fortunate in having Mr. Marsh with them. A very interesting program will be prepared. The State Ayrshire Association will receive the most recent findings regarding their breed from the efficient secretary of the American Ayrshire Breeders' Association, Mr. J. G. Watson.

The Minnesota Jersey Breeders' Association will also hold their annual meeting on the third. Mr. M. D. Munn and other prominent Jersey breeders will take part in the session.

There never was a time when live stock and dairy farmers should be preparing for the future with greater thought than at present.

W. A. MCKERROW, Secretary.

A Worth While Pig Club

HOARD'S DAIRYMAN:—The Hamilton Pig Club, Hamilton, Missouri, was organized last winter, and on January 19th, 1918, 28 bred Duroc-Jersey gilts and 34 bred spotted Poland-China gilts were sold to the boys and girls of Caldwell County for $2,846.58. The banks of Hamilton gladly loaned the young folks the money to purchase their club stock. Each member was permitted to purchase only one gilt. The above 62 head of sows and their pigs were sold at public auction on November 9th for a total of $13,171.50, making a gross profit over original cost of the bred sows of $10,324.92.

The success of the Hamilton club was due in a great part to the happy co-operation of the business men, farmers, county agent, and the Missouri Boys' and Girls' Club Department. Everybody worked toward the development of the community. In order to make the work mean more to all parties concerned the members were asked to keep accurate records of their work through the season. The record books and club literature were supplied by the Agricultural Extension Service of the College of Agriculture, Columbia, Missouri. The county agent of Caldwell County has this to say of the results of the work:

"If folks could only see some of the records of those boys and girls who had pigs in the club at Hamilton the last week it would convert them for all time to come. Those little farmers of the next generation have done things which will make some of our 'moss backs' either hump themselves or else get out of the way and let some real farmer have room. For example, one boy who was in for a lot of prize money bought a bred gilt last year for $40. He won $28 in prizes and the sow and litter sold at public auction for $495."

Plans for another club for next year are being made and some of the pure-bred gilts have already been purchased. Practically all of the gilts in the 1918 club were registered, and the plans for the club of next year call for all registered animals.

Missouri. F. L. WRIGHT.

January Hog Prices

Two conclusions in the hog situation resulted from meetings held in Chicago, Dec. 4 and 5. It was decided that the price of hogs for January shall be continued on the same basis as in November and December; that is, $17.50 per hundred pounds on average of packers' droves, excluding throwouts. Throwouts are to include pigs under 150 pounds, stags, boars, thin sows, and skips. Also, effective Dec. 5, the shipping embargo will be lifted and free shipping will recommence.

Friends and neighbors, the taxes are indeed very heavy, and if those laid on by the government were the only ones we had to pay, we might the more easily discharge them; but we have many others, and much more grievous to some of us. We are taxed twice as much by our idleness, three times as much by our pride and four times as much by our folly, and from these taxes the commissioners cannot ease or deliver us by allowing an abatement.—Poor Richard, 1757.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.


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Stops waste and loss, saves its cost in one week. Cools and aerates at one time. Low in cost.
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King Sadie Vale Urma 235352
Born March 30, 1918
Here are the records of his nearest dams:
DAM (two-year-old) ..... *20.04 lbs.*
ONE GRANDAM ..... *38.46 lbs.*
THE OTHER GRANDAM ..... *25.50 lbs.*
ONE GREAT GRANDAM ..... *41.06 lbs.*
ANOTHER GREAT GRANDAM *41.06 lbs.*
The five average ..... *33.22 lbs.*
His 7 nearest Dams average .... *31.27 lbs.*
Like his sire, he is dark in color, long, straight and deep-bodied.
The sire, King of the Sadie Vales, is out of a 38.46-lb. cow. His dam's dam is also his sire's dam, namely: Sadie Vale Concordia 4th (41.06 lbs. butter). His dam and grandam have the highest 30-day averages in the World, 157.71 lbs. butter. No other bull in the World can equal his three to nine nearest dams for 30-day butter production. The sire of King of the Sadie Vales is the only bull in the World with a 40-lb. dam, a 40-lb. sister and a 40-lb. daughter.
The dam of King Sadie Vale Urma recently made as a two-year-old: 20.04 lbs. butter, 399.20 lbs. milk (7 days); 73.26 lbs. butter, 1,571.30 lbs. milk (30 days). Her dam has a 25.50-lb. record, and her maternal grandam has a 26.38-lb. record. She is a granddaughter of Sir Urmagel Burke (three 30-lb. daughters), and a great granddaughter of Pontiac Korndyke (two 40-lb. daughters).
We have put the price on this bull that will put him well within reach of the small breeder. For further particulars, write, wire or come to
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Dept. H. Topeka, Kansas.

DON'T PUT OFF
Seeing your friends and having them join in for a club of subscribers.

When Dad Thought of Selling

"WELL, Mary, that man, Howard, made me an offer on the whole herd," said Mr. Daniels to his wife as he came into the house after saying goodbye to J. E. Howard, a Holstein buyer from another state.

"He offered me $13,000 for the whole outfit, calves, cows, and bull. That's over $230 a head, which is a pretty good price considering the number of young calves there are. Shall I take it?"

"But what would you do, then?" asked his wife. You've spent 10 years building up this herd. You'd be lost without some cattle and it seems almost foolish to sell out and then start right over again."

"I know it, Mary, and I'd hate like sin to part with this bunch. As you say, we've bred them all and now the herd is just where it's really proving profitable. But I don't know how I'm going to hold on for the next year. It isn't a question of money; it's help. I've been trying for three months to get a dependable man and haven't got one yet. There's some testing ought to be done this month and a lot more next. I certainly can't handle it with the other work."

"Well, but Joe, there's the boys to help," she returned.

"Yes, I know, but that is just what I don't want," said he. "I don't want them to neglect their school and they'd have to if they did any more than they're doing now. However, we won't settle it right now. Howard's offer holds good till January 1, and that's a month away. I'm to notify him one way or the other by then."

Mr. Daniels, you must know, was a Holstein breeder located on a 200-acre farm in Central Minnesota. For eighteen years he had been a dairyman and for the past ten he had been breeding Holsteins. He had spared no pains in building up his herd and had done a great deal of official testing until now his was acknowledged one of the best herds in that section.

For the past several months, in fact for a year, he had found it increasingly difficult to get reliable help, something he absolutely needed. The two sons, Ben 15 years old, and Robert 13, had made it possible to get through the summer's work very well, but now they were at school and their father did not want them to neglect that work. He had tried every way he knew to get a man but without success, so he felt that to accept the Howard offer was the best he could do.

That evening at the supper table he brought up the subject again and in response to the boys' questions he told them what he was thinking of doing. They said nothing at the time but the next morning as they were busy at their chores they plainly showed how they felt about it.

"Say, Bob, it wouldn't seem right, would it, to have no cows in here," said the older boy, stopping for a moment beside his brother who was busy milking.

"I should say not. It'll be a darn shame if Dad sells to that fellow," returned the other in no uncertain voice. "Wish the old fool had stayed down in Missouri where he belongs instead of coming around here trying to buy us out."

"Maybe Dad'll change his mind; he's got a month to decide in," said Ben as he moved on.

"I hope so," was the muttered response from Bob.

A little later on their way to school Bob spoke of it again.

"Ben, Dad can't sell the herd. If he does, we might just as well quit the farm. It wouldn't be any fun with the barn empty."

"Well, maybe he figures on buying some more right away," returned Ben.



A PART OF THE BOYS AND GIRLS OF JEFFERSON COUNTY, WISCONSIN, WHO HAVE BEEN DOING CLUB WORK THIS PAST SEASON. THIS PICTURE WAS TAKEN AT A RECENT CLUB ROUND-UP.

"Then what the dickens is the use of selling?"

"I mean maybe he'd buy a few, not any more'n he could take care of."

"Yes, and that would mean starting all over again. All those we've got except the heifers are tested and that means a lot of work, I tell you. Say, Ben," he continued, "Dad and you and I can take care of the whole bunch all right. What's the diff if we do miss school for awhile. I'd just as soon, wouldn't you?"

"Well, no," replied the older boy. "I'd kinda hate to quit school right now, but then we could quit this winter and start again next year. The three of us could do the work all right. I don't think Dad would let us do that though. He's strong for school."

"Guess I know that all right," returned Bob, thinking of the times he had played hookey and then tried to explain matters to his father's satisfaction. "But this is something special. Maybe he'd be willing this time. Let's ask him tonight."

"You do it, Bob," suggested his brother. "He'd say yes quicker for you than he would for me.

"He would not," retorted the other. "But I'll do it anyway."

And he did, too. That night at the supper table he went straight to the point at once.

"Dad", said he, "couldn't you and Ben and I take care of the herd all right, do the testing and everything?"

"Why of course we could," returned his father at once. "However, you fellows at school makes quite a difference."

"Yes, but we could stay out of school for awhile," persisted the lad. "We'd start again next fall and never miss it."

"No doubt you'd be very glad to do it, son, and I don't imagine that you, at least, would miss school at all. However, that's out of the question. You've started school and it's your particular job to finish and finish right. I don't want either of you mixed up in anything that's going to interfere with school and make you neglect your work."

Bob said nothing more. He knew it was useless to argue with his father when he spoke that way. Nor did he mention the subject to his brother, although he had by no means forgotten about it. There must be some way out of the difficulty without selling the herd and if so he was determined to know about it. Bob was not, to be sure, very much unlike other boys of his age. Ordinarily he would much rather play than work in the barn; in fact, there had been times, when he had to work while the other fellows had a good time, that he almost wished the farm and herd were both sold, but now that there was a probability of the herd going, he felt quite different.

For several days he thought about it and said little; in fact, he had his mind on that one thing so much that he neglected his school work to the end that one afternoon after the third sullen "I don't know," Mr. Meiner, the teacher, called him to account.

"Robert, stay for awhile after school tonight and see if you can get this lesson straightened out. For the last three days about the only answer you've been able to give me is 'I don't know.' "

Which is why we find Robert seated at his desk on this particular Thursday afternoon after his schoolmates had gone. For a full half hour he sat there while Mr. Meiner finished some other work that had to be done. Finally he came down and stood facing the boy.

"Bob," said he, "what's the matter? You don't usually act the way you have the last few days. You haven't been studying certainly, because our work isn't very hard just now. Just what is the trouble?"



EARL A. HAYES, A MICHIGAN JUNIOR, IS STARTING IN THE HOLSTEIN BUSINESS WITH THIS PURE-BRED HEIFER WHICH HE EARNED HIMSELF.

"Nothing," was the boy's reply.

"Oh, yes there is, and the sooner we get rid of it the better off we'll both be. What is it; is the work too hard?"

"No, I thought not," he continued as the boy shook his head. "Well, then, it must be that you're tired of going to school. Is that it?"

"No, sir, I ain't just tired of school, but I would like to quit for awhile. We can't get a hired man, and with Ben and me at school all the time, Dad can't take care of the cows as good as he ought to, so he says he's going to sell 'em."

"So that's what's the matter, is it? Well, now, we can't afford to let your father do that. That's too good a herd to let it go somewhere else. You boys help at home morning and night, don't you?"

"Yes, sir, but that's only with part of the chores," returned the boy. "When you've got about 60 head to look after besides hogs and horses, it's quite a job. And, besides, there's testing to do this winter. You can't do all the regular chores and test cows, too."

"I see. Well, now suppose you and Ben could be home part of the time. Would that help any?" asked the master.

"Sure it would. We wouldn't always have to be home. If Ben and I could do more chores and be home a day or two every once in a while when there's special work to do, Dad would take care of the testing and the other jobs."

"Well, then, why don't you do that?" questioned the man.

"Huh," retorted the boy, "Dad won't let us do that. He's afraid we'll miss some of our school work."

"All right for him. But he would be willing if he knew you were getting along in school just the same, wouldn't he?"

'Yes, sir, I think so." Bob was beginning to be interested.

"Good. If that's so, why wouldn't this sort of a plan work all right? You and Ben start just a little earlier in the morning and work just a little later at night so as to be of more help with the chores. Then when special work comes at home, you stay home for two or three days if necessary. So far as your agricultural work is concerned, I will excuse you from that entirely till next March if you'll both do some outside reading



ALBERT DE FIELDS, AN ENTHUSIASTIC JUNIOR DAIRYMAN FROM OHIO, STANDS AT THE RIGHT. WITH HIM ARE HIS FATHER AND HIS YOUNGER BROTHER AND SISTER.

iat I shall select. That work will be ostly dairying till then which is ex-tly what you'll be doing at home. ou know how to test milk and keep ecords, so really most of the work ould be play for you anyway. I iink I can arrange about Ben's ag-cultural work, too."

"Well, but how about our other ork, Mr. Meiner," questioned the oy. "Dad wouldn't let us neglect .at either."

"To be sure he wouldn't, and either would I, nor do I expect to, ou'll only be absent for a few days . a time and by studying at home such times you ought to be able to ep up with your class.

"Wait a minute," as the boy started speak. "This won't be any picnic r you fellows. It will mean hard ork and plenty of it, and it will robably mean giving up some of our good times, but it won't last rever and I think you two boys are en enough to do it. Remember, ough, this isn't settled yet. I'll lk it over with your teachers tonight id if they're satisfied we'll try it out e rest of this month. You go home ow and talk it over with Ben and me to see me sometime tomorrow. ow about it? Are you willing to try is plan?"

"You bet," the boy answered, in-antly forgetting for the moment iere he was. "I'll tell Ben as soon I get home," and he started for e cloak room without stopping to it away his work.

It did not take him long to get me you may be sure. Once there hurried into the house, changed his othes, and got out to the barn in cord time. There he found plenty keep him busy until supper time id it was not until later in the eve-ng when he and Ben were alone at he spoke of Mr. Meiner's plan. ace he understood it, the older other was as much in favor of it as ob. He had, however, one sugges-on to make.

"Bob," said he, "let's not tell Dad mother about it until the end of e month. We can try it and if we ake our December exams all right, en Dad can't object."

"All right. Then if everything orks, it'll be a kind of Christmas esent," proposed Bob.

"Yes, but Ben, suppose Dad decides sell before then?" he questioned.

"He wont; you see," returned the her. "Besides if we dig in and hus-e he won't have any reason to let em go before."

The very next morning at break-st Mr. Daniels himself brought the atter up again.

"Boys, what do you think about sting those three heifers this onth?" he asked. "We ought to put r order in for a tester if we're go-g to get it done at all."

"Why sure, let's test them," said m. "One of them belongs to Bob d me and we'd like to see her have record."

"Yes, I'd like to see them all have a cord, been fitting 'em for it, too. it if I do that, then probably you llows will have to stay home from hool some days and I don't just like at."

"Let's get those heifers tested," id, begged the younger boy. "Ben d I can take care of any extra work at's got to be done. This is the st heifer Ben and I ever had. If u'll let me, I'll milk her and feed r myself."

"No, I won't do that, Bob, because at would keep you out of school too ig, but I will send for a tester and aybe we can get along some way. ke enough there won't be much at'll keep you home anyway."

Both boys secretly hoped there uld be enough to keep them home r several days at least, but of this ey said nothing. At school that morning Mr. Meiner told them they could try the plan for the rest of the month and they set to work at their studies in earnest so as to be prepared for the absence which they were hoping would be necessary. Fortune favored them for once. The tester arrived about the middle of the month and four days later a neighbor had the misfortune to break his arm. He had no man which meant that the Daniels, together with another near neighbor, had to do most of his work. The boys took turns at that and between them managed to lose a week's time from school before their father was through with the testing. Then there was one day lost hauling hay and another helping at home when the wood sawing outfit was there. Besides that, they had more than their usual share of chores to do at home because of other work their father had to attend to, so that altogether they felt that their little plan had had a thorough try-out.

Their monthly exams were over on Friday before Christmas but school did not close until Tuesday night and their report cards were not ready until then. When they came to get them Mr. Meiner stopped them for just a minute.

"Well, boys, how has our little plan appealed to your father?" said he.

"He don't know about it yet," Bob answered. "We thought we'd try it out before we told him."

"Then he hasn't said anything about it at all?"

"No, sir."

"Hm-m. Wait a minute," said the master as the boys reached for their cards.

He sat down and wrote hurriedly for several minutes. When he had finished he folded the sheet of paper and put both it and the report cards into an envelope which he sealed and addressed.

"There you are. Explain our plan to your father tonight and then give him this. Your report cards are inside. Good night and a Merry Christmas to you."

"The same to you, sir," returned the boys as they went out.

Not until after supper did they have an opportunity of saying anything to their father. Then for a time each waited for the other to speak. Finally Bob could stand it no longer.

"Dad," he began, "have you decided not to sell the herd?"

"Well, not exactly, boy. I was just thinking about it as you spoke. We surely got along all right this month, even with the testing, Benson's bad luck and all, but you fellows were home from school too much I'm afraid."

"That's just what we wanted," said Ben. Mr. Meiner said he thought we could make up what work we missed and he said he'd excuse our absences if we'd do all right. He's fixed it so we can be excused from agriculture class part of the time because he says when we have to stay home we're studying dairying more'n when we're in school. We figured we could do more work at home and could do the school work, too, and then you wouldn't sell."

"So that's what you've been up to lately, is it? Well, how about your reports this month?"

"Here they are," said Bob handing over the envelope. "We ain't seen them yet."

Mr. Daniels hastily tore it open, looked over both cards and then read the enclosed note. Here it is:

Dear Mr. Daniels:

Just a line to tell you that I am heartily in favor of the plan the boys have been trying most of this month and which they will explain to you. You will see by their cards that they have not fallen down in their school work at all. They have, in fact, improved. They are, very evidently, vitally interested in your good herd of cattle and I hope you will not have to destroy that interest by disposing of the herd.

Sincerely yours,
W. A. MEINER.

"Mary," he called, "come here."



EARL BINKERT, WERNER HUMMEL, AND CARL HAUSZ.—THREE JEFFERSON COUNTY, WISCONSIN, JUNIOR FARMERS WHO ARE EXPERT CORN JUDGES. AT THE RECENT CLUB ROUND-UP THESE THREE COMPRISED THE WINNING CORN JUDGING TEAM.

"I've been here for several minutes," said Mrs. Daniels from the doorway where she had been standing, unobserved by anyone.

"Did you hear what these boys have been doing?" he demanded.

"Yes, I did and what's more if you sell—"

"Wait a minute, mother," interrupted he. "Just read that note and look at these cards. Bob hasn't got a standing under 90 and Ben's only got one and that's 88.

"Sell that herd?" he continued, "well, I guess not. If these boys can do as much extra as they've been doing this month, I can do a little more'n I have. We can do without testing some of our cows this winter that I wanted to run a second time, and we'll make things go somehow."

"Yes, and that isn't all. Hereafter that bunch belongs to Daniels & Sons. Do you get that, you fellows? And it won't be the name only. You're to share in some of the profits too. It won't be half at first but it will be a fair share. Now will you be satisfied?"

"Yes sir. Thank you." was about all they could manage to say for awhile, but their faces said a great deal more.

Satisfied? Why those boys wouldn't have changed places with any other two boys in the world just then.

Junior Letters

Hoard's Dairyman Juniors:—I will write a few lines as I have not written for quite a while. We are gathering our crops now. I think we will have about 440 bushels of corn. We did not raise any cotton this year. We are only milking three cows now.

I have a bicycle and like it fine and I can ride it pretty well. We sowed some rye and it is just coming up and had a nice rain last night.

They have dismissed school on account of the flu. I attended the fair at Memphis. The aeroplanes came down and flew around. One represented the Germans and the others were shooting at it. He shut his engine off and got too close to the ground before firing his engine and he cut himself loose and jumped fifteen or twenty feet. It did not hurt him much, but bursted his ship.

I saw the big hogs; there were some nice ones and saw some nice cows. I went out to the zoo and saw monkeys, elephants, zebra, and a lot of other things and had a nice time. They did not have a fair here.

I have sold three pigs. I have bred our sow again. We are going to ship some hogs this winter.

Mississippi. Earl Barber.

Hoard's Dairyman Juniors:—I received my fob, button, and creed and am very much pleased with them.

I am 10 years old and am in the sixth grade. I go to the Groton Union high school. I have a very nice teacher. Her name is Miss Mosher. We do Red Cross work. We cut out squares and make blankets for the soldiers. I belong to the junior Red Cross. Our school has closed for two weeks on account of the Spanish influenza.

I have a calf that is growing fine. She is a pure-bred Holstein. I have about 15 rabbits. They are white ones with pink eyes. I let them out this spring. They got into the garden and ate some lettuce and beans and tomato plants. We ride horse back. Last winter I rode horse back to my traps. I only had a few traps. I caught 3 muskrats. This year I have 15 traps.

We live on a farm of 140 acres one mile east of Groton. We walk to school. We have 23 cows, 2 heifers, 7 yearlings, 10 heifer calves, and 2 bull calves. We are milking twenty of them. We have a milking machine. It is run by an engine. We are milking by hand now. Most of our cows are strippers now. I milk about five every night. We have 5 horses. We also have 14 little pigs, 2 sows, and a shoat. We had 420 bushels of oats and 85 bushels of wheat this year.

My letter is getting rather long so I guess I will close. Wishing good luck to the juniors.

New York. G. Nelson Hunte.

Hoard's Dairyman Juniors:—This is my first letter. I have a heifer. She will be two years old Oct. 20. She is red. I am going to have her horns cut off this winter. We have two pigs. They are white. We have five horses. I have a Shetland pony. We are milking eleven cows. I milk five. We are going to fill silo Friday.

I am fourteen years old and weigh 110 pounds. I have two brothers, one 10 and the other 2 years old. We have five ducks and eight geese. We are raising four calves.

As my letter is getting long I will close. Wishing all the juniors good luck. My address is R. D. 2, Lake Geneva, Wis.

Maurice Kizer.

Hoard's Dairyman Juniors:—Everything is fair around here. My father has his plowing done. He has about 25 or more acres.

My calf is fine and in good order. She is going to come in next winter. Then I will have another cow to milk. Then I expect to get some money to buy saving stamps.

My father bought me a nice lamb from one of the neighbors. He had to pay $15 for it.

We have no school now; we have a vacation for a few weeks on account of the Spanish flu. So I have been helping my father all I can. I milk four cows and still haul the milk to the factory. We have a new cheesemaker. The one we had before left us. We haul about 215 lbs. of milk and milk 16 cows and one the calves milk. They don't give much because they have been milking all summer.

We got two loads of potatoes that we are going to sell but now they are hardly worth taking about 15 miles and getting a dollar a hundred for them. So we are going to wait until the price goes up before we sell them.

This month we sold 2 cows; one the calves milked and one we milked, and seven other cattle and one little calf. We got $750 for them. We also sold 4 pigs and received $115 for them. We still have 2 pigs which we expect to use ourselves for winter. My father killed a lamb that weighed 155 lbs. before it was killed and when it was dressed it weighed 75 lbs.

We are giving our cows silage and feed and after that they get some hay and a little straw just for tonight. Sometimes we do not give them straw.

My father is helping a neighbor for a day and a half cutting wood, so I have been doing all I can at home when he is gone.

It has been getting colder now so I suppose we will have winter soon. We need rain but it don't seem to rain but a little; it all helps.

We have a little colt; we have been getting him halter broke; he will not lead but he will learn.

Wish some of the juniors would write to me. My address is R. 1, Ringle, Wisconsin.

Chester Mortenson.



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

Registered and high grade Holsteins. We have a very choice car of high grade springers four to seven years old at from $100 to $130. OAKGROVE FARMS, Oxford, Wis. 19-8

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

Registered Holstein bull and heifer calves; 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 16-tf

High grade Holstein calves $13.50 each crated. MAPLE LANE FARM, Cassadaga, N. Y. 18-tf

For Sale—Registered Holstein bulls ready for service. Tuberculin tested. Our breeding. S. E. JONES, Watertown, Wis. 19-8

Registered Holstein bull born March 5. King Segis Pontiac breeding. A. B. ANDERSON, R. 4, Red Wing, Minn. 20-3

A. R. O. registered Holsteins. Ten head aged two to seven years, springers. M. E. MOORE & CO., Cameron, Mo. 20-4

Waukesha County Holstein-Friesian cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 20-13

For Sale—One hundred choice high grade Holstein springing cows and heifers. J. A. KNORR, Blanchardville, Wis. 20-8

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

Holstein bull, born March, 1918. Great grandson of King of the Pontiacs and Friend Hengerveld DeKol Butter Boy. Dam a 13-lb. two-year-old; grandams average 94 lbs. milk per day. Price $150. N. E. SHANOWER & SONS, Burton, Ohio. 21-tf

Daughter of 31.91-lb. grandson King Segis, age 5, due Jan. 1. Bred to 32.47-lb. son of Judge Segis, his full sister 37 lbs. Heifers, young bulls from this bull. Good high producing dams. Prices right. LLOYD SMITH, Guys Mills, Pa. 21-2

A carload of choice heavy springing high grade Holstein cows, priced for quick sale. Also registered Holstein bull, ready for service. H. F. McNUTT, Oxford, Wis. 21-5

For Sale—Grandson of King Korndyke Sadie Vale. Born March 3, 1918, two-thirds white, splendid individual. Dam, Beryl Clothilde Walker. A. R. O. 17.52 pounds butter at two years, one month. Price, including all papers f. o. b. cars $100.00. For pedigree and picture write J. F. MARTIN, Bouckville, N. Y.

For Sale—Registered Holstein bull 13 months old, good size, type and breeding, three-fourths white, 21-lb. three-year-old dam, 28.62 sire; photo, pedigree upon request. Single comb Red cockerels. W. GANZ, Lyons, Wis. 22-2

For Sale—Registered Holstein bull calves from 29-lb. sire, fine breeding both sides, well marked, large. $60 each. GEO. J. KRAFT, R. 1, Waukegan, Ill. 22-3

Four registered Holstein females, three bred to 31-lb. sire, one four months old. Closing out of pure-bred. Write FRANK L. TIBBITTS, Plainfield, Wis.

For Sale—King Ormsby Bess 154731, a Holstein-Friesian three-year-old bull of extra quality line bred Ormsby. Three dams 75% same blood as Duchess Skylark Ormsby, world's champion over all breeds. Address DR. M. M. HURSH, Grand Rapids, Minnesota.

Holstein-Friesian bull born June 1, 1917, two-thirds black, for sale, or trade for one about the same age, if right. His dam is "Lady Lyons Chesterfield" No. 122629; sire, "Long Beach Hengerveld Blossom", his grandsire "Pontiac Hengerveld Parthenea"; dam, DeKol Blossom Hengerveld. H. W. SOLLARS, Daleville, Ind. 22-3

Registered Holstein bulls, well marked, 2 months old, by high yearly production sire, $50. WARD BROS., Fort Atkinson, Wis.

Nechvatal's Auction sale of 25 head high grade Holstein cows and heifers, Montfort, Wis., December 23.

For Sale—Registered Guernsey heifers of May Rose breeding. H. W. WIGMAN, Lansing, Mich. 23-tf

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

STOCK FOR SALE

Guernsey bulls—Excellent breeding and individuals. Dams have official records. RICHARD F. KLEMM, Baraboo, Wis. 13-10

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, high grades, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 19-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

Three registered Guernsey bulls for sale, sired by Langwater Frederick and Dairymaid Glenwood of Pinehurst 3rd and from A. R. dams; 740 lbs., 529 lbs., and 510 lbs. fat. Sale list. HOMER F. RUNDELL, Livingston, Wis. 19-tf

For Sale—Registered Guernseys; herd sire three years old, one yearling bull, good backing. NELSON PECK, Doylestown, Wis. 21-3

Some people say, "I can not afford to buy a pure-bred bull. I spent all my money for Liberty Bonds." Alright, we will take the bond, a bull for a bond. Six from which to select. A grandson of Ne Plus Ultra. Several sons of Lad of Birchwood out of daughters and granddaughters of Governor of the Chene. Will also sell several females, calves, cows. Sale list on application. W. W. CLARK, Grand Rapids, Wis.

Guernseys—Registered bulls 3 months to 1 year. Four heifers, Glenwood May Rose breeding. Tuberculin tested herd. Prices reasonable. M. M. HOLLINGSWORTH, Wasteland Farm, Landenberg, Pa. 22-4

Highly bred grade Guernsey heifer calves for sale. B. McADAM, Mosinee, Wis. 22-spl

25 high grade Yeksa bred, springing, Guernsey cows, three to five years old. Some have records. OAKLAND GUERNSEY FARM, Mukwonago, Wis. 22-tf

For Sale—Registered Guernsey heifer calf dropped June 10. A. W. BRAGG, Albert Lea, Minn. 22-2

For Sale—Grandson of Governor of the Chene, two years old, A. R. dam; also bull calf by him. HARVEY CHRYSLER, Osseo, Wis. 22-2

Young Jersey bulls for sale, registered. Bred and priced right. Liberty bond taken. O. R. SCHMELING, Watertown, South Dakota. 20-3

For Sale—Two registered Jersey heifers, Sophie's Tormentor breeding. F. W. AXLEY, Seymour, Wisconsin.

Two Noble of Oaklands, great grandsons and two bred heifers. Price low. A. W. NICKOLS, Indianola, Iowa. 22-2

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

For Sale—Two good pure-bred Brown Swiss bull calves five months old. W. BURKENHAGGIN, R. 24, Orfordville, Wis. 21-2

For Sale—Entire grade herd Brown Swiss headed by registered bull. Seven milking, four fresh calves by side extra. Large and good milkers, tuberculin tested. Sixteen head fifteen hundred dollars. J. H. GREEN & SON, Clinton Junction, Wis. 21-2

Brown Swiss registered heifer with heifer calf at side. JOHN T. LAING, Dixon, Ill. 22-2

STOCK WANTED

Wanted—Holstein cows three to six years old; A. R. O. record, thirty pounds and better. SEYMOUR ICE CREAM CO., Seymour, Indiana.

Wanted—About ten head registered Holstein heifers, coming three years old, to freshen soon. Good quality and from one who wants to sell. No fancy prices. Address B. F. WOLF, 36 South Franklin Street, Chicago.

Wanted—Pure-bred Guernsey heifers, prefer some bred. Describe fully, with copy of pedigree. D. H. WAGGONER, Powers, Michigan.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

David W. Williams, Lake Forest, Illinois can buy you dairy cows of any breed. 20-tf

HORSES

For Sale or Exchange—3 Percheron stallions 6 months, 1 and 2 years; color black. E. A. & R. D. SPRAGUE, Caledonia, Minn. 21-3

POULTRY

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 21-4

Pure-bred, single comb, Rhode Island Red cockerels with size, shape, color. Foundation stock. UNIVERSITY WISCONSIN, $2.50 each. JOHN H. QUALE, Mondovi, Wis. 21-2

Large, vigorous, farm-raised White Rock cockerels. Strictly pure-bred. Also hens and pullets. Save money by ordering before Jan. 1st. B. H. FUITEN, New Richmond, Wis. 21-2

SWINE

Big type O. I. C. fall pigs. Price $10 each. AUG. NEITZEL, Bloomer, Wis. 20-tf

Durocs all sold. Sows farrowing now. Am booking orders for these pigs to be shipped at three months old. FRED SNYDER, Marion, Iowa. 22-tf

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Collie pups wanted—I want to buy a few good pups. Address MISS ELIZABETH CLARK, Albia, Iowa. 21-3

SEEDS

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

A Splendid Spring Wheat for Sale—We offer for sale a limited quantity of the Blue Ribbon variety of spring wheat, only 70 bushels. Our record with this wheat is as follows: Last spring we sowed two bushels on two acres of land. The return, threshers' measures, was 76 bushels which grades uncleaned, 61 lbs. per bushel. We will sell this wheat well cleaned for seed for $3.00 per bushel. Bags furnished at 60 cents each. Order early to avoid delay by freight. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis. 16-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.70 per 100 lbs. Sacks free. Price of Hansen Cossack $80 per 100 lbs. AT TRIANGLE RANCH, Cottonwood, S. Dak. 21-tf

DAIRIES

For Sale—Sweetwater Dairy, 80 cows and dairy equipment, a good paying proposition, only dairy here. Pressure of other business reason for selling. Come and look it over. J. D. WEEDEN, Florence, Ala. 22-3

MACHINERY

For Sale—17-unit Sharples milking machine, complete and in first class condition, sell in units of six. Also two "Chilly King" coolers and Davis 2x6 bottler. ARCADY FARM, Lake Forest, Ill. 20-3

For Sale—One new Double-unit Calf-Way milking machine including vacuum pump and tank. Best outfit on the market. Have gone out of machine business, will take $280 to close. Regular price $350.00. First come first served. Address BOX 317, care Hoard's Dairyman. 20-5

Litter Carriers—Price only $14.95, write for catalogue to O. A. TORGERSON MFG. CO., Baldwin, Wis. 21-4

For Sale—3 Strait's tractors 15-30 H. P. Waukesha motors. Used 3 months. Half price. C. R. DENNISON, Savanna, Ill. 21-3

For Sale—Empire milking machine, two double units, complete with pipe for twenty-five or thirty cows. Price right. ALBERT BRINKMAN, Lancaster, Wis.

For Sale—New, No. 99 DeLaval turbine clarifier, half price. ALVIN GREENE, Morris, Ill.

For Sale—4, 20-cow section James mangers. Nearly new. Inquire of C. E. STEARNS, South Sudbury, Mass.

For Sale—Keystone "Keynote" Corn Sheller, with cob elevator and bagger. CYRUS LATHERS, Inkster, Mich. 22-2

For Sale—Drop center Armleder milk wagon, used part of two seasons. Price $125 F. O. B. Waynesboro, Va. IRA SHOWALTER. 22-3

Having incorporated, we have no further use for two 1,500-lb. pasteurizers and coolers, two 900-lb. Milwaukee and two 900-lb. De Laval separators, one 2,000-lb. De Laval clarifier, one 3x4, two 2x6 fillers, two 100-lb. capacity, combined churns, one 8 H. P. boiler (vertical), also some steel 2x6 cases and steel tanks. Make an offer. BRUNER DAIRY CO., Kenosha, Wis.

WANTED TO RENT

Young couple, practical farm people, one large child, want to operate equipped or partly equipped farm on shares. L. L., 2622 Schaal Ave., Terre Haute, Ind. 21-2

Man of forty, wide experience at farming, lover of pure-bred Holsteins, wants to lease farm with stock, preferably near schools and protestant church. Two oldest children large enough to help. Can give A-1 references as to ability and character. Send photo of your buildings if possible; will return them. All letters answered. Address BOX 338, care Hoard's Dairyman.

CREAMERIES

For Sale—A thoroughly equipped creamery and ice cream factory in northwestern Pennsylvania, ample storage and ice plant, accessible to three (3) railroads for shipping facilities. In the heart of the dairy section. Make all inquiries to BOX 335, care Hoard's Dairyman. 21-2

FARMS FOR SALE

Southern Dairy Farms—200 acres alf land one mile from station, $45.00; 160 a highly improved rolling prairie, overflow wells, $70.00; 640 acres ½ mile from stat extra good grass and grain land, $40.00; ot rare bargains. GEO. E. BROWN, Uni town, Alabama, formerly Aurora, Illinois.

Free Maps of Mississippi, showing views describing the famous black prairie alfa clover, corn, stock and dairy belt, located Northeastern Mississippi, where Lincoln H bold of Iowa, the largest hog feeder in world, has located; 300 miles of hard roads; good well and artesian water; excel climate; three creameries; lots of grass; hog, cattle, sheep and mule raising sectio the South. K. M. WISHART, Aberdeen, M issippi. 22

Southern Alabama, eighty-acre dairy fa cattle, milker, truck; retail trade. Add BOX 344, care Hoard's Dairyman. 22

242-acre dairy and poultry farm. Sixty cultivation, large barn, 75-ton silo. 4 house with running water and bathrooms. S building, water power grist mill. Build for seven hundred chickens. One thou young peach, apple, pear trees. Stores, office, cannery, sawmill, blacksmith adjoin 2 auto mails daily. Springs every forty barn lot; 6 miles Mansfield. Nine thou dollars. No trade. M. L. ANDREWS, Bry Missouri.

Dairy farm bargain. 316 acres; choice wheat, alfalfa land. 180 acres blue g timothy, clover and alfalfa; 35 acres wh remainder cultivation; choice improvem Write for particulars and free descri booklet. MANSFIELD LAND & LOAN Ottawa, Kansas. 2

For Sale—360-acre farm, 180 acres u cultivation; 2 sets buildings, including mo dairy barn 36x126, all concrete basement 1 concrete floor and mangers, steel stalls stanchions, Hinman Milker, electric lighte silos, 4 other barns, 2 houses, good wells head high grade Holsteins, 40 hogs, 5 ho threshing outfit, all machinery and c $25,000.00. Milk selling at $4.00 cwt. LABRE, Bark River, Mich. 2

1,000 farmers wanted in the spring to develop our Aitkin County lands. Good all you want, at prices you can easily No district offers a better chance. Now i time to investigate, while you can get pick. Write for particulars. ARNOLD, Agent, Rock Island Railway, 154 Wolvin Duluth, Minn.

Booklet on request presenting facts by Commissioner of Agriculture describing Mazarn Valley in the Ozarks, ideal for ing and stock farming. Address MAZ VALLEY LAND COMPANY, 847 Ce Ave., Hot Springs, Arkansas.

For Sale—60,000 acres cutover land in ern Wisconsin. $20 up per acre, $10 dow forty and $10 per month or balance pay extended, provided you do required amou work. We have a few eighties with buil ready for use. To purchasers of these w rent teams and tools on community basi advance money for cow, pig and chi when you can supply feed; also grubstak during farming season providing you pu tire time to developing your farm. T HAWK LAND CO., Box L, Tomahawk,

If you wish a farm in the best grass s of the south where alfalfa and all the cl including Red White, Alsike, Sweet, Crimson and Japan grow to perfection soy beans, cowpeas, peanuts, velvet corn, oats, wheat, rye, and barley, whe have a creamery making fine butter an ing Elgin for butterfat, and where there bovine tuberculosis nor cattle ticks; in munity of northern farmers, write to GURLER, Macon, Miss. 2

Farms in the Mississippi Prairie Belt, and clovers. Corn, hay and live stock sition. Ideal climate, good neighbors, s churches, good roads. Main line of ra Close to large markets. Write now. HANSEN, Macon, Miss.

Fine Farms and Land Cheap—120 ac acres clearing; large house, log barn, 235 acres with buildings; 45 acres under $5,600. 40 acres bushland $500. 80 $1,000. 240 acres $3,000. Write for to THE E. L. C. CO., D-M, Dept. 31, Wis.

Ideal Farm Home—165 acres well im 3 miles Nashville, fine oiled pike, lays deep rich soil, 75 bushels corn per acre watered, excellent neighborhood, modern equipment. Cheap at $225.00 per acre. terms. Might take clear land up to $15 as part payment. T. E. HALE, Route 3, ville, Tenn.

By owner—Modernly equipped farm, section Jefferson County, 173 acres; goo near market. Fall plowing done. Pos March 1st. Price will surprise. ROUTE 6, BOX 75, Watertown, Wis.

Farms of all sizes and all prices for this banner dairy section. Largest cr in the world right here. Write F. W. M Barron, Wis. 2

FOR RENT

Farm to Let—Northern New England acres tillage. Good condition. Twenty tered Guernsey cows. Good sire. lights. Machinery. Experienced farmer Address BOX 340, care Hoard's Dairym

For Rent—700-acre dairy and stock f Blockton, Iowa, 66 miles from St. Josep and 91 miles south of Des Moines, Iowa. C. G. & W. R. R. Good eight-room hou six-room house, good cow sheds and bar wind mills and small creek; 150 acres fo balance in blue grass, timothy and Want to rent for term of years. Write me at Keystone Hotel, Joplin, Mo. Wil you at the farm. S. L. DAVIS.

HAY

Alfalfa hay for sale. Write or wire delivered prices. ALBERT MILLER & PANY, 192 North Clark Street, Chica

FEED BAGS

Second-hand bags and burlap. highest prices and pay freight. Satis guaranteed. LINCOLN BAG CO., Spri Illinois. 2

FARMS WANTED

ld you sell your farm, if you got your Sell direct, no commissions. Particu- ree. CHARLES RENICH, Woodstock, 14-tf

n wanted by agricultural college gradu- arge proposition only. Must be stocked, ed ready for business. Eastern states red. Full particulars first letter. Ref- s exchanged. BOX 62, Kent, Ohio. 21-2

e customers for 25 farms with stock. SON, 618 Hartford Bldg., Chicago, Ill. 22-4

PARTNER WANTED

t know cows; money making dairy farm rn Pennsylvania. BOX 320, care Hoard's nan. 20-3

PRINTING

rd's Dairyman Art Dept. designs your head free. Just tell us your breeds of Book of 5,000 Farm, Ranch and Cottage 25 cts. Ask for samples of letter heads, pes, shipping tags, cards, milk tickets, Poor stationery is more of a damage help. Address HOARD'S DAIRYMAN, ept., Fort Atkinson, Wis. 8-tf

MISCELLANEOUS

nted—Pure sweet butter in bricks or bulk. ply a very select trade. Want only the Address giving price and particulars. M. ROBINSON, Box 300, Park Ridge, Ill.

ey and Cheese—Honey of superior quali- lso Green County's Famous Brick cheese. for prices. E. B. ROSA, Monroe, Wis. 22-tf

as gifts for farmers and housewives. and household accounts simplified. Spe- holiday offer. Address OTIS ACCOUNT CO., 1822 Chadbourne Ave., Madison, 21-2

se Guinea Pigs for us. We supply stock. atories need thousands. Big money and nd inexpensive to raise. Particulars and ten cents. DR. J. A. ROBERTS' LAB- ORIES, Oconomowoc, Wis. 19-tf

Sir, we have a special opportunity for luring spare time, an opportunity to do good work in your neighborhood, for etterment of dairy farming, that will pay n cash for the effort you put forth. Write our "Special Opportunity Getting To- r" folder. Address HOARD'S DAIRY- , Fort Atkinson, Wis. 2-tf



vertising in this department is 5c per word. Remit in advance.

HELP WANTED

nted—A good steady, reliable young man eneral farm work. Must be a good milk- State wages expected. J. M. VASS, Route x 65, Waukesha, Wis. 21-2

nted—Working foreman on large farm. who is willing to work and can handle wife to board from 5 to 10 men. Good quarters furnished. House has all rn conveniences. Must have references. wages expected in letter of application. THORN FARM, Hawthorn Farm P. O., County, Illinois. 19-4

nted—Good, reliable farm hand, married, rk with owner on 160 acres. References. LARD TON, Tinley Park, Ill. 22-4

HELP WANTED

Wanted—Man who can successfully and economically raise calves and feed dairy cows profitably. Everything modern, herd consists of 100 head Jerseys. Applicant must be strictly sober, married, and agreeable. Salary first year $100 per month with house and garden, together with a bonus at the end of the first year if results are satisfactory. Location at the foot of famous Lookout Mountain in Tennessee. Climate moderate, very healthful. Address ASHLAND FARM DAIRY INC., Alton Park, Tenn. 19-4

Wanted—A man qualified by training, experience and personality to promote the production of better milk among the patrons of a large condensed milk company. A man with training along the lines of a county agent is desired. Address BOX 329, care Hoard's Dairyman. 21-2

Wanted—An experienced man, preferably one with dairy schooling and veterinary training is desired by a well known company for its corps of dairy inspectors. In replying, state training, experience and salary desired. Address BOX 328, care Hoard's Dairyman. 21-2

Wanted—A superintendent for strictly modern dairy, located in the east, about six miles from a city of 200,000 inhabitants. Milk disposed of by retail. 600 acres under cultivation. This is a good berth for the right man. Apply to BOX 347, care Hoard's Dairyman, giving full particulars, experience and reference. Only first class man need apply. 22-spl

Bookkeeper—For dairy in Middle Atlantic states, about four miles out from city of 100,000 inhabitants. Must be competent and reliable and able to handle correspondence. Permanent position for good man. Send reference, stating salary wanted to BOX 346, care Hoard's Dairyman. 22-2

Herdsman wanted at once. Energetic young man who understands feeding and care of pure-bred Guernseys. One who is neat and takes interest in his work and will do his best to build up the herd. Scandinavian preferred. Address BOX 336, care Hoard's Dairyman. 22-2

Reliable single man, to work in dairy barn. Registered Jerseys, modern barn and equipment. Must be clean, industrious and good dry hand milker. Farm located on traction line near city. FINCH FARM, Dayton, Ohio. 22-tf

Wanted—Married couple without children. Man must be a good stockman, experienced in both dairy cattle and hogs, also A. R. O. work. Must be strictly temperate and wife a good cook, to cook for old people in county home. Everything furnished free except clothes. Please state wages expected and give reference in first letter. Address R. H. POSTON, New Richmond, Wis.

Wanted—Good first class dairyman at once. Must be steady and good worker. I have herd of 40 high grade Holstein cows. Man must be good calf raiser and understand fitting cows for show ring. He will have a helper. Have Hinman milking machine. Prefer a man with practical experience. A boozer need not apply. Steady job for right party. State wages in first letter. Man must be single or his wife willing to help with work in house. C. H. HICKS, Marshalltown, Iowa.

Wanted—Chore man, of Christian qualities, in the home, board and washing included. Reference desired. Transportation refunded after six months' service. Write all particulars and pay desired. SHADY NOOK DAIRY AND FRUIT FARM, S. E. Crawford, Proctorville, Ohio.

Wanted—Single herdsman for 50 pure-bred Guernseys. A. R. and test association. Modern equipment. Board and room furnished. State wages wanted and qualifications. FOLLY FARM, Libertyville, Ill. 22-tf

Wanted—Capable, reliable, white woman to cook and do small washing on dairy farm. $10.00 per week. J. H. MILLNER, Route 5, Norfolk, Va.

HELP WANTED

Herdsman to care for herd of registered Guernsey cattle. Twenty-eight females. Sharples Milker. State experience and wages expected. Partnership or lease to right man. Maine. Address BOX 339, care Hoard's Dairyman.

Wanted—Milk room foreman. One who thoroughly understands and has had practical experience in pasteurizing, testing, refrigerating, to take charge as foreman. Thorough, modern equipment. State experience and salary expected. THE PRODUCERS' DAIRY CO., Denver, Colo.

Wanted—Experienced dry hand milker, married or single, for stable work and test milking in Jersey herd. Also man to assist with farm work. HUGH W. BONNELL, Route 4, Youngstown, Ohio.

Wanted—Man and wife for year round, to run 60-acre farm at Lake Minnetonka, Minn., used as a summer home; 20 acres under cultivation. Man must be accustomed to handling cattle and horses. Pay $65 per month, house with heavy furniture free and supply the vegetables. For full particulars write GEO. F. ORDE, care The Midland National Bank, Minneapolis, Minn.

Wanted—Herdsman, married or single to take charge of small herd of Holsteins and help on farm. Must get results. Address, stating age, experience and wages expected, to F. H. BAUER, Delano, Minn.

Wanted—Herdsman to take charge of small dairy, married or single, good caretaker, willing to put pep in the work, honest, upright, capable. Modern equipments. If married, wife may help in dairy work or cook for farm help if desires. Transportation refunded after six months' service. Wire or write, stating age, experience and wages expected. SHADY NOOK DAIRY & FRUIT FARM, S. E. Crawford, Proctorville, Ohio.

POSITIONS WANTED

Situation wanted as superintendent on large grain farm; married, no children; understand rotation of crops and handling of men. At present time on grain farm which will be sold soon. Can make a change Feb. 1, 1919. Address BOX 330, care Hoard's Dairyman. 21-3

Farm Manager or Superintendent—Young man, single, American, desires permanent position. He had good practical experience in general farming with modern machinery. Address BOX 115, Kennett Square, Pa. 21-3

Farm manager, thoroughly experienced crops, machinery, gas engines. A. R. O. fitting and testing. Agricultural college graduate, age 29, married, no children. References. First class proposition. BOX 327, care Hoard's Dairyman. 21-2

Do you want a herdsman, farm foreman, assistant on farm, greenhouse men, tractor men, or farm help? We have young men trained in our school, competent to fill these positions next spring. State full details including wages. BERNARD OSTROLENK, National Farm School, Farm School, Pa. 20-spl

General manager is open for position. Lifetime experience. Have thorough knowledge of pure-bred stock, also buying and selling. A. R. O. work, feeding and developing young stock, and can handle help to best advantage. Married, two children, no bad habits. Address BOX 341, care Hoard's Dairyman. 22-tf

Honest, capable, married man, age 27, desires position with registered herd. Life experience show fitting, testing, farm management, city milk supply. Wisconsin Dairy School training. Have foster child 15, capable assistant. Will consider $150 per month and board with good house. Must be permanent position. I wish to try the position before moving. Can come any time up to April. Write full particulars to BOX 422, Newport, Wash.

Married man, two children. Best references as farm foreman or herdsman; also general farm work. H. Y. MAINES, Elkhorn, Wis. 22-2

POSITIONS WANTED

Wanted—Position as manager of farm and dairy combined. Experience with registered Jersey and Holstein cattle and all kinds up-to-date farm machinery. No tobacco or intoxicating drinks. Address BOX 345, care Hoard's Dairyman.

Wanted—By competent young, married man, position as herdsman or assistant manager on strictly first class dairy farm where competent help is appreciated. Not afraid of work in any way. Salary $1,200, house, garden, milk. Address BOX 343, care Hoard's Dairyman.

I want the management and will furnish the help to handle a moderate dairy and retail milk route. Want good equipment. Address BOX 342, care Hoard's Dairyman.

Position wanted by single experienced dairyman aged 32, good dry hand milker. Address BOX 349, care Hoard's Dairyman.

Position wanted on a modern dairy farm as herdsman or as superintendent over all. Several years' practical experience in both lines, feeding cows, raising calves, farm management, handling help. I have worked with pure-bred Holstein cattle for years. Am single, age 33, honest, reliable, polite. Address BOX 348, care Hoard's Dairyman.

Position wanted as horseman. Practical experience in training, doctoring, breeding and feeding. In the business all my life. Age thirty-eight. Address BOX 350, care Hoard's Dairyman.

Position wanted as herdsman; am an American 28 years old, single; never use tobacco or liquor; life time experience in handling cattle, great success raising calves; also have taken short course with International Correspondence School. Will go anywhere for the right job. Address BOX 351, care Hoard's Dairyman.

Farm manager, 49 years, wants position on large farm, life experience on English estates and western Washington farms, both dairy, (certified milk), general farming, sheep, hogs and poultry. Correspondence solicited from parties interested. P. O. BOX 300, Richland, Washington.

Position wanted as herdsman. Single, experienced in A. R. O. work, best of references, only Holsteins considered. BOX 331, care Hoard's Dairyman. 21-2

Superintendent of estate or large farm—Well versed in all matters pertaining to the successful management of a large estate or extensive farm proposition. College education, executive ability, coupled with twelve years of successful managerial experience. County Agricultural Agent in U. S. D. A. at the present time. Salary $3,000 with the usual perquisites. Guernseys preferred, location N. E. States or California. At liberty after January 1st. Address BOX 352, care Hoard's Dairyman.

High grade American open for managerial position. Modern enterprise where man with broad education and experience, business and farming is demanded. Will build new plant or put old one on business basis. Not only an office manager; can get out into the work and lead the way. All branches of farming, modern machinery, tractors. Construction; buildings, grounds, roads. Go anywhere near good schools. Modern home. Salary or shares. Something to build for a future where hard heady work will win. Furnish fullest particulars. WM. T. ELDRIDGE, South Sudbury, Mass.

Reliable young man, good milker, experienced with milking machines, wants dairy barn position. State wages, particulars. EVERETT NOOKER, Oregon, Wisconsin.

Practical man with life farm experience, also experience in cow testing and agricultural improvement work desires position as manager or herdsman on dairy farm. Only good propositions will be considered. Will guarantee results. College education. Will consider a renting proposition. Guernseys preferred. BOX 353, care Hoard's Dairyman. 22-3

ott Brothers' Holstein-Friesian Sale

ne Elliott Brothers of Woodward, a, dispersed their herd of Hol- n-Friesians at Waterloo, Iowa, ember 6.

his sale was made not because of dissatisfaction on the part of e gentlemen with the dairy and ding industry, but purely because r business interests demand that partnership be dissolved. One of brothers is located in Mississippi the other has extensive interests he Southwest. These conditions e it impossible to continue the l in Iowa, hence the sale. Both he partners regretted sincerely necessity of breaking up a herd attle that represented so much ght and careful work in its up- ding.

he father of the recent owners ted the herd about 25 years ago. policies that he adopted in the nning have been followed and fully developed in all the breed- operations of the plant. That e policies were well founded was vn by the sale in Waterloo.

ood sires have always been kept he head of the herd. The founda- bull was Jeek's Prince, one of first sires of the middle west to admitted to the Advanced Regis- The splendid A. R. O. work of daughters won this place for him.

The bull that has been at the head of the herd for the past two years is King Pietertje Ormsby Piebe. He is unquestionably the greatest bull of the breed from the standpoint of breeding possessing world's record yearly production. His two nearest dams have an average of over 83,200 pounds of fat and 29,640 pounds of milk in one year. This is an unequaled qualification.

At the same time he is remarkable from the standpoint of individuality and he has proven his ability to transmit that type to his offspring.

The cows in the herd were all good, strong, well developed individuals. They were just the kind that one seeks for large, economical, and profitable production.

There were six beautiful big producers that had proven their capacity by making seven-day official butter records of thirty pounds or over. This in itself is a distinction of remarkable importance.

The popularity of the Ormsbys was evidenced in no uncertain way by the manner in which the sons and daughters of King Pietertje Ormsby Piebe were bought. There were seventeen in the sale, three bulls and fourteen heifers. All of the bulls and six of the heifers were 1918 calves, the other eight being born in 1917. This little group brought a total of $10,310. Four of them were bought by J. B. Irwin of Minnesota, three by D. G. Maxwell of Iowa, three by J. R. Bell of Pennsylvania, and three by Dr. N. J. Deiling of Iowa.

Dr. Deiling is just starting a herd on his Iowa farm. He bought the largest number of any bidder in this sale and he also topped the sale when he paid $1,300 for Queen Pietertje Parthenia Ormsby, a 13-month-old daughter of the Ormsby bull and a good A. R. O. dam. She is a beautiful, promising heifer. Dr. Deiling paid $7,000 for eight head, an average of $875 each.

In all, sixty head were sold for a total of $37,385, making an average of a little over $600 each. There were only five bulls in the sale. They average $730 each, totaling $3,650. The fifty-five females brought $33,735, averaging a little over $613. The ten highest priced females averaged $1,029 each.

The cattle will be scattered into nine states, for buyers came from Iowa, Minnesota, Colorado, Missouri, Illinois, Wisconsin, Michigan, Indiana, and Pennsylvania. Naturally the largest number of cattle stay in Iowa.

The sale was a decided success. Such was the verdict of men qualified by their experience and long association with the breeding industry to speak with authority. The averages and the total were gratifying to the men who were selling and also to the breed boosters. The prices paid and the general enthusiasm forecast a very bright era—one of continued prosperity for the breed in the middle west.

The sale also emphasized three points that are well worth pondering. In the first place, publicity plays an important part in the success of a sale. The event that is well advertised will outclass the sale which is given a small degree of publicity. Elliott Brothers bought generously of advertising space.

In the second place, the public is looking for yearly record stock. The thirty-pound-cows were not as keenly sought, proportionally, as the stock that had an abundance of yearly record blood in their pedigree.

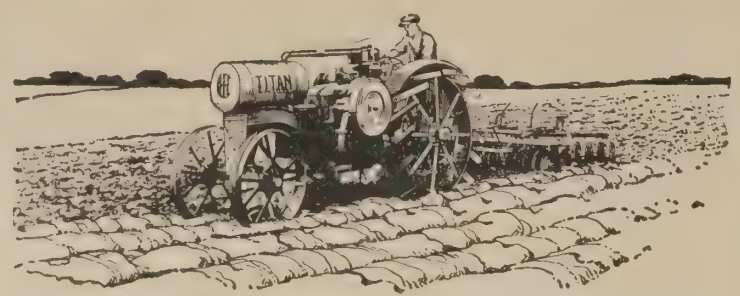
Finally the buyer wants good individuals. The cow that is not quite up to standard even though she may have a splendid short time record is often passed by for the high class cow without a record, all of which promise much for the breeding industry.

Iowa. H. E. COLBY.

Bulletins of the Week

Swine Husbandry, revised by J. N. Rosenberger. General Bulletin 307, of the Pennsylvania Department of Agriculture, Harrisburg, Pa.

Common Diseases of Garden Vegetables and Truck Crops, by M. T. Cook. Circular 89, New Jersey Experiment Station, New Brunswick, N. J.



"What Can I Reasonably Expect of a Tractor?"

SO MANY farmers ask us this question that it deserves a public answer. When you buy an International kerosene tractor you can expect—

Plowing, as deep as you need, as fast as good plowing can be done, at low cost because your tractor operates on kerosene.

Good work on plowed ground. This is important. You can use your tractor for all the seed bed work, giving your crops a better start and a better chance.

All kinds of belt work. Individual threshers, ensilage cutters, feed grinders, hay presses, and many other useful, labor-saving belt machines soon follow an International tractor because it does good belt work at low cost.

An International will haul your crops to market, clear your land, grade and level roads. In any size or style it is a true "general purpose" tractor, useful for all kinds of farm power work, built by a Company that has built farm machines and tractors in large numbers for many years.

That is what you may reasonably expect from an International kerosene tractor. The local dealer can give you any further information you want. See him or write direct to us.

International Harvester Company of America
(Incorporated)
CHICAGO U S A

Apollo for Culverts

Rust-resistant, Durable, with Copper Steel base—

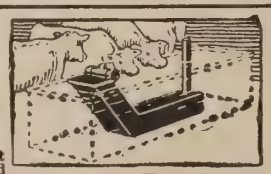
Apollo-Keystone Copper Steel Galvanized makes safe, substantial roadway culverts.



APOLLO is the highest quality galvanized product manufactured for Culverts, Flumes, Tanks, Roofing, Spouting, Garages, and all exposed sheet metal work. The added Keystone indicates that Copper Steel is used. Time and weather have proved that APOLLO-KEYSTONE Sheets last longest in actual service. Sold by weight by leading dealers. KEYSTONE COPPER STEEL is also unequaled for Roofing Tin Plates. Send for "Better Buildings" and "Apollo" booklets. They are valuable to all sheet metal users.

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You wouldn't think of burning $1.50 grain under a water tank! Yet that's what happens when stock drink ice water! Their body-heat—produced by feed—is absorbed in warming ice water instead of making milk, muscle fat. Warm the water with this oil-burning heater; your stock will drink more—require less feed—save bushels of grain.

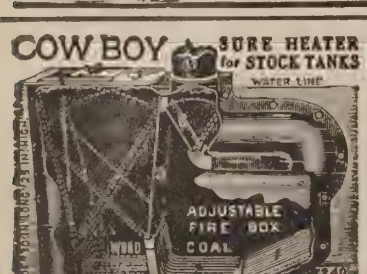
BUSBY OIL-BURNING TANK HEATERS and NON-FREEZING HOG WATERERS

Tank heater costs one-half cent per hour for kerosene. No smoke, no sparks, no danger. Fill tank once in 36 hours. Keeps water at animal heat. Can't freeze even at 30 below zero.

Free Folder and Special Offer. Busby Hog Waterer costs 2c a day for kerosene. Holds 70 gallons of water. Never freezes. Write for special discount offer to owner-agents on tank heater and hog waterer.

C. W. BUSBY & CO., 312A, North Seventh Avenue, WASHINGTON, IOWA

COW BOY SURE HEATER for STOCK TANKS



HELP FEED THE WORLD

Don't Waste Grain; but Save it and Produce more **Meat, Butter** and **Milk** by warming the drinking water for your stock with coal, wood or cobs with a

COW BOY TANK HEATER

Quickest to heat; strongest draft; adjustable grates; ashes removed without disturbing fire; keeps fire 24 hours.

Absolutely Safe; pays for itself in 2 months with 4 cows; **Self-Sinking;** can be used in Wood, Steel or Concrete Tanks of any size. Most reliable, practical, efficient and durable Tank Heater manufactured.

"Purchased 3 of your Tank Heaters last Winter, worked very satisfactorily and are well worth their cost. Every Stockman should use one." W. H. Pew, Prof. of Animal Husbandry, Iowa State College, Ames, Ia.

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Locks 50 Cows Instead Of One

West Bend BARN EQUIPMENT

West Bend Automatic Stanchions equipped with our wonderful locking-releasing lever save you time and labor—and insure safety in locking up or releasing the cows, yet you pay no more for West Bend equipment than for ordinary stanchions that must be opened and closed singly by hand. The West Bend lever controls from 2 to 50 West Bend Automatic Swinging Stanchions. The entire row of cows can be locked up or released instantly by one throw of the lever. Cow stops are operated at same time, and when set guide cow into the stanchion. Every user says it's the greatest idea ever brought out in modern barn equipment. You certainly want this valuable new exclusive West Bend feature in *your* barn. Write today for catalog.

WEST BEND BARN EQUIPMENT CO., 277 So. Water St. West Bend, Wis.

Co-operative Creameries of Minnesota

(Continued from page 732)

I speak with the greatest respect for universities and colleges. I am glad to be able to say that the University of Minnesota has always stood back of the co-operative creameries. Professor T. L. Haecker, for twenty-five years at the head of the Minnesota Dairy School, gave the full weight of his great influence to the cause of co-operation. He put scientific methods to work in the hands of the farmers of the state through their co-operative creameries. Through the co-operative creameries over 100,000 farmers of Minnesota became joint owners in a manufacturing business that this year will run close to $50,000,000. The dairy farmers of Minnesota have learned to work together through their co-operative creameries to their advantage and they will continue to work together.

Co-operative Creameries Pay

I have before me reports from a number of co-operative creameries that paid 70 cents a pound for butterfat for the month of September of this year. A great number paid over 65 cents and the rank and file of the co-operative creameries in Minnesota paid above 63 cents. The average price of butter (New York extras) for September was 56.041 cents. As the price of butter has advanced, the overrun has enabled the co-operative creameries to pay their patrons a much higher price for butterfat than the price received for butter.

For the month of August of this year I received reports from 250 co-operative creameries in Minnesota. These reports were from the and file of the creameries of the Of the 250 creameries all but 24 above New York extras for butt The highest price was 61 cent lowest was 42 cents, and the av price paid by all of them was cents. The average price of (New York extras) for Augus 46.03 cents. The co-operative c eries were 6.67 cents above. paid their patrons for 3,3 pounds of butterfat for the n Had these farmers sold their through a non-co-operative n that commonly pays New Yor tras or below for butterfat, would have lost at least $224,8 the loss of all the co-operative c eries of the state for the mont der a non-co-operative system conservatively be estimated at million dollars. *Co-operation I*



FARMERS' CO-OPERATIVE CREAMERY AT DOVER, MINNESOTA

This creamery took in 22,263 pounds of butterfat for the month of August, 19 and paid its patrons a net price of 60 cents a pound for butterfat. It is one of 67 co-operative creameries in Minnesota that supplies the United States Navy w butter. It is one of the new types of co-operative creameries being built in Minnes It operates in a single community, has a cow testing association, and stands for operation and progress in all lines.

Good Citizenship

I made the statement in the ning that the co-operative crea of Minnesota are teaching goo zenship. I would like to clos that thought. To me this see most important thing in the When men work together in helpfulness—when they are n willing but glad that their nei shall prosper with themselves they are learning good citiz This, and only this, constitut citizenship, true democracy.

I am writing this for the mas issue of Hoard's Dairy sincerely thank God that the s for world democracy has bee and that the birth of Jesus among men shall be welcome with the nations of the w peace.

Co-operation, When and Why It Succeeds

(Continued from page 733)

from them what the price should be.

This brings us back to co-operation. It is the co-operative group that can meet the question with intelligence. We have blundered through the mazes of price-making by authority during the past two seasons. When an opinion from the farmers was wanted, it had to be obtained from scattered individuals in all too many cases. This was true because there was no organization ready to speak. It was hard an expression from the grain ers. Harder to get the views milk producers, and impossi get an expression from the producers. Never again will be such chaos because durin few years organizations hav made vastly more effective th before.

A Substitution Rather Than E tion of Middlemen

Co-operation does not as mean the elimination of any of middlemen. This has ofte heralded as the end and aim

rit. Experience shows that very
farmers' organizations have
eded in eliminating any num-
f middlemen. What they do is
t their own man in the place of
other middleman. The elimi-
n comes, if at all, through the
er efficiency of the farmer or-
ation and in consequence a re-
n in the number of middlemen
given character. The number
iddleman processes, however,
to have been the result of ne-
y of convenience, and in con-
nce is hard to reduce. An ideal
ting system, should it ever
will, without doubt, consist of
links between producer and
mer, but it is much easier to
ault with them than to shorten
number without introducing
costs and trouble equally seri-

at farmers will do well to un-
nd is that they can do many
for themselves more economi-
than they can pay others for
rvice. For example, it is clear
farmers can get their milk to
ity more advantageously than
an let dealers come after it.
is to say it is well within the
ce of the farmer to keep the
lling hand until the middle-
takes it over for the actual
s of preparation for distribu-
By doing this the questions of
, of means of transportation,
erhaps most important of all,
nging to a given market the
l supply, may be, and should
e business of the farmer. This
of surplus is one of the oc-
s of great differences in price
a mutual understanding. The
lual farmer cannot guard his
t so as to furnish the amount
l. He cannot well withhold
pply when it is not wanted.
operative group can, in the
lace, approximate the amount
ed, and can very effectively
are of the surplus, or hunt up
lded supply as occasion de-
. By doing this they change
he position of a weak bargainer
of real advantage.

rious Competition in Selling

ning has been a severely com-
e business for many years. No
it will continue to be competi-
it this does not mean that com-
n should be carried to the ut-
mit. For instance, there is an
t of competition in the produc-
goods by different men for the
narket, but it does not follow
ach should bargain alone in
the sales. If they do, the
t bargainer is the one who is
kely to set the price for the
By combining forces in bar-
the weakest bargainer is like-
e taken in hand and prevented
naking too low a price. The
always has more strength than
ividuals acting alone.

nly does co-operation result in
prices directly, it does much
In the first place it makes pos-
n improvement in the quality
ls. Could every farmer know
d to what extent the poor
hich he throws in the market
es prices for himself and for
hbors he would be astonished.
s taken to a market in an un-
condition, dumped as it were
buyer just as they come from
l, big and little, red and white,
nd long, dirty and clean, de-
nuch attention and labor be-
pment. This work not only is
e for nothing but is done at
expense than would be re-
were the proper steps taken in
to prevent the necessity for
n preparation.

ame principle applies to a mul-
of products. The sale as the
t is but a small part of the logical co-operative process. It should be begun long before the sale. Community action should result in a uniform product, as round, white potatoes, sanitary milk, Guernsey cattle, Jonathan apples, or whatever fits the climate, soil, and markets of the community. This means prosperity and progress. Products such as these can be, and will be, standardized, and standard products can be sold to advantage. The work of the middleman will be lessened and fewer complaints will be entered against him. There will not only be less middleman work, but the routine of the work will be such that it can be comprehended and done economically.

Much Already Realized

The most gratifying part concerning co-operation is that much of this program has already been realized. Not much in comparison to the ultimate possibilities, but much as compared with a decade ago. In Wisconsin are a great number of co-operative creameries and cheese factories, and a cheese marketing federation which deserves to rank as one of the best agricultural co-operative companies of the country. Through this company the farmers have learned to know the cheese market and to satisfy themselves as to the price cheese should bring. Thus the benefits are much wider than the membership. A similar move should be made by the creameries.

Another remarkable co-operative movement is that of the live stock shipping associations. These are local and have been organized in over two hundred villages and cities. The first benefit is economy in getting the work done, and correspondingly higher prices. The second benefit is a knowledge of the market and in consequence stock better suited for sale.

Other lines of co-operation are accomplished without formal organization, such as the purchase of feeds. This can usually be done at a saving of two or more dollars a ton. Co-operative sales of cattle are becoming the regular thing in several counties and are sure to develop in popularity. The co-operative method of handling seeds has proved a success among members of the experiment station groups.

The present high prices with their attendant high costs; the prospect of declining prices in the same lines; the need for applying business methods to all manner of farm affairs points to the desirability of an intelligent, well planned co-operation in many lines. Good sense would suggest that the improved methods be adopted before dire necessity makes it the only way out.

Time to Overhaul Machinery

The proper time for overhauling farming machines is during their period of inactivity and before the rush of spring work. If put off until needed, delay incident to getting repair parts promptly, press of other work, and the hazy recollection of the past season's difficulties may hinder the efficient prosecution of this work.

At the end of the season's work it is a plan well worth while to make out a schedule of needed repairs and adjustments for a particular machine and file it in a convenient place, so when opportunity arises the work may be taken up and prosecuted expeditiously. The machine itself represents capital invested. It should be housed properly and not left in a fence corner or other out-of-the-way place for wooden parts to rot and metal parts to rust, which, even for short periods, may cause more deterioration than the season's use.—U. S. Department of Agriculture Weekly News Letter.



A Real Investment

Before you put them up, figure your buildings on the basis of an investment. Will they add to the market value of your farm should you wish to sell? Will they contribute to your profits? Or will they be a continuous expense for upkeep, and a loss through rapid depreciation?

Figure these things out in dollars and cents, and you'll find that for a *real* investment it pays to build with

Natco Hollow Tile

In ten years, or even less, the saving in paint, repairs and insurance will more than make up the difference in cost. After that, *all* these savings will be *clear profit*. And you can pass on the buildings from generation to generation.

Natco buildings are fire-safe, vermin-proof and strictly sanitary. The dead air spaces in the walls keep out cold in winter and heat in summer. Natco buildings combine beauty and utility.

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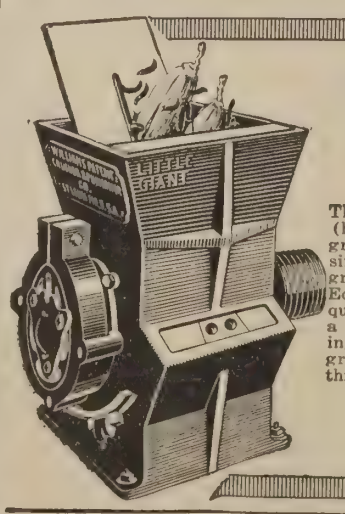
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grind stock feed or rye and graham flour. Built on correct scientific principles. Have no buhrs or other parts to wear out. Will last a life time. Fully guaranteed.

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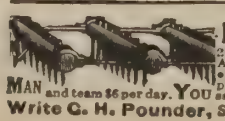
Grind Your Feed

With the Williams Patent LITTLE GIANT GRINDER

The Little Giant Grinder will grind your Ear Corn (husk, cob and all), your Oats, Wheat, or any other grain, into either a fine, medium or coarse meal as desired. It will not merely crack these grains but will grind them into a real meal.

Equipped with genuine SKF ball bearings power requirements are reduced to the minimum. Four sizes give a wide range of capacity. Hundreds of farmers are using this machine, therefore, if you are anxious to save grain and reduce feeding costs investigate and install this machine. Bulletin No. 699 explains in detail.

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A Dairy Farm Romance

[Continued from pgae 736]

him so aback that in sheer amazement he could not utter a sound. He went to the kitchen door and opened it, and walked uncertainly down to the barn. It was the first time in their married life that his wife had expressed herself so freely, and it set him off his balance. It was some time before he had sufficiently collected himself to read Doris' letter. And, though what he read made him inwardly ashamed of himself, he could not bring himself to humble his foolish pride.

He ate his dinner and supper in dour silence, never lifting his eyes from his plate. When he came back into the house after the heavy evening chores, his wife had gone to bed.

She did not get up in the morning. He prepared and ate his breakfast, and then, when there came no sounds from her room, his sullenness gave place to genuine concern. He went softly up to her room.

At his entrance she moved weakly on her pillow. Her eyes seemed unnaturally bright, her cheeks unusually flushed. She complained of pains in her limbs and back, of a dull throb back of her eyes. She asked for more covering. And Nathan, who had never known her to lie abed daytimes, except on the occasion of Doris' entrance to the world, realized that his wife was very sick.

In panicky haste he secured an extra comforter and spread it over her bed. He gave her a drink of water, and then, throwing on his hat and coat, he made for the nearest neighbor, running stumblingly most of the way. From there he could telephone for a doctor.

The boy answered his urgent knock.

"Pa and ma's sick," he said, as Nathan stepped inside. "Doctor said 'twas the influenzy. Most everybody in town has it, doctor says, and it's mighty bad, and I'm scared."

"When's he coming out again—the doctor, I mean?" asked Nathan.

"This morning. I was just looking for him. Mrs. Fuller, who's here takin' care o' ma 'nd pa, just telephoned him, and he said he'd be out right soon."

"When he comes, send him over to me. Can you remember that? Send him over. And don't you forget it. You go tell Mrs. Fuller that right now to tell him when he comes. Go, now," he ordered brusquely.

And not until the boy returned and reported that he had done so, did Nathan stir from the spot.

Mrs. Feinwell had not changed her position while he was gone. She opened her eyes and looked up at him wearily when he entered, but almost immediately afterward closed them again. It seemed hard for her to breathe. Nathan placed his calloused hand on her fevered brow and felt of the careworn hand that lay on the patchwork comforter. He asked whether there was anything she wanted, anything he could do for her, and at her whispered negative, he tiptoed from the room with an awful weight of helplessness sagging his shoulders.

The two days that followed ever afterward seemed like some hideous nightmare to him. His brain seemed numbed. He moved about between his wife's room and the barn like an automaton, caring for his cows, and mechanically following out the directions the doctor had given him. He had tried desperately to secure help, but with city and country alike in the grip of the epidemic, there was no help to be secured.

The urge to send for Doris battled with his obstinate pride, and in the end he clamped his jaws grimly and pride prevailed.

Late in the afternoon of the third day he sat in the straight-backed chair at his wife's bedside. His face through the week's neglected stubble showed gray and haggard; his eyes, red-rimmed and hollow from sleepless, troubled nights burned like live coals in his head. He kept them fixed on the slight form that lay on the bed before him.

The doctor had been there at noon but had offered little encouragement when he met the dumb, pleading inquiry in Nathan's eyes. And when he left, gray fear settled down over Nathan's world.

And now, as he sat there watching the thin, drawn face, and listening to the labored breathing, he suddenly realized what that gray fear was. And with the realization came the soul-shaking, overwhelming feeling of guilty responsibility. His fevered mind raced back over the years, laying bare with accusing vividness things that wrenched him to the core.

He saw his wife as she was when he had married her, an innocent, happy girl of nineteen, straight-limbed, fresh-cheeked, gay-eyed with the joy of living and loving. He saw again the pride of achievement and the rekindled hope that shone in her eyes when they had paid off that first mortgage. He saw again the many, many sacrifices she had made, the toil-packed days she had lived through uncomplainingly to do her part in the attainment of that object. She had planned on building a new barn and remodelling the outbuildings the following spring, "for," she said, "the buildings are as important as the land itself. With up-to-date buildings and modern equipment we can do our work more easily and really more economically. And it will give me more time for Doris, now that she's growing up."

But when in the spring he had the chance of buying the extra eighty, he had overruled her pleadings. He remembered well her words. "Nathan, don't do it. Don't be land greedy. We have as much land now as we can work, and if we spend only one-third as much as we'd have to pay for that eighty in building up and caring for our herd, we'll be better off in the end. You'll work yourself to an early grave and you'll work me there too. I want a better place for Doris than the one we have. I want a decent house with some conveniences, not so much for myself as for our daughter."

The hard years that followed passed in retrospect before him. And every line in the careworn face upturned on the pillow was a mute witness of the privations his blind land greed had forced her to endure. Now, face to face with the possibility of her going out of his life, there came to him a sudden realization of her priceslessness.

His thoughts reverted to Doris, Doris who was so much like the girl he had married twenty years ago. With the bald picture of the farm life he had been responsible for before his mind's eye, he found himself wondering not why she had revolted, but why she had not revolted sooner. For he saw clearly now that he had never done anything to make her like the farm, to make her content to stay, that, in fact, he had done everything to drive her away. He saw that the only tie that had bound her to him heretofore was love for the little, hard-working mother.

He realized, too, what a ghastly mistake it would have been for her to marry the man of his choice. Bitter though the pill was he recognized the fact that he and Tom belonged to the old order of things. He saw in Tom traits of his own. Frugal, thrifty, hard-working, though he was, he nevertheless lacked the tenderness, the consideration, and open-heartedness of young Jim. The man without those latter characteristics could

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Let the name "Kalamazoo" be your guide to the best silo values and the greatest silo satisfaction.

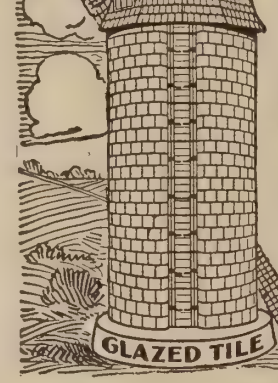
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TILE and WOOD SILOS

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Considered from any standpoint—food conservation—economy—better feeding—better live stock—bigger profits—the Kalamazoo Silo is a valuable asset to any farm. During the twenty-eight years they have been on the market, no Kalamazoo Silo has ever "worn out" or passed the usable stage. Think of that!

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GLAZED TILE SILOS

"Permanent as the Pyramids"—fire-proof, frost-proof, storm-proof, moisture-proof, acid-proof, rot-proof, vermin-proof. Galvanized reinforcing. Require no paint, no upkeep expense or repairs. Easy to build—and solve the silo problem *forever*.

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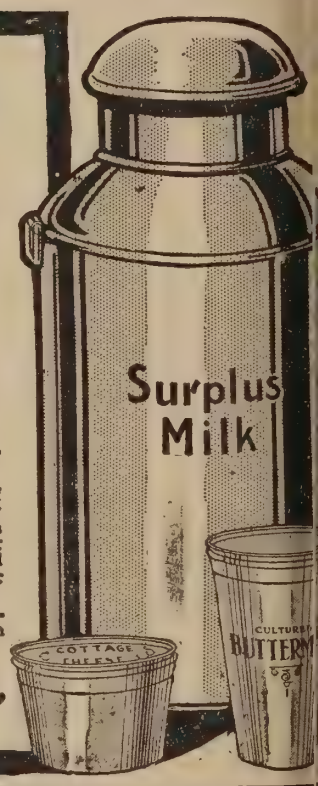
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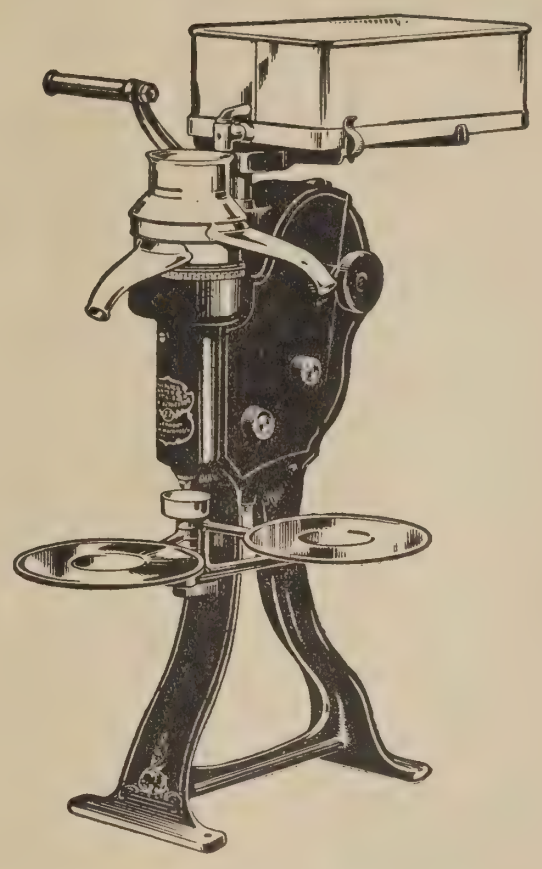


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Features That Make the "United States" an All-round Better Separator

Sturdy one-piece frame construction.

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So perfect mechanically that weight of crank starts it.

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ıave made his little girl happy.
ıad to admit to himself now,
at the basis of his opposition
ıg Jim had been a kind of jeal-
ıentment, a meanness of spir-
ep down in his heart he had
right along that Jim, with his
ic "book" training, backed by
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ıs farmer than Tom Ostberg
ver hope to be, or than he was
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ealer of the truth. If—

figure on the bed stirred. The
ved. Nathan took up a glass
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head in his arm. She settled
nd again took up her labored
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vith his thoughts.

den hour dragged by. In that
Nathan passed through a hell
-abasement such as few men
ınfortunate enough to go
n.

ly she would be well again, if
ıe would give him a chance to
make up for his iron neglect!
ıs after all his most priceless
ion. Without her his land and
d and his money meant nothing
. Life would be but a succes-
empty, hollow days. If only
ould fight! These were the
ts that pounded in his brain.
she lay there seemingly indif-
to everything about her. She
d his ministrations passively.
he could wake her up to—
the thought he started from
ir. He had to grasp the table
p from falling. All the life
to have gone from his legs.
pains shot up his back, and his
wam dizzily. He stood there
ninute fighting madly for con-
ıd then started for the front
".

ıe road the two yellow eyes of
utomobile, townward-bound,
through the gloom. Without
g to put on hat or coat, his
orgotten in the excitement of
ment, Nathan Feinwell rushed
he road. When, with a screech-
brakes, the automobile came to
a few feet from him, wildly
his arms in the middle of the
e hurried up to it. He recog-
ne of his neighbors.

nk God, you came by, Ed," he
arsely. "Going to town, ain't
elephone to Wayville for me,
u, Ed? To Doris. She's Mrs.
ıs now, you know, Mrs. Jim
ıs. Tell central he's the coun-
ıt. She'll know. And when
Doris tell her her ma's awful
d tell her to hurry and come.
ds her. Tell her to come, her
s her to. Don't fail me, for
ake, Ed!"

ın stood there watching the
ıt in the rear of the car fade
e distance, the cold winter
riking unheeded through his
thing. It seemed as if a great
weight had been lifted from
ılders, that a great peace had
ıway the horror of the past
ays, and left him with a clean
nd calm mind.

ıs he turned to go back to the
is knees suddenly knocked to-
His teeth chattered; his
body shook violently with a
Ie fought off the faintness
omentarily threatened to en-
n, and made for the house. He
eral times before he reached
r, and each time it was only
perhuman rallying of his will
that he was able to get back on his feet.

Gaining the house, he drove himself to the accomplishment of several tasks that his subconscious self urged upon him. He placed a glass of fresh water on the table within easy reach of his wife's hand. He threw an extra blanket over her. He put an extra scuttleful of coal on the base burner in the living room, and then crawled weakly to the blanketed couch and threw himself upon it.

It was the day before Christmas. Nathan Feinwell, with a tray of empty dishes on his knees and his back propped up with a generous supply of pillows, was sitting up in bed.

In a rocker near the south window sat Ma Feinwell, a shawl over her shoulders. She was placidly knitting and humming to herself as she worked. A new look was on her face, a new light in her eyes.

A light step sounded in the hall, and Doris appeared in the doorway.

"Finished, dad?" she asked.

He nodded. She picked up the tray and was about to leave the room when he stopped her.

"Where's Jim, Doris?" he asked.

"He's out in the barn fixing up the—"

"Well, never mind," Nathan interrupted. "Doris, your ma and I have about decided that we old timers need a rest and a sorta—sorta honeymoon, isn't that it, ma? Ma and I are really going to live now, ain't we, ma? And —and we kinda thought we'd like to —well, we'd like to do it, if we could find two nice young people in whose hands we could leave the farm, to work it as they pleased, new-fangled notions or not. And we kinda picked out you and Jim. Doris, do you think you'd care to live here if the house were fixed up a bit with furnace and lights, and other things, and if Jim'd have a free hand with the farm and the stock?

"D'you think you could stand ma and me boarding with you, and messing around helping when we felt like it?"

For a moment Doris stood in stunned silence. Then she dropped the tray on the bed and threw her arms around her father's neck.

After a long interval she raised her head.

"Oh, dad, d'you know what day this is? Tomorrow's Christmas. And it will be the happiest Christmas you and mother and I have ever had!"



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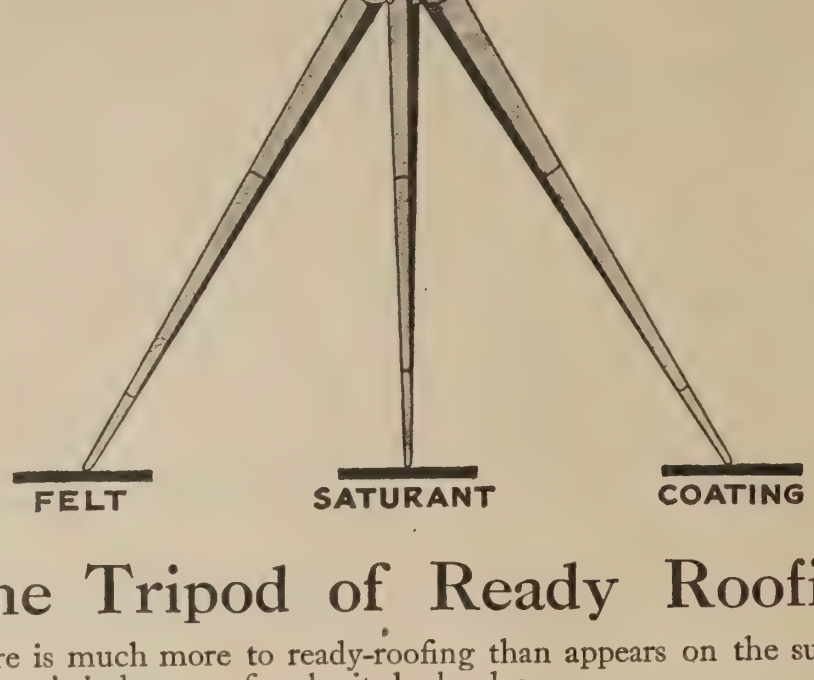
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The Tripod of Ready Roofing

There is much more to ready-roofing than appears on the surface. You can't judge a roofing by its looks alone.

The three principal elements of ready-roofing—felt, saturant, and coating may be compared to a tripod. This tripod supports the quality of the roofing. If one leg fails, quality suffers. When you buy Ru-ber-oid you know that no flaw will develop and a leaky roof result. The tripod which supports Ru-ber-oid Quality is sound at every point. Briefly, here are the facts:—

Felt

The backbone of ready-roofing is felt. Upon its quality, primarily, depends the life of the roofing.

The highest quality of roofing felt is made from rags. Substitutes for rags are waste paper, straw, and clay. If these substitutes are used extensively a felt results closely resembling cardboard. Cardboard is not a good roofing material.

The enviable reputation enjoyed by Ru-ber-oid during the last quarter of a century is due largely to the fact that only the highest grade of felt has consistently been used in its manufacture.

Saturant

The saturant, properly compounded and applied, preserves the felt and will remain unchanged for many years. *It will not evaporate.*

Inferior saturant — similar to "road oils"—used in manufacturing some low grade roofings, will begin to evaporate as soon as introduced into the felt.

The saturant used in Ru-ber-oid is the result of many years of patient experimentation. It is forced into the felt under heat so that every pore is filled.

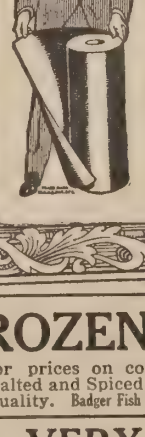
It stays where it is put and will not evaporate appreciably even at 500° Fahrenheit.

Coating

The function of the coating is to seal in the saturant.

Coatings are made of asphalts and other bituminous materials. There are hundreds of materials available and a thousand possible combinations and they all *look* alike. Each one, however, acts *differently* when exposed to the weather.

We know of only one combination that meets all tests satisfactorily — that lasts longest without softening and sliding, checking and cracking, drying up and dusting off. This *one* combination is used for coating Ru-ber-oid.



THE STANDARD PAINT COMPANY

Chicago New York Boston

MAKERS OF

RU-BER-OID ROOFING



War--Round Table--Reconst tion

[Continued from page 728]

been made public as have the co producing milk by the farmer.

Our cost has been open to the lic, to the buyers of our milk, t government, and has never been tioned by any one who has cond an inquiry, or with any per knowledge.

Mr. Hoover has repeatedly offe seat in the Food Administrati some reputable milk producer, b one could be found who could aff act under the conditions above n The complaint is not that he been unfair from choice or by tion, but that he has had biase formation. Whenever he has time to give a subject personal sideration he has not faltered action or has he hesitated in ing a wrong.

Some Wrongs for Correcti

The first wrong to produce farm products that should be attention is this farce of placi Washington an army of men wh nate their services at one dolla year.

The Federation of Labor is sented because that is cared for fund of money. We all know has been the influence of that o zation during the war. It shou some warning to the unorg farmers of the country, who n more than twelve millions of without any cohesive representa

Every great manufacturing try is represented by the keen nanciers and lawyers in the co The Boards and Commission filled with these advocates and tives.

When a farmer goes to Washi with proof of his cost of produ he is either ignored or denied told that other methods will be for getting his cost.

In the matter of milk prod cost, he is now confronted wi argument that because he ha tinued in the business during th year and that there seems to many cows in the United States there were a year ago, therefo business has been profitable a price of milk should not in This logic appeals only to thos are ignorant of the farm and conditions. They do not know th one dairymen in five continues business over five or six years thousands and tens of thousa herds are being sold now becau business is unprofitable, that cows are sold to inexperienced ers for cows if possible and packers for canners' prices. T population remains because the er does not sell to the butcher.

The farmer has to plan his for a year or more ahead, an his chance on price of product one and a half billions of dolla been expended in buildings, sil equipment especially for dairyi cows have cost him as much m dairying. To change from dair some other form of farming m sacrifice of years of toil, and a that cannot be revoked when get better, or from month to mo year to year.

The manufacturer can co today and shut down tomorro can begin again when prices a ter. His products are eithe tracted ahead or he can fix t ing price. Not so with the f He must take what is offere milk producers of the country injustice of what seems like d ination against their business.

The appeal for cost of proc shown by the greatest invest

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conducted, and by the most un-ied experts, covering years of , has no force.
nited States steel sells its billions ollars of products, charging for y shovel and dinner pail that goes the hands of the poor, prices that v it to make a net profit, after all nses, depreciation, taxes, feder-nd state, except surtaxes, of ,000,000 on a capital stock of ,000,000 (common). This was the profits for a whole year but three months endin; June 30th, .
hy should these great concerns, hich steel is but one of hundreds, llowed to go scott free of regula- except as the auditor may com-them to divide their gain later the government, if he finds it? is a common necessity in every . Why should the great cotton ests be allowed to escape the in-gation into cost of production, or ed to increase the price of cotton nd the year ago price?

Farmers' Only Remedy

e only remedy that lies within n of the farmer is organization. peration is fast coming, but this rally follows organization. We learn to drive together before n put on the load. There is much work first to look after. We see that public officials are not ly against us, and they will not hen we are organized.
e should have marketing commit-for our milk and cream and gh them should have a voice in g the price for the month ahead. y creamery, every condensery, cheese factory, should be sur-ded by patrons who are organ-into an association. This asso-on should have a marketing ittee with whom the manufac-may deal in fixing the price for nsuing period.
ese associations should touch el-in the county or districts and districts become identified with National Federation. We must ogether or together we suffer.
e milk producers have received very dollar they have expended organization during the last twenty-five dollars in return. than that, they have saved the try from ruin. Europe is plead-or our dairy products. The busi-has been damaged there beyond ery for ten years.
e war will soon be over, com-e again open across the sea, war ls and commissions will have home, and it will be up to each try to fight its own battles in ess, in legislatures, in home, and rld markets.
want "fair price" quotations to armer as well as to the consum-the government is to interfere the marketing of our products. rotest against the paternal care exercised all along the line everybody but the farmers of Jorth, while allowing their fields main open to piracy. This may become necessary during the but it must not continue in days ace.
-operation will follow organiza-but that is a subject for greater leration. Right now we want to nber that organization is our medium for self help, for self e.

---

perspective is a mighty good . Take, for instance, the va-s of the corn market and one I think that most of the corn was on these markets. As a matter ct only twenty-six per cent of orn crop ever leaves the farm ot over twelve per cent is used uman food. What would be the of corn if we reduced our live even ten per cent?



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THE number of working days for an advanced tractor like the Case 10-18 is rapidly increasing. Men thought of tractors principally for plowing twenty-six years ago, when we first began to build motor tractors.

In later years, with the introduction of our smaller sizes, men were satisfied with a maximum of 30 days' use per year.

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Our latest and best small tractor, the 10-18, is purposely designed for maximum use. It is adaptable for all kinds of work. It represents years of study in the field, dozens of extensive investigations.

The Case 10-18 is small and compact. It weighs little more than a team of horses. Its length is 102 inches, width 56 inches and height 54½ inches. It turns in a 22-foot circle, and can get around easily. It goes through a small gate or door and easily shares the road with other vehicles.

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There are dozens of improvements in this Case 10-18. For instance, it has a one-piece main frame, with a four-cylinder engine mounted crosswise. This frame construction affords a dust-proof housing for the rear axle, bull pinion shaft, transmission and the bearings for these parts. It also provides a base for the motor.

This type of construction brings rigidity. It minimizes vibration and prevents disalignment of gears, which are all cut steel and fully enclosed. Thus we multiply strength, reduce weight and conserve power.

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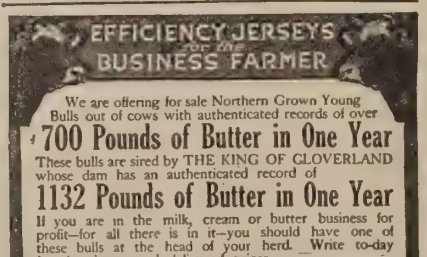
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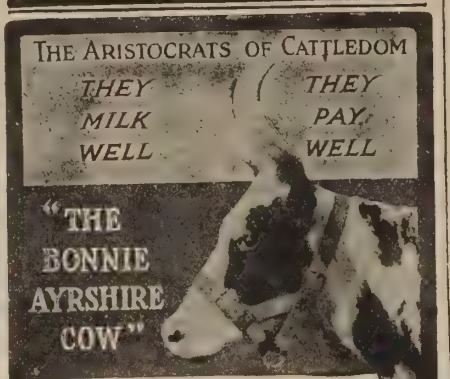
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This is a herd of show individuals backed by the world's greatest consistent production; a herd that has bred more world's record cows than any other and which now holds more world's records than any other. It is the greatest collection of record production Ayrshire cows in the world today.
In offering Ayrshires of all ages from this herd, we divide our wonderful heritage with you. If you want the best, write today
GOSSARD BREEDING ESTATES
Martinsville, Ind. Preston, Kans. Axial, Colo.
Address all correspondence to the General Offices, 1007 So. Michigan Ave., Chicago.

World's Champion Ayrshires

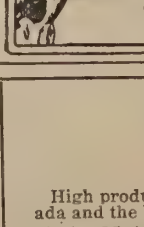
Extraordinary Bull Calf out of Imp. Torr's Tropicohn.
A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

REGISTERED AYRSHI FOR SALE

Some fresh cows. Also two choice young
E. R. McCONNELL, - Wellington,

BROWN SWIS



Productiveness in age makes Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Bre Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N

Pleasant View H
Brown Swiss Cattle

FOR SALE:—A 14-month-old bull grown, good individual. *By sire* out o R. dam with 16,500 lbs. milk, 650 l *Out of* a dam weighing 1,600 lbs., wh milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK

Walhalla Far
Pure-Bred Brown Swiss Ca

Only high class, well bred animals clean and healthy herd offered for sal than 100 head to choose from and our experience is back of every one. Write
F. FREEMYER, WALHALLA FARMS, Middlebu

SWINE

FOR SAL
REGISTERED
Duroc Jersey Bo
$50.00 to $75.00
Will Ship on Approval.
McCanna's Edgewood Stock Farm, Burlington,

POLAND CHIN

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Doub
Herd boars and farm boars, open shipped when bred, sired by 3 Gran pion boars. Boars and gilts not Raised without corn, and IMMUNE. what you want. We can please you pigs weigh up to 275.
Dobson, Eastman & Rech, Lancast

Cedar Crest Farm Berk
Cholera Immune

The wonderful bargains we offered in were so quickly taken advantage of that we single boar of serviceable age for sale and brood sows, weighing 250 to 300 lbs. bred for or second litter and a limited number of gilts. Our stock is right and our price is rig us today for complete information. Remem come first served—the quicker your order is better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., La

Kilehurst Far
DUROCS OF QUALITY
We have a limited number of choice Spring Gilts left. Order now. Prices right. We you. Kilehurst Farm, Elwyn F. Bradley, Manager, Mo

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.
His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.
His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, ada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALD . JOHNSTON, A
Cooperstown, New Y

GUERNSEYS

you want to increase your iry profits you need to know out the cows whose average oduction, under tests super- sed by State Agricultural lleges, is three times as great as e average of all dairy cows in the nited States. Ask for the "Story the Guernsey".

e American Guernsey Cattle Club
Box H Peterboro. N. H.

ON'T DELAY MAY ROSE!

ing, individuality and production. Grape May King 45483 for sale. Dropped De- r 9, 1913, sired by Langwater Cavalier A. R., a double grandson of King of lay, and sire of a number of first calf s with records from 500 to 700 pounds Dam, Lassie of Ledyard 19105, A. R. 417, mer double class leader. Has two A. R. ters and one A. R. son, another son a 501-lb. two-year-old. One of her daugh- n one month made 64 lbs. fat in Class D, t calf. This bull is good enough for e. Government tested.

H. Gould, Grape Lawn, Burkeville, Va.

IPLAND FARMS

Ipswich, Mass.

ers for sale a Bull Calf dropped ruary 4, 1918.

ed by—*Langwater Cavalier* No. 2012. (A Double Grandson of p. King of the May 9001.)

m—Imp. Chywoone Eulalia No. 38. Record of *10,686.8* lbs. Milk *58.62* lbs. fat in Class B.

ce and full particulars on re- st. F. P. Frazier & Son, Props. W. K. Hepburn, Supt.

bamont Guernseys

Headed by

Diavolo of Linda Vista
he Great $10,000 Bull

icest young bulls and several heifers for t reasonable prices.

. Bureau Animal Industry Health certi- with all animals over 6 mos. old.

HAARTZ, 10 High St., Boston, Mass.

reenway Farm Guernseys

WARE, MASS.

g bulls of May Rose breeding out of A. R. and cows now on test. Herd tuberculin . Prices low.

GEORGE H. TIMMINS, Prop.

ne Mixter Farm

325 GUERNSEYS 325

llent bull calves for sale at exceptionally low It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

LLSWOLD FARM

Shrewsbury, Mass.

stered Guernsey bull calves for sale. Dams in ced Registry and tuberculin tested. Prices right imals guaranteed to suit. W. A. Cloues, Mgr.

RAR GUERNSEYS

Production
Reproduction
Quality.....

cial offer until November 1st. Bulls from eks to one year for $75.00 to $400.00.

s McL. Merryman, Cockeysville, Md.

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

ng Cows, Heifers and Bulls

he greatest prize-winning herd of the Guernsey at reasonable prices. My catalogue tells what ant, or come and see. L. V. AXTELL,

lomestead Farm, Perry, Ohio.

ISLAND GUERNSEYS FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. **MINN.**

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

619 POUNDS FAT

is the average of our first nine Advanced Register Records

FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175.

Full particulars and pedigree from

Falcon's Flight Farms, Litchfield, Conn.

N. B.—No contagious abortion in over five years; no tuberculosis.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam: Lady Belle of Arborvitae 34756—9508 lbs. milk, 420 lbs. fat in Class EE and now on retest.

This young bull was born April 16, 1917. He is well grown and an excellent individual. Priced to sell.

Write us for pedigree and price.

Mountain Bros., R. 5, Des Moines, Iowa.

TILDEN FARMS GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

Mound City Farm GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.

Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

A Bargain in Guernseys

I am offering for sale several excellent young bulls up to 9 months old, sons of Hilda's Pride of Riverside, he an A. R. son of Lord Waukesha. All of these youngsters are from A. R. dams. They are well grown and good straight individuals. I am also offering 4 heifers by the same sire; 3 are 15 months old, one 4 months old. My herd is accredited. These animals are priced to sell. Write at once for pedigrees and prices. **Maple Heights Guernsey Farm, Frank E. Swan, Wauwatosa, Wisconsin.**

ELDERWOOD Guernsey Farm

YOUNG BULLS

under six months of age, from Advance Registry Dams, for sale.

ROY BURTON, EAGLE, WISCONSIN.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

SARNIA

Imported and Home Bred Guernseys

No more to spare from 1918 importations. Place your order early for heifers from 1919 importations.

Several high class bulls for sale from A. R. cows, and sired by best bulls money can buy. Send for sale list.

Charles L. Hill & Son, - Rosendale, Wis.

He's Ready For Heavy Service

For Sale: A two-year-old son of Kedge Anchor of the Glen from a granddaughter of Imp. Raymond of the Preel VI. The dam was first and junior champion at the 1915 Wisconsin State Fair and a real dairy cow. The bull himself is a splendid individual, very well grown. He is a brother to Polly's Beauty, 774 lbs. fat at 4 yrs. (class leader) and to Kedge Anchor Queen of Sunny Side, 505.88 lbs. fat.

Write us for full information.

Maple Hill Farm, Fruit Bros., Waukesha, Wis.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wisconsin.

BIRCHWOOD GUERNSEYS

Young bulls for sale sired by May King's Vrangue of Ingleside No. 15430 who has ten A. R. daughters that have A. R. records that average about 600 lbs. fat and all but one of these were 2 and 3 year olds when the records were made. The dams of these bulls are officially tested. Herd on the state accredited list. Send for sale list. **M. L. WELLES, Rosendale, Wis.**

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

We Are Offering 2 Registered

Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by "Pencoyd's Golden May Secret" (39626) a son of Nella Jay 4th.

W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.

HOMER RUNDELL, LIVINGSTON, WISCONSIN.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place

Sire: Jewel of Koshkonong Place A. R.

Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.

A. R. HOARD, Fort Atkinson, Wis.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R.* records average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

Registered Guernsey Bull For Sale

Dropped June 29th, 1918

Sire:—Allenwood King Regent 23641 A. R. His first two daughters to enter A. R. average 8,658.9 lbs. milk, 408.38 lbs. fat, Class G. His sire, Prince Regent of Meadowbrook 15962 A. R. by Holden IV 12179 (Sire of Cherry of Edgewater, 732 lbs. fat, Class G) out of Queen Regent IV, 889.5 lbs. fat. Dam:—Agnes of Sarnia 34514 A. R. 7373.3 lbs. milk 325 lbs. fat at 2 years. She is a daughter of Selma's Glenwood 12596. Sire of 14 A. R. daughters and a half brother of Dairymaid of Pinehurst 910 lbs. fat. Price $150. For pedigree write

FOLLY FARM, - LIBERTYVILLE, ILL.

FOR SALE

Special Imported Young Guernsey Cows. Advanced Registry Dams. Few choice bulls. State Accredited Herd.

Crab Tree Farm, - Lake Bluff, Illinois.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. **Sass Bros., Streator, Ill.**

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

For Sale—Small Registered Guernsey Herd

8 head and bull; a grandson of May Rilma. Federally and state tuberculin tested; abortion free; mostly bred and nearby springers. 1st check for $1500 takes herd F. O. B., Oswego, N. Y. Also one young bull by above sire priced to sell. **Henry J. Karpinski, R. 7, Oswego, N. Y.**

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

Where Shall We Go From Here?

(Continued from page 731)

own income is so small, but we must remember that the bigger men we get to lead us the better will be our returns, and we cannot get the big men without competing with other big business in the matter of salary. A man capable of managing a large co-operative organization can command a large salary in many other lines of business.

Farm Representatives, Yes! Politics, No!

Save all farmers' organizations from politics! Let us avoid them as a pestilence. This does not mean that organization should not stand and work for the principle of farmer representation in state and national legislature. One of our crying needs is a bigger part in the counsels of the state and nation, but this can be secured without making a political party of our organizations; and, if we do, we can be sure that while our success may be brillant, it will be short lived.

It is a great temptation to throw the influence of an organization into a political fight when the cause seems to be going against farmers, but in the first place an organization made up of members of all parties can never be lined up solid politically. In the second place, if the fight is successful, perhaps the other party will get into control in two or four years, and then the organization will be in hot water. Again, the experience of farm organizations that have gone to pieces on political snags should be a dire warning.

"Money Makes the Mare Go"

Reference has already been made to the finances of co-operatives. In Denmark, the land of the co-operatives, a sound financial plan is worked out before the organization is started. In no place is it more true that money is power than a co-operative organization. It takes money to hire leaders, to run offices, to hold meetings, and a niggardly policy will stop all progress. Conditions are actually such in the marketing of farm products that the few cents spent to support a good farm organization will return as many dollars, to say nothing of other benefits. Let us give our organization plenty of funds to make it efficient in fighting our cause.

Another requisite of successful co-operation is education, the enemy of suspicion, narrowness, and ignorance. The work done by our colleges and schools of agriculture has been a large factor in the rapid rise of organization. The agricultural high schools should have our encouragement and support for the same reason; for the young men who have had short or long courses in agricultural colleges and schools return to their communities with an understanding and respect for and skill in their occupation that makes them successful leaders. However, the younger generation does not have a monopoly of this progressive spirit. There are older men in every community who, although they may not have much schooling, are educated in the best sense of the word, and these older men with their progressive outlook and their rich experience make some of the best leaders of the organization movement.

But we do not know enough about our business yet to get the best results from organization. Farming is a many sided, complicated science. We can hardly expect to get costs of production or adequate returns for our products if we do not know what they are, and if we are not in a position to prove what they are by accurate evidence. Such evidence can only be had by each of us keeping records and having a detailed knowledge of our business.

Confidence is the Backbone

The greatest and most important part of all that we must learn, if our organizations are going to succeed, is that of confidence in one another and in our leaders. It has been the history of many co-operative organizations that as soon as they were well started, someone whose motives might well be questioned began to cry, "thief, thief," and to say that the leaders had sold out. The members were too quick to believe this; they lost confidence and the organization went to pieces. It is impossible for every member to have all of the information that the leader has in guiding his action in making decisions. The individual member is not in a position to look at all sides of the question. He cannot injure his own interest or the interest of his brother member quicker than by being too quick to believe that the leaders of his organization are incompetent or guilty of actual wrong doing. If the leader is not right he, of course, should be changed, but let us be sure of our facts before we lose confidence; and let us bury the old lurking suspicion that our neighbor farmer is not loyal. The milk strikes in the last two or three years show that he ls loyal and can hang to the bone as long as there is anything to hang to. Let us remember that he has the same occupation, the same hopes, ideals, and aspirations as we ourselves have, and that the chances are he will keep his shoulder to the wheel of co-operative action and push just as hard as we will.

In conclusion I would like to leave, with those who have patience enough to follow me so far, a summary of a few principles that experience has taught us to be fundamental for the future success of farming.

First, as farmers we will organize every branch of farming down to almost the last individual, and every farmer will be willing to give his just share of financial dues and service to make his organization a success.

Second, we will federate all local organizations nationally so that the agriculture of the nation may speak as a unit when necessary.

Third, we will secure local initiative and action, including live, well attended, and well organized farm meetings.

Fourth, we will have good leadership, both local and general.

Fifth, we will keep our organizations from becoming political parties.

Sixth, we will develop education in and knowledge of our business.

Seventh, we will develop confidence in one another and in our leaders.

And lastly in answer to the question which heads this article, "Where Shall We Go from Here?" we shall go right on doing business on the same good old place, but not in the same bad old way.

Delaware Corn Show Prize Offers

The Delaware State Corn Growers' Association will hold its 12th Annual Convention and Corn Show at Bridgeville, Delaware, January 14th to 17th, 1919.

In order to interest the corn growers at large the association will offer the following prizes for the best ten ears of corn shelling the most grain by weight. The samples will be scored on the basis of 25% for uniformity and 75% for grain weight. The contest is open to any corn grower in the United States. First prize, $10 gold; second prize $5; third prize, $2. No entry fee is charged. Samples may be sent by parcel post to A. E. Grantham, Secretary, Bridgeville, Del., not later than January 12th, 1919.

GUERNSEYS

SWEET SPRINGS GUERNSEYS
Herd Bull—Jacqueminot of Linda Vista.
Sire—Langwater May King.
Dam—Langwater Rosie. 72423 lbs. fat.
A number of bull calves six weeks to one year old, sired by this fine bull for sale at reasonable prices; also a few cows and heifers each year.
Herd Regularly Tested For Tuberculosis.
SWEET SPRINGS FARM
TROY, OHIO.

HOLSTEINS

Only Ten Days Left
You will have to hurry to get in on the
10% DISCOUNT FOR DECEMBER
Since we have made this offer on young bulls, they have been moving rapidly.
Breeders who have had in mind purchasing a son of KING PONTIAC CHAMPION or KORNDYKE SEGIS JOHANNA have been stimulated to act quickly so as to have the advantage of a wider selection.
Wire or telephone for our complete sale list so you can make your decision before January 1st.
PABST STOCK FARM
Dept. A, Oconomowoc, Wis.

Bulls—Bulls
ALL AGES
Johanna and Ormsby Breeding.
Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.
PINEHURST DAIRY
Sheboygan Falls, Wis.

Cedar Lawn Farms
A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
C. A. SCHROEDER & SONS, West Bend, Wis.

Six Bulls 10 to 13 Months Old
Sired by bull whose dam is full sister to Pietertje Maid Ormsby out of A. R. O. dams. Also 15 females from 1 year to 8 years old. Write your wants. Satisfaction guaranteed. FAIRVIEW STOCK FARM,
W. G. Marshall, Proprietor. Whitewater, Wis.

HOLSTEINS AT AUCTION

Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb.5-6; Apr.2-3; June4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*
Address The Purebred Live Stock Sales Company.


Lower Per Cent of Butterfat
Dairymen handli Holsteins do not he itate to admit th the milk of this breed contains a low percentage of fat, but in view of the enormous yield of milk they avera more butter per cow and they produce larger margin of profit.
If interested in HOLSTEIN CATTL Send for our booklets—they contain much va able information.
HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

FOR SALE
27 HEAD
Pure-bred and 15-16 Pu bred Holstein Heifers
2 and 3 years old. Well marked. head to be fresh soon. Sired b 30-lb. bull and in calf to a 30-lb. b A very choice lot—all my own raisi
A. H. BOSWORTH, DIXON, I

Buffalo Creek Far
OFFERS A SON OF
Prince Hengerveld Fayne No. 7
A 33-lb. son of King Fayne Segis. Dam's is 18 lbs. as a 2-year-old and 24 lbs. as a 3 old, with a semi-official record of 13,471 milk and 520 lbs. of butter. Pedigree and on request. Albert R. T. Lillie,
Arlington Heights, Illinois.

Only 3 Bulls Left For
They are sons of Sir Johanna Piebe whose dam and full sister average 1030 lb ter for 1 year and his 1st 3 daughters to fr as Jr. 2-year-olds, made 19, 20, and 23 lbs. 7 days. These are Dec. and Feb. calves an dams are good yearly record daughters of of the Pontiacs. Herd on Fed. Accredite
RAY MEEKER, MUNCIE, INDI
P. S. Meet me at the National Dairymen

Service Bull
5 bulls from 1 to 2 years old. One a son o tiac Korndyke. One a son of King Segis Pe The others and several not of service a grandsons of these two great sires. Also daughter of King of the Pontiacs and Pontiac Korndyke. Priced to sell. Wr full information.
WM. N. OSBORNE, WANATAH,

Holstein Breeders, Attention! Buy your bul young, 2 to 6 mos. old, good individuals, nicely from A. R. O. dams. Sire: King Segis De Kol Fa whose dam has 7-day A. R. O. butter record of 2 His grandsire is the sire of Segis Fayne Johan world's record butter cow for 7 days. 1 service sale. C. I. Reamer, North Liberty, I

Bull Calf Born November 22nd, 191
Sire, Sir Ormsby Banostine Champion No. 166276 of the World's Champion Dairy Cow over all a breeds, Duchess Skylark Ormsby No. 124514 wi record of over 1500 lbs. butter and 27761.07 lbs. m years. Dam, Emblagaard Pontiac Dot, No. 27987 record as a 2-year-old—butter 21.38 lbs., milk 45 Dam's Dam, Junior De Kol Dot No. 107665, 7 d yrs., butter 36.54 lbs. milk 633.50 lbs. butter for 874.53 lbs., milk 19463.10 lbs. This calf is a good h al, little more black than white, weight 850 year. Send for detailed pedigree.
Emblagaard Dairy, - Marquette, Mi

Lisle Farms C
Offer High Class
Holstein Bul
Every dam with an A. R. O C. T. A. record. Herd tuberc tested. Prices right.
Send Today for Bull Sale Lis
H. C. Barker, Herd Mgr., Lisle, Illi
Farm 25 miles West Chicago, on C. B. & Q.

"NO HORNS"
Naturally Polled Holstein-Friesian bull sired by a son of the World's Record senior 1294.7 lbs. butter in 365 days, at $100 and up. De catalogue for stamp.
GEO. E. STEVENSON & SONS, Clarks Sum


Cloverlawn Johanna Pi
His five nearest dams average 1,070 lbs. of b 23,809 lbs. of milk a year. Highest yearly recor of the world 2 years old or over. Choice young from our large yearly record cows for sale. 125 29 yearly record cows. State exactly what you
JOHN PULS, - HARTFORD, WISC

Son Ready for Service

Holstein bulls from good Official dams and sired by SPRING FARM PONTIAC 6TH. Fourteen of his first two-year-old daughters last winter each better than 20 lbs. of butter in seven showing never before equaled by the -year-old daughters of any other sire. oung bulls are nice straight, thrifty, animals. We would be glad to write particulars. You will be surprised prices are so low for so much quality. Stevens and Son, - Lacona, N. Y.

JLL CALF

is Record (4 yr.) 25.79 lbs.
s Dam's Record (3 yr.) 31.18 lbs.
Granddaughter of Pontiac Korndyke.
rn Sept, 29th, 1918. Beautifully marked, ividual. Write for full pedigree and elivered express prepaid any point in Price $225.00.
Benedict, R. D. No. 2, East Syracuse, New York.

Rare Chance

To secure a few choice

de Holstein Cows

resh and due within a few weeks. ws were selected to furnish milk for a summer hotel which is soon to be to a Government Hospital. They are ne lot and will be sold in numbers to buyer. There are only a few of this New York State. Wire your arrival. ait to correspond.
Meadow Farms, Portlandville, N. Y.

to Long Continued Illness—

cided to sell immediately part or all of side Herd, including heifer calves, heifers, bred heifers, cows and bulls of ges, several of them from dams with of 30 to 35 lbs. butter in a week. A rare or parties who wish to breed a high bracing individuality, breeding and on. E. A. POWELL,
Genesee St., Syracuse, New York.

mind the 7-day records, it is Other 358 Days

ow a cow's producing ability. We ering young bulls with

arly Record Backing

at very moderate prices.
NA FARMS, Davenport, Iowa.

You Need a Bull

re a few mighty good ones for sale. backed by yearly records on both the dam's side because we know yearly on is the kind that pays. What's more is have been bred for a high fat test; ie 4 per cent kind. Write today for full on. Hargrove & Arnold Holstein y, Norwalk, Iowa.

HIGHLY BRED YOUNG ltein-Friesian BULLS

ifer calves are offered for sale cheap. All are tuberculin tested and sound. Write or see R" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

PREPARE

greatest demand, highest prices ld has ever known for dairy cattle.
our free price list of 100 choice fe- so bull list on request.
AWN FARM, Sterling, Illinois.

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

A Chance to Buy a Son of King Korndyke Sadie Vale

At less than half his value, because he is dark in color. $400.00 buys King Korndyke Segis Johanna Ormsby, born Aug. 17, 1918. He is a large growthy fellow and a fine individual. His dam and sire's dam average over 35 lbs. butter in 7 days. Sire:—King Korndyke Sadie Vale, regarded as the greatest sire of his generation. His daughters, still heifers, are making wonderful milk and butter records. One K. K. S. V. Topsy made over 40 lbs. butter as a 3-yr.-old. He also has two other 3-yr.-olds with records over 30 lbs., and two 4-yr.-olds over 30 lbs. He is the sire of the youngest 29-lb. heifer of the breed. Dam:—Anna Johanna Ormsby, A. R. O. record as follows, butter 7 days 29.35, 30 days 122.30 lbs. She is one of the best daughters of Sadie Vale Sir Ormsby. Thus this young Bull has a double cross of old Sadie Vale Concordia.
W. D. ROBENS, POLAND, NEW YORK.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. G. G. BURLINGAME, Cazenovia, N. Y.

Moyer's Holstein Sale

EARLVILLE, N. Y.

250 HEAD — **Guaranteed Under 60-Day Retest** — **250 HEAD**

I have advised many times that breeders could make money by going out and buying good pure-bred Holstein cows of good blood lines and take them home and make cows of them—then buy a good bull and breed them to him. This is my plan of making money out of Holsteins, for any one is sure to get two out of every ten that will pay for the whole lot. I have proven this by experience and I offer the same opportunity in this sale to other breeders. H. A. MOYER.

Consigned by 30 Leading Breeders from Madison and Chenango Counties

One-half of the sale is made up of calves, yearlings and two-year-olds of the greatest blood lines of the breed.

The two-year-olds bred to bulls of the best official backing and representative of the best producing ancestry.

Just the sort to take home and grow into money for YOU.

The remainder of the sale is made up of good young cows that have not been developed—the kind to take home, give them records and double your money.

But ten young bulls have been consigned—every one a desirable high class animal.

This is just the sale to attend if you want a car lot of clean cattle guaranteed against tuberculosis for sixty days after the sale and bred in the best producing lines of the breed. Sure to make money for their purchasers. For Catalog, write

H. A. Moyer, Director, Syracuse, New York.

THREE BIG DAYS

Jan. 7-8-9, 1919

he Greatest Bull on Earth

SIR ORMSBY SKYLARK

d the Champion Record Cow of the World, Duchess Skylark Ormsby
ir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Ormsby ast enough to take care of the inquiries which we are receiving.
MAXWELL FARMS, WATERLOO, IOWA

We Will Sell One-half Interest in King Korndyke Sadie Vale 24th No. 163939

He is a son of *King Korndyke Sadie Vale* from a 20-lb. 2-year-old daughter of *King Segis De Kol Korndyke*. The only reason we are selling him is that we have purchased *Woodcrest Sir Clyde* 20179 to breed on his daughters. We will test and develop daughters of King and will not sell to any party that will not do the same. Write for particulars. A few good sons of King for sale.
W. B. BARNEY & SONS, CHAPIN, IOWA.

RITE FOR CATALOG SERVICE BULLS

y 2400-lb. proven sires from large yearly and seven day record dams. One from a ecord dam in yearly division. Breeding, size, individuality and price that will meet irements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.
L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

HOLSTEIN CATTLE

or have option on 150 head of Holstein heifers and mature High Grade Holstein cattle. head of fine six-month old to second calf heifers, prices ranging $45 to $125. Special prices nore. Buyer must pay cost of crating on single animals. Can price you any kind of Hol- may want. Everything guaranteed as represented.
ROVE DAIRY FARM, V. H. Hollingsworth, Gilberts, Illinois.

Sir Inka Prilly Segis Albino

Born Dec. 3rd, 1917.

A Real Bull For Some Small Breeder.

IF YOU ARE A SMALL BREEDER or beginner in the Holstein business and in the market for a herd sire, here is one that is worthy of your best consideration.

JUST A YEAR OLD—Ready for service. He is well grown, a splendid individual with faultless topline and marked nearly all white. As an individual he will suit the most particular.

SIR INKA PRILLY SEGIS, his sire, is one of the famous sons of the great King Segis, who has proved himself to be one of the greatest, if not the greatest, transmitting sires of the breed.

THE DAM OF SIR INKA PRILLY SEGIS is Inka Prilly with a record of 30 lbs. in 7 days. She is from a 25-lb. daughter of old Prilly and sired by a grandson of this same famous foundation cow.

THE DAM OF SIR INKA PRILLY SEGIS ALBINO is Princess Douglas Urmagel, a 24-lb. four-year-old daughter of Sir Urmagel Burke, a full brother to the 35-lb. cow, Urma Burke, and from the 31-lb. cow, Urmagelsche 2d A.

PRINCESS DOUGLAS URMAGEL is from a 29-lb. four-year-old daughter of DeKol Beets Segis, another well known son of King Segis.

THE THREE NEAREST DAMS of this young bull average over 28 lbs. Two of them being only four-year-olds. His seven nearest dams average 26.93 and his eighteen nearest dams average 26.77.

HE CARRIES THE SAME RELATIONSHIP TO King Segis as Segis Fayne Johanna, the only 50-lb. cow, Fancher Farm Maxie, the world's champion heifer with 47 lbs., and Mabel Segis Korndyke, former champion four-year-old with 40.32 lbs.

HE CARRIES A DOUBLE CROSS of both King Segis and the famous foundation cow, Prilly,—both animals familiar to breeders from coast to coast.

AND WE ARE OFFERING this young bull to you for $650, guaranteed sound in every respect and tuberculin tested by Federal veterinarians.

IF YOU WANT HIM, do not wait to write but send us a wire instructing us to hold for you.

The E. C. Schroeder Farms,
Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls
Write at once
Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show*. A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS **HOLSTEINS** **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb.17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Lashbrook Holsteins

Sixty head, high class A. R. O. cattle. On the Minnesota and Federal Accredited List, free from tuberculosis. Herd headed by a son of BEAUTY BEETS WALKER SEGIS. WORLD'S CHAMPION senior two-year-old heifer, yearly division, 25,343 lbs. milk, 1,040 lbs. butter in 365 days. Bull calves for sale.

U. L. Lashbrook & Sons, Northfield, Minn.

HE IS SIRED BY A SON OF

Sir Pietertje Ormsby Mercedes

that is out of a 30-lb. sister of Pietertje Maid Ormsby. His dam is a 17-lb. three-year-old daughter of a 28-lb. grandson of Sir Ormsby Hengerveld DeKol. He is mighty good to look at. Dropped last August. $300. We have some for more; a few for less.

POPLAR HOLLOW STOCK FARM,
Bertram D. Scott, Prop. P. O. Station F. Minneapolis,

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

Arden Winter Sale

Do You Want a Record Breaking Herd?

OF COURSE YOU DO.

WE HAVE ONE THAT HAS HEADED THE PRIZE LIST FOR TWO SUCCESSIVE YEARS, AND WOULD LIKE TO HELP YOU TO MAKE A FEW WORLD'S RECORDS TOO.

How Did We Do It? By Buying the Very Best Sire We Could Find

WE CAN SELL YOU BULL CALVES, THAT CANNOT BE BEATEN, AT PRICES THAT CANNOT BE EQUALLED. THINK OVER THE BREEDING WE ARE OFFERING, AND SEE WHERE YOU CAN FIND BETTER!

WE OFFER YOU BULLS FROM

KING SEGIS PONTIAC COUNT, SIRE OF THE TWO HEIFERS THAT HAVE FAR EXCEEDED THE FORMER WORLD'S RECORDS FOR YEARLY PRODUCTION IN BOTH BUTTER AND MILK. HIS FIRST TWENTY-FOUR DAUGHTERS TO FRESHEN BROKE MORE THAN 100 WORLD'S RECORDS, A SHOWING NEVER EQUALLED BY ANY OTHER SIRE OF ANY BREED.

SONS FROM HIS DAUGHTERS (Those record breaking daughters mentioned above)

SIRED BY OUR FAMOUS JUNIOR SIRES.

BULLS SIRED BY *PIEBE LAURA OLLIE HOMETEAD KING*, WHOSE TYPE AND CONFORMATION CANNOT BE BEATEN.

BULLS SIRED BY *KING ABBEKERK PONTIAC SEGIS*, BEST SON OF KING SEGIS PONTIAC COUNT, whose dam is a 1,230-lb. cow with nine 30-lb. sisters.

BULLS SIRED BY SIR ORMSBY HENGERVELD KORNDYKE, SON OF THE WORLD FAMOUS COW, PIETERTJE MAID ORMSBY.

WHERE CAN YOU DO BETTER?

WE OFFER YOU A WIDE RANGE OF BREEDING, AT A WIDE RANGE OF PRICES.

Write us about the sire you are using at present and allow us to make suggestions as to the proper blood lines to use on his daughters to get the best results. We have studied this blood line business for a number of years, and we believe that the RESULTS ATTAINED IN OUR HERD, SHOULD GIVE YOU CONFIDENCE IN OUR JUDGMENT.

WE ARE READY TO HELP YOU AND OFFER SUGGESTIONS.

ARDEN FARMS, JOSEPH M. HACKNEY,
601 Merchants Bank Building, - St. Paul, Minnesota

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quali

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis,

Young Bulls From Yearly Record Da

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official rec 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Sc and other noted herds. These bulls are well marked, heavy bone, straight and large for the We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls,

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

CHOICE HOLSTEIN BULLS

A Few Ready for Light Service

We have a few choice young bulls for sale. They are nearly ready for service, are from A. R. O. dams and by one of Minnesota's good Holstein sires. We are short of room and so are pricing them to sell rapidly.

Write today for further information. They won't stay here long.

Fleck's Registered Holstein Farm,
Ed. Fleckenstein, Mgr. Faribault, Minn.

THE TRAVERSE HERD

We have what you want in

BULL CALVES

the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dams' records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

Traverse City State Hospital, - Traverse City, Michigan.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich.

Registered Holst Bull Calves

We have a number of bull calves up t months of age. They represent the very breeding and individuality. We will ex them for heifer calves of good breeding. for pedigrees and any further informatio

RED CLIFF DAIRY, - Blackvill

Holstein Pedigr

To Holstein breeders who appreciate ness and accuracy in pedigree work, t *consin Live Stock Advertising Co.* will a genuine service.

We make a specialty of *sale catalog* price is $2.50 a page including pedigree of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. 413-14-15-16 Pioneer Bldg., Madiso

Pocket Herd Register

Fits the pocket—very complete—durable. Fly ring leather cover and 100 sheets. Order toda

Live Stock Printing Company, La Grange,



AUCTIONE

For pure-bred livestock and farm sales. Write me before on an auctioneer for your sale dealing and satisfaction assure ences, State Bank of Honey Cr 25 head of pure-bred and g steins, including herd bull, at Farms, Oconomowoc, Wis., Nov. 2nd. **FRANK DRU**

Honey Creek, Wis.

For An Auction

and one that knows values of bot

Pure-bred and Ordinary Live

Write me for dates as I have 95 per ce sales in this section of country. Also s Estate at Auction.

F. H. HEMBROOK, - Chetek, W

3 Lbs. Butter—
,747 Lbs. Milk

s e yearly record made by Segis
o nna Creamelle at 3 yrs. 9 mos.
f ge. Her 7-day record, same
g is 21.86 butter from 495.7 lbs.
ni. She is dam of a fine bull calf
re ave for sale, born July 12, 1918.
He sire is a 25-lb. son of King
le s Pontiac and her dam a 30-lb.
a hter of Vikina Johanna who
ne at 14 yrs. 39.43 and is dam of
n world's record 50.-lb. cow, Segis
ne Johanna.
'r sire of this calf is Sir Henger-
e Korndyke Ormsby, son of
ertje Maid Ormsby 35.56 but-
er' days and full brother to Miss
Kndyke Maid Ormsby, 1,255.62
u er and 25,419.3 lbs. milk in a
e .
h 7 nearest dams average 30.14
u er and 25,419.3 lbs. milk in a
n white and a splendid individ-
a He represents the best breed-
g obtainable and is offered at a
e reasonable price. For furth-
r articulars write.

VALCOWIS FARMS,
I kinson & Son, Lake Geneva, Wis.

ok River Valley Farm.

Awarded

IRST PRIZE

l Wisconsin Dairy
low Competition

Finner, Queen Juliana Dirkje, produced
n year as a 3-year-old 1,021.72 lbs. but-
% fat.) Over 30 yearly record cows in
ded by Mutual Piebe DeKol.
f young bull calves from these cows sired
bull for sale. (Herd tuberculin tested.)
CHETTS, FORT ATKINSON, WIS.

35.43-lb. Sire

born Feb. 1st, 1918. Dam has a record of nearly
utter 7 days. Best days milk 75 lbs. Bull is
individual especially high rump, half and
or. Price $175.00 delivered. No. 2. Born Feb.
Dam has 20.20 lbs. at 4 years, second dam
5 lbs. 7 days. A little more white than black.
ly he's a dandy. Price $200 delivered. For
rticulars and pedigree address
IDERSON, - WHITEWATER, WIS.

Holsteins $25

thousands of satisfied customers and
t you as one. Buy the best. Five
ld, 15-16 pure, $25 crated. Express
O. D. Write us for anything in cattle.
Roberts Stock Farms, Oconomowoc, Wisconsin.

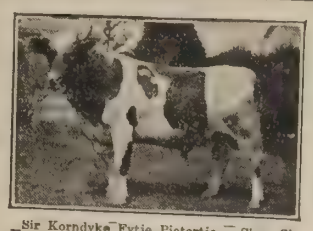
lstein Bull Calves

dam at 3 years 4 mos. King of the Pontiacs,
d De Kol and Johanna breeding. 19 years
nd selecting a producing herd. Write or bet-
nd see. M. F. Peck & Sons, Marshall, Wis.

ULLS READY FOR SERVICE
bred yearling bulls for sale. Two are by a
na King of Rock, he from Queen Juliana
) lbs. butter in 3 years. The others trace
e Kol 2d's Butter Boy 3rd and Lord Netherland
nous century sires. Also grades and pure-
r lots and some dandy $25 heifer calves. Write
ek Co., Jefferson, Wis. "A reliable dealer."

ALE—A YEARLING BULL

ding, whose dam's 3-yr.-old record with
three nearest dams and his sire's three
ams, average 29.62 lbs. butter in 7 days.
rom a daughter of Hengerveld De Kol,
by a son of K.P. Pontiac Lass. His dam
son of Colantha Johanna Lad. Also,
s sired by a son of King Segis Pontiac,
e dam is a daughter of Pontiac Korn-
ced for quick sale. For further informa-
GLENN WILSON, Wanatah, Ind.



Sir Korndyke Fytje Pietertje. Sire: Sir Korndyke Hengerveld De Kol. Dam: A 23.16-lb. junior 2-year-old daughter of Sir Pietertje Ormsby Mercedes 783 lbs. butter in 1 year as a 2-year-old.
Owned by Chas. J. Will, Menomonee, Falls.

Waukesha County
Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to

W. L. BAIRD, Secretary, Waukesha, Wis.

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write

MASONIC HOME FARM
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.

Dr. J. A. Roberts, - Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.

Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A.R.O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 25 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Ready For Service

Two good bulls. Dams records 23.85 lbs. and 23.29 lbs. Sire's dam 23-15 lbs. at 24 mos. 783 lbs. butter and 18421 lbs. milk in 1 year at 24 mos. Good individuals and well marked. $125 each.

C. J. WILL, - TEMPLETON, WIS.

Heifers For Sale

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write

CONNELL BROS., COLGATE, WIS.

Holstein Bull 10 Months Old.

Sire, a 30-lb. son of Rag Apple Korndyke. Dam, an 18-lb. Ormsby bred cow. $150.00 takes him. Also two 9-year-old cows cheap on account of slight defects. WM. F. MIELENZ, 312 First National Bank Building, Milwaukee, Wisconsin.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.

GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old

out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. **Aitken Bros., Waukesha, Wis.**

SIR PIETERTJE ORMSBY MERCEDES 43rd

heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.

M. E. GUNDERSON & SONS
Route 25. - - - Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull **Maplecrest King DeKol 2nd.** A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.

Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.

S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)

BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.

RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Need a Bull?

Write and ask us how to get the use of a good bull for two years, sired by a 34-lb. bull—KING SUPERBA, 176125, or PABST KING PONTIAC LAD 129298, and dams with 7-day and yearly records. **Dr. David Roberts Stock Farm, Waukesha, Wisconsin.**

KING SUPERBA

Those who did not meet his sons and daughters at the Wisconsin State Fair have seen by the report in agricultural papers how they took the firsts and Junior champion. Individually they are correct, from A. R. O. dams.

W. J. Mann & Sons, R. 1, B. 16, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.

E. B. WATROUS, - Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.

J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
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Wisconsin Home and Farm School,
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Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

FOR SALE—REGISTERED HOLSTEIN BULL

We still have one dark colored bull about eleven months old, well grown and a splendid individual, show ring type. His two nearest dams average 25 lbs. of butter for seven days, and 700 lbs. for the year, one of them as a two-yr.-old who gave 16,030, lbs. of milk in a year. They will be tested again at their next freshening and we feel very sure that both dams will make at least 30 lbs. He is sired by a grandson of the great King of the Black And Whites. Will make a great bull for somebody. Price $250.00—decidedly reasonable quality, breeding and records considered. Address:

Elm Leaf Stock Farm, Bear Creek, Wisconsin.
James McKone, Proprietor, William Lucia, Mgr.

REGISTERED HOLSTEINS

25 cows due to freshen soon.
25 bred heifers. Also a few bulls.

If you want the best at reasonable prices, it will pay you to write.

DR. BLACKBURN, - CUBA, OHIO.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

Bull That Will Suit You

ed by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna e made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is short and long time records. Individually he's a dandy, nearly half white, just the kind you've been Other young bulls by the same sire and from A. R. O. dams for sale. Write

STOCK FARMS, A. L. Williams, Est., O. A. Williams, Exec. Fond du Lac, Wisconsin.

SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to s old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, f the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 d 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot grown and nicely marked. This stock is priced to sell in single or car lots. Also offer stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, s for just what you want in Holsteins or Polands. We can please you. Farm located ity Limits.

J. D. McDONALD, WEST SALEM, WISCONSIN.

. O. Holstein

make room in our barns we a number of cows and heifers cked by large official milk records. They are bred to

IN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to

ED. M. SCHULTZ, Hartford, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.

GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

DUROC JERSEYS Anything you want in Duroc Jersey Swine.

All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.

PERFECTION MILKER

The Standard of Quality

THE men who buy the highest class of goods in every line are the men who buy the Perfection Mil The Perfection is recognized among such dairymen as Governor Philipp of Wisconsin, Ex-Gover Haines of Maine, Judge Quarton of Iowa, Dudley N. Hartt of the famous Westlands Farm of New Y and S. K. Herzog & Company of California, as the one milker which surpasses all others for use valuable cows.

With the right method of milking as a basis, the Perfection has been developed, improved and perfected to the where it is recognized as the safest, most reliable milker money can buy today. It is made by expert workmen out o best materials obtainable in the largest exclusive milking machine factory in the world. Every Perfection is backed by ironclad guarantee. With its simple spiral teat cups, its adjustable pulsator and its sanitary, rounded-bottom alumi pail, it sets a standard of mechanical perfection up to which no other milking machine can measure.

Nature's Way

Because the Perfection milks like the calf sucks, it is the milker which is endorsed by dairymen who own valuable cows. The sucking calf first applies a suction, then squeezes the teat towards his throat downward with his tongue and the roof of his mouth, then momentarily stops sucking while swallowing.

The Perfection Teat Cup milks exactly the same way, with a gentle suction, downward squeeze and a period of complete release. Because the action of the Perfection feels natural to the cow, Perfection o report that it increases the milk flow.

Nature's Way of milking exactly like the calf belongs exclusiv the Perfection.

Whether you own ten or one hundred cows you should the milking machine and learn how to take advantage of it. Milch c America today are worth twice what they were before the war.

Valuable Book Free

From the experience of hundreds of dairymen, we have prepared the valuable book, "What the Dairyman Wants to Know", which answers every question you can ask about milking machines. N word of theory—just straight-from-the-shoulder *information.* today for your free copy, together with names and addresses of dairymen owning Perfections.

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

New Year's Greetings 1919



Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

North Carolina Short Course

A three weeks' course in agriculture will be held at the North Carolina College of Agriculture, January 9 to 30. The course is open to all interested in farming, and its object is to better fit men for life by aiding them to secure higher skill, efficiency, and knowledge in their chosen field of endeavor. Further information will be supplied on request by E. B. Owen, Registrar, West Raleigh, N. C.

With Rutabagas and Silage

HOARD'S DAIRYMAN:—Please balance a ration of the following feeds. I have on hand hay, mostly timothy, bran, ground oats, rutabagas, and pea silage from canning factory. This is for Holstein cows coming fresh in November and December. Could I improve this, and what feeds would you advise?

Rice Lake, Wis. V. J. B.

We would feed the cows about 20 lbs. of the pea silage and 20 to 25 lbs. of the rutabagas daily. Besides this, let them have a liberal allowance of the timothy hay. A mixture consisting of 200 lbs. bran, 200 lbs. ground oats, 300 lbs. corn or barley, and 100 lbs. oil meal will supplement the roughage very well. Feed about 1 pound of this mixture for each 3½ to 4 lbs. of milk produced.

If some of the cows are very heavy milkers, it would be well to give them from one-half to one pound of oil meal daily besides that which is in the ration. The ration we have suggested is not strong in protein and it would not be out of place if 100 lbs. of gluten feed, or some other feed equally rich in protein, were added to the mixture. This is particularly true if the cows are fresh and are doing exceptionally well at the pail.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The New Year

The New Year! The New Year!
With all its suns a-shining,
And peace has put new buds to seed—
The clouds a silver lining.
There never was a time on earth,
That men and soil were nearer.
Clods ripple to the day with mirth
And all God's walks are dearer.

The New Year! The Better Year!
The year of peaceful waking.
At dawn, a world of birds we hear
Their humble fare partaking.
Our farms are beautiful to see,
And crops are merely sleeping;
I'd rather hark, a honey bee
Than all th' nation's weeping.

The New Year! The Peace Year!
We'll soon be at our plowing.
And branches loaded down with bloom
Across the meadow bowing.
War was the winter of our lives,
And peace that breath o' spring,
When earth, reborn, from all its hives
Come forth to smile and sing.

When the Boy Came Home

(Some of the first things he did)

Looked the new barn over from top to bottom.

Said "howdy" to the herd.

Had a good squint at the calves.

Drank a quart of fresh buttermilk.

Spread butter mighty thick on his bread.

Begged to be allowed to operate the cream separator.

Snow or no snow, walked over to the meadow.

Got into his working clothes and made a bee line for the dairy.

Some Good Resolutions

Nothing but pure-bred stock after this.

Cement or concrete wherever it can be used.

A new silo—and more respect for corn.

Clear a few more acres of rough ground.

A cream separator because it will bring greater profits.

An appreciation of the fact that hogs can be kept clean.

Consider every rat about the place an enemy.

Give the boys about the place enough genuine responsibility to make them love to remain there.

Keep all machinery under some sort of shed.

"If this war had accomplished one thing only," said Uncle Millet, of Cloverdale Farm, "it was well worth while—the bringing of all peoples everywhere to understand how necessary farms and farmers are to the progress of the world."

Her Boy is Back!

The bossy seems to know that Jim
Is back from overseas.
She always loved th' sight of him,
Especially, when lanes were dim
With overhanging trees.
He'd walk with her, a mile or so,
To meadows, fair and sweet.
And even patient Jerseys know
Th' friendships that they meet.

He couldn't wait to reach th' barn,
And see that Jersey cow.
He spun a "Glad-to-meet-you" yarn,
And spoke of fightin' on th' Marne,
Of racket and of row.
'Twas just as if she understood,
His language and his tale.
She'd nod her head and sort o' "Moo,"
A "Gee-I'm-glad-my-boy-it's-you,"
—and kicked th' milkin' pail.

Jim always treated her, I guess,
Half human like—and fair.
He'd pet her—see her to her stall,
And watch her grub and coat—and all,
With tender love and care.
And now that he is back once more,
And in his workin' clothes,
She's skittish as a five-year-old,
And—if the truth of it is told—
She's kissed him with her nose!



98%

Of the World's Creameries use exclusively DE LAVAL CREAM SEPARATORS

That one fact alone is sufficient reason for your choice of a De Laval.

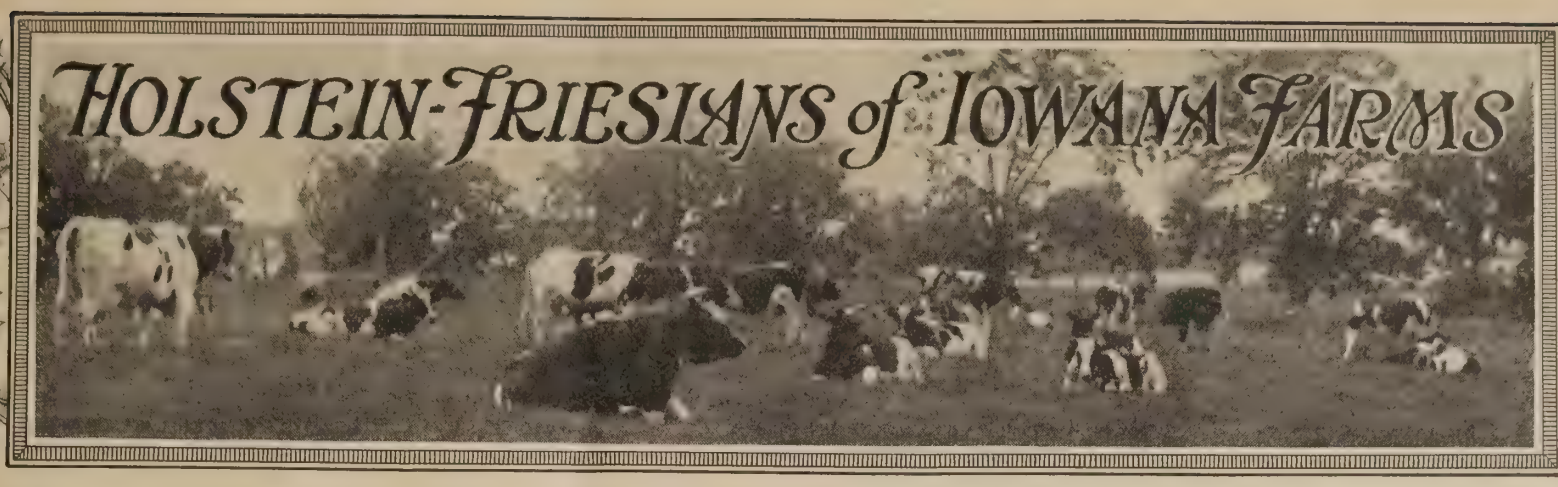
The Creameryman handles millions of pounds of milk and he has found out from experience that no other cream separator will skim so clean or wear so long as the De Laval.

"Claims" don't fool the creameryman. He goes on "performance". Why not you too?

For catalog or any desired information see the local De Laval agent, or write to our nearest office.

The De Laval Separator Co.

165 Broadway, New York
29 E. Madison St., Chicago 61 Beale St., San Francisco
OVER 2,325,000 DE LAVALS IN DAILY USE



HE herd of Holstein-Friesians at Iowana Farms, owned by Col. G. Watson French of a, is managed on the supposition ; the progressive business dairy- and farmers are interested not nuch in what a cow can do in sev- days under high pressure as in t she will do during the other 358 s of the year under normal condi- s. Forcing for a large seven-day rd is not allowed as they believe abnormally high fat percentage he seven-day record, as it is so n made, results in a record that



COL. G. WATSON FRENCH

o criterion of the cow's producing ity and they pay but little atten- to the seven-day record.

he Iowana Farms make this state- t in their catalogue:

Although we recognize the great ie to the breed and to the individu- animal of the official record, yet most emphatically do not believe he policy of the long time prepa- on and the short time test. The e and physiological condition of ly dairy cows is such that a large unt of fat can be stored within r bodily tissues and then be trans- ned into milk fat, during the early t of the lactation period, so rapid- as to produce milk containing an ormal percentage of butterfat, and so doing produce in the first few days after freshening abnormally large butter records. Since this method of making large seven-day fat records has been known and practiced, few indeed are the cows making world's records in the seven-day division that have been able to maintain their lead through the year. Though we are carrying on official test work practically all the time, yet it is doubtful if we ever make phenomenally large seven-day records. We do, however, demand a high average yearly production for the entire herd, working under normal conditions."

Iowana has comparatively little to say about their best cows, believing that the basis of judgment should be the average of the entire herd. This average for past twelve months for forty-eight cows, which includes every animal of milking age in the herd, is 400 pounds fat from 11,850 pounds milk. This includes cows up to fifteen years old as well as seven heifers with first calf, one of these good old breeding dams giving milk from only one quarter, several others from two and three quarters, and five of them were on the show circuit during the year. In addition to this showing in milk production the herd is noted for its winnings at the prominent shows, fully demonstrating the possibility of combining in one animal the two characteristics of heavy yearly production with beauty of form.

At the head of this herd is the well known sire, Sir Johanna Fayne 42147, an animal that combines the three essentials of a great dairy sire; first, correct type: as scored by three of the most prominent Holstein judges in this country he averaged 96.75, not in show condition but as he was found in his paddock with no preparation whatever; second, the ability to transmit type to his offspring: many of his sons and daughters have been winners at the big dairy shows; third, the sire of daughters that are heavy and persistent producers: he is the only bull living that has four daughters with records above 23,000 pounds milk in a year or seven above 20,000; the average of all tested daughters, four years old or over, is 663 pounds fat from 21,441 pounds milk in 365 days; the average of all two-year-olds tested is 399

[Continued on page 774]

YEARLY RECORDS OF THE DAUGHTERS OF SIR JOHANNA FAYNE

Name of cow	Age Yrs.	Age Mos.	Days	Days in milk	Days in calf	Milk Lbs.	Fat Lbs.	Butter Lbs.
Star Watson 2d	6	2	17	365	127	23,275.4	800.22	1,000.27
Johanna Fayne Star	6	3	10	365	245	23,549.0	753.22	941.52
Star Watson Mooie 3d	5	11	9	365	157	25,994.5	736.56	920.70
Johanna Fayne Gewina	5	4	3	365	157	18,387.7	636.24	795.30
Wisconsin Bess Fayne (3 teats)	8	3	21	365	79	18,551.2	608.10	760.30
Wisconsin Bess Fayne	8	3	21	305	19	16,240.7	526.87	658.59
Mercedes Herbert Johanna	5		5	365	240	20,422.4	573.46	716.825
Johanna Fayne Surprise	5	1	15	365	138	17,670.2	519.37	649.21
Johanna Rue Burke 3d	4	9	24	365	221	21,637.1	703.73	879.66
Johanna Fayne Pauline	4	2	27	365	174	23,488.9	640.05	800.06
Cold Breeze Johanna Fayne	3	10	9	365	135	19,821.8	616.68	770.85
Johanna Fayne Breeze (3 teats)	3	1	14	365		16,604.8	567.76	709.70
Miss Johanna Aaggie Fayne	3	5	12	365	183	13,469.1	527.99	659.99
Pietertje Hengerveld Fayne	3	1	14	360	233	13,969.6	521.18	651.47
Iowana Fayne Larky	2	8	13	365	60	20,500.6	564.58	705.725
Iowana Fayne Larky	2	8	13	305		17,463.5	477.36	596.70
Iowana Crescent	2	6	3	305	173	16,351.7	492.82	616.0
Iowana Dinia	2	6	20	305	227	11,592.6	363.35	454.19
Iowana DeKol Star	2		16	365	32	16,145.3	541.83	677.28
Iowana DeKol Star	2		16	305		14,149.3	463.82	579.77
Iowana Fayne Coronis	2	2	4	305	220	11,244.5	385.49	481.86
Iowana Anna	2	2	23	365	169	12,345.9	428.20	535.25
Iowana Anna	2	2	23	305	109	10,700.6	369.13	461.41
Iowana Fayne Julia	2	3	25	365	116	14,961.3	450.80	563.50
Iowana Fayne Julia	2	3	25	305	116	12,729.3	388.11	485.14
Iowana Pauline	2	1	27	305	58	12,095.2	375.89	467.36
Iowana Jane	2	2	1	305	215	9,495.1	316.77	395.96
Iowana Rose	1	11	11	365	8	15,321.1	422.79	528.48
Iowana Rose	1	11	11	305		13,020.3	359.86	449.82
YEARLY RECORDS OF THE DAUGHTERS OF OAK DEKOL OLLIE HOMESTEAD								
Iowana Rue DeKol Burke	2	3	23	300		14,093.1	505.54	631.92
Iowana Bettina	2	9	3	305		14,301.5	456.407	570.51
Iowana Miss Fayne	2	7	13	305		13,940.4	449.738	562.17
Iowana Prima Donna	2	8	27	305		11,231.9	368.27	460.34
Johanna Fayne Rue 2d	3	4	4	365		18,122.0	737.10	921.38



HOLSTEIN BULL, SIR JOHANNA FAYNE, THE ONLY BULL LIVING THAT HAS FOUR DAUGHTERS WITH RECORDS ABOVE 23,000 LBS. MILK IN A YEAR OR SEVEN WITH MILK RECORDS ABOVE 20,000 LBS.
OWNED BY IOWANA FARMS, IOWA



STAR WATSON (AT 14 YEARS)
A. R. O. daughters; 2 with records above 23,000 lbs. milk.

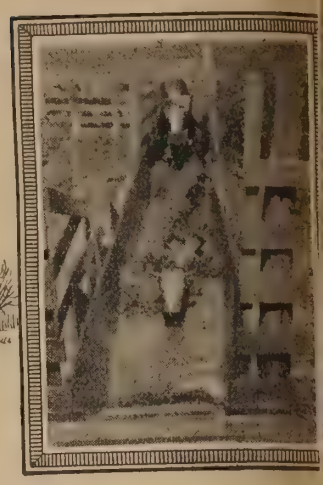
HOLSTEIN COWS OWNED BY IOWANA FARMS
STAR WATSON MOOIE 3D
Year's record: Milk, 25,994.5 lbs.; fat, 736.56 lbs.

JOHANNA RUE HENGERVELD
305-day record at 2 years: Milk, 15,859.7 lbs.; fat, 472.94 lbs.



ERADICATION OF DISEASE FROM THE FARM

H. J. WASHBURN
BUREAU OF ANIMAL INDUSTRY



AN ounce of prevention is still worth a pound of cure, therefore the most important steps in gaining an assurance that all the stock upon any particular farm is free from disease should consist of measures that are effective in preventing disease from gaining access to the premises. For instance, suppose that a farmer hears that hog cholera or foot and mouth disease had made its appearance on the premises of one of his neighbors, and he visits the place for the purpose of "Seeing how the sick animals look". This may easily result in his bringing the infection back to his own farm. Many a valuable herd or flock has been lost as a result of some similar form of idle curiosity.

Good Breeding Stock, Feed, and Management Essential

Start with sound, thrifty breeding stock on the principle that like begets like. Some diseases are hereditary, or at least a predisposition towards the development of these diseases may be passed from mother to offspring, but aside from the consideration of hereditary ailments, the general principles of successful breeding require strong, healthy foundation stock, and once this has been secured it should be provided with suitable nourishment at all seasons of the year. An abundant supply of clean drinking water is another of the requirements of profitable stock raising. During wintry weather the animals should be allowed to occupy stables that are warm and comfortable, but at the same time sufficiently ventilated so that there is enough uncontaminated air for all the animals. Ventilating systems are quite essential for the conservation of health when large herds or flocks are kept in one building. Hygienic experts and practical stockmen have developed ventilating appliances that supply the animals in stables with fresh air without permitting the entrance of an undesirable amount of cold. The farmer, however, should give them particular attention, especially on stormy days, to make sure that none of the animals standing within range of the discharge pipes shall become chilled through the entrance of too great a volume of air from without. Forceful evidence of the practical value of ventilation may be found in the regulations formulated at the present time by health officers in their fight against Spanish influenza. The first of their recommendations calls for the opening of doors and windows.

Where only small numbers of animals are kept in one enclosure, it is usually unnecessary to provide greater ventilating facilities than those afforded by doors and windows.

Horses, cattle, and sheep should be provided with salt. Some farmers are negligent in this matter. Physiologically, salt is needed to assist in the digestion of the forage eaten and to add needed elements to its nutritive values.

The tendency shown in the work of the medical investigators during recent years has been toward the perfection of means for preventing disease rather than toward the discovery of remedies for curing diseases that have already developed. As evidence of this, note the advances made in the prevention of typhoid fever, Texas fever, rabies, and hog cholera. Preventive means can be applied to a large number of people or animals at one time, whereas the treatment of diseased individuals must of necessity be limited to a few. More important still, preventive measures, if successfully applied, leave the individual that has been protected in a strong, healthy condition, while the patient that has been cured of an actual attack of disease will be more or less depleted and weakened. The advantage derived from the maintenance of a strong, healthy condition throughout the entire year will be appreciated at once by the stockman who has had experience in coddling and building up an animal that has been reduced by disease. The man having live stock in his care should profit by the experience of those engaged in medical research, and as a means of preventing disease should give careful attention to the feed, water, and stables or quarters provided for his animals.

Administering Medicinal Remedies

Even with vigorous foundation stock secured, and after the employment of preventive measures to the best of the owner's ability, accidents may happen and disease may unexpectedly gain a foothold upon the premises. Therefore it is desirable that those having stock in their care should understand the most effective methods of giving medicines, and some of the dangers that may arise from their improper administration.

There are several methods of applying remedies to the ailing animal, but giving them by the mouth, by the breathing organs, and by the skin are the only ones that need be considered here. Medicines that can be finely pulverized will often be eaten if mixed with a bran mash or given with dry ground feed. This method has many advantages and should be used whenever possible. The druggist will prepare some remedies in a ball, elongated pill, or in a gelatine capsule if requested to do so, and in this form they may be given quickly and without causing much resistance on the part of the animal if the operator understands the proper way of placing the medicine in the back part of the mouth where it must, of necessity, be swallowed. A drink of water should be offered as soon as a ball or capsule has been given to prevent coughing it out. Some mild remedies may be mixed with honey or molasses and placed upon the animal's tongue with a paddle or flattened spoon.

It is sometimes necessary to give medicines in considerable quantity and in liquid form. They should then be thoroughly diluted in water or oil, and may be given from a strong, smooth bottle, or from a horn or tin appliance. A quiet horse, for instance, may sometimes be drenched by one man who raises the animal's head and holds it up with his left hand while he pours the medicine into the mouth with his right. However, more forcible means of restraint will be required in most cases before a drench can be given effectively. An assistant should hold the head of the animal elevated by means of a fork, one of the tines of which has been passed through beneath the noseband of the halter, or a strap or rope may be fastened to the noseband and then passed over a beam, the limb of a tree, or through an elevated pulley. A loop in the end of a rope may be placed on the upper jaw just back of the tusks, and by passing the free end of the rope over a beam or through an elevated pulley the head may be raised to the required position, which is to have the line of the face on a level or slightly higher. The free end of the rope should never be fastened while medicines are being administered. The head being raised a suitable position, the bottle may placed in one side of the mouth j in front of the molar teeth. Progre ing slowly, and only attempting give a little of the liquid at a ti between intervals which allow the a mal to swallow quietly, the whole the drench may be given safely wi out causing the liquid to pass into lungs, where it might cause the de of the animal by setting up incura pneumonia.

Cattle are easily drenched by h ing the head held in position by assistant, when the remedy may slowly administered.

In drenching sheep it is often visable to make use of an applia consisting of a small rubber t about 3 feet long and three-eig of an inch in diameter, a funnel wh is fastened to one end of the t and a mouthpiece of brass th eighths of an inch in diameter about 9 inches long which is attac to the other end of the rubber t The sheep should be allowed to st on all four feet while being drenc The head having been raised until face is on a level, the metal mo piece is inserted at one side of mouth and the desired amount medicine is slowly poured into funnel which is held in proper tion by an assistant.

Should any animal begin to c while being drenched, its head sh be released at once, and it shoul allowed to rest quietly until it ha covered from the attack. Dren should always be given by wa the mouth, and not through on the nostrils, as is the practice in tain sections.

The inhalation of vapors is s times used to great advantag treating influenza of horses and A bucket of hot water to which tar, iodine, carbolic acid, or medicines have been added is p in the bottom of a long grain The top of the bag is then he place around the horse's nose a the medicated steam is generat is drawn into the animal's respir organs with softening and reli effect. It should not be hot en to scald the horse.

Treating Wounds

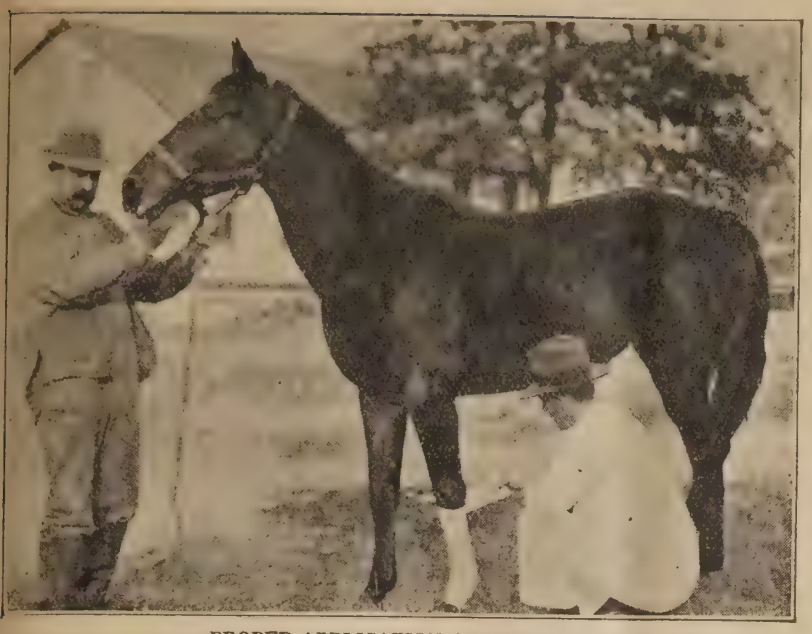
The treatment of wounds must according to the nature and se of the injury. Simple laceratio the skin may be washed and cle by the use of a preparation of ide of zinc, 10 grains to each ou water. No bandages should b plied to simple skin injuries they are necessary to keep fli of the wound.

A more serious and rather co injury results from the punctu the foot by a nail, wire, or sharp object. Should an accid this nature occur the nail, if s the foot, should be removed a as possible. A qualified veteri should be called promptly to e the wound and proceed with s treatment.

Injuries to the skin in whi deeper tissues are involved, and

AN APPARENTLY HEALTHY COW AFFECTED WITH TUBERCULOSIS

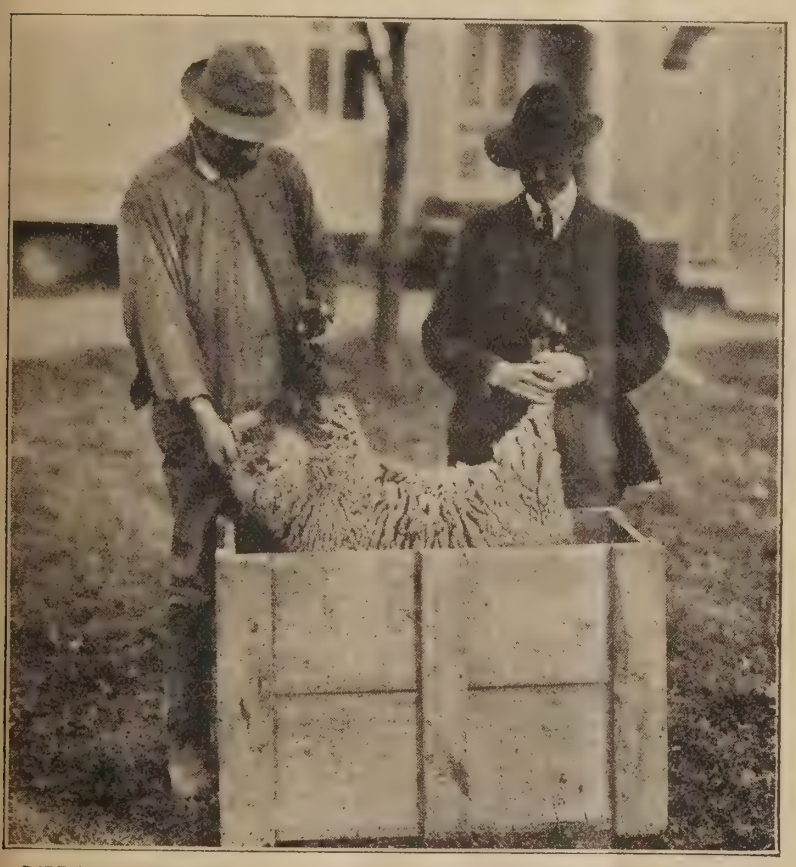
She does not cough, her appetite is good, she gives a large quantity of milk, and is in excellent general condition for a dairy cow. At the time the picture was taken it was known that she had been affected with tuberculosis at least four years and that she had been passing tuberculosis germs from her body at least three years. The mixed dung of this and a similar cow caused tuberculosis in hogs that were permitted to follow her.



PROPER APPLICATION OF BANDAGE
No bandages should be applied to simple skin injuries unless they are necessary to keep flies out of the wounds.



DRENCHING A HORSE
A quiet horse may sometimes be drenched by one man, but in most cases more forcible means of restraint will be required before a drench can be given effectively.



DIPPING SHEEP, WHERE BUT A SMALL NUMBER ARE TO BE TREATED



GIVING LIQUID MEDICINE TO SHEEP
Drenches should always be given by way of the mouth and not through one of the nostrils as is the practice in certain sections.

nich abscesses or ulcers may or may ›t have developed, should be care-.lly washed out with a disinfecting lution, for which 3 per cent of car-›lic acid, 1 to 1,000 bichloride of ercury, or 1 per cent solution of po-ssium permanganate may be used. axseed poultices are sometimes of lvantage on abscess formations af-r they have opened. After the ›und is well cleaned a healing dress-g, such as carbolized vaseline, or cric acid 2 parts, alcohol 40 parts, id water 400 parts, may be applied ›on a pad of absorbent cotton, sup-rted by a bandage. The bandage in ese cases should be readjusted ice daily until healing has become tablished.

Medicines intended for fowls should ways be prepared in such a manner at they can be given in a grain ash or in drinking water. Even ose that have a disagreeable taste odor will often be taken by fowls their feed or water without hesi-tion.

Attention given to providing clean, y stables for stock during those sea-ns of the year in which they are abled continuously will have much do in preventing such troubles as rush and foul feet. Careful atten-›n to feeding will prevent most ses of bloating in adult cattle and scours in calves. Many feeders make the mistake of giving their young calves feed that has not been properly warmed, and troublesome diarrhoea results.

Treatment of Parasites

Parasites of various kinds exact exceedingly heavy toll from our farm animals every season. Bloodsucking flies and mosquitoes torment horses and cattle, from which they draw the vital fluid. They collect an enormous revenue from the stock owner, for they not only rob their hosts of their life-giving elements but they subject them to continuous action and exertion as they stamp and thresh about in their efforts to drive away their tormentors. Lice, ticks, and visceral worms also do incalculable damage to farm animals, although their presence may not be so readily determined.

Much may be done to reduce the harm caused by flies and mosquitoes through the use of chemical repellents, blankets, screened stable windows and doors, and the like. There in great need of more effective methods of protecting live stock from them and it is hoped that some satisfactory means of destroying them may soon be discovered.

Dipping and bathing or spraying with suitable disinfectants will remove the ticks and lice, while lung worms and stomach worms may be kept in control if not completely removed from calves, sheep, and hogs through the persistent application of remedies to suit each case.

When we come to infectious diseases we are confronted by quite a different proposition, and measures that will prevent the spread of the disease from the affected animals to healthy stock must be applied.

Tuberculosis

Tuberculosis is probably the most widely spread of all infectious diseases and affects cattle, hogs, and poultry. No outward signs indicate that an animal is tuberculous during the early stages of its infection, but if the case is allowed to progress, unmistakable evidences of wasting will appear, and the death of the animal will follow. In addition to the loss of the affected animal there is great probability that others have become infected during the later stages of its disease, since the usual course of tuberculosis demands the growth of tuberculous masses within the body, their degeneration, rupture, and the scattering of the countless tubercle bacilli which they contain. Thus other animals kept in the same enclosure with the tuberculous one take up the germs of tuberculosis, and new centers of tuberculous growth, decay, and death are formed. In this way a tuberculous cow may infect several healthy cattle in the same herd by means of the infectious material which she coughs up; at the same time she may be the source of infection for a drove of hogs that are allowed to run about the farmyard with the cattle or from drinking milk in which tubercle bacilli have become suspended.

Should the owner of the affected cow be trying to raise a few choice calves, there is great danger that they will become tuberculous if fed milk from the diseased cow after her tubercles have broken down. Having noted the effects of feeding this milk to hogs, can we doubt that calves will become tuberculous if fed upon portions of the same product? Why should they not? There are numerous living tubercle bacilli suspended in such milk at nearly every milking. They only need planting in suitable soil to multiply and produce other like tubercles, and the calf affords ideal conditions for such reproduction. Aside from this economic phase of tuberculosis, it should not be forgotten that the disease is also trans-

(Continued on page 778)

Substitutes for Butter

HOARD'S DAIRYMAN:—In a full page display of a great national weekly is an advertisement which is well worth the study and consideration of every dairy farmer, for it brings to light some interesting things. It is an attractive advertisement of an article that, says the advertisement, "serves your purpose as well as the finest butter".

People will pause to read such attractively worded and displayed advertisements and will be greatly tempted to test the merits of the article. You cannot blame them. They have faith in present day advertising, and I believe they would read just as eagerly the merits of good, pure, wholesome butter if they were set forth as convincingly as that of so-called butter substitutes. Suppose, for instance, we show the real food value in butter as compared to other foods or substitutes; the consumer becomes interested right away. Let us go even further than that; show a neat package or plate of butter in colors which will draw the eye.

Suppose a cut of a carton of butter were shown in its full size and let one-half of the carton be laid back revealing the contents in its rich golden color. There you have a display that will make the mouth water and get the reader's attention. I recall a certain dealer who desired to build up a good trade with farmers; he offered to take all their butter and eggs at the highest market price, offering either cash or trade in groceries. He received more butter than he could sell to his city customers, so he conceived the idea of displaying all his choice colored butter in an ice-cooled window. His butter was not done up in packages, but its rich golden color proved to be the best advertisement he could make.

Why do people buy substitutes in preference to the real article? This is not a puzzling question when you begin to pursue it and ask the consumers themselves. Many have told me that substitutes could not be told from butter "if you didn't know the difference". They were the same color, you could cook and bake with them, they were harmless because they were made of animal or vegetable fats—they did not know which—and they were cheaper. But when it was explained how butter was superior as a food they said: "Well, I didn't know that. I confess I didn't know anything about these substitutes."

And there you have the gist of the matter: they didn't know. The American people are readers of advertisements; I have met many who said they often read as much as the advertisement columns as of the reading matter. The American people, especially those in the cities who are the great buyers of butter, would appreciate knowing more about this product of the farms. They will read more about it when butter is presented in the proper light and its merits proven to them in substantial words and figures. Such a display will incite them to serious thinking over the matter. Let it be plain, simple, understandable, without any attempt toward exaggeration.

Folks are coming to use butter substitutes more and more. While there is still a good demand for butter, this demand may grow less if some steps are not taken to show why it is an essential food, a wholesome food, a food that cannot be equalled by any manufactured so-called substitute. Butter substitutes are not served in hospitals to the sick, nor do our scientists and doctors recommend it. The answer is obvious.

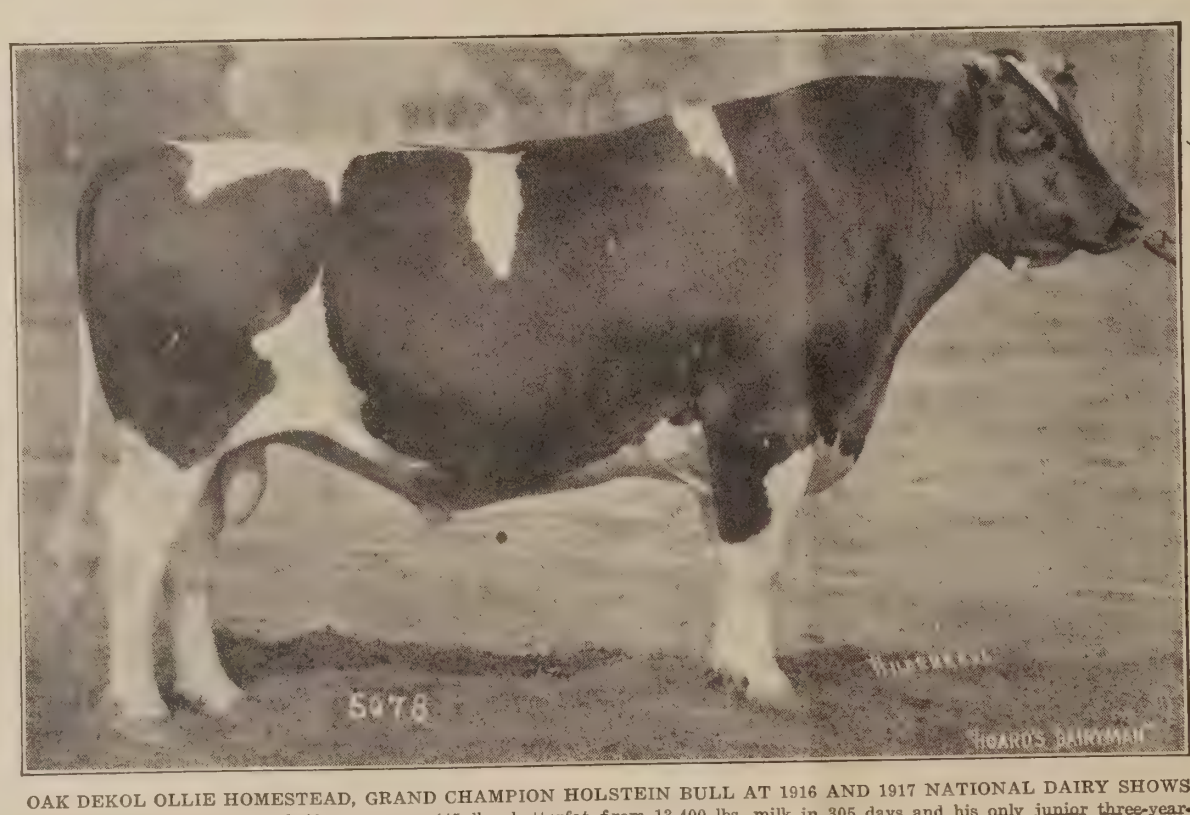
Indiana. J. L. JUSTICE.

Holstein-Friesians of Iowana Farms

(Continued from page 771)

pounds fat from 12,884 pounds milk in 305 days or ten months.

The other sire at Iowana is Oak DeKol Ollie Homestead 85529. He has the same combination of essential characteristics as Sir Johanna Fayne, —first, correct type: he was grand champion at the National Dairy Show in 1916 and 1917; second, sire of animals of correct type: four of his sons were the sensational winners of the coveted "Get of Sire" prize at the National Dairy Show in 1917; third, sire of heavy yearly producers: his two-year-olds average 445 pounds butterfat from 13,400 pounds milk in 305 days, and his only junior three-year-old daughter has a record of 737 pounds butterfat from 18,122 pounds milk in 365 days.



OAK DEKOL OLLIE HOMESTEAD, GRAND CHAMPION HOLSTEIN BULL AT 1916 AND 1917 NATIONAL DAIRY SHOWS
This bull's two-year-old heifers average 445 lbs. butterfat from 13,400 lbs. milk in 305 days and his only junior three-year-old daughter has a record of 737 lbs. fat from 18,122 lbs. milk in 365 days.
OWNED BY IOWANA FARMS, IOWA

The milking herd at Iowana is not pampered but fed under good ordinary farm conditions on ensilage, alfalfa or clover, and one pound of grain mixture for each three and one-half pounds of milk produced.

The breeding of this herd so meets our conception of true, constructive breeding that we have given it editorial mention.

Oleo Fiction vs. Butter Truth

HOARD'S DAIRYMAN:—The open feud between oleomargarine and butter still wages hot and furiously. Neither side has any idea of taking the count, so it is up to the consuming public to act as referee. The public at present is inclined to favor oleo because the latter is a smooth talker, self confident and braggy, and is always thrusting himself forward in the most approved fashion and into the good graces and favor of all those who are obliged to get the utmost out of every dollar. In a November Saturday Evening Post a striking full page advertisement of a certain brand of oleomargarine appears, and although oleo people have always been inclined to gild the lily and make black white, they quite excel themselves in this artful "ad", and, as usual, genuine butter is the goat.

Their selling talk in that issue of the Post reads: "1 pound certified oleomargarine plus 1 thrift stamp equals 1 pound butter. Every time you buy a pound of our certified oleomargarine, you not only save enough money to buy another thrift stamp but you are getting a product that serves your purpose as well as the finest butter."

I call this insidious advertising; in fact, I should call their brand of talk as misleading as their product, in that a pound of oleo plus a thrift stamp does not equal a pound of honest butter, nor ever will. We are now, thanks to Dr. McCollum, thoroughly posted on the merits of oleo and butter. While their fat content may be practically the same, their life-giving and keeping properties are in no way comparable, the advantage being all on the side of butter.

I would like to possess money enough to buy up the opposite page in any publication where this oleo "ad" occurs and use it for the one and sole purpose of defending and exalting butter. There would probably be no object in trying to blackmail oleo, yet I believe so thoroughly in the mighty facts with which men of science have equipped us in regard to butter's superior qualifications that there is no doubt in my mind but that facts alone, if put before the public on the scale the substitutes' merits are, would in six cases out of ten win back our legitimate market.

As it is, it seems decidedly short-sighted to let the oleo people "get away" with this sort of advertising. It pays to advertise, you know, and the substitute makers have certainly proved it thrice over.

I wish we could talk face to face with the great American consumer and prove to him in print that oleo is nothing but an "also ran". We could talk to him in our full page dairy ad something like this:

"One pound butter at market price equals health safety. Buy butter instead of substitutes. Save doctor's bills and then buy thrift stamps. You run a mighty risk if you deprive you children and yourself of the growth promoting substances found abundantly in milk fat but not in vegetable fats.

"You have heard of the wonderful vitamine or fat soluble A. When you buy real butter (not oleos, nut butters, etc.,) you have these magic properties at their greatest and best —and yet they are beyond price in reality.

"Dr. McCollum of Johns Hopkins one of the greatest scientists and human benefactors that ever lived, has the following to say about dairy products: Milk is an indispensable article in the diet of any people who wish to achieve. Without the continued use of milk, not only for the feeding of our children but in liberal amounts in cookery and as an adjutant to our diet, we cannot as a nation maintain the position as a world power to which we have arisen.

"Strong and thought-provoking words, those. Butter is made from pasteurized cream, not a mixture of oils and fats of doubtful origin.

"At any price, you can afford butter because nothing can take its place. Butter is first in flavor, and first in health-safety."

Steps are now slowly but surely being taken to get into this great advertising game, and in time, dairy products will be nationally advertised as well as their rivals. The state of Wisconsin has taken the lead in this matter and it is to be hoped that other great dairy states will become enough interested to put the thing through.

The substitute butter men have continued to wax bold in their claims of "just as good" or better, because they think the lack and will lack the sinews of advertising and publicity.

I think that the American public is not discriminating, too censirous of the best, to let a few cents a pound difference stand in the way of their own interests when all the great facts about butter are before them.

They will hasten to retrieve the errors in butter buying in the past and will not be content to jeopardize their children's health and natural birthright by depriving them of the "magics" in milk and butter. But we cannot expect busy and indifferent people to search these things out for themselves. Advertising, when forcefully, cleverly, and attractively done is the only weapon by which to conquer their inherent bargain trait. You do not bargain when good health and right living are at stake and neither will the average American consumer when he thoroughly understands how valuable and priceless "fat soluble A" is. He may have heard of these things in a perfunctory way, but he won't be interested and moved to action until we strike him for big game.

The average American will quickly show himself to be discerning, discriminating, and full of wisdom. He will use milk and butter on the table as he never did before, the price having little to do with it, and if anything has to be gone without, it will be dairy products. But all this is in the future. We have got to present our cause consecutively and for many months before our dairy maid dreams come true. Meanwhile,

l fellows keep winning new re-
rts away from us every day and
lo not raise a finger, comparative-
to prove our mighty products be-
d price.

certainly makes me doubt the
llibility of sums and arithme-
when Wilson and Company add
ound of oleo and a thrift stamp
ther and get—butter!

HELEN S. K. WILLCOX.
ew York.

American Farming in Serbia

everal thousand acres of Ameri-
winter wheat have been seeded in
Monastir Valley, Serbia, as a
ilt of the efforts of an agricultural
of the American Red Cross that
ved there last spring.

he land has been plowed and
ivated with American twenty
se-power tractors drawing Ameri-
gang plows and harrows. The
in will be harvested by American
vesters and made into flour for the
gry Serbians in two American
r mills.

ast April when the mission of
iculture experts left for the Bal-
s they took with them $249,000
th of farm tools and seeds. The
hinery included twenty-five Amer-
twenty horse-power tractors, 45
vers, 45 drills, 25 harvesting ma-
es, 2 threshing machines, and
sands of smaller implements and
s. Two flour mills are now on
r way over. In addition the unit
with it two complete saw mills
turning trees into building ma-
al, and the most complete gasoline
ever seen in the Balkans.

he Serbian government permitted
Red Cross men to use on the farm
in the shop any men not fitted
fighting in the army. The Serbian
norities collected a group of the
mechanics and farm workers to
ound among the sick and wounded.
y then assigned to the Americans
old bandit town of Kremljani
ch had been deserted since 1912.
s town was the stronghold of a
dit organization that held many
ple for ransom and so terrified
country as to stop the develop-
t of the fertile Monastir Valley.
1912 the Serbians attacked the
e and a pitched battle ensued
ch ended in the death of many of
robbers and in the flight of the
to the Turkish army. The land
nging to the village, some 50,000
s, was confiscated. This land
turned over to the American Red
ss with permission to cultivate as
h of it as they could handle.

he Red Cross farmers announced
they would plant as many thous-
acres to winter wheat during the
or rainy season as could be
ved. The Serbians said that not
y acres could be put under crop as
equired six people by their meth-
to work an acre and they had
40,000 men in their entire army.
Americans replied that with their
ern machinery only 150 men
ld be needed to raise 200,000
els of wheat.

hen the machinery began to
ve from Salonika, the first job
to train the Serbian mechanics
ut the machines together and to
ate them. The tractors were in-
able as in the whole 200 square
s of the thickly populated valley
about 600 oxen remain and there
no horses. Seven big Italian tents
e put up to house the machinery.
r other tents contain the machine
, carpenter shop, and other
mbly and repair units. The Ser-
workmen were enthusiastic over
modern tools and learned rapidly
to operate them.

he men lived in tents and were
from a tent kitchen. The plant
managed from a tent office. The
en, however, was a problem. The Serb wants red pepper in everything and the Red Cross men had great difficulty in convincing the cooks that American stomachs object to such treatment. A cook who had been in America was finally obtained and he saved many a stomach from destruction. Regular Pittsburgh boarding house hash and boarding house steak were on the menu frequently. Pepper was left out but onions were frequent.

Winter wheat will yield from 20 to 30 bushels to the acre in Macedonia and the relief commission expects to be able to supply flour to thousands of Serbian families next spring. The hand tools, small plows, and cultivators, rye, oats, and potato seed, are being distributed to farmers in the valley who are cultivating by hand. The barley that was being sent over for seed was sunk by a submarine.

Grain is very important as the Serb is a ravenous bread eater. He can live for months without meat if he only has bread and a few tomatoes, peppers, and cabbages. Without the vegetables planted by the Bulgars behind the lines the Serbians would have been unable to make any headway with their drive. They went ahead so fast that their supply trains were unable to keep up. For four days during the pursuit they lived on chance vegetables, at times without bread or water.

The Serbians on the Red Cross project are all learning to use modern farm machinery and to adopt the American methods of growing winter wheat, but the majority must of course continue to use hand methods until they can bring in oxen from Italy or Greece. Their great need everywhere is for all kinds of farm tools and building outfits. The Austrians took away nearly all the cattle and left scarcely any tools. Crops are brought in from the fields on the backs of the family. Carpentry tools are now needed to rebuild homes and to make furniture, as the four previous Balkan wars and the great war have completely desolated most of the rural homes. Needles and thread are entirely lacking, which explains the torn and unpatched condition of the villagers.

New farm tools promise a food supply for the future. The metal workers from America who had returned before the war or the several thousand who slipped over from the United States and, with the Serbian army, played an important part in the last offensive, brought over a good deal of money.

American gold and other money is plentiful in Albania and Macedonia, but it is not valued very highly. One woman, when asked why she begged for food when she was wearing gold ear-rings, threw a handful of gold coins on the table, saying: "They are only good for the children to play with. Gold cannot buy food where there is no food to buy."

But there will be food. The Red Cross agricultural unit is raising it on a wholesale scale as we raise it in this country.—AMERICAN RED CROSS.

Ten community canning centers are the excellent start the boys' and girls' clubs have made in Spokane County, Washington, under the direction of the Department of Agriculture and the state agricultural college. These have been operated all summer by the boys and girls with the greatest of enthusiasm. Some of the women in the county also are using the centers. The wholesalers have agreed to buy all the products of the Spokane County centers which come up to the standards set by the state and county club leaders.—Food and Farming Weekly, No. 29.

1881—1919

Looking Backward and Looking Ahead!

THE Sharples institution is now entering its 38th year of service to the Farmer and Dairyman. They have been years of pioneer work in improving two of the greatest aids to the dairy industry—the separator and the milker machine.

Today the Sharples Suction-feed Separator is recognized the world over as the ***only*** separator that skims clean at any speed.

Likewise, the Sharples Milker is the only one that applies any squeeze or pressure to the teats.

Worldwide acceptance of these pioneer inventions has made the Sharples factories the most extensive of their kind. The Sharples institution is also the largest American-owned separator and milker business in the United States.

But past success is only a stepping stone. We believe that Dairying will become the world's most useful, most profitable industry and in this future era of tremendous progress, the Sharples institution will be ready to meet every demand made upon it.

It is gratifying to be associated with and contributing toward the growth of one of the mainstays of the human race—***the dairy.***

We extend to farmers and dairymen everywhere, a most cordial New Year's greeting.

P. M. SHARPLES,
President.

The Sharples Separator Co.

West Chester, Pa.

Branches: Chicago, San Francisco, Toronto

DC-79

SATISFIED USERS wrote this Ad for Us—

Their Experience is worth real Money to YOU!

I have owned three spreaders in my time. The first two I didn't think much of. Then I got one of yours and now I am more than pleased with the spreader proposition. I find by hauling manure in the winter time on clover sod and letting the rains leach it down before plowing it under will oftimes double the corn yield or even wheat. Where I used commercial fertilizer and barnyard manure together on 12 acres of wheat last year I got 600 bushels of wheat, an average of 50 bushels per acre. A farmer that owns ten acres can't afford to be without a spreader.

WILL HENSIL, Ohio.

I have had several spreaders on my farm, but there are none like yours. I could not farm without it. Last fall I put six acres to wheat, first putting on 30 loads of manure. This spring I put on 20 loads more. You just ought to see that wheat. The manure made it stool out very good, and it will give 35 bushels per acre. If I had not used the Spreader this spring I am sure I would not have gotten over 15 bushels. Your spreader is one of the best investments you can put on the farm.

C. E. HUPRICH, Ohio.

I would not be without your Spreader, because it saves so much labor, puts the manure on the ground evenly, and I can spread any kind of straw or cornstalks. I believe my spreader will pay for itself in two seasons. With the proper use of manure on my place and using lime, I have increased the yield of my farm 25% in six years.

E. M. PHILLIPPE, Virginia.

Your Spreader has given entire satisfaction. I can recommend it to anyone needing a spreader. It is the lightest draft spreader I ever used. I handled mine in top dressing corn with two horses and I like it fine.

S. A. WUICK, Missouri.

I purchased one of your Spreaders eight years ago and it has spread all of my manure from fifty head of stock during that time, and as a labor saver it has easily paid for itself each year. I believe that any farmer having more than five head of stock cannot afford to be without a manure spreader, unless he is especially fond of spreading manure by hand, which I am not.

C. E. HOUGH, Connecticut.

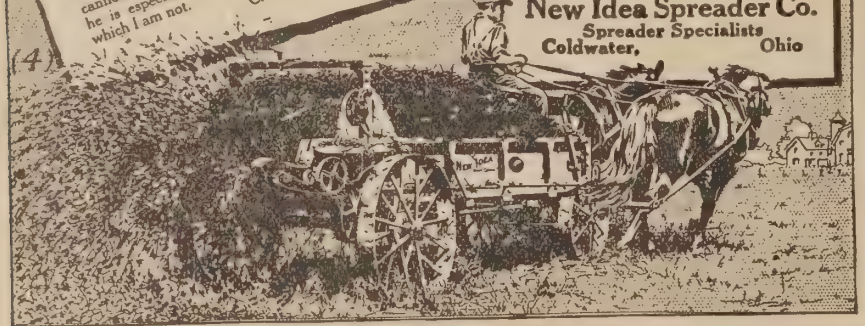
THESE letters answer every question you may have about the New Idea Spreader. We will gladly send you the writers' addresses and copies of similar letters from many others, if you want further proof. These letters, like the New Idea itself, stand every test. They prove that you yourself should have a

NEW IDEA Registered U.S. Pat. Off.

THE ORIGINAL wide spreading spreader that revolutionized old-fashioned methods—that has always been the leader. Has solid bottom with chain conveyors. Pulverizes thoroughly and spreads evenly. Drives with heavy sprockets and chain—no gears. Low down, light draft. Loads and pulls without undue strain on man or team.

When you buy insist on the "New Idea"—the machine you are sure of. If you don't know our dealer, we'll send you his name and a copy of a splendid book on soil fertility. Send your name today.

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Spreader Specialists
Coldwater, Ohio

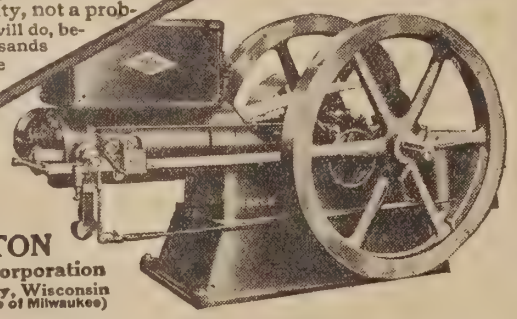


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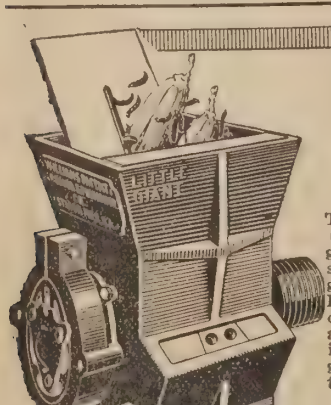
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WORTHINGTON
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181 Holthoff Place, Cudahy, Wisconsin
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Grind Your Feed

With the Williams Patent LITTLE GIANT GRINDER

The Little Giant Grinder will grind your Ear Corn (husk, cob and all), your Oats, Wheat, or any other grain, into either a fine, medium or coarse meal as desired. It will not merely crack these grains but will grind them into a real meal. Equipped with genuine SKF ball bearings power requirements are reduced to the minimum. Four sizes give a wide range of capacity. Hundreds of farmers are using this machine, therefore, if you are anxious to save grain and reduce feeding costs investigate and install this machine. Bulletin No. 699 explains in detail.

The Williams Patent Crusher and Pulverizer Co.
37 West Van Buren St., CHICAGO, ILL.
Factory: St. Louis, Mo.

HOGS AND THE MARKET

SANDERS SOSLAND, MISSOURI

"WHAT of my hogs?" The dairyman who raises porkers in connection with his business has many reasons for asking that question, for extraordinary conditions prevail in the market for porkers.

Dairymen who give markets the attention they deserve are interested more deeply in hog markets today than usual because of the vast supplies, the influence the government is exercising over prices and shipments, and the readjustment in the world's commerce from war to peace time activities.

While comparatively heavy receipts of hogs are usually witnessed at this season of the year, live stock markets of the United States never recorded a movement of porkers of the volume noted during October and November. However, the enormous rush of hogs from farms is not particularly surprising when one takes into consideration the many complex problems confronting the producer. Throughout 1918, the principal Missouri River markets of the West have received a larger number of hogs than in the preceding year and, as a rule, greater than the last few years. With the cessation of hostilities between the belligerents of the world, which necessarily brought about caution and uncertainty among the meat animal producers, it is only natural to expect matured hogs to be rushed to market. Furthermore, feed trade conditions in the country have a stimulating effect on the movement to market, high prices and shortage of corn, shorts, and other important commodities used in the fattening of porkers adding to the nervousness among producers.

Large Receipts at Market Centers

At any rate the enormous movement of hogs to live stock markets of the country offers sufficient proof that the feeders and breeders of porkers have fulfilled rather remarkably what the United States Department of Agriculture termed their "patriotic duty". It is remembered that at the outset of 1917, Secretary Houston of the Department of Agriculture called upon the pork producers of the country for increased supplies, and for heavier weights. This call has been met and in the face of obstacles which normally would cause a radical curtailment in production.

An idea of the largeness of the movement to market is shown by unofficial figures on receipts at the five principal markets of the West, including Chicago, Kansas City, Omaha, St. Louis, and St. Joseph. These markets have received more than 18,250,000 hogs for the first eleven months in 1918, as compared with less than 15,000,000 head the corresponding period in 1917. The arrivals of hogs during the period in November, when no restrictions had been placed on shipments to market, were practically double the movement for the corresponding time a year ago.

Luckily, officials of the Food Administration and Department of Agriculture were far-sighted enough to safeguard the industry from any violent fluctuations in prices. A minimum price of $17.50 per hundredweight, basis Chicago, was agreed upon for hogs in November and continued into December, with the minimum average price at other markets on a basis equal to the Lake City market price. There is little doubt, despite the world food situation which makes for extreme bullishness in the hog trade, that prices would have temporarily suffered a radical loss but for this guarantee. At one of the larger markets recently, more than 100,000 hogs had accumulated at one time, with packers unable to handle purchases.

Foreign Demand for Pork

Government officials, who doubtless have correct data on the world supply situation and the probable requirements from the United States, have recently displayed great concern over the future demand and supply. Department of Agriculture officials announced a short time ago that the population of hogs in the country has increased 8 per cent, according to reports by their investigators, while private estimates indicate an increase of more than 15 per cent. "On the other hand," the department pointed out, "the arrivals of hogs at seven principal markets the past three weeks have increased more than 27 per cent compared with a year ago." The market specialist of the Bureau of Markets publicly announced a short time ago that "under no circumstances will there be enough hogs to meet the foreign demand as soon as shipping can be arranged. We will export a surplus hog products which can properly be spared from this country."

Of considerable interest to hog producers of the United States is the following cable sent from Europe by Dr. Vernon Kellogg, who is abroad on official business for the Food Administration: "Larger importations of meat, particularly pork products from the United States, thus lessening the slaughter of native animals, will be the most effective means of restoring the depleted animal herds of Europe. The most recent statistics on herds of hogs in Europe show a decrease of 49 per cent in France, 12½ per cent in Italy, and 25 per cent in the United Kingdom. It is highly important that droves of porkers be restored as rapidly as possible, which can be done most effectively by broadening the exports from the United States."

As to the situation in the neutral and Teutonic countries of Europe there is no official data. It is well known, however, that the hog drove of Germany, Austria, and even the neutrals have been greatly depleted since the opening of the world war in 1914, and that these nations are looking forward to huge imports from America.

Lighter Weight Hogs

The hog marketing situation in America is and will continue to be in almost direct contrast to that prevailing a year ago. In 1917, the hogs leaving farms of the Southwest showed the highest average weight in history, due to high returns and generous yields of corn and other feeds. Similarly, the portions of the Corn Belt where large supplies of the coarse grain were produced shipped their stock to market with a greater average weight than at any other time in history. Live stock producers were fulfilling a patriotic duty as well as carrying out their own ideas that corn can be more profitably marketed "on the hoof" instead of being shipped as grain. What is the situation today? Kansas City, to which market southwestern live stock producers will ship their droves, is now receiving hogs weighing an average of 46 pounds less than at the opening of 1918. And all other important markets, with the possible exception of Sioux City, which center is surrounded by a territory sharing in the great yield of corn this year, are receiving lighter weight hogs. Thousands of immature porkers are reaching stock yards, which recently prompted action by the Price Stabilization and Control Committee at each of the

markets to classify hogs weighing s than 150 pounds as "throw-outs", minimum price on which stock is 5.50 a hundred pounds. The lighter ights mean less meat and less fat hog, and are important price sus- ning influences.

A large number of light weight ck hogs and pigs are reaching Kan- City, but indicative of the general timism among producers where ds are in more abundant supply, re is an eager demand for the so- led "stocker" pigs. Iowa, Illinois, fact all the corn belt, as well as tes east and north, are active buy- of the pig droves and at only a rrow discount under the prices pre- iling for fattened hogs. Some rthern dairymen are entering this rket. In September, 1917, outgoing ipments of hogs from Kansas City feed lots amounted to less than 00 head, while in September of the esent year more than 30,000 head re shipped out. Only an insignifi- nt number of pigs have been taken packers, so great is the country eder demand. The same situation evails at St. Joseph, Mo., which arket and Kansas City report the ly trade of importance in pigs.

After this resume, the dairyman o has hogs being prepared for mar- t surely can agree with this con- usion of an investigator of world od conditions:

"Peace will not add a single pound our stock of food, but it is add- g more than 200,000,000 new ouths to feed, either wholly or in rt. Now, and for a considerable pe- od after final peace terms are gned, food will be in greater de- and than ever before. The situation acute; it is not a problem of how ship, but of how to make it go ound."

Recent Foreign Food Prices

From information received by the S. Food Administration through annels considered reliable, it is pos- le to acquaint American producers ith recent quotations for certain odstuffs and feed abroad. The pre- iling rate of exchange has been ob- rved in expressing values in terms U. S. currency.

France

Retail prices of straw in Paris late September ranged from $25 to $50 r ton. Lucerne (alfalfa) was quot- at $58 to $76 per ton. Potato ices ranged from $2.22 to $3.00 per shel; butter from 83 cents to $1.02 pound, and poultry from 40 cents to .82 per pound. Although the fixed tail price of horseflesh was 17 cents r pound late in September, it was ld through unauthorized channels r from 41 to 50 cents per pound.

England

Wholesale milk prices in England ve been placed on a scale which pulates a price of 50 cents per gal- n between November 21 and De- mber 16. After that date and un- May 1, 1919, the price is 50 to 51 nts per gallon.

Switzerland

The fixed wholesale price for pota- es of the 1918 crop is $1.74 per shel. Purchases from the producer n be made only by the cantonal au- orities.

Germany

In September, people were paying 74 per pound for saccharine which few months before sold for about 5 per pound. About September 15, e price of butter in Berlin was .04 per pound and in Hamburg 98 nts per pound. The fixed produc- ' maximum price for potatoes dur- September was 58 cents per bush- in Brandenburg, and 52 cents in varia.

Bohemia

During September, meat in Bohemia cost from $2.05 to $2.56 per pound and flour was selling for slightly more than one dollar per pound. Plum jam which formerly cost 5 cents per pound retail sold during September for $1.23 per pound.

Spain

Retail meat prices during September were: beef, 31 to 32 cents per pound; and lamb, 33 to 34 cents per pound. The retail price of potatoes varied from $1.14 to $2.22 per bushel in different localities. By a recent price-fixing regulation it will be possible to sell "whitish" sugar for 18 to 19 cents a pound retail.

Russia

Milk has been selling in Moscow under restricted consumption for about 19½ cents per pint bottle and more lately at considerably advanced prices following the removal of restrictions.

Argentina

The Royal Commission in Argentina has purchased cereals for the allies at the following prices per bushel: wheat, $1.56; oats, 45 cents; corn, 62 cents.

Although the reports are fragmentary, they show by the wide variance in different countries how the war has interfered with normal production or distribution of food and in some cases both. The European prices for the most part clearly reflect the known shortage of foods, but in cases of regulation as, for instance, the English milk schedule, an artificial factor is introduced which must be understood if accurate conclusions are to be drawn.

The Argentine grain quotations are especially worthy of study as showing the effect on prices of geographical remoteness and lack of adequate shipping. They have made material advance as a result of peace.—U. S. Food Administration.

Count that day lost whose low descending sun
Views from thy hand no worthy action done.

La Crosse Happy Farmer TRACTOR

The La Crosse Tractor Means a Happy Farmer

AS you stand beside the La Crosse Tractor, every working part of it is right under your hands where you can reach it easily. Step into the driver's seat—and you are ready to do any power farming job as simply as you would run your automobile. There are no difficult adjustments to make—no out-of-the-way places to get at. From where you sit you can operate the implements as well as the tractor single-handed.

You need a tractor for the amount of work it will do **quickly.** Because of its simplicity, the La Crosse is the tractor you can depend on to do the work you want in good time and without delays. It is as simple as it is powerful.

The Simple Three Plow Tractor

The simplicity of the La Crosse Tractor is the result of the experience and genius of the men who designed it. From the entire automobile, tractor, vehicle and farm implement field, the highest type of men have been chosen for La Crosse engineers. When you buy a La Crosse Tractor, you secure the finished product of the best brains in the tractor world.

The La Crosse is the successful three plow kerosene burning tractor. Its simple twin cylinder engine with the six inch bore and seven inch stroke delivers most power per gallon of fuel.

The La Crosse is the tractor which is easy to handle. It turns within a space of 9 feet and is self-guiding in the furrow.

La Crosse Tractor Implements

Like the La Crosse Tractor, La Crosse Implements are designed and built to do their work most economically and easily. All of them can be handled by the use of a rope from the driver's seat on the tractor.

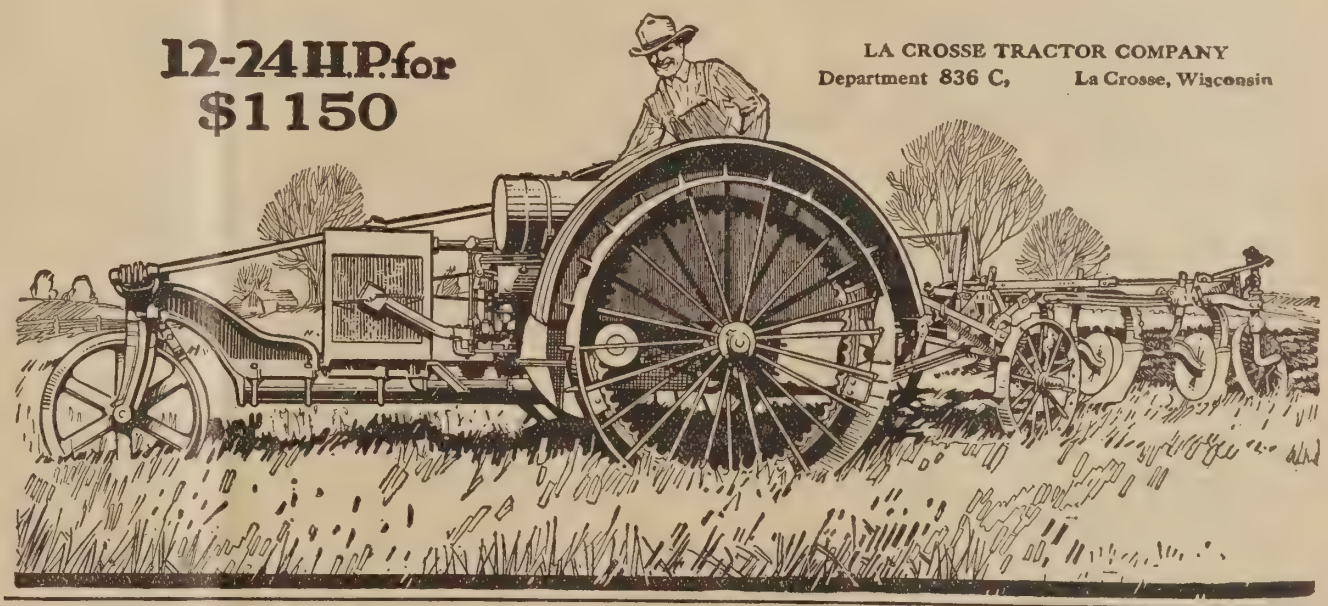
Ask your dealer to show you La Crosse Tractor Plows—both moldboard and disk—the La Crosse special Tractor Disk Harrow and the La Crosse Automatic power-lift and power-pressure Grain Drill.

See the La Crosse Now

The La Crosse Tractor offers you 12-24 horsepower for $1150—full three plow capacity, with guaranteed drawbar pull of 2000 pounds and 24 belt horsepower. It is famous the country over as the tractor with "most power for the money".

Now is not a bit too soon to see the La Crosse dealer near you and have him place your order for Spring delivery. Write us today for his name, as well as that of the district distributor, who will make arrangements for you to see the next outdoor demonstration.

12-24 H.P. for $1150



LA CROSSE TRACTOR COMPANY
Department 836 C, La Crosse, Wisconsin



YOUR Automobile will furnish cheap and efficient power for grinding feed, sawing wood, filling silo, shredding corn and all other work a 14 H. P. Gas Engine can do.

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Simple to connect—does not harm your car. Get one NOW—hundreds in use—Satisfaction guaranteed—only . . $35.00

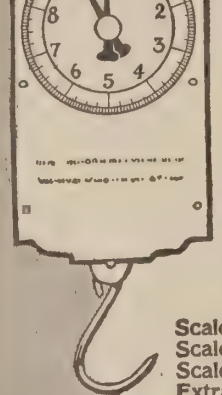
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Write for Circular.

405 Minnesota St. ST. PAUL, MINN.
LAWRENCE AUTO POWER CO.

Pail Balancing Scale

Direct to You For $2.85



JUST the thing to determine the yield of each cow. Especially popular with cream handlers who weigh the cream as collected at the different farms.

On the dial of this scale is a loose indicator which can be adjusted and set by a thumb screw, at the O mark so as to balance the weight of the pail. Thus, the net weight of the milk is shown.

Two
Record Blanks Furnished Free

with each scale. These blanks contain the record of two milkings a day for one week for 14 cows.

Three Capacities

Scales, 30 lbs. capacity, by 1-20 lb. each	$2.85
Scales, 60 lbs. capacity, by 1-10 lb. each	3.60
Scales, 120 lbs. capacity, by 1-5 lb. each	5.80
Extra Records • • net per doz.	.15

Add 20c to your check for Parcel Post. Ask for our Dairyman's Catalog

Creamery Package Mfg. Company
68 W. Kinzie Street
Chicago, Ill.



Get More Milk from Happy Cows

Cows are a lot like human beings. They cannot do their best work unless they are healthy and contented. Feed is the all-important factor, and the feed which is today giving the best results is

Happy Cow Feed

You'll appreciate Happy Cow Feed. It is the proper combination of cottonseed meal, wheat bran, velvet bean meal, corn meal, unhulled peanut oil feed, rice bran and polish, alfalfa meal and ½ of 1% salt—all high grade ingredients.

No feed manufacturer in the world is better located for making high grade feed products than this company, and to this great advantage is added the modern milling equipment and a lifetime of successful feeding experience.

Happy Cow Feed will be a revelation to you. It will quickly turn your losses into profits, because it solves the high cost of feeding. It is made with or without molasses—as you prefer.

Happy Cow Feed is in harmony with the great research work of Dr. E. V. McCollum. It is clean—palatable—digestible. It insures you the largest profits in milk production.

Write for price, sample and dealer's name.

EDGAR-MORGAN CO. *Dept. 30* MEMPHIS, TENN.

(No. 8)

When Writing to Advertisers, Mention Hoard's Dairyman

Eradication of Disease From the Farm

(Continued from page 773)

mitted to human beings, especially children, by infected milk.

The tuberculin test is the most reliable agent at our command for the detection of tuberculosis in animals. In the hands of competent and experienced men it is capable of picking out practically all of the tuberculous cattle in a herd even though they show no outward signs of being sick.

If a herd is known to possess tuberculous animals, the first step to be taken in eradicating the disease is to find out just which animals are tuberculous. The proportion of animals proving to be tuberculous should guide the owner in his next move. Should only a few grade cattle prove affected, there is little doubt that the best procedure will be to promptly dispose of them by slaughter, having them slaughtered and examined, if possible, at an abattoir having federal inspection.

Where the tests show that more than half of the herd is diseased, it will be safer and cheaper to consider all of the cattle diseased, and then begin to build up a new, healthy herd by raising the new-born calves. They should be taken away from the diseased animal as soon as born and fed on pasteurized milk. Only very careful attention to details will lead to success in this undertaking, because of the constant danger of infecting the healthy calves with materials brought from the tuberculous part of the herd.

New cattle should never be placed in a healthy herd until they have successfully passed a reliable tuberculin test.

Hog Cholera

Hog cholera has been found in nearly all parts of the United States, but is more prevalent in some sections than in others. The disease spreads rapidly and the yearly losses from its attacks reach millions of dollars. The infection may be carried from place to place upon the shoes or clothing of people, on the feet of horses or dogs, or upon wagon wheels and in countless other ways. It is plainly to be seen therefore that the farmer who has a healthy drove of hogs should use every effort to keep infection away from them. No one should be allowed to enter the hog lot unless it is certain that he has not previously been near hogs suffering with hog cholera. Careful attention to the isolation of the healthy herd will probably be all that is needed to keep it free from hog cholera in uninfected sections of the country. Where the disease is known to exist in the immediate vicinity, preventive inoculation with anti-hog cholera serum should be resorted to at once.

Placards announcing the presence of hog cholera upon the premises should be conspicuously posted at the gateway of every farm upon which the disease is known to exist, as a matter of protection to neighbors having healthy hogs.

Texas Fever

Texas fever, being carried by ticks from animal to animal, must be treated differently from other infectious diseases. Cattle that are native to tick infested localities may carry numerous ticks upon their bodies for many years without contracting fatal cases of fever. They are a great source of danger, however, to cattle born in sections free from ticks. Keeping tick-bearing and tick-free cattle constantly separated is therefore a very important measure in the suppression of Texas fever. The United States Department of Agriculture is working in co-operation with the people of tick-infested regions of the South to free th farming lands of those areas from a infectious cattle ticks. Thousands square miles have been freed, and th good work is progressing rapidly. A soon as the whole country has bee cleared, the extensive provisions fo keeping infested and uninfested catt separate, that are now in active forc at all stockyards and on all railway may be abolished, and an immense sa ing of money will result.

Contagious Abortion

Contagious abortion in cattle is germ disease which causes the death unborn calves and occasions annu losses of millions of dollars. The co tagion is spread at the time of bree ing or may pass from animal animal by means of contaminate feed and water. The germs are pre ent in large numbers in the abort fetus and its membranes, wherefo places fouled by an aborting co should be thoroughly cleaned and d infected. Through burning, buryin or disinfection of infective materi great progress can be made towa the control of the disease. A cow th has aborted should be removed i mediately from among the healt animals and given appropriate trea ment, which includes the irrigation uterus with suitable disinfectan After abortion, breeding should suspended until it is evident that t vaginal discharge has ceased. Abo ing cows are likely to become immu eventually, so if they are profitab animals they should not be slaug tered but should be retained in t herd.

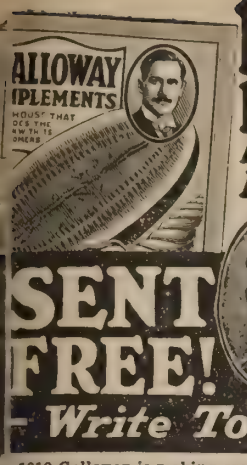
Fowl Diseases

Fowl cholera, blackhead, and ro are infectious diseases that sometim cause serious losses in the poult yard. The killing and burning of bi that are affected with either of t above diseases, removal of those th are apparently healthy to fresh, cle quarters supplied with clean fo troughs and drinking fountains, gether with careful attention to fe ing and watering and persist cleanliness, will do much to suppr these troublesome outbreaks.

Combating Infection

The experience gained in fight against the various infectious d eases that have appeared from ti to time has been of the greatest va to the live stock sanitary officials the country, for they have been for at times to contend with the m actively infectious diseases of dom tic animals. Infection may be c veyed by means of direct contact, indirectly by infected manure, h stable utensils, and the like. Human ings in certain instances may carry infection with them on their cloth and shoes, or may transmit it fr their hands while milking or car for stock in other ways. It may a be carried by dogs, cats, rats, pige etc.

It is obvious that only the strict measures can succeed in stamping diseases that spread so quickly, that may be spread from animal animal or from farm to farm by s varied carriers. Every effort sho be made to keep healthy animals f exposure to the contagion. The cases of animals dying from the ages of an infectious disease sh be burned or buried deeply. Infe stables should be disinfected by th ough cleaning even to the removal partly decayed woodwork, since infection that will totally destroy lingering traces of the infection required for the granting of an as ance that the disease will not reapp The stable utensils should not overlooked. The manure in the y around the stables should be d fected and later spread where it soon be plowed under. Sunlight a powerful disinfecting action



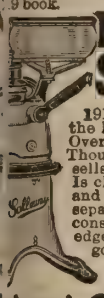
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your implements straight from Galloway's ories. I cut out all waste and lost prices by ng direct. One million satisfied customers Galloway implements and save big money. can do the same. Write today for Galloway's 9 book.



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1919 model is ready. Have all the latest and best improvements. Over three hundred thousand in use. Thousands sold annually. Each one sells from one to a dozen more. Is closer skimming, easier cleaned and more sanitary than any other separator built. All parts run in constant spray of oil. No sharp edges to break up globules. Four good sizes. 375 lbs.—500 lbs.—750 lbs.—950 lbs.—at four low prices.

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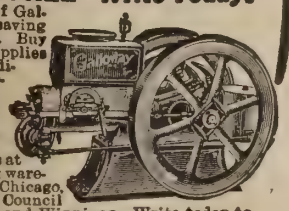
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gneto ipped 19 ENGINES

ay's 1919 new model engines are more ful, more economical than ever. 2¼ to 12 Portable or stationary. Has valves in head, t energy. Big bore, long stroke and heavy . Special built-in magneto supplies blue hot needs no batteries. Easily started, no crank- linder and water pot frostproof. Burns any Heavy or light work models for the lightest heaviest, toughest job on your farm.

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'AYS to GRIND ALL GRAINS

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sire to express my appreciation the long-lasting, trouble-proof sher. Have used a No. 4 ten years less than One Dollar per year for ure." *R. W. Watt, Jacobsburg, O.*



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open fields, yards, and the like. Special attention should therefore be given to the shaded and muddy places around the farm buildings when efforts are being made to clean up farm premises after an outbreak of infectious disease.

Farm Institutes and the College

HOARD'S DAIRYMAN:—It may be something of an experiment that New York State is about to try. Farmers' institutes have long been held there and for the most part have been handled by men closely in touch with the farms of the state. More recently some of the speakers have been from the colloge of agriculture, either as instructors or as graduates from the institution. The result of this partial change would be estimated differently by different people, but among the bureau men are nearly all, I think, college men, and are commonly expected to be present at the institutes held in their respective counties. If I look at the situation rightly the college authorities are in actual control of institutes, but an experienced institute worker, "up from the ranks", is somewhat in charge. It remains to be seen which way the institute movement will gravitate, toward the practical affairs of the farm or in the direction of those things for which it seems the college must stand. I may be criticised for this statement, but from my point of view there is a difference here, and if the latter prevails there will be no institutes in a few years. Perhaps they are not needed. I would not have the college further removed from the public, but



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HOLSTEIN COW, MISS PIETERTJE ALEXINA 2ND

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working farmers it rather seems that institutes have not grown greatly in popularity. These same working farmers, however, have unmistakably come to a better knowledge of scientific facts, and it can hardly be doubted that a part of this is due to institute work.

The control of institutes is now in the hands of the college. At this moment the change cannot be considered popular. It is to be tested and the verdict will come later. I think the college men are acting cautiously.

This year, as in former years, a normal institute has been held, and, as has been common for some time, it is held at the college. The meeting is one of the institute speakers and farm bureau managers combined, the same as for the past few years. These I can't help thinking that the farmer shall have institutes.

The writer has always been treated courteously and generously at the college and would do anything possible to reciprocate. It is not my wish to widen any gulf. The college will do its best to make these institutes helpful. Let us of the farm do the same. We are trying an experiment. Give it honest support. If this plan is the best one, follow it. If it needs a little rearranging, let us first make sure of the fact and then do the reasonable thing about it whether the new is in accordance with our own ideas or not. I believe the college will watch progress closely and will be ready to adopt the line that means the highest good to the greatest number.

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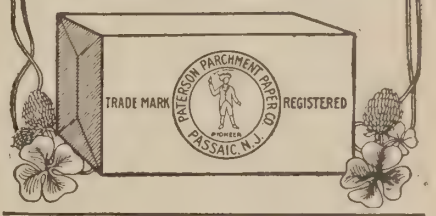
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Coming Events

Wisconsin Cheesemakers' Association meets Jan. 8—10, 1919, at Milwaukee. Secretary, J. L. Sammis.

Montana Dairymen's Roundup at Billings, Jan. 9th and 10th, 1919.

Massachusetts Dairymen's Association meets in Horticultural Hall, Boston, Mass., Feb. 10, 1919. Acting Secretary, O. A. Jamison, Amherst, Mass.

Illinois Dairymen's Association meets at Bloomington, Ill., Jan. 21-23, 1919.

Death of Dr. S. M. Ward

The live stock breeders of the United States have lost a capable and honest official in the recent death of Dr. S. M. Ward of Minnesota. Dr. Ward has rendered a signal service to the live stock interests of Minnesota, and as secretary of the United States Live Stock Sanitary Association his influence has been extended throughout our nation and Canada. He has been secretary of the Minnesota Live Stock Sanitary Board for nearly twenty years and has secured laws and provided regulations for handling animal diseases that are sane and effective.

It is largely through his efforts that the pure-bred cattle of Minnesota are practically free from tuberculosis. In his control of the outbreak of foot and mouth disease in 1914, he showed his skill in handling infectious and contagious disease.

Dr. Ward was a leader in live stock sanitation and thoroughly comprehended the principles and practices necessary to control animal diseases. He held firm convictions, but was not domineering. He fought for the right, and this made him a host of friends among the veterinarians and live stock men.

Milking Shorthorns at International

HOARD'S DAIRYMAN:—While the International Live Stock Exposition is a show mostly for breeders of beef type cattle, the 1918 gathering brought out a strong showing of milking Shorthorn cattle, this class being the dairyman's chance to take part in the beef breeder's show and demonstrate what improvements they have made during the year.

The class of cattle this year was extra good. The showing was confined to a few breeders but their herds were increased over a year ago and the class of cattle looked better. There were not many exhibitors in the class but they had over 60 animals in the ring.

Cattle in this class, except three-year-olds or over, had to be out of Record of Merit dams or sired by bulls out of Record of Merit dams, or by bulls having two or more Record of Merit daughters. Attractive prizes were offered for winners in this class. Six hundred dollars of the amount offered in prizes in this competition was contributed by the American Shorthorn Breeders' Association and $500 more by the milking Shorthorn breeders.

A. H. Tyron of New York acted as judge and placed the winners in the milking class.

The exhibitors were: McMartin & Son, Minnesota; Gretna Farms, Illinois; Carpenter & Ross, Ohio; J. E. & C. B. Wade, Ohio; R. R. Wheaton, Ontario; Peter Traynor & Son, Wisconsin.

The winners were:

Aged cows—First, McMartin on Roan Maud; second, Gretna Farms on Sprighty Millicent; third and fifth, Carpenter & Ross on Fillpail Baroness and Valentine Belle; fourth, Traynor on Clarabella.

Cows, three and under five—First, Gretna Farms on Charming Daughter; second, Wheaton on Rose Clyde; third, McMartin on Lucy 14th; fourth, Gretna Farms on Trilby; fifth, Traynor on Mae B.

Two-year-old heifers—First, McMartin on Snowdrop; second, Traynor on Sunshine; third, Wade on Snowdrop Daisy; fourth, McMartin on Irene 2nd; fifth, Wade on Thanet Princess.

Senior yearling heifer—First, Traynor on Kinsella Buttercup; second, Wade on Snowdrop Laura; third, Gretna Farms on Louise 11th; fourth, Traynor on Wisconsin Ruby; fifth, Wade on Royal Lady.

Junior yearling heifer—First, McMartin on Redbud 2d; second, Gretna Farms on Cloe's Lady Ann; third, McMartin on Snowball 2d; fourth, Gretna Farms on Gretna Lilac; fifth, Gretna Farms on Sunshine; sixth, Traynor on Wisconsin Rose.

Senior heifer calf: First and second, Gretna Farms on Gretna Pride and Kelmscot Pink 2d; third, Traynor on Kinsella Rosa; fourth and fifth, McMartin on Iris 4th and Doan Maud 6th.

Junior heifer calf—First and second, McMartin on Clementine 5th and Lucy 18th; third, fourth, fifth, and sixth, Gretna Farms on Spry Millicent, Louisa 12th, Barbrahm Cherry 3d, and Gretna Lass 3d.

Senior and grand champion cow—McMartin on Roan Maud.

Junior champion cow—McMartin on Rosebud 2d.

Illinois. JOSEPH M. CARROLL.

Boys' Short Course

HOARD'S DAIRYMAN:—The school for farm boys which has been conducted at the Marshfield, Wisconsin, Experiment Station, came to a close the middle of December. This is the first time a school of this kind has been in operation in Wood County, and judging from the interest shown by the boys in attendance the school will become a popular institution in the future. The school is an outgrowth of the vocational bill passed during the last session of Congress which makes available money to be devoted to education in agricultural work for the boys on the farm who are unable to leave for any great length of time and who need just the kind of instruction given at these short term courses.

The work of the Farm School is under the direction of Mr. Taylor, who is employed by the Federal Government. In his work at the Experiment Farm School he was assisted by men who have charge of the work at this place. The work is practical and adapted to the particular needs of the boys—stock judging, rations for dairy cows, types of animals, and care of animals, occupied most of the first week of their time. Short trips were also made examining other herds of pure-bred stock and hogs.

The second week was given over mainly to a study of the soils of this section and how best to manage them with the view of getting the best return. The study of varieties of grain and corn occupied another two-day session. In all of this work the aim is to present the subjects covered in a practical way so that it can be applied to conditions on the farms from which the boys come.

During the entire period the attendance was perfect, an index of the interest shown by this group, some of whom came five miles.

Mr. Taylor is also planning to follow up the work with the boys during the summer. Each farmer student is to take up one or more projects on his home farm, putting into practice some of the suggestions covered during the two weeks' session, just brought to a close.

Wisconsin. F. B. LAMSON.

New York Butter Market

NEW YORK CITY, DEC. 17—There has been a variation of only a half cent in quotations on butter since last week, but that does not truly indicate the different feeling that has prevailed on the several days. All variations of activity have been present during the week. One day the market was apparently very weak and on the following day a marked strength would develop. That was due to the highly nervous condition that has prevailed at all times this year. The fact that a sudden weakness might cause a marked decline in price with great losses causes every dealer in butter, whether he be wholesaler, jobber, or retailer, to take no great chances. At present it is a game of play safe and no one is accumulating stock greatly in excess of what is needed for immediate trade.

One week ago today a quotation of 69c for extras (92 score) was established. That quotation prevailed during the remainder of the week. Yesterday there was an advance of a half cent as stocks were fairly well depleted and there was a healthy demand. There was scarcely enough high quality butter to supply the demand but the arrival of some California butter that had been in transit for some time helped to supply the trade. Today there is a marked activity and the quotations as established yesterday prevail but there are indications that we may expect another small advance in the next day or two. There is still a very wide range of prices between undergrades and high quality butter, although the lower grades are selling to better advantage than during the past weeks. Receipts are fairly regular but the output at present seems to have about reached the minimum in quantity. The fact that at present no increase in production can be expected leads one to believe that no marked reduction in prices of butter will take place for some weeks, at least.

At the close today established quotations were as follows: Extras (92 score), 69½c; higher scoring than ex tras (93 score or above), 70@70½c firsts (88 to 91 score), 64@68½c and seconds (83 to 87 score), 59@ 63½c. Unsalted butter is scarce ar is quoted at a differential of 1½c ov prices of corresponding grades salted butter. W. B. LIVERANCE.

Velvet Bean in Feeding Tria

HOARD'S DAIRYMAN:—The Sou Carolina Experiment Station recent compared velvet bean meal, whe bran, molasses feed, and cocoan meal as supplementary feeds f cottonseed meal for dairy cov Twenty cows were used in the e periment, these being divided in four groups of five each. The gra ration was mixed in the proportion one part cottonseed meal to two pa by weight of the other feeds. The id was not to dispense with the use cottonseed meal, but to determi which one of the three feeds me tioned would best supplement cott seed meal as a part of the grain tion. The cows were fed on these exactly one month, and the amount milk produced was the method determining which was the best s plement to cottonseed meal.

This grain ration was fed at rate of one pound for each th pounds of milk produced. The rou age given was five pounds of hay all the silage the animals would cl up well. The velvet bean meal very unpalatable to the animals at beginning of the experiment, they apparently cared for the lasses feed considerably more t they did for the velvet bean meal. cocoanut meal seemed to be distast to the animals, as some of them w consume just as little of it as poss when mixed along with cotton meal.

Of these grains, the velvet proved to be the most econom and even though it was not reli as much as the molasses feed proved to be the best when meas in terms of economy of milk pro tion. This is about what might be pected of velvet bean meal, as it shown up to decided advantage great many experiments when along with cottonseed meal in proportion of two to one by weigh is not advisable to try to feed v beans alone, as they are not suffic ly palatable to cause the cows to them up well. And, too, it is not ficiently rich in protein to be depe on for the larger part of this stance. But used along with co seed meal these two objections largely overcome.

Experiments show that it little difference whether or not velvet beans and the pods are gr up into meal, or whether the bean in the pod is fed. One form to give just about as satisfa results as the other. Of course the beans are fed in the pod should be soaked in water for at 10 or 12 hours before feeding, to soften both the pod and the In the lower part of the South a large percentage of the dairyme now feeding a grain ration com partially of the velvet bean in form, and the results obtaine tests at experiment stations a dairymen themselves pretty gen agree that it requires from two and a half pounds of velvet bea the pod to produce as much m one pound of cottonseed meal that the most satisfactory way t it, either in the pod or ground, mix it with cottonseed meal a the grain ration be composed less than one-third of cottonseed

Alabama. L. A. Ni

Sale Announcements

Jan. 7-8-9, '19—Holsteins. Moyer's Holstein Sale, Earlville, N. Y. H. A. Moyer, Director, Syracuse, N. Y.
Jan. 7, '19—Holsteins. Rock Brook Farms Dispersion at So. Omaha, Neb. H. C. Glissmann, Sta. B., Omaha, Neb.
Jan. 15—Guernseys. Dispersion of W. B. Quarton's herd of Registered Guernseys. Algona, Ia.
Jan. 26, 1919—Holsteins. Central Michigan Holstein Breeders' Second Annual Sale at Michigan Agricultural College Live Stock Pavilion, E. Lansing, Mich. A. E. Jenkins, Mgr., Lansing Mich., R. 5.
Jan. 28, 1919—Holsteins. Dispersion of Frank White & Son's herd of Registered Holsteins, Woodstock, Ill.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
Feb. 25—Holsteins. Dr. A. D. Blackburn, Cuba, Ohio.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.

ring 2,000 Farmers in North- rn Minnesota a New Start

HOARD'S DAIRYMAN:—Without king a personal trip to the burned- r area in Northern Minnesota it is ossible to conceive of the devasta- wrought by the fire. Over 1,200 are miles of territory were cov- l by the fire and in this area prac- lly no buildings escaped. The fire accompanied by a sixty-mile wind ch carried the flames for a half out into clearings and even into s, leaving 2,000 farms without lter of any kind and resulting in ut 600 people being burned to th. The survivors had to have k relief and this was furnished by Red Cross and by the Northern nesota Forest Fire Relief Com- sion under the management of onel Eva, who was appointed by governor of Minnesota.

he first problem was to furnish hes and these were supplied large- rom donations sent from all parts he country. The clothes furnished uded new clothes taken from es, old uniforms of various kinds, hing of every style used in the fifty years. Even the settlers in r grief had to laugh at each other ssed in gaudy lodge attire with l buttons and fancy stripes. One he most popular articles of wear- apparel were carnival overcoats ch were supplied in abundance by people of St. Paul. These were guady colors and queer shape but important part was that they e made of warm material.

ext came the matter of supplying l to the people and this was done establishing store houses in each ne towns where supplies were fur- ed free of charge to the fire suf- rs.

ne next problem was to furnish es of some kind. In the Duluth re- the people of Duluth organized rews of five or six men and went the country with loads of lum- and actually erected small houses the farmers. In other parts of the area farmers were furnished lum- and built their own one-room es, but before this could be done had to be provided with which to l, wagons with which to draw out lumber, and in many cases har- es to take the place of those ed in the fire.

rom the standpoint of caring for people there was a great problem, little has been said about almost reat a problem and one which is nuch interest to farmers. Only t 900 head in all of the cattle and es in this 1,200 square miles of ed over country were killed by ire. Several thousand head saved lives by getting into the clear- and were left without food or er and this was the problem that taken charge of by the county ts and other agricultural men of egion. The day following the fire, h occurred on October 12th, the st Fire Relief Commission was ed and one of the first steps tak- y the Commission was to put out rder that no live stock of any should be sold without a permit the county agents. The reason his order was that many of the rs feeling that they could not ide feed would sell their live at much less than its real val- nd leave the region. The Com- on planned to provide food for tock and to help the settlers to ld their homes. This problem handled in different ways in the localities where the destruction greatest.

the Moose Lake area the first was for County Agent C. P. son and deputy to visit the herds ull out the stock which was not keeping over winter. This gave them a fine opportunity to get rid of much of the poor class of live stock which had been kept in this region, especially the scrub sires. This stock was shipped out in carload lots, the farmer receiving the highest market price for all of them. Farmers were then furnished with enough lumber to build barns which would do for the winter to house the stock which they had on hand. Warehouses were then built in each of the towns and feed provided to supply the needs during the coming winter. The greatest difficulty has been to secure enough hay, but so far all of the stations have received enough for their immediate needs.

In the Duluth region another plan was followed. On the day following the fire the county commissioners met in a special session with County Agent E. P. Gibson and decided that the best plan would be to build large barns scattered through the burned area where the settlers could take their stock to be cared for until they could be turned on pasture in the spring. In a few days twenty-five of these barns had been constructed, varying in size from 18x72 feet to 32 x110 feet. These are called concentration barns and are built in a substantial manner although they are considered temporary structures. The majority of the cattle barns are 30x85 feet. They are arranged with a feed alley down the center rows of stalls made on the Hoard stall plan. The manger is made of plank and provision is made so that cattle can be watered in this manger. A good plank floor and drop is provided. It was necessary not only to provide for cattle but to make room for horses, sheep, hogs, and even poultry at these concentration centers. County Agent Gibson planned the barns and secured carpenters to build them. He then appointed several deputies who went among the farmers and collected their stock, shipping the undesirable ones and directing the farmers to take the others to the concentration barns. The best stockmen obtainable were put in charge of these barns and given all necessary help to keep the live stock in good condition. All this work was done in a few days. The relief workers were favored with good weather but even with better weather than we usually have at this time of the year the exposure and overwork resulted in a great many cases of influenza and this hindered the work. In spite of this handicap and many others, in two weeks room was provided for all the stock.

To feed all of this stock is costing the Relief Commission about $150,000 a month and this expense will continue until grass next season. It is estimated that already the Commission has spent a half million dollars. This is more than has been provided but the Relief Commission does not stop because it has no funds. They know that the people of the state and the United States will support them in spending whatever money is necessary and they are working with this in mind. County Agents Johnson and Gibson feel that the present situation is giving them a great opportunity to improve the live stock of the burned over country. They have culled out practically all of the scrub sires which had formerly been used and now must provide something better to take the place of these culls. Here is where the live stock breeders of Minnesota have a chance to do a great piece of work and they have not overlooked the oppportunity.

Mr. S. B. Cleland, Assistant State Leader of County Agents, put this problem up to the breeders' association in the state and they at once offered to do all they could. The Minnesota State Holstein Breeders' Associa-

(Continued on page 788)

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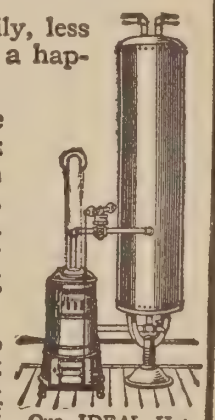


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EDITORIAL COMMENT

WE are thankful and proud for all our warm friends have said and done for Hoard's Dairyman in its years of toil and struggle for a position in the front rank; and we pledge that we will do our level best to keep our friends as helpful as they have ever been, by being as helpful to them as we know how to be.

HOLSTEINS OF IOWANA FARMS

Elsewhere in this issue we have made brief mention of the Holsteins of Iowana Farms. The system of breeding, feeding, and handling of this herd so completely coincides with our conception of the right way of developing pure-bred cattle that we take occasion to comment upon it editorially.

In the first place, Colonel French, the owner of the Iowana Farms, seeks to breed strong, vigorous, healthy animals of good conformation and of high dairy talent. The records of this herd speak for themselves, but it may be added that animals from this herd have many times won grand championships at the National Dairy Show.

Here we have, then, a herd that combines health, strength, dairy conformation, beauty of form, and splendid dairy talent, which to us is the true purpose and object of breeding dairy cattle. It should be noticed that 7-day records are not emphasized. They are recognized as having value, but the true capacity of a cow can not be measured as accurately by what she produces in a week or a month as in a year. It is not enough for a cow to produce a large yearly record, but she also should be capable of producing a strong, healthy calf. Besides demanding all this, Colonel French weeds his herd severely, and we commend him for it. He does not permit any pure-bred bull calf to leave his farm for breeding purposes unless its mother with her first calf is capable of producing at least 300 lbs. of fat in a year. He holds, and rightly too, that the breeding of dairy cattle is not simply mating animals which are registered, but it consists in mating animals which are registered, which are of good conformation, and which are capable of producing profitable flows of milk. We highly commend the practice of the Iowana Farms because it meets the ideal, and because we cannot conceive of anyone requiring a breeder to do more than is being done by the owner of this splendid herd of Holstein cows.

TEMPLE OF AGRICULTURE IN CHICAGO

W. E. Skinner, Secretary of the National Dairy Council, suggests that a monument to agriculture be erected in Chicago in the form of an agricultural temple in which there could be united the various activities of the industry of agriculture.

Chicago is situated in the heart of the greatest agricultural section in the world—the Mississippi Valley. It is this section that brought forth food abundantly and kept our allies and ourselves well supplied.

The great metropolitan press has been slow to conceive that agriculture is the fundamental industry of the nation and that it must receive justice if our country is to develop systematically.

Mr. Skinner, in an article in the Chicago Tribune, says: "A city which exists because of the bountiful agricultural region it draws its life blood from and because it regulates the financial pulse of the greatest agricultural section in the world—the Mississippi Valley—it has always seemed strange to me that Chicago has never given to the country an evidence of its appreciation of its splendid position in the world's commerce by building a monument to agriculture that would serve to centralize and help all agricultural effort through one great national headquarters where all the world could come for information on food. There are now located in Chicago all kinds of agricultural associations, each performing a service for its own special line, and with no co-ordinated effort for the good of the whole. A movement calculated to bring all these units under the recognition of this great city's business interests would do more than anything else to create that better relationship between country and city which seems now to be attracting the thought of the best business brains of America."

It is our hope that the business men of Chicago and the citizens of Illinois will see the importance of such an institution and will put forth effort to build a temple of agriculture in memory of the part the Mississippi Valley played in our great world struggle and at the same time serve a purpose to further the development of agriculture and to bring a better understanding between the city and the country.

MARKET PRICES

Several years ago, before the milk producers of this country were effectively organized, a group of farmers called upon a prominent milk dealer of a large city in Wisconsin. At that time milk was selling for $1 per hundred, and these farmers informed the dealer that they could not afford to produce milk at that price. The milk dealer being informed regarding the cost of milk production, as he had been a dairy farmer for many years, agreed with them. These men then asked that he pay $1.25 per hundred for milk. He replied that milk was worth at least $1.25 per hundred, but that he could not pay more than $1 per hundred as long as other farmers were selling to his competitors for $1 per hundred. "If I were forced to pay $1.25 per hundred," he said, "and my competitors paid $1 per hundred, inside of a few months this institution would go into bankruptcy. If you farmers can get those delivering milk to this city to sell it for $1.25 to my competitors, then I will willingly pay my patrons $1.25 per hundred, but I can not pay more than the market price for milk."

Here is a law of trade which must ever be borne in mind. The market price for a farm product may not be sufficient to pay for cost of production, but it can not be expected that one dealer will pay more for milk than other dealers in the same city when all must sell their product for the same price to the consumer. This situation shows clearly the necessity of farmers co-operating in communities for the purpose of selling their products and making a collective bargain. It does not mean that they should organize to force prices beyond what the consumer will pay. One person can lead a horse to water, but a thousand can not make him drink. Milk may be put on the market at a definite price, but no number of men can force the consumer to buy it at that price.

There are those who would have us believe that the farmers have formed a trust, but there is no such thing among farmers and we doubt whether the time will ever come when any such thing can take place. There are six million farmers in the United States, and the task would be too large to form an effective organization where they would act as a unit in the selling of a particular product. This must be done before any trust may be formed. We believe in organization, but trusts are inimical to the interests of the masses and a restraint on enterprise and competition which are vital to healthy business conditions. We are not so narrow as to believe that a farmers' trust has any more virtue than other trusts. The farmer in marketing his product, however, can co-operate and secure the market price for it. If the market will not pay what a thing is worth, a decrease in production of that particular product follows, and ultimately the price will rise to the level which will make its production profitable.

WHAT WE REALLY KNOW

Some years ago a quaint old farmer made this remark to us:

"I have lived a good many years; I have tried to be a close observer of the things about me on the farm; I have read what I could and kept all that I could understand. But this I have come to believe fully: that of all the great mass of stuff that comes to us as knowledge, the things we think we know, there's but little of it that we really do know,—that sticks to us and that we can count on day after day as being really so."

The old man was right. There is a vast accumulation of so-called knowledge taught in the schools. Most of it is a contradiction of that taught twenty-five years ago. Some of that received as the truth now will be contradicted in the same school twenty-five years from now. So it is with the experience of the farmer. The learning of the supposed truth today means the unlearning of that believed in yesterday. Everywhere and in everything where we deal with Nature are we meeting with this marvelous shifting of the scenes, this change and variability; and so at last we come to understand that the subject to be studied is vastly bigger than our capacity for studying it. With the farmer, if he is a wise man, this constant stream of variation is ac-cepted. He knows that his best judgment is no-ing more than a close guess, a little closer p-haps than his neighbor, for he refuses to be "c- sure" of anything.

We find in breeding our cattle and plants t- Nature throws us off the track of certainty by universal law of variation. We find in deal with the soil that nowhere can we be "cock su- that we are right.

But we do find that those men are nearest ri- the most successful, the closest guessers, who br- to their task the most enlightened and compreh- sive minds. To such minds Nature yields the l- est number of her secrets and with that they n- be content. Nature has no mercy for the s- willed, the narrow-minded, and the ignorantly c- ceited. They have no reverence for her and so treats them with contempt, making their pun- ment oftentimes "harder than they can bear".

PRICES OF FEED AND DAIRY PRODUCTS

The dairy industry has been passing thro- a rather trying time. There has been a shortag- labor and, until recently, the prices of dairy p- ucts have not been in keeping with the price feeds and labor. But now the industry finds i- in a more encouraging position, as the price of ter, cheese, and milk is about in the right rela- ship to the price of other things. This should b- encouragement to the men milking cows.

It is held by some, especially the city press, milk is too high in price and that butter and ch- are too expensive, and that the dairy farm profiteering. When we consider the rise in v- of feed and all things that the dairyman buys prices of dairy products are about in keeping the prices of everything else.

We have tried to determine, as far as pos- the prices of feeds 15 and 18 years ago in ord- compare them with the prices of feeds at the ent time. It should be borne in mind that it i- an easy matter to arrive at definite prices of e- feeds or dairy products as they vary in diff- sections of the country, and it depends whether the feed was purchased in the summ- wholesale lots, or from the retailer.

We find in the Elgin district, in the winte- 1901 and 1902, that the price of bran was $18 per ton, corn $20, gluten feed $22, oil $28, and hay $10. Now, the prices of the feeds are: bran $40, barley $40 to $42, corn gluten feed $60, oil meal $60, hay $20 to $2- will be observed that the prices of feeds nov- from 2 to 2¾ times higher than they were ba- the winters of 1901 and 1902.

How about the prices of dairy products? years of 1901 and 1902 the shipper of mill- Chicago received from 80 cents to $1.50 a- dred; or, in other words, 23 to 43 cents a for fat. A large co-operative creamery in I- paid its patrons at that time from 19 to 28 c- pound for fat. The Chicago milk shipper now ceiving about $1.07 per pound for butterfat, the shipper in New York is receiving about or, in other words, three times as much is paid for fat now as was paid back in the ye- 1901 and 1902 for milk produced for direc- sumption.

The good creamery will pay from 72 to 80 per pound for fat to its patrons during the of December, if the present price of butter c- ues. This means that the creamery patron ceiving about three times as much for fat as 18 years ago this winter. In other words, products have advanced a little more than ha- prices of feed and the dairyman is in a little shape now for making a profit from his her- he was 18 years ago.

These conditions should give encouragem- the man keeping cows and it should lead him from dwelling upon the experience he has securing a fair and just price for his product- ther, let us bear in mind that there is an ad- supply of grain in the world for human foo- there is a shortage of dairy products an- means, we believe, they will be relatively in price than other farm products for severa- to come. The opportunities for making mo- dairying are better now, and they will be st- ter in the future than they have been b- dairymen have made up their minds to get market price for their milk and the consume- being taught that milk is one of the cheape- mal foods on the market.

Flax Hay for Cows

flax field that was partly ripe and partly and some in blossom, was badly frosted sev- imes. This flax was cut down and stacked for Is this of any feeding value to 'just' which are in calf? Is it good for working s? This hay is to be fed alone and nothing Kindly give me information in regard to flax hich contains seed and has been frosted. gner, Mont. C. J.

above inquiry was referred to several of the rn agricultural colleges and the following re- have been received:

difficult to give advice without seeing a sam- the flax straw or hay under consideration. farmers have met with good success in feed- ich straw provided the straw was properly ted and sun-dried. A good many farmers met with severe losses from feeding imma- lax straw which has been frosted or which hreshed while containing green, improperly bolls and blossoms and which molded.

as been quite clearly demonstrated by studies s institution that flax straw frozen while , then cut as hay and improperly cured, is to develop a high percentage of cyenogen. this material is fed in any large quantities die after the same manner as those which eat frosted sorghum.

as been further demonstrated, both by prac- feeders and by chemical studies, that green raw cured as hay in sunlight without moldi- r wetness, makes good fodder and does not n sufficient of the cyenogen products to harm. Indeed, throughout this entire North- very much flax straw is fed to cattle and report fine success with it. Some stockmen that when it is cut as hay, properly cured be- horoughly mature, that they consider it in approximately equal to anyone of the le- . All, however, advise caution in feeding raw for the following reasons:

If the threshed straw is thoroughly mature bad job of threshing has been done there e an excess of seed in the chaff and straw al injury come from stock eating too much.

In such a thoroughly matured straw there to be an excess of dry fiber and if stock is this only, the fiber accumulates in the stom- uch in the manner of hair balls.

th Dakota growers who have met with suc- n feeding flax straw recommend always, in g the feed work, that it be not fed alone as correspondent indicates, but as a partial ra- ith other coarse straws and feeds. They also mend that if it is used in any large percent- the ration that the stock be given free ac- o water and plenty of salt for reasons that an easily appreciate.

H. L. BOLLEY.
th Dakota College of Agriculture.

hay will feed quite satisfactorily to cows as s horses. Stock should not be allowed to run stack, however, and should not receive more ix or eight pounds of flax hay per day. They also receive good oat straw or prairie hay lition. The flax hay should have a feeding of slightly higher than straw, and not quite h as hay.

eeding flax hay of the quality you mention is some little danger of the prussic acid poi- , which sometimes results from the feeding x hay or straw which contains considerable flax seeds. This poison, however, usually s the feeding the flax while it is green and fter it was frozen in the early fall. In win- ter it has become thoroughly dry there is not ch danger.

uld not under any condition recommend the g of the flax hay alone.

nesota Col. of Agr. W. H. PETERS.

ve fed the flax plant after it was frosted be- he seeds were mature, and with no bad re- o the cattle. I would begin feeding this flax y giving a small quantity and increasing, as n unusual and unnatural feed. This is not st request I have had for information on this

JAMES W. WILSON.
th Dakota College of Agriculture.

Starting With Alfalfa

interested in cows and alfalfa. We have a ew barn and I want to start in with 5 acres alfa. I want to start right. Want to lime oculate and get the best kind of seed. When plow, and lime, and inoculate? Shall I use e crop, and if so, what? What seed shall I use and how much for five acres? How much soil from an old alfalfa field ought I to use, and when and how applied? Would you also use cultures from agricultural college where we expect to have soil tested?

Tecumseh, Mich. MISS E. S.

Wherever practical, it is best to fall plow land that is to be seeded to alfalfa, particularly if it is sown with a nurse crop in the spring. The lime should be applied after the land has been plowed and may be applied at any time providing it is ground limestone and there is no great danger of serious washing. The inoculation should be done just preceding the seeding of the crop, care being exercised that the inoculating material is not exposed to the sun and is immediately harrowed into the soil.

The question as to the desirability of the use of a nurse crop is one that will provoke a discussion wherever the question is brought up. However, general opinion seems to indicate that it is the most economical, if not the best method. In other words, it seems scarcely practical to allow a field to lie idle for an entire year in order to secure a crop of alfalfa. Success usually follows spring seeding, and so far as our experience goes as large success will be had as with summer seeding.

We use from three to four pecks of barley as a nurse crop and from eighteen to twenty pounds of alfalfa seed per acre. This accords with the general and usual practice. If oats are used as a nurse crop, care must be exercised that they are cut early enough so as to give the young alfalfa plants an opportunity to recuperate and harden up before the extreme hot, dry weather comes on. Also, if the nurse crop starts to lodge, it is desirable to cut it for hay. In fact, several growers of alfalfa follow the practice of cutting their nurse crop for hay rather than allowing it to mature grain.

For properly inoculating one acre of ground, it will require about one ton of dirt from the surface eight inches of a field where sweet clover or alfalfa has made a good growth. To make certain that the soil contains the proper inoculating bacteria, it would be well to dig up a few roots to see if the characteristic nodules are present. After the dirt has been secured, care should be exercised that it is not exposed to the sun and that the dirt is applied in the evening or early morning or else on a cloudy day. As soon as the material has been applied, it should be harrowed in. Where the dirt has been used, it is not necessary to use the culture with the seed, although this will do no harm and may make assurance doubly sure.

Feeding Cows, Bull, and Calves

I would like to have you give me a balanced ration for my milch cows of the following feeds: Alfalfa, No. 1 (meal), per cwt., $2; bran, $1.65; corn, per bu., $1.75; oats, $.85; cottonseed meal, per cwt., $3.50; linseed meal, $3.75; I will feed alfalfa hay for roughage.

Would also like for you to tell me a balanced ration for a two-year-old, fine blooded Holstein bull, also tell me what to feed an extra fine full blooded yearling heifer.

Norwich, Kans. E. J.

Since alfalfa hay is a splendid feed for dairy cows and they will do very well if fed no other feed, we would suggest that very liberal use be made of it. We would feed each animal about all she would care to consume daily. Corn is a natural supplement to alfalfa. Therefore we would use corn very liberally.

A very good mixture to supplement the alfalfa hay would be 300 lbs. corn and 100 lbs. bran. To cows giving more than 18 lbs. of milk daily, we would feed about 1 lb. of this mixture for each 4 to 4½ lbs. of milk produced. To cows giving 18 lbs. or less per day, we would not advise feeding any grain unless they are thin in flesh and it is desirable to put them in better physical condition. To heavy milking cows, it may be desirable to feed about one-half to one pound of linseed meal per day. Linseed meal is not necessary for the protein it will furnish, but it will help to keep the animal's digestion in good condition.

We would suggest a liberal allowance of alfalfa hay for the bull, and if that will keep him in good physical condition, we would not feed any grain, but if it seems advisable to use some grain, a mixture of bran and oats, equal parts by weight, is very good for supplementing the alfalfa hay. In cold weather, perhaps a pound or two of ground corn would be in order, and if the animal does not show the thrift desired, a little oil meal, say, one-half to one pound daily, is very good.

We would give the calves opportunity to eat all the alfalfa hay they would care to consume without waste. If they are not accustomed to it, then we would begin by giving them very little. If a calf consumes too much alfalfa when it is not accustomed to it, scours follow. To calves from 6 weeks to 6 months old, a mixture, equal parts by weight, of bran, shelled corn, and whole oats would be good for supplementing the alfalfa hay and calf meal.

Choice of a Breed

will shortly complete a modern dairy barn at this place for 60 head in stanchions with additional box stalls for approximately 20, finding a market for milk or cream or both in Philadelphia. However, I have not reached a decision as to the breed I shall select, as it is important that it shall be one that will return the most ultimately from sale of product and stock. It is my purpose to start in a conservative way to build up a herd of pure-breds, possibly, if considered good judgment, to begin with heifers or bred heifers whose forebears carried with them records of repute. I would greatly appreciate your advice. This inquiry is addressed to you by a manufacturer, wholly unversed with cows of any breed. Being such, the reputation of the Holstein as a producer appeals, but as this is a strong Guernsey community, the latter seems a better investment from a breeding point.

Philadelphia, Pa. W. T. T.

Where milk is sold for direct consumption, Holstein cattle, thus far, have proven the most profitable. There are, of course, many men using other breeds for this purpose but unless one can secure a special market that will pay higher prices for the larger butterfat content, then the extra cost of producing this milk will not be returned. For the production of other dairy products, the breeds are comparatively equal in efficiency—the higher testing animals producing butterfat at the lowest cost per pound.

The choice of a breed for economical production is not so important as a choice within the breed; that is, there will be found greater variation in productive capacity between individuals within the breed than between the breeds themselves. One of the first considerations is to choose that breed which will most nearly meet the individual's personal preference and on which he can lavish the greatest affection, with the resulting care and attention to small details which, in the end, produce the best results.

There is, of course, another factor concerned where pure-bred cattle are being raised for sale. In this case, some consideration should be given, as suggested, to the prevailing breed in the section in which located. This is important, but in the writer's opinion is somewhat exaggerated where one is operating in a well developed dairy community. Ordinarily, there will be found enough individuals of the breed in such communities so that it will be an attractive place for buyers to come. However, this is a consideration that must be taken into account, particularly by the breeder who is just starting in and has not attained a reputation which, in and of itself, will draw buyers to his particular farm. It is, perhaps, of greater importance to the man raising grade stuff than to the one who is producing pure-breds of high quality.

For Cows that Freshen Next Spring

Please give me a balanced ration for my Holstein cows. We have corn silage, clover, timothy, and oats and oat straw. Which would be the cheapest ration where we have to buy the rest? We have only two cows milking now and five heifers which will be coming in towards spring. Is the same feed practical for both cows and heifers. The cows do not give much milk now. They are all quite thin as they have not had any feed this summer, only pasture.

Please give us the analysis for barley.

Iola, Wis. R. C. F.

We would feed corn silage and clover and timothy hay liberally, but would not feed very much, if any, of the oat straw unless there was not sufficient clover and timothy hay to carry the herd through until grass next spring. We would let each cow have 30 lbs. of corn silage daily and all the clover and timothy hay she will consume without waste.

A mixture consisting of 400 lbs. ground barley, 400 lbs. ground oats, and 100 lbs. oil meal will supplement the roughage nicely. Feed about 1 pound of this mixture for each 3½ lbs. of milk produced. It may be said that bran can be used in the place of oats, and corn in the place of barley, and cottonseed meal for oil meal. The suggested ration would be suitable both for the mature cows and the heifers. Cows that are fresh next spring will not need as much grain unless they are thin in flesh, then it is desirable to feed grain liberally as we believe in having a cow in good physical condition when she freshens.

In 100 lbs. of barley there are 8.4 lbs. of protein, 65.3 lbs. of carbohydrates, and 1.6 lbs. of fat, all digestible.

Sophie's Agnes--World's Champion Jersey

Granddaughter of Sophie 19th is First Jersey to Make More Than 1000 Pounds of Fat

SOPHIE'S Agnes, a six-year-old Jersey, owned by Ayredale Farms, Maine, has just surpassed the coveted mark of one thousand pounds of fat in a year. She is the first Jersey cow to reach this mark, and she surpassed it by about the same fraction that her grandam, Sophie 19th of Hood Farm, fell short of it.

Besides being a remarkable record of itself, it shows that champions can be bred from champions, and that great cows are not necessarily freaks of nature. Sophie's Agnes is a line bred Sophie Tormentor, and there is greatness on both sides of her family tree. She was bred by Hood Farm, Massachusetts, and was sold at public sale to her present owners for the record price of $10,099. She is thus the record-holder in two ways, and has justified the high price that was paid for her. She was left at Hood Farm to finish her record, and she will now carry her laurels to her new home.

Figures speak louder than words in the praise of this great line of breeding, and the qualities of heavy production, persistency, and prepotency, or "breeding on", furnish an example that cannot be duplicated in the records of any herd or any breed.

Sophie's Agnes has made the greatest Jersey record for one year. Her sire, Pogis 99th of Hood Farm, has the greatest bunch of high-producing daughters that any bull can claim, and his dam, Sophie 19th, the grandam of Sophie's Agnes, is the champion cow of all breeds, all ages, for "long distance" production.

Beginning with Sophie's Agnes, it is possible to present here the most educational and inspirational array of figures that the pages of dairy history contain. It is largely because of the far-sighted policy, its persistent pursuit, and the breeding ability displayed at Hood Farm that any such figures can be compiled. Mr. C. I. Hood, whose fame as a breeder of Jerseys extends back over many years, has consistently tested his herd for production ever since 1904, when some of his cows helped to make up the St. Louis Exposition Jersey Herd, which defeated all competition in the economic production of butterfat. It is his enterprise that is back of the records presented here:

Authenticated Records of Sophie's Agnes

Latest Record by Months — Test Began	Days	Milk lbs.	Fat %	Fat lbs.
December, 1917	31	1735.5	6.10	105.87
January, 1918	31	1728.5	5.49	94.89
February	28	1458.0	5.58	81.36
March	31	1444.6	5.99	86.53
April	30	1368.2	6.13	83.87
May	31	1355.3	6.19	83.89
June	30	1347.6	5.77	77.75
July	31	1330.1	5.66	75.28
August	31	1245.7	6.07	75.61
September	30	1101.3	6.65	73.24
October	31	1102.5	7.24	79.82
November	30	994.7	8.24	81.96
Totals	365	16212.0		1000.07

Age, 6 years, 1 month.
Average percentage, 6.17.

Previous Records	Days	Milk lbs.	Fat %	Age yrs.	Age mos.	Fat lbs.
Feb, 8, 1915 to Feb. 7, 1916	365	10171.4	6.09	3	3	619.89
Aug. 1, 1916 to July 31, 1917	365	14149.7	5.90	4	9	834.88

Class AA—Carried calf 166 days during 1916-1917 test.

Her Feed

J. E. Dodge, manager of Hood Farm, gives the feed record for Sophie's Agnes. This is information seldom given because of the enormous appetite that record cows have. In Agnes' case the feed can be computed and its cost deducted from the value of her product, and a substantial profit shown. During her test she consumed various grains as follows: Wheat bran, 1,095 lbs.; corn meal, 1,095 lbs.; gluten feed, 1,825 lbs.; ground oats, 1,460 lbs.; Schumacher feed, 70 lbs.; total, 6,205 lbs.

Valuing the feed at an average of $60 per ton, her grain feed cost is $186. She had, besides, alfalfa hay, clover hay, and beets. The value of 1,000 lbs. butterfat at $.50 per pound is $500. Sophie's Agnes, it can be safely said, made a substantial profit over her feed cost during the period of her test.



SOPHIE'S AGNES, FIRST JERSEY TO PRODUCE 1,000 LBS. FAT IN A YEAR
She is a daughter of Pogis 99th of Hood Farm, sire of 35 R. of M. daughters and a granddaughter of Sophie 19th of Hood Farm—world's champion long distance cow.
OWNED BY AYREDALE FARMS, MAINE



SOPHIE 19TH OF HOOD FARM, CHAMPION COW OF ALL BREEDS FOR LONG DISTANCE PRODUCTIONS
Total production for seven official yearly tests: 91,869 lbs. milk containing 5,280 lbs. fat. She is the dam of Pogis 99th of Hood Farm and the grandam of Sophie's Agnes.
OWNED BY HOOD FARM, MASSACHUSETTS

Her Sire, Pogis 99th

Pogis 99th of Hood Farm is not only the most highly productive sire of the Jersey breed, but of all breeds. He has just qualified for an A. J. C. C. gold medal, and at nine years of age has 35 daughters in the Register of Merit with a total of 49 yearly records. The records of his six best daughters (none over 6 years of age) are given here:

	Milk lbs.	Fat lbs.	Age yrs.	Age mos.
Sophie's Agnes 296759	16,212.0	1000.07	6	1
	14,149.7	834.88	4	9
	10,171.4	619.89	3	3
Sophie's Adora 299594	15,852.2	888.00	4	0
	10,271.6	587.80	2	1
Sophie's Bertha 313238	16,102.1	875.41	4	9
	14,954.2	829.54	3	5
	13,242.8	771.05	2	2
Sophie's Clara 324037	12,650.1	775.07	4	0
	7,463.01	438.06	2	6
Sophie's Charity 314359	11,850.2	751.69	3	5
	7,242.3	463.06	2	2
Sophie's Jewel 275109	11,982.7	703.18	5	1
	9,019.3	511.34	3	10
	8,874.4	533.42	2	7
Averages	12,002.5	645.49	3	7

Sophie 19th, Dam of Pogis 99th

Sophie 19th of Hood Farm, dam of Pogis 99th and grandam of Sophie's Agnes, is herself a descendant of great individuals. Evidence that this great line of blood is "breeding on" can be readily obtained by a comparison of records and ages. The progression indicates that the end is not yet in sight. Sophie has done more than transmit equal qualities through her son. Many of her granddaughters have made better records than Sophie did at the same age. Sophie's authenticated records, which make her "long distance" champion are:

Milk, Lbs.	Fat, Lbs.	Age, Years
7,050.2	395.9	2
9,924.8	570.8	3
14,373.2	854.4	4
15,099.4	931.9	6
17,557.8	999.1	7
11,915.4	680.5	9
15,948.2	847.8	11

The cattle breeding and dairy world is indebted to Mr. C. I. Hood for his untiring efforts in behalf of greater efficiency in dairy production. His zealous support of the Jersey cow and his success in breeding have been rewarded by many high honors, not the least of which is the development of the first 1,000-lb. butterfat producing Jersey.—AMERICAN JERSEY CATTLE CLUB.

The County Agent

The county agent's position is essentially one of leadership. This means that among his qualifications should be maturity of judgment, sympathetic understanding of the farmer's problem, a genuine love for the farm and country life, an understanding of the right way to win the farmer's confidence and respect, ability to explain a technical subject in plain, clear language, experience in farming (preferably after leaving college), good health and willingness to work hard, and a broad knowledge of the general underlying science relating to agriculture. He is expected to be able to:

Demonstrate established agricultural facts that are of value to the community but not generally practiced.

Make available to the people of the county the results of agricultural experiments and assist in determining the application of these principles to local conditions.

Search for the best there is in the farm practice of good farmers in the county and give the widest possible publicity to their work.

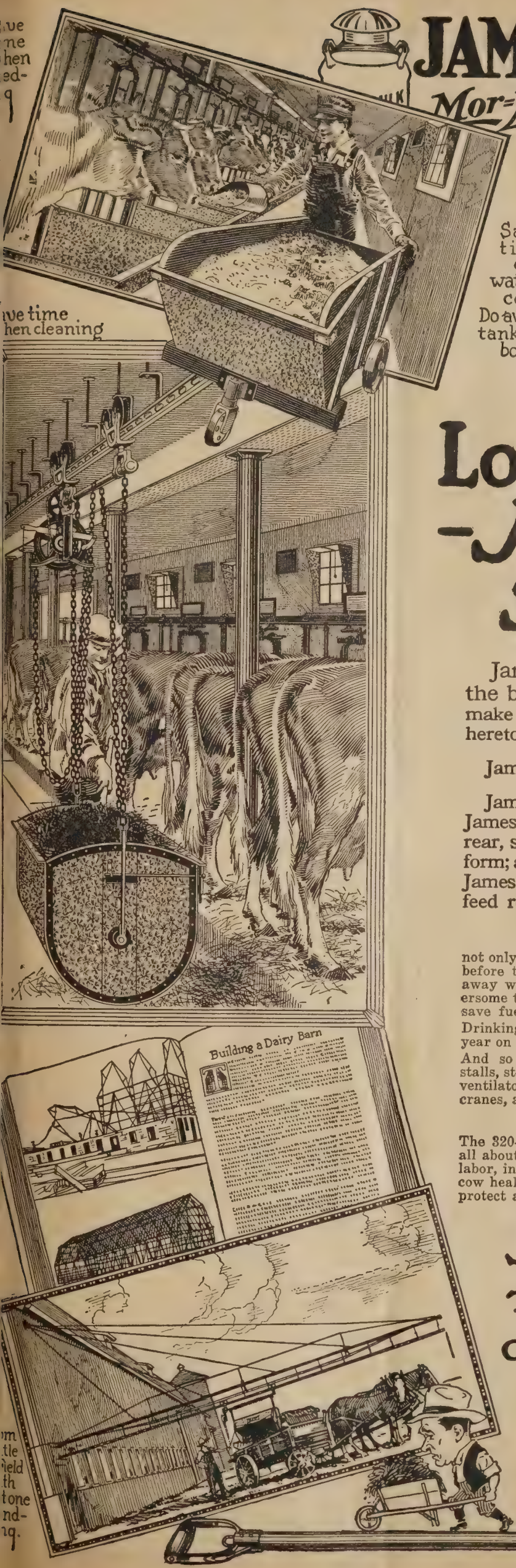
Study farming in all its relations and assist in the establishment of a system of farm management that is most profitable and consistent with permanent agriculture.

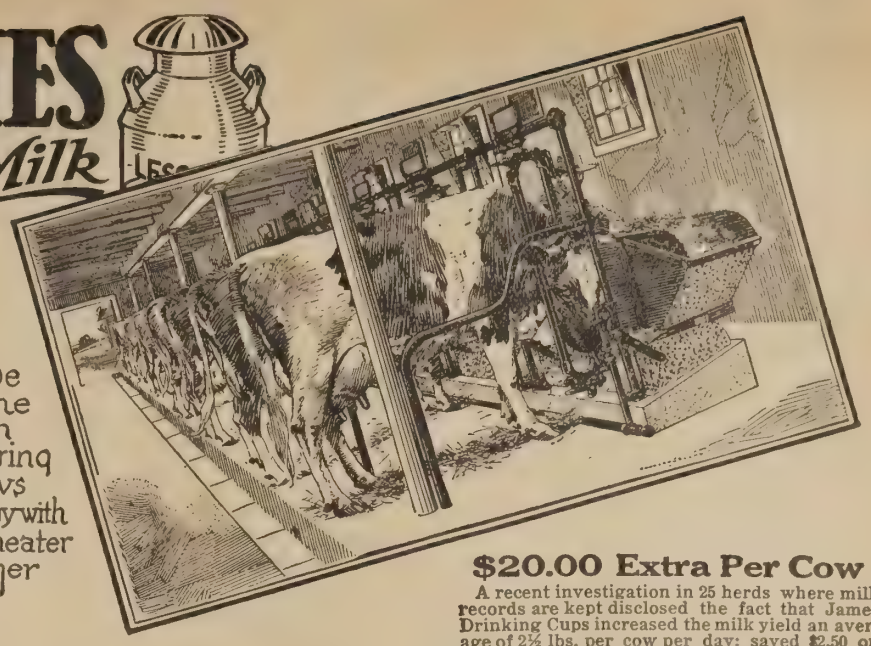
Be interested in and render such assistance as is consistent with the prescribed duties to all work undertaken in the county for the improvement of farming or the advancement of rural life.

Develop and inspire local leadership and inculcate high community ideals, stimulate co-operation, and help the rural people in their organized capacity through the farm bureau and all other local associations, to make farming an attractive business and country life satisfying to man, woman, and child.

As a teacher he teaches by demonstrations rather than by books, by object lessons rather than by lecture. Not only does he see that his demonstrations demonstrate, but he capitalizes all the teaching forces in the county in giving the results of the tests or demonstrations the widest possible publicity. In carrying out a demonstration he works with individuals, but the benefit to the individual worked with is incidental. The real purpose is to reach the community through his demonstrations and so benefit all.

The county agent is essentially a field man. He spends more than three-fourths of his time in the open country with the farmers, in their fields, barns, and homes. He should have, as many of them do have, an automobile to expedite his travel, an office in the county's central city, and a clerk to relieve him from office detail. The county agent's salary averages a little more than $2,000 a year and his expenses average $1,000. He is paid partly by the federal government and partly by the state and local government.—U. S. DEPARTMENT OF AGRICULTURE.





$20.00 Extra Per Cow

A recent investigation in 25 herds where milk records are kept disclosed the fact that James Drinking Cups increased the milk yield an average of 2½ lbs. per cow per day; saved $2.50 on labor and 49c on fuel per cow each winter.

Lost a Hired Man?
—James Equipment— Saves Barn Work

James MOR-MILK labor saving Barn Equipment makes the barn work easy. The light running James Carriers make chore time almost playtime, turning the disagreeable task that heretofore has been shirked by all the help, into a job that boys enjoy.

James Carriers pay a profit of 25 per cent or more a year.

James Scrapers make quick work of cleaning up cement floors; the James Stanchions keep the stalls clean, by lining up the cows at the rear, so that manure falls in the gutter and not on the standing platform; and the James Swinging Sure-stop saves time and trouble. The James Feed Truck or Feed Carrier saves much walking to and from feed rooms,—makes unnecessary the lifting of heavy baskets of feed.

James Drinking Cups

not only save time—cows have fresh water before them day and night—but they do away with the nuisance of tending bothersome tank heaters in blizzardy weather; save fuel expense; and make more milk.

Drinking cups earn 200% and more a year on their cost.

And so with other James Equipment—stalls, steel pens for cows, calves and bulls, ventilators, bull staffs, mangers, swinging cranes, and milk can carriers.

Free Book

The 320-page book "The Jamesway" tells all about these James inventions that save labor, increase milk yields, promote better cow health and prevent spread of disease, protect against dangerous bulls and make simpler the care of calves and sick cows. It explains the easy way of putting up carriers, erecting the stalls and pens, and attaching drinking cups. Skilled help is not required.

Barn Plan Service

It tells about the James barn plan service; the James barn experts who know what has been successful and what has not; what not to do as well as what to do in planning convenient, money saving barns. Their advice on barn planning, ventilation and other barn problems is free. No charge for floor plans.

Let James Equipment solve your labor problem. Send for the book—mail the coupon now—get full details how to cut barn work in half and make more milk.

James Mfg. Co. Ft. Atkinson, Wis. Elmira, N. Y.

TEAR OFF COUPON

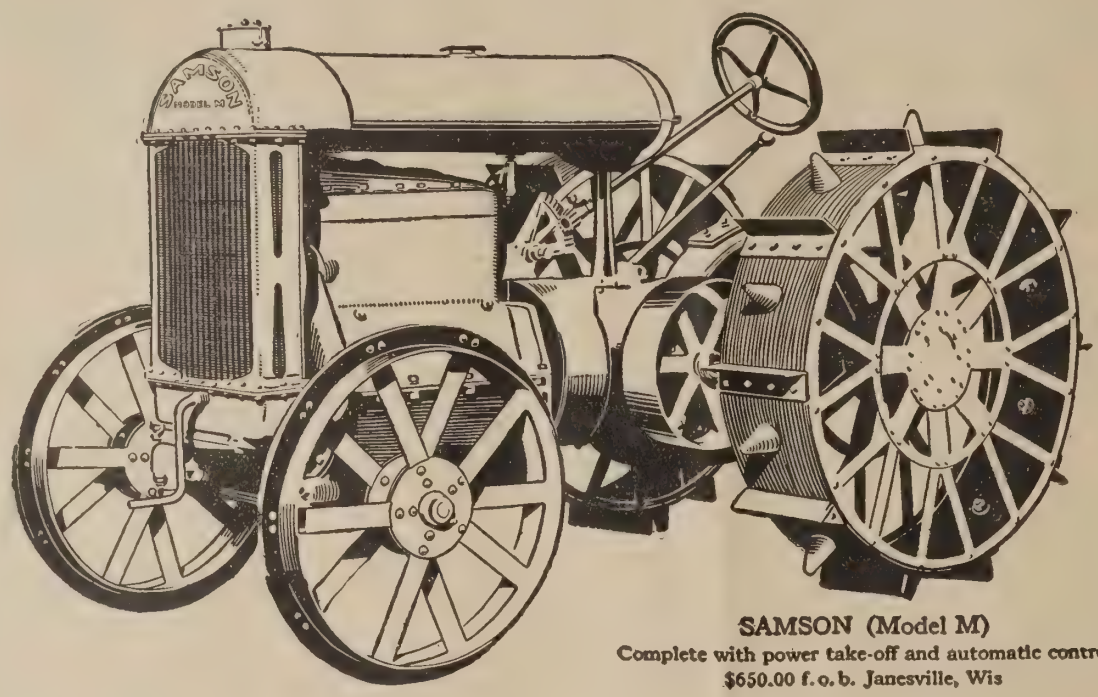
James Mfg. Co., Ft. Atkinson, Wis., or Elmira, N. Y. H. D.-2.

Please send me your free book on barn planning, ventilation and equipment. Also the James Barn Magazine (free).

I have ..... cows. I hope to build ..... remodel .....
about ..... Am interested in Stalls ( ), Stanchions ( ), Carriers ( ),
Drinking Cups ( ), Ventilators ( ), Steel Pens ( ), Bull Staff ( ).

Name .....
R. R. Station ..... P. O. .....
R. F. D. ..... State .....

James Safety-First Bull Staff. $3.50 f. o. b. Ft. Atkinson or Elmira. Parcel Post: 1st and 2nd zones, 11c; 3rd zone, 18c; 4th zone 33c; 5th zone, 46c.



SAMSON (Model M)
Complete with power take-off and automatic control
$650.00 f. o. b. Janesville, Wis

SAMSON TRACTOR $650

THE twelve points of Samson (Model M) Tractor given on the opposite page, you will find, unlike the usual mechanical specifications, to be important features—each feature so vital as to make each one indispensable and of the utmost value.

Study each one carefully. Appreciate how the method of construction insures economy of operation, easy handling, and minimum care in maintenance.

And then think what it would mean to you to own a Samson (Model M) Tractor.

SAMSON TRACTOR COMPANY

Twelve Important Points— and Each Point a Feature

☐ ***Motor:*** The motor is suspended at three points. Extra water space surrounds the cylinder jackets. **An air washer cleans the motor of dirt, grit, and any other substance.** In this way the efficiency of the motor is greatly increased.

☐ ***Radiator:*** The radiator is of tubular type. **Extra large hand hole** makes possible easy cleaning and any repairing caused by accident.

☐ ***Oiling:*** **Forced feed oiling to all bearings.** This method of oiling will be found in the highest-priced motors built. **Forced** feed costs more than **splash** feed but is surer and safer. Our underpan construction insures constant oil level—up hill or down.

☐ ***Fuel:*** **Burns kerosene or gasoline without any change or adjustment.** Fuel tank holds 22 gallons; with extra large hand hole, enabling one to clean the tank easily. Reserve gasoline tank holding three gallons.

☐ ***All Moving Parts Enclosed:*** **All moving parts enclosed and self-oiling. All moving parts waterproof and dustproof. No moving parts exposed except the four wheels.**

☐ ***Power Take-Off:*** A feature of the design of the Samson (Model M) is the "power take-off pulley" acting **as a brake when in field use.** This brake, actuated by the clutch pedal makes change of gears safe and easy to handle. Recognized for years as standard practice in high priced motor car construction.

☐ ***Clutch:*** A plate clutch is used, which is **self-adjusting** and **runs in oil.**

☐ ***Grease Cups:*** **There are but three grease cups on the entire tractor.** (On most tractors there are too many to count.) **All three grease cups are in plain view.** One is on the fan and two on the front axle.

☐ ***Lubrication:*** **Lubricating oil is applied only at two points, and from there distributed to all moving parts**—and only two kinds of oil are used. The motor and clutch require the regular cylinder oil and the transmission and axle require a heavy transmission oil.

☐ ***Governor:*** Motor speed is regulated by a mechanical governor.

☐ ***Simplicity of Construction:*** The simplicity of construction will be best understood when it is learned that it requires only **three box wrenches to take down and put together the Samson (Model M) Tractor.**

☐ ***Tool Kit:*** The entire contents of the tool kit consists of **three box wrenches.** How many do you find as necessary equipment on the ordinary tractor? **The Samson (Model M) Tractor does not even require an oil can.**

e, Wisconsin

Information necessary so as to enable us to advise the purchaser of the proper Tractor he should buy

Name.....

Post Office.....

Township.....County.....State.....

Number of acres in farm..... Acres in corn.....

Number of acres improved..... Acres in cotton.....

Level or rolling surface..... Acres in small grain.....

Character of soil..... Acres in hay.....

..... Acres in pasture.....

How many horses do you employ to handle your farm work?.....

Do You own a tractor?.....If so, what make.....

Mail this blank to SAMSON TRACTOR COMPANY, Janesville Wis.

Giving 2,000 Farmers in Northern Minnesota a New Start

[Continued from page 781]

tion through its president, E. T. Winship, offered to loan all of the registered Holstein sires needed for two years providing the Relief Commission would pay the expense of getting the sires to the settlers and would insure them. The Relief Commission considered this a very fair proposition and this plan will undoubtedly be followed. All of the sires will be inspected by W. A. McKerrow, representing the Minnesota Live Stock Extension Department, and will be of good conformation and from tested dams. The county agents in this part of the state feel that before the two years have expired they will be able to raise the necessary funds to keep these good sires in the localities in which they are placed but if this can not be done they will be returned to the original owners. The Guernsey breeders have not had a meeting since the fire but they have promised the Commission that they will make this same proposition and will furnish all the Guernsey sires needed on the same terms. Undoubtedly the other breed associations will make the same offer. This will make it possible for the settlers to have the use of good sires at no expense except their keep. When the cattle are taken from the concentration barns and returned to the owners in the spring, the county agents will lay out breeding blocks containing from four to six farmers and will see to the placing of sires. The county agents have agreed to be personally responsible for the care given the sires under this plan and in case the farmer in charge should not be giving the sire proper care the county agent will make the necessary change.

The fire, undoubtedly, will result in the long run in better conditions in this region. Much of the land that is burnt over will be put into pasture, the seed for which must all be furnished by the Relief Commission and the land will be much easier cleared than it was before the fire. In other places there are large areas of peat which were burned over and these will be in much better condition than they were before the fire. Considering this and the fact that the scrub stock will gradually be replaced by high grades, the person who visits this region five years from now will find it entirely different and a much more prosperous community than it was before the fire.

Minnesota. H. R. LEONARD.

New Zealand Dairy Herd

HOARD'S DAIRYMAN:—The latest available official figures with reference to the dairy cattle of New Zealand put the number at approximately 770,000. Considering the importance of the industry to the Dominion, the growth of the herds is relatively slow, especially in view of the kindly character of the climate, especially in the North Island, and the lucrative character of the returns. The augmentation of the dairy herds is under ten thousand a year. Land values, however, in favorable districts with near approach to rail or steamer service, are very high: £80 to £90 per acre in such localities are not considered to be excessive. There are higher prices paid than these, however, but they may be taken as representative of the desirable farms. Labor is generally scarce.

With the varying climatic conditions existing in New Zealand it has been found, putting aside farmers' fancies and prejudices, that the perfect cow has yet to be bred. But it may be said in a general way that the milking Shorthorns are most widely popular. Very great interest is being taken in the Holstein and the foundation of the stud animals, at present in service in New Zealand, was laid first by the late Mr. John Grigg of Longbeach, who many years ago imported this stock from Holland. In later years importations have been made from Wisconsin, U. S. A. For instance, Westmere Princess Pietertje's record for a 365-day test was 939.78 pounds of butterfat from 24,199 pounds of milk and she was of Longbeach blood on her mother's side, her sire being bred from strains imported from the United States. Mr. W. M. Singleton, assistant director of agriculture, professes to "know of no cow outside the United States of America which has equalled this butterfat record". He made this statement officially in July last.

The government is offering every facility to farmers to have their herds tested and the most scrupulous care is exercised in seeing that those tests are thoroughly trustworthy. It is recognized that the selection of the best strain is of most vital importance to the prosperity of this essentially farming country. The dairy farmers considered as a whole cordially cooperate with the government in its efforts to increase production and secure greater efficiency by the weeding out of unprofitable stock. Most of the dairy farmers are fairly well to do, but a great number of them are struggling men who can ill afford to carry "free passengers" on their farms.

Omitting names, the following specimen official tests may be of interest to readers:

Age at start of test Years	Days	Length of test, days	Milk Lbs.	Fat Lbs.
		Holstein-Friesian		
4		365	20,016.70	679.86
4	24	365		675.06
2		365	16,646.30	505.27
4		365	24,199.00	939.78
2		365	21,483.10	754.95
4		365	19,621.60	803.77
11		365	12,679.25	525.87
2	131	365	13,966.20	553.21
1	241	365	8,072.00	257.45
4	69	365	20,016.00	679.86
4	124	365	13,061.90	410.23
4	309	365	13,987.40	464.44
6	169	365	18,008.75	595.79
5	145	365	14,301.00	512.67
		Jerseys		
1	351	365	7,515.90	445.80
4	130	365	8,497.70	431.66
8	276	365	10,001.30	537.93
5	274	351	9,320.40	569.71
5	333	349	8,906.80	518.59
9	270	338	11,177.10	513.88
9	71	340	10,026.40	491.52
1	259	288	4,785.60	287.41
2	273	271	6,871.40	340.25
		Shorthorns		
		365	11,518.70	422.95
3	288	332	8,650.00	316.34
13		365	13,567.50	590.34
		Ayrshires		
3	306	365	8,964.00	351.39

The above tests are merely typical and not selected with a view to showing the highest or lowest yields of milk or butterfat.

New Zealand. GEO. OSBORNE.

Minnesota Meetings Postponed

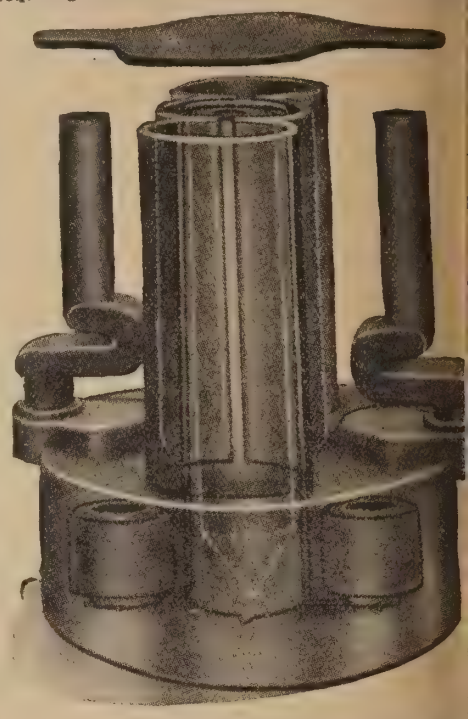
The Minnesota Live Stock Breeders' Association and all affiliated associations have decided to postpone their annual meetings which were to be held January first, second, and third. This action was taken after the faculty of the Agricultural College decided that it was not advisable to hold the Farmers' and Home-makers' Week at University Farm on account of the danger of spreading influenza at these gatherings.

The following associations have decided to postpone their sessions:—Minnesota Live Stock Breeders' Association; Minnesota Swine, Sheep, Horse, Ayrshire, Jersey, Guernsey, Holstein, Red Polled, Shorthorn, Hereford, and Aberdeen Angus Breeders' Associations.

W. A. MCKERROW, Secretary.

"The Clover Leaf"
Blue Flame Kerosene Tank Heate
FOR USE IN STOCK TANKS

Burns 20 hours on one gallon kerosene, requiring little or no attention. No Ashes—No Smoke.



The Body is a One-Piece Casting, eliminating all danger of leakage, and is Self Sinking, weighing 280 lbs.

The Casting is designed to give a large radiating surface. The burners are simple but dependable, giving a perfect blue flame. Two burners are ample for heat in severe weather, and one burner in mild weather. One burner can be shut off if desired. Each burner can be controlled by valve operated from the top. Does not have to be generated. Oil feed is automatic. The oil level in the reservoir basin always remains the same, requiring almost no attention.

The following letters are only a few of the many users of the Clover Leaf:

GENTLEMEN:
I have a Clover Leaf tank heater and have given it a fair trial. I am most satisfied with the result. I have a tank 5 ft. x 16 x 3, and the water never freezes. ROBERT HUDACHEK.

GENTLEMEN:
Your Clover Leaf tank heater is the best I have ever used, for good results and economy, and it is easy to operate.
E. B. CLARKE.

GENTLEMEN:
Your tank heater is O. K. Has made me money on my milk cows.
JOHN BAYNES.

GENTLEMEN:
I like your oil heater, which I have used two winters. I only use one burner unless the weather is very cold.
F. O. PIERCE.

GENTLEMEN:
In regard to your Clover Leaf tank heater, will say it does the business and is a fuel saver. RUD SCHIELE.

Satisfaction Guaranteed We want you on our list of satisfied users of The Clover Leaf T Heater. If your dealer can't supply you, send us his name address and we will send you full particulars.

Cedar Rapids Foundry & Machine Co., Mfgrs., Cedar Rapids, Iov

WASHINGTON NEEDS
DAIRY, POULTRY AND STOCK FARMERS

Washington the State of Opportunity invites you. Conditions right for dairying, poultry and live stock. Ideal climate, cheap lands, abundant water, expanding modern cities, excellent markets with land and water transportation and good roads. For free book with complete details write **I. M. Howell, Secretary of State, Dept. G, Olympia, Washington.**

CANADIAN RANCH FOR SALE

One of the finest wheat and stock ranches in Alberta for sale. Contains 800 acres—250 in cultivation. Elaborately improved; good water. If you want a farm and home that will pay for itself in one year, see this. Priced for quick sale at $35 per acre. Terms—for photos and all information, write owner,
BOX 13, - BIG VALLEY, ALTA.

Imp. Golden Secrets Grandson
GOLD MEDAL FOR SALE

3-year-old May Rose Guernsey Bull; docile; excellent breeding powers and well built individual. Dams record as two-year-old 350 lbs. butterfat.
JORDAN FARMS, SANQUOIT, NEW YORK.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

DAIRY MARKETS

CHICAGO, Dec. 19—Butter—Creamery, extras, 65½c; extra firsts, 63½c; dairy, firsts, 60@66c; seconds, 54@58c.
Eggs—Ordinary, 53@54c; firsts, 63½@64c.
Cheese—Twins, 35@35½c; Young Americas, 37@37½c.

MILWAUKEE, Dec. 19—Butter—Creamery tubs, 67@67½c; prints, 68@69c; extra firsts, 64@66c; firsts, 61@63c; dairy, fancy, 45@50c; poor, 20@30c.
Eggs—Fresh, firsts, 60@61c; cases, new included, 61@62c; miscellaneous, 57@60c; dirties, 38@40c; checks, 34@35c; April recandled, 46@47½c.
Cheese—Twins, 35@35½c; Daisies, 35½@36c; Longhorns, 36c; fancy Brick, 33c; Limburger, new, 1 lb., 29c; Limburger, new, 2 lbs., 29c; Young Americas, 36½@37c.

APPLETON, Wis., Dec. 17—Five factories offered 163 boxes of cheese on the call board on Tuesday. Sales were: Eighty-nine Twins at 34½c and 74 Double Daisies at 35¼c.

SPRING GREEN, Wis., Dec. 17—Offerings of cheese on the Spring Green dairy board of trade on Tuesday were 528 boxes of Single Daisies. All sold at 35⅞c.

SHEBOYGAN, Wis., Dec. 17—On the Wisconsin cheese exchange at Plymouth on Monday, seventeen factories offered 1,143 boxes of cheese and all except fifty Double Daisies sold as follows: Twenty-five Twins at 34½c; fifty cases of young Americas at 36¼c; 420 Daisies at 35½c; 350 Double Daisies at 35¼c; 178 cases Longhorns at 36c; and 70 boxes of square prints at 36¾c. Next meeting Dec. 30.

NEW YORK, Dec. 19—Cheese—Firm; state milk; common to specials, 31½@37½c; skims, common to specials, 12@28½c.
Butter—Firm; receipts, 3,555; creamery, extras, 69½c; state dairy tubs, 52@66c; imitation creamery, firsts, 47@48c.
Eggs— steady; receipts, 8,051; nearby white fancy, 90@92c; nearby mixed fancy, 66@73c; fresh firsts, 65@72c.

A FREE BOOK THAT TELLS THE STORY



The reading of this FREE book has shown thousands of other horse owners the way to permanently cure their lame and useless horses. It will show you. It tells in plain language exactly how to diagnose and treat 58 kinds of lameness—the sifted-out results of over 24 years' experience with more than 25 satisfied users.

SAVE-The-HORS
(Trade Mark Registered)

Remedy is backed by a Signed Guarantee-Bon your money refunded—if it fails to cure SPAV Ringbone, Thoropin or Shoulder, Knee, An Hoof, or Tendon Disease—horse works. Write today for advice on any horse ailment, get BOOK, sample of Guaranteed-Bond—ALL F

TROY CHEMICAL CO., 327 State St., Binghamton
Druggists Everywhere sell Save-The-Horse w CONTRACT or we send by Parcel Post or Expre

How to Raise Chicks

Just fresh from the Press—and to all who send for it—a very valu poultry booklet, telling why ninet cent of young chicks die, how to vent this loss, the secret of succe poultry feeding, many intere items regarding the care and ma ment of poultry, poultry dise their remedies and prevention. before edition is exhausted. Yards Veterinary Laboratory, Laboratory Bldg., Kansas City,

FROZEN FIS
The Best Come From Green

Note these low prices. Large herrin pound 6c. Perch 6c. Carp dressed 7c. P 13c. Whiting 8c. 20-lb. bskt. smoked fins $2.40. Write for complete list smoked, spiced and salt fish. Mail u order. **Badger Fish Co., Dept. 1, Green B**

ALFALFA HA
FOR DAIRY COWS
CURTIS COMMISSION COMPA
713 Live Stock Exchange, Kansas Ci

ICE PLOWS TOOLS Plows $14
Wm. H. Pra
La Grangeville

Dairy and Milk Inspectors' Meeting

ARD'S DAIRYMAN:—The seventh al convention of the Internationssociation of Dairy and Milk Inors was held in Chicago, Decemth, 10th, and 11th.

. John B. Newman, Superintend- Division of Foods and Drugs of Illinois Department of Agricul- welcomed the association to Chi- and briefly spoke of the many al resources and advantages to und in Illinois, and described the ess which the state is making in mprovement of milk supplies.

. Alfred W. Lombard, president e association, responded to the ss of welcome, expressed the astion's appreciation, and briefly ed the work of the convention.

odern Developments in Dairy Milk Inspection" was the subject paper by Mr. Ernest Kelly, in e of Market Milk Investigations, Department of Agriculture. Mr. told of the progress which is made along sanitary lines by oducers and handlers of dairy cts, and presented an optimistic re of future developments along lines.

. Hoyes Lloyd, chemist in charge Milk Control, Department of h of Toronto, reported for the nittee on the Cost of Dairy and Inspection. From his report it learned that the cost of a dairy milk inspection varies from about o five cents per person per year g those cities reporting, the av- cost of dairy and milk inspecper person being between three four cents yearly. This report discussed by the members who ed to feel that the results of and milk inspection seemed to than justify the extremely cost. They also expressed an on that far better results could would be obtained as soon as pubntiment becomes sufficiently deed to demand better protection.

. C. L. Roadhouse, Professor of Industry, University of Calia, reported for the Committee ovine Diseases and their Relation e Milk Supply and the Public h, and James A. Gamble, Pror of Dairy Husbandry, Maryland Agricultural College, reported he Committee on Dairy Farm ction.

he Methods of Detecting Tuberis in Cattle" was the subject of refully prepared paper by Dr. J. Lintner, of the U. S. Bureau imal Industry, in charge of Tulosis Eradication in the state of is.

e report of the Committee on and Regulations Necessary for ing a Clean and Safe Milk Supas read by Ernest Kelly, chairof the committee. The original t presented to the association year ago, and which has since adopted by several other associawas again indorsed, and the on expressed that the pasteuria of milk be made a requirement r than a recommendation.

fessor James O. Jordan, Inspecf Milk for Boston, Mass., red for the Committee on Legisla- Affecting Milk and Milk cts.

Wm. H. Price, of the U. S. Pubealth Service, told of the work the Service has performed in evelopment of milk supplies and uarding them for the use of sol- in the army camps throughout outh.

W. A. Evans, Health Editor of hicago Tribune, spoke of the re- of quantity and quality of milk ant morbidity and mortality.

e market milk situation in Iowa was described by Dr. O. P. Thompson, State Dairy Inspector, Waterloo.

Mr. Russell Smith, Milk Specialist, U. S. Department of Agriculture, presented a paper on "Observations on the Pasteurization and the Subsequent Handling of Milk in City Milk Plants."

Mr. Geo. B. Taylor, also of the same division, presented a paper "A Report on Questionnaire to Health Officers Concerning Control of the Milk Supply". This report brought out many interesting facts, which when fully understood and appreciated will doubtless lead to some radical changes and improvements.

Dr. H. A. Harding, Head of the Dairy Department, University of Illinois, read a paper on "Simplified City Milk Inspection", which was generally discussed, as was also the paper presented by Dr. Wm. G. Bissell, Chief of the Bureau of Laboratories, Department of Health, Buffalo, N. Y.

The quality of milk furnished government cantonments was described in a paper read by Mr. J. H. Sasseen of Columbus, Ohio.

Mr. Fred J. Moore of Detroit presented a paper on "The Pasteurization of Milk".

The report of the Committee on Organization of Milk Control was read by its chairman, Dr. Wm. H. Price of the U. S. Public Health Service.

The business session of the convention was held Wednesday afternoon, December 11th. Reports of officers were presented, and new officers for the ensuing term were elected as follows: President, James O. Jordan, Massachusetts; first vice-president, Hoyes Lloyd, Ontario; second vice-president, C. L. Roadhouse, California; third vice-president, Ernest Kelly, Washington, D. C.; secretary-treasurer, Ivan C. Weld, Washington, D. C.; auditors, Harry E. States, Michigan, and H. A. Harding, Illinois.

Among other invitations received for the next annual convention was one from the mayor and Chamber of Commerce of Buffalo, N. Y. Several new members were elected, and the convention was a decided success in every particular. IVAN C. WELD.

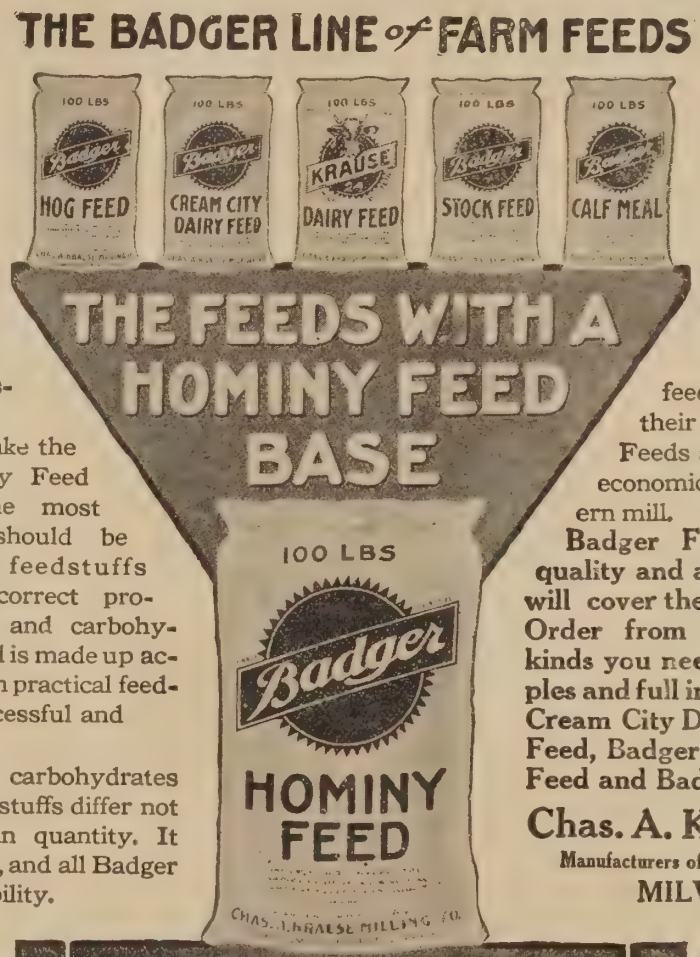
District of Columbia.

Why Badger Feeds Are the Most Economical

WHETHER a feed is economical depends not upon the price, but upon the results which it produces. Badger Feeds are the most economical because they contain the greatest amount of food value. A dollar's worth of the right Badger Feed will give you more profits than a dollar's worth of any other feed.

Each of these five famous feeds is a perfect balanced ration, containing exactly the right food elements for its particular purpose, and in exactly the right proportions.

And the base of each is Badger Hominy Feed, known for many years by the most successful feeders in the country as the most nutritious of all single feedstuffs.



Badger Hominy Feed is a carbohydrate feed which contains a larger percentage of tissue building material than whole corn. It includes the mill run of Corn Germ Meal, the germ or fatty part of the corn from which the oil has been extracted. In the process of milling it is partially cooked, increasing its digestibility.

No other feedstuff can take the place of Badger Hominy Feed as a base, but for the most economical feeding it should be combined with other feedstuffs which will give the correct proportions of proteins, fats and carbohydrates. Each Badger Feed is made up according to formulas which practical feeders have found most successful and economical.

The proteins, fats and carbohydrates contained in different feedstuffs differ not only in quality but also in quantity. It is digestibility that counts, and all Badger Feeds are high in digestibility.

Even if he were able to obtain all the required ingredients, no feeder could mix them at home with the thoroughness and scientific accuracy with which they are combined in Badger Feeds, prepared according to scientific formulas and proved by thousands of feeders. Nor can feeders take the time to mix their own feeds, when Badger Feeds are mixed so much more economically in our large and modern mill.

Badger Feeds are unvarying in quality and absolutely reliable. They will cover the needs of all your stock. Order from your dealer today the kinds you need. Write for free samples and full information about Badger Cream City Dairy Feed, Krause Dairy Feed, Badger Calf Meal, Badger Hog Feed and Badger Stock Feed.

Chas. A. Krause Milling Co.,
Manufacturers of the Badger Line of Farm Feeds.
MILWAUKEE, WIS.

Roots for Cows and Horses

Please give me the feeding value of parsnips, carrots, and red beets for cows, and also of carrots for horses.
Waukesha, Wis. H. C. L.

Carrots are especially relished by horses, and parsnips rank next in value. The great value of these two roots is that they help to keep the horse's digestion in good condition. The nutrients in grain for horse feeding are far cheaper than in carrots and, further, the horse's digestion is so constructed that he cannot consume sufficient quantities of carrots to be of any material value to him as far as nourishment is concerned.

Carrots and red beets have about the same feeding value for cows. They are worth a little more than half as much as good corn silage. In other words, in 100 lbs. of corn silage there are 17.2 lbs. of digestible nutrients, and in 100 lbs. of common beets there are 9.3 lbs. The dry matter in the beets is a little superior to the dry matter in corn silage. Parsnips have 11.6 lbs. of digestible nutrients in 100 lbs. This makes them a little more nutritious than the carrots or red beets.



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

Timothy

Timothy is undoubtedly the most popular hay grass in the northern and northeastern states although in recent years much has been said and written against it. There are several reasons why timothy is popular as a hay grass. First of all it usually brings an excellent price at the city markets. Horsemen like it because it is usually fairly even in quality and because horses will not gorge themselves with it. Alfalfa and clover contain more protein but, if allowed to, horses will often eat too much of them. Timothy is more of a filler, the horse getting most of the needed nutrients from its grain. Then, too, timothy seed is comparatively cheap and easy to obtain, the crop is easily cured and is cut later than clover or alfalfa. This last is a decided advantage in many states for the corn usually needs cultivation at about the time the first crop of alfalfa and clover should be cut for hay.

What disadvantages can we find for this crop? There are several and at least one of them should be of special importance to junior dairymen. Timothy is not as valuable a feed for dairy cows as is clover or alfalfa. When we feed roughages to our cows we want something more than a filler; we are looking for a roughage that will supply a large amount of feed as well. Not only is it a poor feed but cows and sheep do not usually relish timothy hay, especially when it was cut during the ripening stage. Another disadvantage lies in the fact that timothy produces but one crop in a season and usually does not produce a very heavy aftermath or late season growth. In fact, very often it grows but little for several weeks after the crop is harvested. It is rather slow to start in the spring and does not produce a dense sod, so it is not as desirable for a pasture grass as are some of the other grasses. Then, too, it is more easily injured by tramping and wet weather than is Kentucky blue grass.

In spite of the fact that timothy is not the most desirable forage crop for dairy farmers, we must remember that it is an important crop on many American farms. For that reason it will pay us to spend a little time studying it.

The name timothy probably comes from Timothy Hanson of Maryland who is supposed to have introduced the seed into this country from England about 1720. In the New England states the plant is often called Herd's grass, the name coming from John Herd, who is said to have found it growing wild in a New Hampshire swamp at an early date. A third name for the grass, and a very old one, is meadow cattail. This is due, no doubt, to the fact that the shape of the head resembles somewhat that of the ordinary marsh cattail.

The plant itself is, as you all know, a member of the grass family. It is a perennial or one that grows year after year from the same root. The roots like those of many other grasses are fibrous, but they usually grow deeper than those of red top or blue grass. The culms or grass stems vary from a few inches to from three to six feet in height and are made up of several sections or internodes. The joints between these sections are called nodes. Now, have any of you ever pulled up a timothy plant? If you have, what did you notice about the last or lowest internode. It was probably swollen to form a sort of bulb which was shaped like that of a young onion. This bulb, or corm as it is usually called, is really a storehouse for plant food. At the same time that the plant is growing and forming seeds, it is laying up a store of food in these corms. For that reason when timothy is cut altogether too early, some of it may die out. The common field mice know that these little corms contain a store of food, and very often in the fall and winter they do considerable damage by eating them. The mice are apt to be especially troublesome when the aftermath is heavy in the fall.

Although timothy can be successfully raised in many parts of our country, it is especially well adapted to the North Atlantic and North Central States east of the Missouri river. In those sections on a fairly rich soil it grows luxuriantly and in the eastern states it is almost the only hay of commerce. The plant is hardy, does well in Canada, and has even given good results in Alaska, but in the states of the middle west there is too little rainfall for it. It will grow on many different kinds of soil but seems to be at its best on fairly moist, fertile land.

It enters into most of the rotations in the North Central and North Atlantic States, either alone or with clover. One of the most common rotations is corn and oats, followed by timothy and clover for one or more years.

Timothy when used for hay is usually either seeded alone or with clover. In either case it may be planted either with or without a nurse crop. The rate of seeding varies in different localities but usually about 15 lbs. of seed per acre is desirable when it is planted alone. With clover, about 11 lbs. of timothy seed and 10 lbs. of red clover seed will give good results although this amount is often varied. Now the question comes, at what time of the year shall we plant the seed? We might sow it at different times and still have good success, but usually it will be safe to do it either in late summer or in the fall with a nurse crop. If there is no danger of a dry fall, we can plant both the timothy and clover without a nurse crop in the late summer. The land should be prepared as for a grain crop and the seed planted at about the rate mentioned above. With plenty of rainfall, the crop will then get a good start in the fall and will furnish a hay crop the next season. If it is desirable to seed with a nurse crop the timothy is usually planted in the fall with rye or wheat and the clover seeded in the spring. Ordinarily the clover is planted in March when the land is cracked by frost and when further freezing and thawing will cover the seed. Another and better plan, so far as the clover is concerned, is to wait until later, say in April, and then to sow the clover and harrow it lightly to cover the seed. If this is properly done, it will injure neither the timothy nor the nurse crop. We have been talking about sowing a mixture of timothy and clover because that is usually most desirable on a dairy farm, but timothy may be planted alone in exactly the same manner except that about 15 lbs. of seed instead of 9 or 10 lbs. should be planted per acre.

When timothy is planted in the late summer, a crop of hay can be cut the next season but when planted with a nurse crop, it should not be cut until the second season. One advantage of using timothy for a hay crop is that it does not need to be cut quite as early as clover or alfalfa. It may be cut just before blosso... ing, during the blossoming stage, ju... as the seeds are forming, or after t... seeds have ripened. Now when ... you think is the best time? It wou... seem as though there would be mo... food in the hay if we wanted to c... it when the seeds were ripe, but t... is not true.

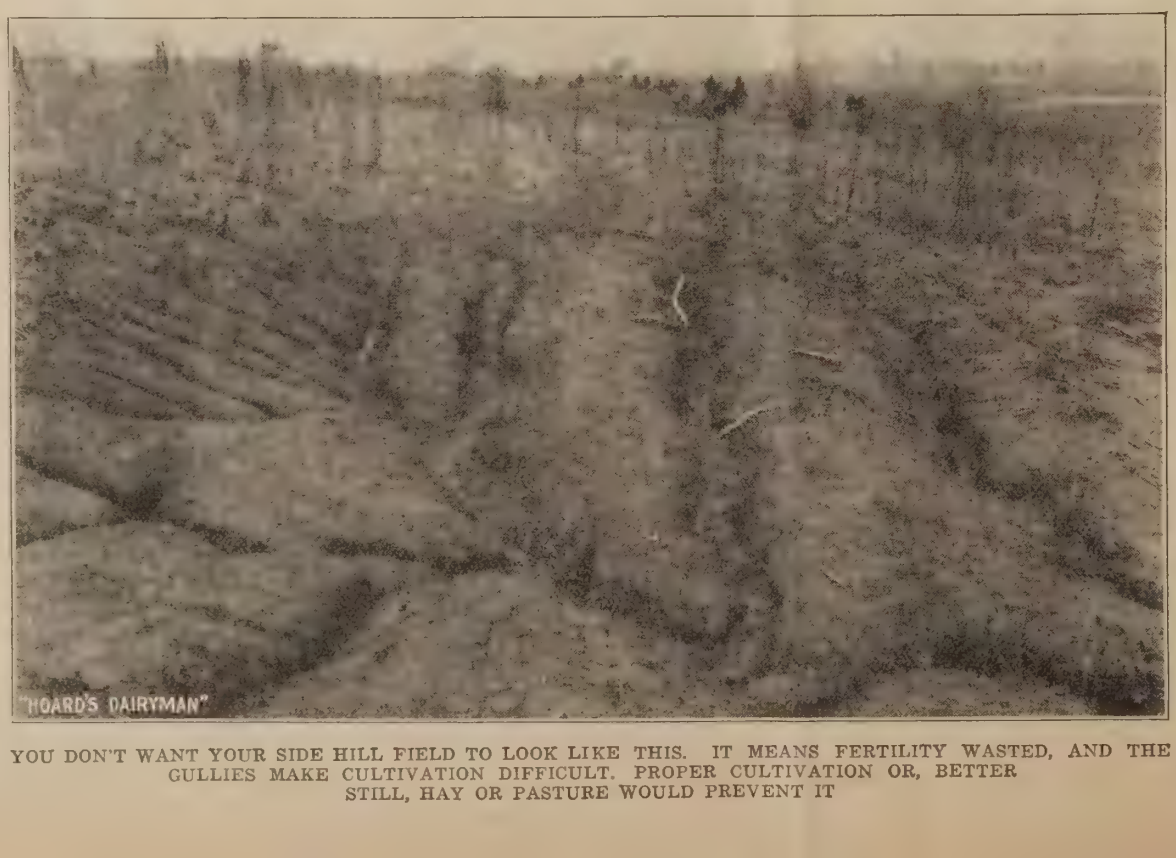
The seeds themselves are small a... have no food value for stock and ... this stage the stems are hard a... woody, so it will be more advisable ... cut for hay when the plant is in f... bloom or just as the seeds are for... ing. In general, if the hay is to ... fed to dairy cows, young stock, ... sheep, cut the timothy early, while ... it is to be fed to horses it may be ... later. The big disadvantage ... early cutting is that the hay is hard ... to cure, and for this reason late c... ting is often practiced.

Which is Best Feed, Early or La... Cutting?

Now, if you wanted to find ... whether early cut or late cut h... made the best feed, how would y... do it? One way to do this would ... to let the animals decide this ... themselves. Professor Waters ... Missouri decided to try this meth... He cut some of the timothy when ... was coming into blossom, some as ... was in full bloom, more when ... seeds were formed, when the se... were in the dough stage, and wh... the seeds were ripe. Then he fil... several feed racks, one with each k... of hay, and allowed steers, da... cows, and sheep to eat the kind th... liked best. The yearling steers wh... were receiving no other feed, show... a decided preference for the ea... cuttings and would not touch ... later ones until the other was go... Those which were getting plenty ... silage and grain in addition to ... timothy were not so particular ... ate the late cutting as readily as ... others. The dairy cows preferred ... first three cuttings as did all ... sheep except those receiving a he... feed of corn. Now, you can see w... it is advisable to cut early if the t... othy hay is to be fed to young sto... dairy cattle, or shee...

Timothy is one ... the easiest hay gras... to harvest and pr... tically all of you ... familiar with the pr... ess. The hay is mow... and allowed to cure ... it falls unless it ... very heavy when it ... comes necessary ... turn it once or tw... Of course, rains ... make this last proc... necessary. After c... ing it is sometim... raked and put i... small piles or ... cocks from which it ... hauled to barn ... stack. Very of... however, especia... where there is m... hay to harvest, it ... raked into windr... by a side delivery r... and loaded dire... from the windrow e... er by hand or wit... hay loader.

When it is to ... cut for seed, the gr... is allowed to st... until ripe. It...



YOU DON'T WANT YOUR SIDE HILL FIELD TO LOOK LIKE THIS. IT MEANS FERTILITY WASTED, AND THE GULLIES MAKE CULTIVATION DIFFICULT. PROPER CULTIVATION OR, BETTER STILL, HAY OR PASTURE WOULD PREVENT IT

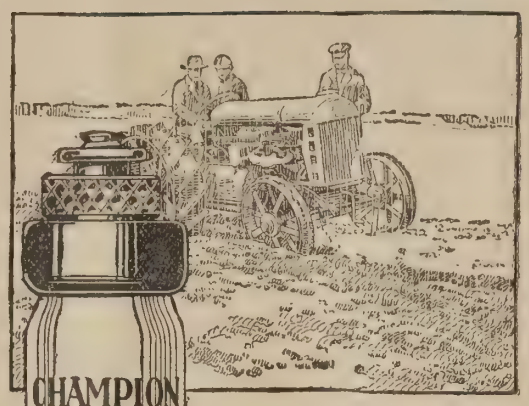
ht cut with an ordinary grain
ier and shocked like grain except
the shocks are usually not
ded. After standing in the shock
a week or more it is threshed
the ordinary grain thresher. The
es must of course be changed. An
rage yield of timothy seed is about
bushels per acre.
esides being a valuable hay grass,
thy is very often used in pasture
ures, although timothy alone
es a poor pasture.
is a heavy feeder and for that
on a fairly heavy topdressing of
ure applied to a timothy meadow
give good results. If a compara-
ly small amount of ground rock
sphate is added to the manure,
better results will follow. When
thy and clover are planted to-
ier, the clover dies out after the
nd year and its decaying roots
nitrogen to the soil and thus fur-
food for the timothy.

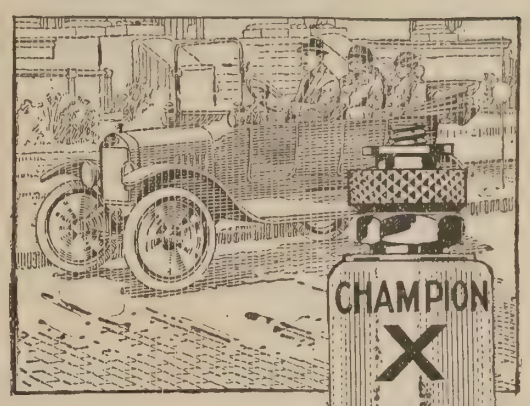
Junior Letters

ard's Dairyman Juniors:—It is a long
since I wrote to the juniors but when I
the letter of Fremont Cook of North
ta I thought it was my duty to give him
mation about squab breeding. I have had
ns for three years and have had twenty
ent varieties of prize winning pigeons.
I sold them to my brother. This junior
s to know which breed is best for squab
ling. The Homers are about the fastest
ers in the fancy but their squabs do not
the highest prices at the markets. The
eaux are the most loved breed of pigeons
ie large squab breeders. They are larger
the Homers and about just as fast breed-
The Runt is the largest breed of pig-
These birds breed fast if they are not
ded too much. These are about the most
rtant varieties of squab breeding pigeons
here are still more that I know, such as
ses, White Kings, Mondanies and Show
ers. But if I would again go in the pig-
business I would get nothing but show
ns and exhibit them at the fairs and
ry shows and win ribbons and silver cups.
is the best fun in the pigeon business—
at the other fellow.
e best way for you to learn more about
ns would be to buy a squab journal and
it thoroughly. The reason that I went
of the pigeon business is because I am
g prize winning single comb White Leg-
chickens, some that have never been
n in fast competition and I think it is
to keep only one thing at a time if you
n a farm and have lots of other work.
there are any other juniors that want
now anything about pigeons I would be
to answer them if I can. I am sixteen
old and live about one mile from Myers-
and play baseball on the Reistville team.
will close now as I am afraid my letter
tting too long. My address is R. F. D. 4,
stown, Pa. Henry K. Miller.

ard's Dairyman Juniors:—Our hay wasn't
good this year. We had about three-
hs of what we had last year. The grain
pretty good. We are threshing our grain
We are milking 17 cows. We are get-
about 200 lbs. of milk a day. We filled
silo about two weeks ago but we didn't
it only half full.
saw in three or four of the junior letters
they are not having enough rain down
h. We are having too much rain the last
eks. About 25 acres of our pasture and
lows were covered with water Sunday.
have about one-eighth of an acre of po-
s this year. I haven't dug only a bushel
nem so far. I have also raised about 5
els of onions. I expect to sell them at
bushel.
have three war saving stamps and eight
t stamps.
ere are lots of apples around here. We
a lot anyway. Papa took some to the
mill and got about 28 gallons of cider.
am in the 7th grade in school this year.
pa gave me the full sister to Speck (the
r I told about in my other letter) for feed-
the calves last winter. We raised 11 last
er. I named my calf Surprise because
surprised me when she came one night.
rise will be one year old the 10th of De-
er. Speck will be 2 years old the 26th of
'ebruary. Surprise is not so speckled as
k is. She don't look so contented either.
are both black and white. Papa sold the
registered bull last spring. He weighed
lbs. at 7 cents a pound. Papa went and
ht another little one that wasn't a year
yet, he was registered, too, for $75.
think the Hoard's Dairyman juniors are
ight and I would like to become one of
.
took three plates of onions to the Canton
and one plate of potatoes. I took one
nd prize on one plate of my onions and
on my potatoes.
ishing the juniors good luck I will close.
ew York. Frederick Toncks.

Champion
Dependable Spark Plugs





For Ford Cars and Fordson Tractors

Read the advice of this authority, contained in the Ford Motor Company's instruction book placed in every Ford car:

"There is nothing to be gained by experimenting with different makes of plugs. The make of plugs with which Ford engines are equipped when they leave the factory are best adapted to the requirements of the motor."

Consider that the Champion Fordson tractor plug is also regular factory equipment in Fordson tractors and that Fordson builders recommend *this* plug to Fordson owners—

For **FORDSON** Tractors
Champion Fordson Tractor Plugs
Price **$1.00**

For **FORD** Cars
CHAMPION X
Price **90c**

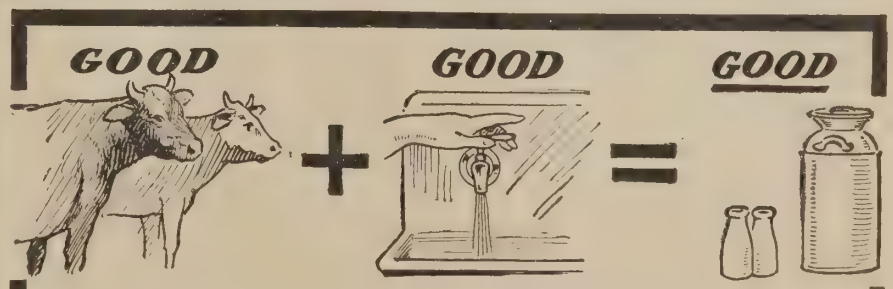
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There is a Champion Spark Plug for every type of motor car, motor truck, tractor, motorcycle and stationary engine.

Champion Spark Plug Company, Toledo, Ohio
Champion Spark Plug Company of Canada, Limited, Windsor, Ontario



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STOCK FOR SALE

Registered and high grade Holsteins. We have a very choice car of high grade springers four to seven years old at from $100 to $130. OAKGROVE FARMS, Oxford, Wis. 19-8

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

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A. R. O. registered Holsteins. Ten head aged two to seven years, springers. M. E. MOORE & CO., Cameron, Mo. 20-4

Waukesha County Holstein-Friesian cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 20-13

For Sale—One hundred choice high grade Holstein springing cows and heifers. J. A. KNORR, Blanchardville, Wis. 20-8

Holstein bull, born March, 1918. Great grandson of King of the Pontiacs and Friend Hengerveld DeKol Butter Boy. Dam a 13-lb. two-year-old; grandams average 94 lbs. milk per day. Price $150. N. E. SHANOWER & SONS, Burton, Ohio. 21-tf

A carload of choice heavy springing high grade Holstein cows, priced for quick sale. Also registered Holstein bull, ready for service. M. F. McNUTT, Oxford, Wis. 21-5

For Sale—Registered Holstein bull 13 months old, good size, type and breeding, three-fourths white, 21-lb. three-year-old dam, 28.62 sire; photo, pedigree upon request. Single comb Red cockerels. W. GANZ, Lyons, Wis. 22-2

For Sale—Registered Holstein bull calves from 29-lb. sire, fine breeding both sides, well marked, large. $60 each. GEO. J. KRAFT, R. 1, Waukegan, Ill. 22-3

Holstein-Friesian bull born June 1, 1917, two-thirds black, for sale, or trade for one about the same age, if right. His dam is "Lady Lyons Chesterfield" No. 122629; sire, "Long Beach Hengerveld Blossom", his grandsire "Pontiac Hengerveld Parthenea"; dam, DeKol Blossom Hengerveld. H. W. SOLLARS, Daleville, Ind. 22-3

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Holstein cows and springing heifers for sale. GEO. F. DERBY, Cameron, Mo. 23-5

Registered Holstein cows due in January, bred heifers and heifer calves. H. M. LYON, Wyalusing, Penn. 23-2

Registered bull calf, sired by son of Friend Hengerveld DeKol Butter Boy, calf's grandam has record 25 lbs. Price $50; also grade heifers, by a 31-lb. bull. KYGER BROS., Oxford, Ohio.

Registered Holstein bulls ready for service; heifer and bull calves. 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 23-tf

For Sale—Registered Holstein bull calves $50.00. MAPLE LANE FARM, Cassadaga, N. Y. 23-tf

Bargains—Registered Holstein, Ormsby Segis 32.96-lb. breeding, young cow, almost fresh, $225; heifers ready for breeding $150; heifer calves $65 up. RIVERSIDE FARM, Palmyra, Pennsylvania.

For Sale—Holstein bull calf, born April 22, 1918, ⅞ white, from dam with A. R. O. record of 18 lbs. butter, 505.4 lbs. milk. CHARLES L. MADDY, JR., Perrysburg, Ohio.

For Sale—King Segis Konigen, to avoid inbreeding. He is a son of King Segis Pontiac Konigen, 40-lb. bull. H. B. HODGE & CO., Canajoharie, N. Y.

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Highly bred grade Guernsey heifer calves for sale. B. McADAM, Mosinee, Wis. 22-spl

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

STOCK FOR SALE

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

For Sale—Guernsey and Holstein calves, high grades, at $25 delivered at your station. Money in advance. VERN DUTCHER, Hill Side Farm, Route 1, Cambridge, Wisconsin. 19-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

Three registered Guernsey bulls for sale, sired by Langwater Frederick and Dairymaid Glenwood of Pinehurst 3rd and from A. R. dams; 740 lbs., 529 lbs., and 510 lbs. fat. Sale list. HOMER F. RUNDELL, Livingston, Wis. 19-tf

For Sale—Registered Guernseys; herd sire three years old, one yearling bull, good backing. NELSON PECK, Doylestown, Wis. 21-3

Guernseys—Registered bulls 3 months to 1 year. Four heifers, Glenwood May Rose breeding. Tuberculin tested herd. Prices reasonable. M. M. HOLLINGSWORTH, Wasteland Farm, Landenberg, Pa. 22-4

25 high grade Yeksa bred, springing, Guernsey cows, three to five years old. Some have records. OAKLAND GUERNSEY FARM, Mukwonago, Wis. 22-tf

For Sale—Registered Guernsey heifer calf dropped June 10. A. W. BRAGG, Albert Lea, Minn. 22-2

For Sale—Grandson of Governor of the Chene, two years old, A. R. dam; also bull calf by him. HARVEY CHRYSLER, Osseo, Wis. 22-2

Registered Guernsey cattle, young and old stock. C. A. CARLISLE, Citizen's National Bank Building, South Bend, Indiana.

For Sale—Four registered Guernsey bulls from 9 months to 18 months old. Sired by Langwater Frenchman or Dairymaid's Glenwood of Pinehurst 3rd. Two are from A. R. cows. Priced to sell. Send for sale list. DALE E. RUNDELL, Livingston, Wis. 23-3

Yearling May Rose Glenwood bull. Records: Dam, 560.07, Class Leader; grandam 687.8; great-grandams: 648.15, 889.57, 513.3 butterfat. RICHARD F. KLEMM, Baraboo, Wis. 23-2

Will sell twenty high grade Guernsey heifers of our own raising. These are from high test cows and a nice lot. Also a few cows. GROVE FARM, Deerfield, Illinois. 23-4

Two registered Guernsey bull calves, 4 grade Guernsey heifers. Price reasonable if taken at once. HARRY S. COULTER, Randolph, Wis.

For Sale—Three Jersey bulls from two to eight months old. Also yearling heifers. M. C. VOSBURG, Fort Atkinson, Wis. 23-2

For Sale—One registered Jersey bull 2 months old $25.00; one yearling $50.00; one 8 months old $40.00; one 6 months old $35.00. Some choice heifers. CLARENCE RAGSDALE, 709 Monroe Ave., Moberly, Mo.

Two Noble of Oaklands, great grandsons and two bred heifers. Price low. A. W. NICKOLS, Indianola, Iowa. 22-2

Brown Swiss registered heifer with heifer calf at side. JOHN T. LAING, Dixon, Ill. 22-2

For Sale—Two pure-bred Brown Swiss bull calves, five and six months old. Dark color. First class condition. J. L. FUELLING, Kent, Ind.

STOCK WANTED

Wanted—About fifteen good grade Holstein cows coming fresh this winter. Give description and price first letter. FAIRVIEW DAIRY, Pittsburg, Kans.

Wanted—Few registered Holsteins with good records. HOPKINS, Attica, Kans.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

David W. Williams, Lake Forest, Illinois can buy you dairy cows of any breed. 20-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 23-5

HORSES

For Sale or Exchange—3 Percheron stallions 6 months, 1 and 2 years; color black. E. A. & R. D. SPRAGUE, Caledonia, Minn. 21-3

SWINE

Big type O. I. C. fall pigs. Price $10 each. AUG. NEITZEL, Bloomer, Wis. 20-tf

Durocs all sold. Sows farrowing now. Am booking orders for these pigs to be shipped at three months old. FRED SNYDER, Marion, Iowa. 22-tf

POULTRY

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 21-4

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

Collie pups wanted—I want to buy a few good pups. Address MISS ELIZABETH CLARK, Albia, Iowa. 21-3

FOXES

For Sale—Silver, black and Patch foxes. TWINING LYONS, Waterville, Nova Scotia. 14-10

SEEDS

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

A Splendid Spring Wheat for Sale—We offer for sale a limited quantity of the Blue Ribbon variety of spring wheat, only 70 bushels. Our record with this wheat is as follows: Last spring we sowed two bushels on two acres of land. The return, threshers' measures, was 76 bushels which grades uncleaned, 61 lbs. per bushel. We will sell this wheat well cleaned for seed for $3.00 per bushel. Bags furnished at 60 cents each. Order early to avoid delay by freight. HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis. 16-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.70 per 100 lbs. Sacks free. Price of Hansen Cossack $80 per 100 lbs. AT TRIANGLE RANCH, Cottonwood, S. Dak. 21-tf

New Danish Cabbage Seed—Pedigreed strain. Cut over 20 tons per acre for last 10 years. Guaranteed because we sell only what seed we grow. Reference—State College of Agriculture, Ithaca, N. Y. Price $20 lb. postpaid. REED BROS., Cortland, N. Y. 23-2

Moline-Universal Tractor. 1918 Demonstrator. Slightly used. Looks like new. Good as new. FRED A. GENTEMAN, O'Fallon, Mo. 23-3

MACHINERY

Wanted—A twenty-cup watering set of gravity system, for dairy cattle, second-hand will answer the purpose. Send me your best cash price, name, and condition. G. G. WHITE, Elkader, Iowa. 23-2

For Sale—One new Double-unit Calf-Way milking machine including vacuum pump and tank. Best outfit on the market. Have gone out of machine business, will take $280 to close. Regular price $350.00. First come first served. Address BOX 317, care Hoard's Dairyman. 20-5

Litter Carriers—Price only $14.95, write for catalogue to O. A. TORGERSON MFG. CO., Baldwin, Wis. 21-4

For Sale—3 Strait's tractors 15-30 H. P. Waukesha motors. Used 3 months. Half price. C. R. DENNISON, Savanna, Ill. 21-3

For Sale—Keystone "Keynote" Corn Sheller, with cob elevator and bagger. CYRUS LATHERS, Inkster, Mich. 22-2

For Sale—Drop center Armleder milk wagon, used part of two seasons. Price $125 F. O. B. Waynesboro, Va. IRA SHOWALTER. 22-3

For Sale—One DeLaval Cream Separator for 8 to 12 cows. Cost $100.00, used 90 days, will sell for $50.00; one Babcock tester, 4-bottle, new, used 2 times, $3.50; 1 tattoo stock marker with letters new, $1.50. CLARENCE RAGSDALE, 709 Monroe Ave., Moberly, Mo.

For Sale—Sharples suction feed No. 4 separator. Hand and power attachment. Too small for my use. Used 6 months. Guaranteed O. K. Cost new $100. Sell $80. R. B. LAKE, Lake City, Kans.

For Sale—One 1,300- and one 700-lb. De Laval separator, used one week, time 1918 milk strike. R. F. ROUSE, Area, Ill.

For Sale—Fifty 12" new galvanized cheese hoops. Address BOX 363, care Hoard's Dairyman.

WANTED TO RENT

Farmer Englishman, aged 48, with sons, wants to run farm on salary or shares; not object to dairying. Present situation 5 years. SWANTON, Homewood, Ill.

"Fifty-fifty" share proposition, wanted on high grade dairy, 100 acres up, modern equipment and living conditions, near markets, carrying 20 or more 7,000-lb. milkers, yearly sales $7,000 up. Will furnish labor, owner other expenses; dividing gross income. Honest efficient manager experienced all departments. Must be convenient high school, church. Details first letter. BOX 361, care Hoard's Dairyman.

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Have customers for 25 farms with stock. JOHNSON, 618 Hartford Bldg., Chicago, Ill. 22-4

Farm Wanted—If you wish to dispose of your farm immediately and will accept some city property as part payment, write WALTER MILLER, 320 Brumder Building, Milwaukee.

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

FARMS FOR SALE

Free Maps of Mississippi, showing vie describing the famous black prairie clover, corn, stock and dairy belt, loc Northeastern Mississippi, where Lincol bold of Iowa, the largest hog feeder world, has located; 300 miles of har roads; good well and artesian water; e climate; three creameries; lots of gras hog, cattle, sheep and mule raising sec the South. K. M. WISHART, Aberdeen issippi.

Southern Alabama, eighty-acre dairy cattle, milker, truck; retail trade. BOX 344, care Hoard's Dairyman.

Dairy farm bargain. 316 acres; choic wheat, alfalfa land. 180 acres blue timothy, clover and alfalfa; 35 acres remainder cultivation; choice improv Write for particulars and free des booklet. MANSFIELD LAND & LOA Ottawa, Kansas.

For Sale—360-acre farm, 180 acres cultivation; 2 sets buildings, including dairy barn 36x126, all concrete basemen concrete floor and mangers, steel sta stanchions, Hinman Milker, electric lig silos, 4 other barns, 2 houses, good w head high grade Holsteins, 40 hogs, 5 threshing outfit, all machinery and $25,000.00. Milk selling at $4.00 cwt. LABRE, Bark River, Mich.

Booklet on request presenting facts b Commissioner of Agriculture describi Mazarn Valley in the Ozarks, ideal fo ing and stock farming. Address M. VALLEY LAND COMPANY, 847 Ave., Hot Springs, Arkansas.

For Sale—60,000 acres cutover land i ern Wisconsin. $20 up per acre, $10 d forty and $10 per month or balance p extended, provided you do required am work. We have a few eighties with b ready for use. To purchasers of these rent teams and tools on community b advance money for cow, pig and when you can supply feed; also grubst during farming season providing you tire time to developing your farm. HAWK LAND CO., Box L, Tomahaw

If you wish a farm in the best grass of the south where alfalfa and all the including Red White, Alsike, Swee Crimson and Japan grow to perfecti soy beans, cowpeas, peanuts, velvet corn, oats, wheat, rye, and barley, w have a creamery making fine butter s ing Elgin for butterfat, and where the bovine tuberculosis nor cattle ticks; in munity of northern farmers, write t GURLER, Macon, Miss.

Farms in the Mississippi Prairie Belt and clovers. Corn, hay and live stock sition. Ideal climate, good neighbors, churches, good roads. Main line of Close to large markets. Write now. HANSEN, Macon, Miss.

For Sale—Fruit and dairy farm, two miles from county seat. Price terms easy. Write for details to B Washburn, Wis.

$15.00 to $20.00 buys $30.00 land ou new tract of fine, gently sloping, s cut-over land; good roads; close to good neighborhood; good water; goo while improving land; price good March 1st. Write for details. THE CO., E-M, Dept. 31, Merrill, Wis.

A great opportunity to secure a large farm, located in the suburbs of perous and growing city. Upon the thoroughly up-to-date equipped dairy, with Guernsey cows, and unlimited de milk at good prices. Modern farm and good farm buildings. Will be leased. For particulars address P. 565, Norfolk, Va.

Dairy Farm 100 acres southern Wis miles from large town, gravel road. tillable, spring brook in pasture; g James stalls, cement floor; silo, hog b crib and other buildings; milk house, water; brick 7-room dwelling, front on south, yard and shade, a very home; district school ½ mile, high town, 15 minutes. Address BOX Hoard's Dairyman.

Farm 6 miles to city of 100,000. on improved road, ¼ mile to crean acres tillage, 30-cow pasture, wood, sugar maples with outfit. Big, co 14-room house, 36-cow basement bar and hennery. Retiring owner's $8,500. Easy terms to right man. soon 20 cows, pair horses, farm tools ery and crops included. Details "Strout's Catalogue" bargains 17 sta mailed free. Dept. 3001, E. A. FARM AGENCY, Marquette Bldg.,

Soldiers Coming Home—Let us sen scriptive literature telling all about o County lands and farms, so cheap, s buy of us, and every possible assista you. No district offers so much, such ful opportunities as does this. It w long to realize the truth of this, if only investigate. Send me your nam dress today. I want to help. ARNO Agent, Rock Island Railway, 154 Wol Duluth, Minn.

Free maps and literature telling portunities to own a farm in Minnes FRED D. SHERMAN, State Im Commissioner, Room 200, State Ca Paul, Minnesota.

For Sale—236 acres good land, fin house, splendid new basement ba 16x42 silo, and all outbuildings. one-half miles from town, 8 miles of 100,000 people, Chicago dairy dist per acre. $8,000 cash, balance 5 farm is worth $150 per acre. Writ description. G. W. GILBERT, Own dere, Ill.

$1,125 down gets 185 acres, 8 fine team good horses, mowing machines harness, cultivator, tools, quantity o toes, beans, corn, etc. Cuts 60 tons chine-worked dark loam fields, 20 co watered, wire-fenced pasture, estim cords wood, 75,000 timber; variety fr water piped to 6-room house and 5 barn, silo, horse barn, etc. Distan low price $2,250 for all, half down page 18 Strout's Catalogue bargains many with stock, tools, crops; co free. Dept. 3001, E. A. STROU AGENCY, Marquette Bldg., Chicago.

FARMS FOR SALE

y and grain farm, 86⅔ acres. Good gs, silo. Near church, store, high school ick road. Owner disabled. Easy terms. ALLEN, Williamsfield, Ohio.

Best Paying Dairy Farm in northern Il- 2½ miles from 20,000 city; 2 good, graded roads, 20 minutes by team, 10 by Rural delivery, telephone; established milk $700 month cash, easily increased to milk 15 cents; 200 acres all ploughable. pasture with spring creek, never dry, g through; large dairy barn, well lighted ntilated; 40 James stalls, running wa- silos, feed grinding and power room, all cement; modern cement milk house ad- ; every convenience; complete dairy ap- s and ice house. Modern 9-room dwell- ith water. Horse barn, granary, corn achinery and tool house, hog barn and y, calf and dry cow barn, all cement Other business in town demands my Easy terms. None but reliable parties pply. School ¼ mile. Always a pay- nvestment. Address BOX 365, care s Dairyman.

EXCHANGE

ted to Exchange—80 acres land Mara- o., Wis., for pure-bred or high grade Holstein cows or heifers, to freshen MONSCO CO., Westminster Bldg., Chi-

ted—Pure-bred Holstein herd in ex- for good farm. W. W. WALKER, , Minn. 23-2

FOR RENT

Rent—700-acre dairy and stock farm in n, Iowa, 66 miles from St. Joseph, Mo., miles south of Des Moines, Iowa, on the & W. R. R. Good eight-room house and m house, good cow sheds and barn, four ills and small creek; 150 acres for corn, e in blue grass, timothy and clover. to rent for term of years. Write or wire Keystone Hotel, Joplin, Mo. Will meet the farm. S. L. DAVIS. 22-2

MISCELLANEOUS

y and Cheese—Honey of superior quali- lso Green County's Famous Brick cheese, for prices. E. B. ROSA, Monroe, Wis. 22-tf

ted—Car of rutabaga turnips. Give ice F. O. B. cars. A. C. ASKEW, R. 4, Okla. 23-2

e Guinea Pigs for us. We supply stock. tories need thousands. Big money and nd inexpensive to raise. Particulars and en cents. DR. J. A. ROBERTS' LAB- ORIES, Oconomowoc, Wis. 19-tf

Sir, we have a special opportunity for uring spare time, an opportunity to do good work in your neighborhood, for tterment of dairy farming, that will pay cash for the effort you put forth. Write ur "Special Opportunity Getting To- " folder. Address HOARD'S DAIRY- Fort Atkinson, Wis. 2-tf

n and household accounts easily kept. for particulars and special offer. OTIS UNT BOOK CO., 1822 Chadbourne Ave., n, Wis. 23-6

tobacco, Kentucky's Best, 2 years old, g or smoking, 3 lbs. $1.50; 7 lbs. $3.00, d. Special prices on large quantities. SENBLATT, Hawesville, Ky. 23-4

DAIRIES

For Sale—Sweetwater Dairy, 80 cows and dairy equipment, a good paying proposition, only dairy here. Pressure of other business reason for selling. Come and look it over. J. D. WEEDEN, Florence, Ala. 22-3

For Sale or Exchange—Fully equipped dairy located in city of five or six thousand doing a retail business of $45 per day. Complete modern barn 80x100. 50 cows, cheap pasture. Requires $5,000 cash to handle. City power, lights and water. J. S. WALTERS, Weyburn, Sask., Canada.

GOATS

40 Angora goats for sale. DR. BRUNS Plymouth, Wis.

HAY

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted—Good, reliable farm hand, married, to work with owner on 160 acres. References. RICHARD TON, Tinley Park, Ill. 22-4

Bookkeeper—For dairy in Middle Atlantic states, about four miles out from city of 100,000 inhabitants. Must be competent and reliable and able to handle correspondence. Permanent position for good man. Send reference, stating salary wanted to BOX 346, care Hoard's Dairyman. 22-2

Herdsman wanted at once. Energetic young man who understands feeding and care of pure-bred Guernseys. One who is neat and takes interest in his work and will do his best to build up the herd. Scandinavian preferred. Address BOX 336, care Hoard's Dairyman. 22-2

Reliable single man, to work in dairy barn. Registered Jerseys, modern barn and equipment. Must be clean, industrious and good dry hand milker. Farm located on traction line near city. FINCH FARM, Dayton, Ohio. 22-tf

Wanted—Single herdsman for 50 pure-bred Guernseys. A. R. and test association. Modern equipment. Board and room furnished. State wages wanted and qualifications. FOLLY FARM, Libertyville, Ill. 22-tf

Wanted—Experienced herdsman, for pure-bred Holsteins, who has some extra help in family. Good wages, house and usual privileges. Reference required. Prefer man who has had some experience in A. R. O. work. M. L. JONES, Westtown, Chester Co., Pa.

Wanted—Married man without children for general farm work. Want wife to assist with milking. Board and room furnished. State wages. Write FRED WINKENWERDER, Watertown, Wis.

HELP WANTED

Wanted—Man and wife without children; wife to help with housework; must be good cook and housekeeper, man for dairy work, milking, bottling and delivery. Wages $70 per month, everything furnished. Give full particulars first letter. Address ROLLA OLIVER, P. O. Box 701, St. Joseph, Mo. 23-2

Wanted—Single man on grain and dairy farm; competent and experienced; good habits; in good home; state wages; come visit farm. L. A. KIMBALL, Lake Geneva, Wis. 23-4

Wanted—Good milker and farmer, for 40-acre farm close in to city. Must be good fast milker. $50 per month and board. ROUTE 10, BOX 61, Battle Creek, Mich. 23-2

Wanted—Single man for general work with Holstein herd. Must be a good dry hand milker. $50.00 per month and maintenance. Address MINNESOTA STATE SANATORIUM, State Sanatorium, Cass Co., Minnesota. 23-2

Wanted—Working foreman on small farm. Keep about thirty cows of milking age. Young stock. Extra pure blood Holsteins. Must be efficient in fitting cows for test, experienced in testing for A. R. O., understand the care cattle should have at all times. Sober, steady, industrious, reliable, honest and a live wire. Farm located in New York State. Will pay good wages per month and a bonus on records made. State wages, give references, all details first letter. Address BOX 364, care Hoard's Dairyman.

Wanted—Man with dairy experience to care and milk with Sharples machine 30 Guernsey cows; to put entire time with the herd. Must be capable to take entire charge and assume responsibility. Board and room furnished. State experience, reference and salary. ARTHUR A. COOPER, Elizabeth, Ill. 23-4

Wanted—Herdsman for one of the best herds in the state. Holstein. Semi-official yearly work. State experience, age and wages expected. JOHN PULS, Hartford, Wis. 23-2

Wanted—A person, able to invest in the business, to take charge of dairy. Milk collected at door by pasteurizing plant. Good summer pasturage, three new silos, new engine, cutter and corn harvester. Write for particulars if you mean business. L. W. DesCHAMPS, Elliott, South Carolina.

Wanted—Man and wife to work on farm. Wife to run small boarding house; man to do general work. Good wages paid reliable and industrious people. Enclose references and address BOX 358, care Hoard's Dairyman. 23-tf

Wanted—Housekeeper on farm, middle aged women preferred, three in family, modern house, furnace and bath. LOUIS BEYER, Malone, Wis.

Wanted—A superintendent for strictly modern dairy, located in the east, about six miles from a city of 200,000 inhabitants. Milk disposed of by retail. 600 acres under cultivation. This is a good berth for the right man. Apply to BOX 347, care Hoard's Dairyman, giving full particulars, experience and reference. Only first class man need apply. 22-3

POSITIONS WANTED

Wanted—Unmarried man wants position as manager of Eastern dairy, Holsteins or Guernseys. Life experience. $175 per month. Address BOX 357, care Hoard's Dairyman.

Farm Manager or Superintendent—Young man, single, American, desires permanent position. He had good practical experience in general farming with modern machinery. Address BOX 115, Kennett Square, Pa. 21-3

POSITIONS WANTED

Situation wanted as superintendent on large grain farm; married, no children; understand rotation of crops and handling of men. At present time on grain farm which will be sold soon. Can make a change Feb. 1, 1919. Address BOX 330, care Hoard's Dairyman. 21-3

Married man, two children. Best references as farm foreman or herdsman; also general farm work. H. Y. MAINES, Elkhorn, Wis. 22-2

General manager is open for position. Lifetime experience. Have thorough knowledge of pure-bred stock, also buying and selling. A. R. O. work, feeding and developing young stock, and can handle help to best advantage. Married, two children, no bad habits. Address BOX 341, care Hoard's Dairyman. 22-tf

Wanted—Young man wants herdsman job in far west. No small job considered. Holsteins only. Former employers affirm I made their interests mine. $150 per month. Address BOX 356, care Hoard's Dairyman.

Practical man with life farm experience, also experience in cow testing and agricultural improvement work desires position as manager or herdsman on dairy farm. Only good propositions will be considered. Will guarantee results. College education. Will consider a renting proposition. Guernseys preferred. BOX 353, care Hoard's Dairyman. 22-3

Young single man, of proven character and worth, wants position as herdsman of Southern dairy. Only large proposition considered. Must furnish sufficient labor to conduct business efficiently. Lifetime experience North and South. $200 monthly and board. Address BOX 355, care Hoard's Dairyman.

Wanted—Position as farm manager. Honest and sober. Western farm preferred. Understand farming thoroughly. M. H. BRINKER, Lisbon, Ohio. 23-2

Position wanted as herdsman. Single, experienced in A. R. O. work, best of references, only Holsteins considered. BOX 354, care Hoard's Dairyman. 23-2

Wanted—By man of ability and experience as well as good training a position as superintendent of large stock farm or estate. Am thoroughly experienced. Only those of best reputation considered. Address BOX 366, care Hoard's Dairyman. 23-spl

An experienced American herdsman of 5 is open for engagement January 1st. Understands every branch of dairy and record work. Can take full charge first class modern position only. Address BOX 362, care Hoard's Dairyman.

First class herdsman wishes position. Thoroughly experienced, competent all branches. Expert calf raiser, milker, veterinary work. Particulars address BOX 359, care Hoard's Dairyman.

Married man wishes position on dairy or grain farm. Wife willing to work as housekeeper or board help. Address BOX 360, care Hoard's Dairyman.

Do you need a good herdsman, working foreman for farm or estate? Several men graduating from the National Farm School are open for employment. M. ROSENBERG, National Farm School, Bucks County, Pa.

Wanted—Position as herdsman. Single, middle aged, sober. Up-to-date feeder in A. R. O. work. 6 years head feeder at the Woodcrest, Rifton, N. Y., when the farm was under the management of A. S. Chase. Best reference. FRANK BROWN, 668½ 27th St., Milwaukee, Wis. 23-2

Better Cows for Iowa

e Iowa Holstein-Friesian Breed- Association has secured the ser- of Mr. H. E. Colby, formerly r of the Holstein-Friesian World, vote his entire time to the pro- n of the interests of the Hol- Friesian breed in Iowa.

e believe Iowa is the first state cure the services of some one to te his entire time to promoting nterests of any breed. Mr. Col- headquarters will be at Waterloo, nuch of his time will be spent in ing out the gospel of more and r Holsteins. The men putting shoulders to the wheel in this t realize that the results may slowly at first, but they have in the Holstein cow and they that the men of Iowa, who are ucing milk, would be benefited if can be prevailed upon to use blood rather than scrub or cows eef blood.

With Milk and Honey Blest

gs and sugar, milk and honey, —always excepting, of course, continued stimulation of our grain —are now figuring uniquely ig the food supplies of our coun- o be maintained and increased. is true not only because of their importance, but because they are rtant foods that can be economi- produced. Whatever unprece- ed gains in agriculture or produc- have been made last year and this, otal food output for 1919 must k all previous records. More food still more food is what is needed od, again food, always food, and more food—and the kinds that feed best and most for the least cost, or that can be produced with little initial outlay and labor, now count highest.

This is a thought that belongs not to the farmers of the country alone; it is a thought that must be roundly grasped by the men and women of our towns and cities. In their clear comprehension of food, both from the standpoint of its feeding value and its production cost and possibilities, and their acceptance or use accordingly, now lies one of the biggest factors of help in the solution of the present food problem. While the garbage-fed hog is proving what can be done to economically increase our supply of pork and allied foods, and while the energy value of sugar for what it costs to give it to us is an old, old story, no other one food meets the first present economic food ideal better than milk, and possibly no other one food meets the second ideal better than honey.

The value of milk as a food has been so emphasized during the past months that we are now more than familiar with the facts "that milk is the greatest factor of safety in our diet"; "that no substitute for milk as a food has ever been found"; "that children under six years of age should have if possible a quart of whole milk a day"—in some form at least; "that meat does not take the place of milk; more, that it is a mistake to buy any meat until each member of the family has a pint of milk each day"; that milk is from all practical points of view an economical food, and that "without the continued use of milk not only for the feeding of our children but in liberal amounts in cookery, we cannot as a nation maintain the position as a world power to which we have arisen."

But the dairy cow does not only produce this most needed and in many respects best of all foods, the dairy cow is at the same time the most economical producer of any animal food. As the experts tell us, one great law of food conservation is "to turn inedible feeds into edible foods," and it is the dairy cow that can most efficiently utilize coarse, otherwise inedible materials and convert them into milk. This has been demonstrated and must be more unhesitatingly understood than it now is, perhaps. The degree of efficiency and economy, however, with which milk is produced depends upon the breed and the physical condition of the cow. In order to increase our milk supply and further cut the cost of its making, not only more, but better cows are needed. Cow testing stations, through whose agency it is possible for even the poorest farmer to own high grade cows, are proving that by intelligent breeding and feeding the average production of a cow, measured in butterfat, may be increased 50 per cent or more, and its cost greatly reduced. That this increase may continue, and the country be strengthened accordingly, the value and importance of milk and other dairy foods must be more commonly recognized, and their fullest use consistently observed, and whatever fair price for milk may be justified at the time should be patriotically paid. More—the cry "more and better cows" must be called and carried from coast to coast!

If we cannot all be farmers or producers of food in some capacity, at least we can all become familiar with the many issues in the production of our various foods and their ultimate value, and lend our co-operation by the practical appreciation of these two facts, and so pay to an extent whatever personal debt in the matter of food production may be charged against us. At this critical period the importance of milk and honey from the nutritive and economic aspects can hardly be overestimated, for it may be only when we have again found the Promised Land that permanent peace shall come.—MABEL DULON PURDY in McClures Magazine.

When Bull Ring Tears Out

HOARD'S DAIRYMAN:—In your issue of Nov. 22 I saw an inquiry in regard to handling a bull that had pulled ring through his nose. I had a case of this kind with a large bull I was caring for a few years ago.

I put the ring back the other way of the nose, going through nose and lip and coming out of the mouth. I used a large ring (3"x½") thus reaching well above lip where flesh was thin.

It was quite a difficult job to hold the animal while hole was cut through nose. We used staff to handle him same as before and with apparently equal results. The ring gradually worked down in nose, but we could see no change in position in lip and do not think there would be a material change in a few years or any difficulty in handling bull with ring through lip alone should ring come entirely out of nose. I would not advise tying direct to ring. While this method would probably make grazing difficult, it did not bother bull to eat hay and grain. SUBSCRIBER.

Constableville, N. Y.



Successful Farmers

like Unicorn Dairy Ration because it brings out all the milk the cow can make. Just the feed to use with your home grown grain or alone.

During the cold, harsh, trying winter months every cow needs the best nourishing feed. She must maintain her bodily vigor as well as her bountiful flow of milk.

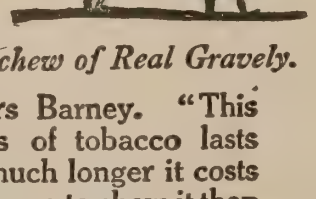
Every Unicorn feeder is a permanent Unicorn buyer.

Unicorn Dairy Ration is manufactured by

CHAPIN & CO., Dept. Z, CHICAGO

Buy Your Feed Early

Andy used to buy the biggest plug for the money



'till one day Barney gave him a chew of Real Gravely.

It was an hour or more before Andy said anything. "How much longer does this Gravely hold its good taste?" he says.—"Two or three little squares last me all morning," answers Barney. "This class of tobacco lasts so much longer it costs no more to chew it than ordinary plug costs."

• • • •

It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND

Real Gravely Chewing Plug

each piece packed in a pouch

P. B. GRAVELY TOBACCO CO., DANVILLE, VA.



My Free Book

tells the secret of breeding Bigger Crops. Proves that **"As Ye Sow, So Shall Ye Reap."** Helps farmers harvest beautiful crops of high priced grain. Gives a positive remedy for the costly "Dockage Evil." Contents worth hundreds of dollars to any farmer. Write for my amazing new book now!

CHATHAM Seed Grader and Cleaner

Now used by a half million farmers. Cleans, grades, separates rankest mixtures of any grain or grass—50 to 100 bushels per hour! Cleans out dust, trash, weed seed; separates poor, sickly grain; sacks plump, clean grain for seed or market. Gas or hand power. Gas power now makes cleaning grain for market a quick, easy job—and ends the "Dockage Evil." Increases crops and profits in an amazing way.

Send No Money!

Take until next Fall to pay! Or I give 10% discount for cash with order. Postal brings Big New Book and very Special Proposition. Write today.

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Try It 30 Days Free!

If satisfied, keep the Chatham. If not pleased, return at my expense. Money returned. No risk to you. WRITE!

When Writing to Advertisers, Mention Hoard's Dairyman

A New Junior Dairy Club

HOARD'S DAIRYMAN:—To stimulate interest in dairying and to train up dairymen for the future is the object of the new junior dairy club in Oklahoma. The requirements for this boys' and girls' club which were formulated by John E. Swaim, State Boys' Club Agent, and C. W. Radway, State Dairy Specialist, are different from those of any other state.

Each boy or girl who becomes a member of this organization must purchase a high grade heifer or cow of a recognized dairy breed; the animal should be bred at the time it is purchased. Cost and production records must be kept as long as the member remains in the club.

The junior dairy work is carried on through the county agents under the supervision of the Boys' Club Department of the Extension Division of the Oklahoma Agricultural and Mechanical College in co-operation with the U. S. Department of Agriculture. The county agent enrolls the members, assists them in purchasing their cows and personally supervises their work as much as possible. Seasonable instructions and suggestions are sent out bi-monthly by the club department. The junior dairymen must read these instructions and follow them whenever practicable.

At the time he enrolls each member is given a record book, in which he must keep an account of all expense and production as soon as he assumes ownership of the cow or heifer. The book is so arranged that one page is devoted to the daily production for each month, the opposite pages having blanks for the monthly record of feed for both cow and calf. Butterfat tests must be made at least four times during the year. The completed record book together with a story of the year's work is turned in on September 30th of each year to be graded. A new record starts as soon as the old one is completed.

Each member is required to make an exhibit at the county fair or club contest. This exhibit may consist of either the cow or one of her offspring. The best animals are then sent to the state fairs where they are shown against cows and calves from other counties.

In making out the grade for the year's work of each boy and girl, four points are taken into consideration as follows:

Exhibit	25
Yearly production	25
Profit	25
Completeness of record	25

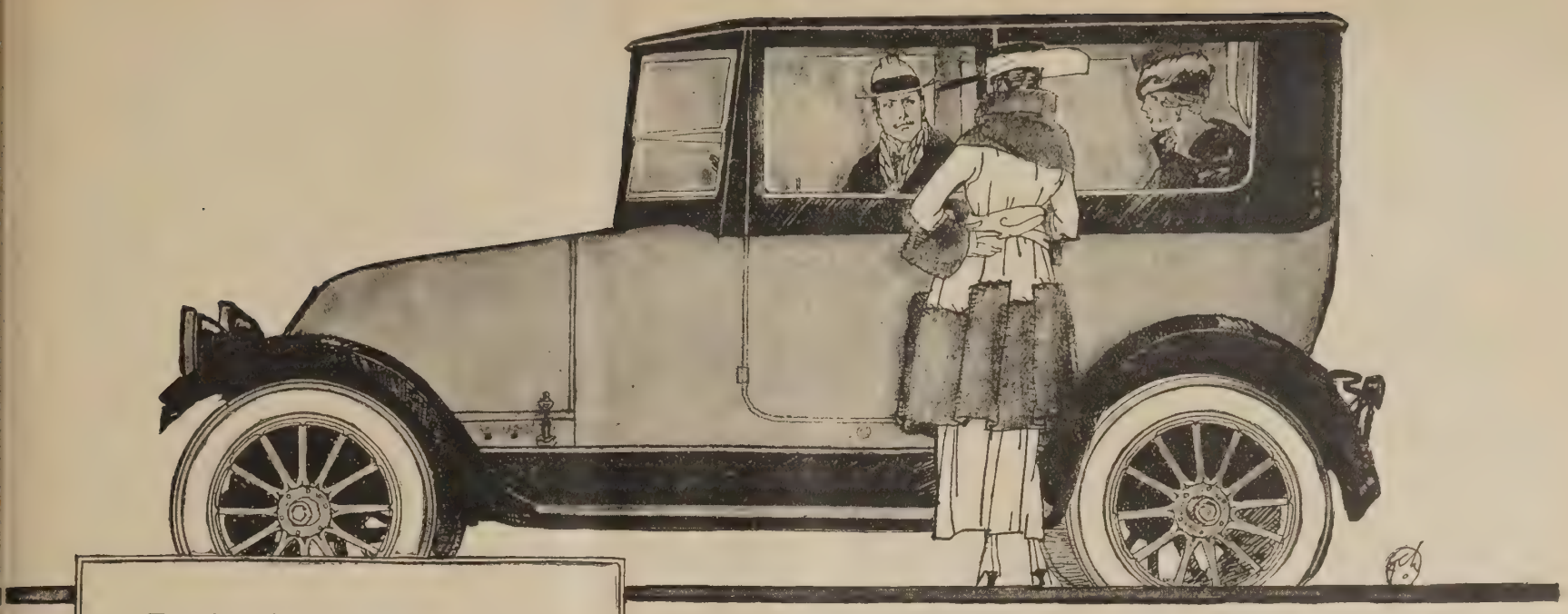
The exhibit grade is taken from the showing made at the state and county fairs. The other three are taken from the record book.

The junior dairy club is to be a permanent affair. The boy remains a member as long as he does up the work and follows out his instructions. As soon as the first calf matures and begins giving milk, its production record is kept along with its mother's.

The club work builds for the future. The cows and heifers must be bred to pure-bred bulls of creditable production. This rule insures the building up of the quality of stock owned. A boy or girl who continues this work for a period of five or more years will be the possessor of a splendid dairy herd and will have made a good start toward becoming a successful dairyman.

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Everybody recognizes the fact that the performance of motor cars in general is unchanged. And the live question now is which car will give you a *full measure* of usefulness—and still stick to the new standard of *keeping down waste.*

Cars that insisted upon bulky, wasteful, rigid weight before the war now find themselves out of line with the trend of public thought and unable to change for months to come on account of the material situation. And with the people frowning upon waste, there will be hard days ahead for the wasteful motor car.

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Feeding Value of Sudan Grass Hay

HOARD'S DAIRYMAN:—Amongst the forage crops that have been introduced into the United States quite recently is Sudan grass. Although little more than ten years have elapsed since its introduction from the valley of the Nile it has spread rapidly in this country and is now quite a valuable crop in many sections, though it is specially adapted to the semi-arid regions.

Sudan grass has been used for pasture, soiling, and hay but seems best suited for the latter purpose. It does not tiller well and is an annual and so is unsuited for pasturing and the fact that it tends to become dry and fibrous limits its availability as a soiling crop. Where it is sown rather thickly, however, and in plots small enough to be used before it becomes too dry, it can be successfully used for soilage purposes.

As a hay crop it is quite successful. The yields obtained at ten state experiment stations average 3.4 tons per acre of dry hay and in some cases as high as 5.5 tons per acre have been secured.

Forage crops when ripening generally change rapidly in composition; not only does the moisture content decrease but the percentage of fiber in the dry matter increases rather markedly. Sudan grass is an exception to this rule as is shown by the analyses, in table 1, made at the Iowa State College.

As the moisture decreases and the dry matter content increases in the later stages of growth of Sudan grass, a few minor changes take place in the relative proportions of the individual constituents of the dry matter. Peculiarly, however, there is no marked increase in the content of crude fiber. The results given show more fiber at the time of heading out than when the crop is ripe. This difference is small, however, and can possibly be explained by the fact that Sudan grass yields a large amount of seed of a very low crude fiber content.

Table I. Per Cent Composition of Dry Matter of Sudan Grass at Various Stages of Growth

	Before heading	Headed out	Full bloom	Half ripe	Ripe
Total dry matter	20.80	20.96	25.74	30.08	31.92
Protein	8.80	9.78	6.57	5.02	4.29
Nitrogen-free-extract	48.12	46.04	50.19	53.32	53.73
Crude fiber	32.98	35.50	32.36	32.98	33.83
Ether extract	2.31	2.62	3.53	2.10	1.66
Ash	7.79	6.06	7.35	6.58	6.49

Table II. Digestion Coefficients and Digestible Nutrients in 100 Lbs. of Sudan Grass Hay

	Total nutrients lbs.	Digestibility %	Digestible nutrients lbs.
Dry matter	91.6	63.5	58.2
Protein	7.7	43.4	3.3
Nitrogen-free-extract	48.3	66.3	32.0
Crude fiber	30.9	69.4	21.4
Ether extract	1.8	52.7	.9

This lack of increase in the crude fiber in Sudan grass with the progress of ripening is of considerable practical significance. Crops to be used for hay must generally be cut before ripening has proceeded too far, otherwise the hay will be coarse, woody, and unpalatable and a large amount of it will be wasted. In the case of Sudan grass, however, the cutting can be delayed for a considerable time without any resultant damage to the hay. This is valuable during unsettled weather as the cutting can be delayed if there are prospects of the weather improving and the results will be entirely favorable whereas with other crops the hay would be exceptionally poor.

Although Sudan grass has been widely grown, little information has been obtained regarding its actual feeding value or digestibility. A digestion trial conducted at Iowa State College with two grade Guernsey heifers gave some very interesting information regarding its value—t only other information on this po being a digestion trial with one a mal at the Maryland Station. (S Table 2.)

The average for the Iowa a Maryland results shows Sudan gr hay to be quite digestible and t work at these, as well as other s tions, shows it has a valuable c tent of total nutrients. The result that Sudan grass hay is quite a va able source of digestible nutrients farm animals:

Table III. Digestible Nutrients and Net En Values per 100 Lbs. Dry Matter

	Timothy hay	Millet hay	Su gr
Crude protein, lbs.	3.4	5.8	
True protein, lbs.	2.5	4.6	
Carbohydrates, lbs.	48.4	53.6	5
Fat, lbs.	1.4	2.1	
Total nutrients, lbs.	54.0	64.2	6
Net energy, therms	48.7	54.8	6

Sudan grass hay can not be co pared satisfactorily with legume h but a good comparison with timot millet, and other non-leguminous h can be obtained. It is deficient in p tein but as is seen from the acc panying table it provides as much tal nutrients per 100 lbs. dry mat as does millet and is a much more uable source of energy than is eit timothy or millet.

Sudan grass hay is quite palata and should make a good horse h Owing to its lack of protein it not be recommended highly as a roughage for milking cows but i quite satisfactory as a winter roughage for dairy cows and yo stock, though for the latter a suit supplement in the form of some trogenous concentrate should also provided.

ANDREW C. MCCANDLIS
Iowa College of Agriculture.

Feeds to Supplement Silage Alfalfa and Alsike Hay

I have plenty of good corn si and alfalfa and alsike mixed al half and half and plenty of corn barley. Now I wan know which is the feed to add to tha make milk,—Unic cottonseed meal, meal, or bran?

O.

Belle Center, (

With good corn lage and mixed al and alsike hay, the little difficulty in plying the cow wit adequate amount nutrients. A cow w do very well on no but this roughage, der most condit however, and espec with the present of dairy products, we believe it to feed some grain.

The natural supplement of al hay is corn or barley. In vie this, we have suggested rather eral amount of corn and barley mixture. We would feed each 30 lbs. of silage at the rate of lbs. live weight, and all the al and alsike hay she will consume out waste.

A mixture consisting of 200 ground corn, 200 lbs. ground b 100 lbs. Unicorn or cottonseed or oil meal, and 100 lbs. of would supplement this roughag mirably. We would feed abou pound of this mixture for each of average testing milk produce cows giving less than 18 lbs. o daily, we would feed no grai require them to do their work alfalfa hay and corn silage, some particular cow was thin i and it was desirable to put better physical condition.



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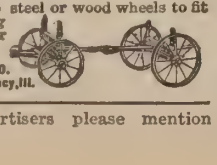


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Advice is given free in this department. Inquires must be signed by the writer, and should pertain to veterinary Matters only. Where an immediate reply and prescription are desired by mail, the inquiry must be accompanied by a fee of one dollar. In every instance it will be necessary to give a full description of the symptoms present.

Depraved Appetite

I have a heifer calf four months old that licks and "cribs" the woodwork around her tie-up. The woodwork in question has been treated with "carbola", a chemical whitewash. Thought possibly this preparation might contain something she craves that is lacking in her ration.

Hopkinton, N. H. T. A. H.

Lime often is attractive to calves and for that reason it is well to allow access to a lump of chalk or to slaked lime. Cover the licked parts with turpentine. Allow access to rock salt. The heifer should be fed milk daily in addition to other feed.

Difficult Milking

I had trouble with one of my cows last year when she started to milk hard with her right front teat and then went to the left and then to the back. But the 2 front ones were the worst. I could hardly get any milk out of them. This lasted about two months and now she is starting the same way again.

West Burlington, Ia. B. G. R.

We suspect that congestion and consequent thickening of the lining membrane of the ducts in the teats causes the difficulty in milking. It may be due to infection from the milker's hands or stall floors. See that these are kept clean. Twice daily immerse the teats in a hot, saturated solution of boric acid and if that does not suffice, use sterilized dilators or teat plugs to enlarge the openings of the teats.

Sweating

I am writing to you in regard to one of our heifers which seems to have a very peculiar complaint. We have spoken to several dairymen about her and none of them ever heard of such a condition. She will be two years old in February and we expect her to freshen in March. She is of fair size and in good flesh and has a good appetite but she sweats at night. In the morning she is covered with tiny drops of sweat. It seems to be the worst on her hips and shoulders but often she is wringing wet all over. Her feed is silage (all she will clean up twice a day) and corn fodder for roughage and oil meal and cottonseed meal for grain. Two other heifers that stand beside her do not sweat.

Hopkins, Mich. S. F. M.

Such sweating sometimes is due to a hot, badly ventilated stable. Have the stables kept clean and so well ventilated that the temperature will not exceed 50 to 55 degrees Fahrenheit. Indigestion is another common cause and we should advise you to reduce silage a half and feed clover hay, oats, bran, and flaxseed meal. If she is constipated give her an ounce of glauber salts once daily in water and increase the dose if found necessary.

Caked Udder

I have a Holstein cow due to freshen about the 18th of December that at previous freshenings has had a badly caked udder. Last year, for instance, she freshened Nov. 20th and it took until about March 10th to get the cake out of one front quarter of her udder. Would it be advisable to milk a cow a few days before freshening?

Wadena, Minn. E. L. H.

Allow the cow a box stall or turn her loose in a shed. Make her take exercise daily. Stop all grain feed, reduce silage a half and feed enough bran and oil meal in form of mash to keep the bowels active. Twice daily massage the udder and if it becomes greatly enlarged, strip away some of the serum twice daily. Once daily give a tablespoonful of saltpeter in water or feed after calving if the udder stays congested, and milk three times daily.

Skin Trouble

Can a cow have mud fever? If so, what is the proper treatment?

Can a cow be affected with cowpox for an indefinite period?

I have a cow that got a sore on her udder three years ago which was treated with creolin. Since then she is continually getting sore places which are covered by a very hard crust (dark in color), covered with hair. After treatment with creolin and lard, this comes off and heals, but it will crop up again on another leg.

Duncan, Vancouver Is. G. H. T.

Mud fever is a disease of the legs of the horse due to wading in wet slush or filth and we do not recognize such a disease in cattle; but such conditions may cause "fouls" (foot trouble).

Cowpox runs a definite course inside of three weeks. What our inquirer describes possibly is ringworm or eczema. Saturate the spots with oil until the crusts can be scrubbed off; then apply tincture of iodine twice daily, or a solution of 4 ounces of sulphate of copper in a pint of hot water, to be applied once every five days. Cleanse, disinfect, and whitewash the stable.

Jersey Cattle Notes

For week ending Dec. 6, 1918:

Number of animals registered: Bulls, 178; cows, 462; total, 640.

Number of transfers recorded: Bulls, 230; cows, 595; total, 825.

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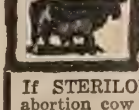
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tional Dairy Association

annual meeting of the National y Association was held in the of- the Association, Room 405, rth Wells Street, Chicago, on a December 6th, 1918.

e were present, in person and xy, 76 members and a very nterest was taken in the pro- s.

report of the treasurer and ry was not very encouraging, to the effect that the influenza on the gate receipts at this show, but a small balance was own in the treasury as availa- going forward with the work, veral of the members present l their personal financial sup- the carrying forward of the it was necessary to call upon

go was unanimously chosen as xt place of holding the show, committee was appointed to election of a building in which be held.

following directors were elect- ucceed those whose terms ex- his year: Mr. C. J. Tucker, ew Farm, Lees Summit, Mo.; . C. Lasater, Falfurrias, Texas; ul A. Reymann, Wheeling, W.

e was not a quorum of direc- esent and a meeting of the di- could not be held. The pres- cers hold office until a meeting is called for Friday, February 19, and the directors, at the this meeting, will issue to the full report of everything con- with the show, and the entire rship will, after the meeting, in a financial report.

W. E. SKINNER, Secretary.

---

farmers of Clatsop County, , were saved $4 a ton on mill rough the combining of orders county agent. By making one or 300 tons of feed the agent le to obtain a price of $33 a m the local dealers. The retail or mill feed in the region has 37 a ton, and often more.

JERSEYS

E'S TORMENTOR JERSEYS
oduction" Our Watchword
L CALF FOR SALE

o. 252, dropped April 29, 1918; solid awn with black tongue and switch; wn for his age and an excellent indi- every respect.
ou's Torono 106614, whose first four s on test averaged 602.71 lbs. 85% rom 9,450.9 lbs. milk, at 1 yr. 11 mos. all four finished in Class AA, having alf an average of 183 days.
an's Warden Lady 336390, an excel- vidual of extremely good dairy type. r particulars.

RVIEW FARMS, INC.,
E. Genl. Mgr. P.O. Box 1404
ATLANTA, GA.

BULL FOR SALE

Island bred and ready for service. Dropped April 26th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 652,768 lbs. butter. Write for particulars or come and see him.

OAK GROVE JERSEY FARM,
W. M. KNIGHT, EAGLE, WISCONSIN.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

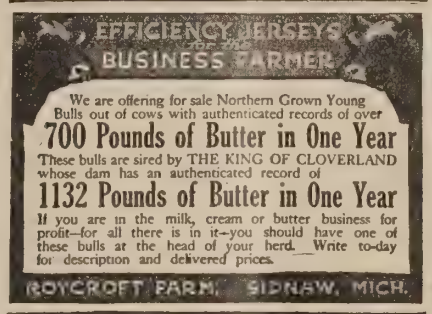
WE OFFER
Three Young Island Bred Cows

—strong in the blood of Oxford Lad, Oxford Majesty, Gamboge's Knight and Golden Maid's Prince,—which we are pricing attractively. They are carrying calves, sired by sons of Oxford Lad and Royal Majesty and will freshen during the winter. Address

FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.



We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order.

Ashland Farm Dairy, Inc.
ALTON PARK, TENN.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ready for service at $100.00 each. The famous Blue Belle-Golden Rosebays.
The Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale
Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

Burn Brae Jerseys
Ibsen's Chief
HERD SIRE

High class bulls for sale—all ages.
CHAS. A. PETERSON, ROSENDALE, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

FOR SALE

Straight Island Bred 5-yr.-old granddaughter of Eminent and Noble of Oaklands. A show cow and producer. Bred to Mable's Noble King 146295, to freshen in January.
G. D. Gilbert, Ceylon Court Farm, Lake Geneva, Wisconsin.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write **Ed. A. McGilvea R. 2, Box 99, Baraboo, Wisconsin.**

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba,* record 806 lbs. butter; Granddaughter, *Jacoba Irene,* young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

AYRSHIRES

RAVINIA AYRSHIRES



Our purchase of the entire milking herd of Willowmoor Farm, Redmond, Wash., is the major event of this decade in Ayrshire history.
This is a herd of show individuals backed by the world's greatest consistent production; a herd that has bred more world's record cows than any other and which now holds more world's records than any other. It is the greatest collection of record production Ayrshire cows in the world today.

In offering Ayrshires of all ages from this herd, we divide our wonderful heritage with you. If you want the best, write today

GOSSARD BREEDING ESTATES
Martinsville, Ind. Preston, Kans. Axial, Colo.
Address all correspondence to the General Offices, 1007 So. Michigan Ave., Chicago.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle



ALTA CREST FARM
AYRSHIRES

CHOICE BULL CALVES AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicoha. A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

Cresmont Farm
AYRSHIRES

Are offered in choice bull calves, cows, and heifers. "Finlayston", and "Baron's Best of Bargenoch" breeding. We have what you want at reasonable prices.
W. H. DRUCKEMILLER, Sunbury, Pa.

Ridgewood Farms

WM. FRAZIER HARRISON.
Breeders of Registered
Percheron Horses, Ayrshire Cattle, Berkshire Swine, Scotch-Highland Sheep, Barred Rock Poultry.
Breeding Stock For Sale. Personal Inspection Invited.
ORELAND, MONTGOMERY COUNTY, PA.
Telephone, Ogontz 575, Arthur H. Walker, Mgr.

Choice Ayrshire
Females—All Ages

One seven months old bull of World's Championship blood. Write for pedigrees and records.
Evamere Farm, Box 18, Hudson, Ohio.

REGISTERED AYRSHIRES FOR SALE

Some fresh cows. Also two choice young bulls.
E. R. McCONNELL, - Wellington, Ohio.

SWINE

POLAND CHINAS

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Hadley
Herd boars and farm boars, open gilts, or shipped when bred, sired by 3 Grand Champion boars. Boars and gilts not related. Raised without corn, and IMMUNE. Tell us what you want. We can please you. March pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, Wis.

Cedar Crest Farm Berkshires

Cholera Immune

The wonderful bargains we offered in Berkshires were so quickly taken advantage of that we have not a single boar of serviceable age for sale and only a few brood sows, weighing 250 to 300 lbs. bred for their first or second litter and a limited number of unbred fall gilts. Our stock is right and our price is right. Write us today for complete information. Remember—first come first served—the quicker your order is placed the better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

Kilehurst Farm

DUROCS OF QUALITY
We have a limited number of choice Spring Boars any Gilts left. Order now. Prices right. We will satisfd you. **Kilehurst Farm, Elwyn F. Bradley, Manager, Momence, Illinos.**

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.
Cooperstown, New York.

036 lbs. MILK—720 lbs. FAT

erage production of the grandams of our Owl-Interest bull calf No. B. 68, dropped 1918.
e is Sibley's Interested Prince, R. of M., who is transmitting the production and richis dam, 15,147 lbs. milk, 875 lbs. fat.
m is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

Wisconsin Ayrshire Breeders' Association

Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.
Jas. Van Etta, Lima Center, Wis. Adam Seitz, Waukesha, Wis.
Fred Tschudy & Sons, Monroe, Wis. Stephen Bull, Racine, Wis.
Bollig Bros., Black Earth, Wis. John DeMaster, Cedar Grove, Wis.
A. J. McNab, Secretary, Black River Falls, Wis.

Poultry Maxims

It is urged that all farmers and poultrymen adhere strictly to the following principal rules in handling their poultry and eggs:

1. Keep the nests clean; provide one nest for every four hens.
2. Gather the eggs twice daily.
3. Keep the eggs in a cool, dry room or cellar.
4. Market the eggs at least twice a week.
5. Sell, kill, or confine all male birds as soon as the hatching season is over, so as to produce infertile eggs. The male bird has no effect on the number of eggs produced.

GUERNSEYS

GUERNSEYS

Tabulations made by the U. S. Department of Agriculture show that the average income over cost of feed from one cow that produces 450 lbs. fat is equal to the average income over cost of feed from 20 cows that produce 100 lbs. each. The average of all official Guernsey records is 450 lbs. fat. Learn more about these profitable cows. Ask for our free booklet "The Story of the Guernsey".

The American Guernsey Cattle Club
Box H Peterboro, N. H.

UPLAND FARMS
Ipswich, Mass.

Offers for sale a Bull Calf dropped February 4, 1918.

Sired by—*Langwater Cavalier* No. 21012. (A Double Grandson of Imp. King of the May 9001.)

Dam—Imp. Chywoone Eulalia No. 44538. Record of *10,686.8* lbs. Milk —*558.62* lbs. fat in Class B.

Price and full particulars on request. F. P. Frazier & Son, Props.
W. K. Hepburn, Supt.

Albamont Guernseys
Headed by
Don Diavolo of Linda Vista the Great $10,000 Bull

Choicest young bulls and several heifers for sale at reasonable prices.

U. S. Bureau Animal Industry Health certificate with all animals over 6 mos. old.

J. C. HAARTZ, 10 High St., Boston, Mass.

Greenway Farm Guernseys
WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
GEORGE H. TIMMINS, Prop.

The Mixter Farm
325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM
Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. W. A. Clones, Mgr.

SWEET SPRINGS GUERNSEYS

Herd Bull—Jacqueminot of Linda Vista.
Sire—Langwater May King.
Dam—Langwater Rosie. 72423 lbs. fat.

A number of bull calves six weeks to one year old, sired by this fine bull for sale at reasonable prices; also a few cows and heifers each year.

Herd Regularly Tested For Tuberculosis.
SWEET SPRINGS FARM
TROY, OHIO.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS
Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516 09 lbs. fat.
17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

GUERNSEY - BULLS - CALVES
PRICES THAT WILL INTEREST YOU.
"McLERAN OF MINN. WRENSHALL"

GRASSLAND FARMS
Offers several exceptionally choice
Young Bulls For Sale
Send For Price List.
Taconic, Litchfield Co., Conn. (C.N.E.R.R.

619 POUNDS FAT
is the average of our first nine Advanced Register Records
FALCON'S DON

carries this kind of blood. Dropped Aug.6,1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175.
Full particulars and pedigree from
Falcon's Flight Farms, Litchfield, Conn.
N. B.—No contagious abortion in over five years; no tuberculosis.

GERAR GUERNSEYS
Production
Reproduction
Quality.....
Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.
Louis McL. Merryman, Cockeysville, Md.

EDGEMOOR FARM
Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred
May Rose, Gov. of Chene and Glenwood Bull Calves
Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

IOWANOLA GUERNSEYS
Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam:—Florinda of Piedmont 39418, A. R. 3844. Record: 9,910.8 lbs. of milk and 458.9 lbs. of fat in class F. Now beginning retest in Class A.

This bull was born Aug. 1, 1917. He is large, bright and attractive, an excellent individual.

Write us for further information.
Mountain Bros., R. 5, Des Moines, Iowa.

Mound City Farm
GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.
Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

A Bargain in Guernseys

I am offering for sale several excellent young bulls up to 9 months old, sons of Hilda's Pride of Riverside, he an A. R. son of Lord Waukesha. All of these youngsters are from A. R. dams. They are well grown and good straight individuals. I am also offering 4 heifers by the same sire; 3 are 15 months old, one 4 months old. My herd is accredited. These animals are priced to sell. Write at once for pedigrees and prices. Maple Heights Guernsey Farm, Frank E. Swan, Wauwatosa, Wisconsin.

On Two Accredited List

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the
WISCONSIN ACCREDITED LIST
by the State Live Stock Sanitary Board and to the
NATIONAL ACCREDITED LIST
by the Department of Agriculture at Washington. This means that the he has been found by annual test for the last eighteen years
FREE OF TUBERCULOSIS
To parties desirous of purchasing Pure-bred Stock free of this insidio disease this is an important matter and means more than any single tub culin test can mean. Every animal guaranteed to be free of the dise when it leaves the farm.
HOARD'S DAIRYMAN FARM, Fort Atkinson, Wi

TILDEN FARMS
GUERNSEYS

For Sale:—Several large, well marked pure-bred heifers of May Rose and Governor of the Chene breeding. These are excellent individuals out of high producing A. R. stock, and priced to sell. We are also offering a few pure-bred bulls ready for service, and several grade cows and heifers.

Herd on the Accredited list.
Tilden Farms, James H. Murphy, Mgr., Delavan, Wisconsin.

He's Ready For Heavy Service

For Sale: A two-year-old son of Kedge Anchor of the Glen from a granddaughter of Imp. Raymond of the Preel VI. The dam was first and junior champion at the 1915 Wisconsin State Fair and a real dairy cow. The bull himself is a splendid individual, very well grown. He is a brother to Polly's Beauty, 774 lbs. fat at 4 yrs. (class leader) and to Kedge Anchor Queen of Sunny Side, 505.88 lbs. fat.
Write us for full information.
Maple Hill Farm, Fruit Bros., Waukesha, Wis.

PARK FARM
May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.
John H. Williams, Park Farm, Waukesha, Wisconsin.

BIRCHWOOD GUERNSEYS

Young bulls for sale sired by May King's Vrangue of Ingleside No. 15436 who has ten A. R. daughters that have A. R. records that average about 800 lbs. fat and all but one of these were 2 and 3 year olds when the records were made. The dams of these bulls are officially tested. Herd on the state accredited list. Send for sale list. M. L. WELLES, Rosendale, Wis.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS.

We Are Offering 2 Registered Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by "Pencoyd's Golden May Secret" (39626) a son of Nella Jay 4th.
W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22263); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.
HOMER RUNDELL, LIVINGSTON, WISCONSIN.

KOSHKONONG PLACE
GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

Thorn Hill Guerns



If you want a well bred Guernsey Bull at reasonabl —May Rose and Glenwood st write me. I have always on hand, all my own breedi of A. R. Cows with records 650 pounds of fat. Also a few calves each year. Herd re tested for tuberculosis. August Ziesing, Deer

BUY NOW FOR SALE

Two registered Guernsey bulls, ready vice. Excellently bred. Exceptionally individuals. Rock River Farms, Byr Medill McCormick, Owner. R. S. Hulce, S

Guernsey Bulls Wi A. R. Backing

No. 31. Dropped April 22, 1918. Allenwood King Regent 23641—3 A. R. ters. Governor Chene breeding. Price
No. 42. Dropped Aug. 20, 1918. Golden Noble of Craigamoor 29215. S $1,500 at auction. May Rose blood. Pri
No. 46. Dropped Sept. 29, 1918. Victor of Pencoyd 18901, a son o Golden Secret. Price $200.
All from dams in A. R. or now on te description and pedigree, write.
FOLLY FARM, LIBERTYVILL

PERGUE FARM **GUERNSEY**
We are offering now several choice youn whose dams are extra good producers. Our si bines breeding and individuality. Also a few for sale. Prices exceedingly low. New Ha Farm located in Livingston Co. Sass Bros., Stre

May King of Columbia No. 3

Our head sire is a double grandson of Barring King No. 19312, purchased by U. S. Governm average records of his daughters with first calf exceed the average first calf records of daughte grandsire, Imp. May Rose King but also the first calf records of daughters of sons and oth sons of Imp. May Rose King. (See page 4 of Breeders' Journal July 1, 1918.) For Sale—you in calf to Columbia, also an occasional bull ca Tuberculin tested, abortion free herd.
Katheryn Farms, L. W. Sheldon, Manager, Fulton,

Edgewater Far

Has been the home of such noted Guernseys, of Edgewater, Miranda of Edgewater, White Edgewater, Imp. Queen Regent 4th, Imp. T Carteret, Miranda of Mapleton, Nellie Tostevin ton 3rd, The Great Bull Imp. Holden 4th and m noted animals. We are offering a few ch Calves. F. G. Benham & Son, Canandaig

Harbor Hill Guern

We Bred and Developed
The Breed's Champion Roll of Hon
Linden Girl of Harbor Hill 3rd A. R. 465 lbs. milk 785.89 lbs. fat Class CC. We few bull calves carrying similar blood li
C. H. HECHLER, Superintendent, Roslyn, New York.

GUERNSEY

Choice young bulls of exceptionally g Reg. breeding for sale. Strong individ just as represented. Dams milking fr 55 pounds daily. Could spare a few you
Write for pedigrees and prices.
OTTO W. POST, R. R. Station Owasc Ensenore, New York.

For Sale: Bull Ca

6 to 7 months old. A. R. Dams. Sire son of Dolly Dimple's May King of La
Jericho Guernsey Farm, N. C. Dahl, Owner, South R

Pinehurst Guernseys Pr

with *farm care*. *70 A. R. records* average 4 The former home of *Glenwood Boy of Had* where *26 of his daughters* were bred, whose ords average *554 lbs. fat*. His daughter *Dai Pinehurst* made *860* and *910 lbs. fat*. Present *a line bred Glenwood*, and *a line bred May Ro*
E. W. Strawbridge, Moorestown, Burl. Co.

h Dakota Creamery Short Course

Dairy Husbandry Department
ıth Dakota State College will
its special Creamery Short
January 6th to March 13th,
or the purpose of training men
reamery work. This course
receive a large attendance as
the past year the demand for
rained in creamery work has
ed the supply.
work given is principally along
e of dairy manufacture but the
t also receives some informa-
ith regard to dairy production
t the future creameryman may
ın understanding of the prob-
f his patrons.
g with the class room work the
t gets actual work on the floor
creamery from the receiving of
ilk and cream through to the
rapping of the butter. Special
will be made of the factors that
the quality and keeping quali-
the butter, such as acidity of
pasteurization, use of starters,
nount of ripening.
special examination or educa-
attainments are required to
he Creamery Short Course ex-
hat the student shall have a
knowledge of common school
es. All worthy students are as-
in securing profitable positions
end of their work. For further
ation address Dairy Hus-
Department, South Dakota
College, Brookings, S. D.

wa Three Months' Dairy Course

hree months' course in dairy-
ginning December 31st is of-
by the Dairy Department of the
State College. This course is a
f the regular six months' course
n be taken separately by stu-
having only a limited amount
e to devote to school work.
work offered during the com-
ree months is as follows: Dairy
ce, Cheesemaking, Elementary
making, Elementary Milk Test-
'actory Management, Prepara-
f Ice Cream and Ices, Judging
Products, Market Milk, Feed-
d Management of Dairy Cattle,
eneral Farm Crops Production.
ırther information write to the
Department, Iowa State Col-
Ames, Iowa.

you talked with your neighbors about ing for Hoard's Dairyman? Why not ow? Make up as large a club of sub- as you can and send them in.

ROWN SWISS

alhalla Farms

e-Bred Brown Swiss Cattle

high class, well bred animals from a
ıd healthy herd offered for sale. More
) head to choose from and our 20 years'
ıce is back of every one. Write us now.
IYER, WALHALLA FARMS, Middleburgh, N. Y.

HOLSTEINS

gains in Bulls Just eady for Service.

r fine individuals closely related to
gis Pontiac Count and Colantha Johan-
from dams of splendid breeding.
) GORDO FARMS, Mason City, Ia.

Winterthur Farms
OFFER FOR SALE
King Sadie Vale Urma 235352

Born March 30, 1918

Here are the records of his nearest dams:

DAM (two-year-old)	*20.04 lbs.*
ONE GRANDAM	*38.46 lbs.*
THE OTHER GRANDAM	*25.50 lbs.*
ONE GREAT GRANDAM	*41.06 lbs.*
ANOTHER GREAT GRANDAM	*41.06 lbs.*
The five average	*33.22 lbs.*
His 7 nearest Dams average	*31.27 lbs.*

Like his sire, he is dark in color, long, straight and deep-bodied.
The sire, King of the Sadie Vales, is out of a 38.46-lb. cow. His dam's dam is also his sire's dam, namely: Sadie Vale Concordia 4th (41.06 lbs. butter). His dam and grandam have the highest 30-day averages in the World, 157.71 lbs. butter. No other bull in the World can equal his three to nine nearest dams for 30-day butter production. The sire of King of the Sadie Vales is the only bull in the World with a 40-lb. dam, a 40-lb. sister and a 40-lb. daughter.
The dam of King Sadie Vale Urma recently made as a two-year-old: 20.04 lbs. butter, 399.20 lbs. milk (7 days); 73.26 lbs. butter, 1,571.30 lbs. milk (30 days). Her dam has a 25.50-lb. record, and her maternal grandam has a 26.38-lb. record. She is a granddaughter of Sir Urmagel Burke (three 30-lb. daughters), and a great granddaughter of Pontiac Korndyke (two 40-lb. daughters).

We have put the price on this bull that will put him well within reach of the small breeder. For further particulars, write, wire or come to

WINTERTHUR FARMS
WINTERTHUR, DELAWARE

FOR SALE
Heifer Calves

Registered Holstein-Friesians, also a few choice bull calves all sired by my Senior 30-lb. bull and Junior sire from 21½-lb. 2-yr.-old. These calves are of the best Pontiac and Korndyke breeding, nicely marked, good individuals, from dams with A. R. O. records and milking as high as 90 lbs. per day on dairy rations.
WM. WICKERSHAM, Embreeville, Pa.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calves, sired by a son of the World's Record senior 4-yr.-old, 1294.7 lbs. butter in 365 days, at $100 and up. Descriptive catalogue for stamp.
GEO. E. STEVENSON & SONS, Clarks Summit, Pa.

Lake Shore Holsteins

Health accredited by state and federal government. Stock of both sexes and all ages for sale at reasonable prices. **E. J. Oppliger, Box 20, Forest Lake, Minn.**

Young Holstein Bulls For Sale

Sons of King Record and Judge Lyons from A. R. O. dams for sale. Three weeks to 9 months old. The kind that are fit to head a breeder's herd.
F. H. Sehre & Son, - Good Thunder, Minnesota.

Do You Need a Bull?

I am offering a splendid yearling for sale. He is growthy, well marked, and as straight as a line. His dam is a 24-lb. 4-year-old daughter of Sir Veeman Hengerveld and his sire a 28-lb. son of King of the Black and Whites. His 11 nearest dams average 28.34 lbs. in 7 days. Several younger bulls for sale.
E. J. BROSIOUS, STILLWATER, MINN.

Lisle Farms Co.

Offer High Class

Holstein Bulls

Every dam with an A. R. O. or C. T. A. record. Herd tuberculin tested. Prices right.

Send Today for Bull Sale List.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West Chicago, on C. B. & Q. R. R.

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⁄e-bred Holstein Cows and Heifers

d young A. R. O. cows, to freshen in January and heifer calves of superb ng and individuality for sale at prices that will move them quickly. Herd so for sale. THOS. STEWART, BIGGSVILLE, ILLINOIS.



$17,500 Per Year in Prizes

for officially authenticated butterfat records is offered by the Holstein-Friesian Association of America for the purpose of furnishing reliable data as to the merits of the Holstein-Friesian breed as butter producers. This method has demonstrated the unequalled ability of the breed. These cows hold all A. R. O. records for amount of butter.

If interested in **HOLSTEIN CATTLE** Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

BLACKBURN'S
Fourth Annual Sale
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Registered Holsteins
Feb. 25th, 1919

100 Head of the Best Holsteins ever offered at auction in Ohio. 50 big fresh cows and close springers. 25 heifers, bred to my 36-lb. Herd Sire. (The Best Bred Bull in Ohio.) Write for particulars.

Dr. A. D. Blackburn, Cuba, Ohio.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.
RAY MEEKER, MUNCIE, INDIANA.
P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. C. I. Reamer, North Liberty, Indiana.

FOR SALE—A YEARLING BULL

of 5⁄8 breeding, whose dam's 3-yr.-old record with two of her three nearest dams and his sire's three nearest dams, average 29.62 lbs. butter in 7 days. His sire from a daughter of Hengerveld De Kol, and sired by a son of K.P. Pontiac Lass. His dam by a 27-lb. son of Colantha Johanna Lad. Also, bull calves sired by a son of King Segis Pontiac, and whose dam is a daughter of Pontiac Korndyke. Priced for quick sale. For further information write, **GLENN WILSON, Wanatah, Ind.**

Springdale Farms
Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. **F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.**

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. **G. G. BURLINGAME, Cazenovia, N. Y.**

A SON OF KING OF THE PONTIACS
The World's Greatest Proven Sire
For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

A Chance to Buy a Son of King Korndyke Sadie Vale

At less than half his value, because he is dark in color. $400.00 buys King Korndyke Segis Johanna Ormsby, born Aug. 17, 1918. He is a large growthy fellow and a fine individual. His dam and sire's dam average over 35 lbs. butter in 7 days. Sire:—King Korndyke Sadie Vale, regarded as the greatest sire of his generation. His daughters, still heifers, are making wonderful milk and butter records. One K. K. S. V. Topsy made over 40 lbs. butter as a 3-yr.-old. He also has two other 3-yr.-olds with records over 30 lbs., and two 4-yr.-olds over 30 lbs. He is the sire of the youngest 29-lb. heifer of the breed. Dam:—Anna Johanna Ormsby, A. R. O. record as follows, butter 7 days 29.35, 30 days 122.30 lbs. She is one of the best daughters of Sadie Vale Sir Ormsby. Thus this young Bull has a double cross of old Sadie Vale Concordia.
W. D. ROBENS, POLAND, NEW YORK.

A Rare Chance
To secure a few choice
Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. **E. A. POWELL, 904 W. Genesee St., Syracuse, New York.**

At Laurel, Mississippi
40—HEAD—40

of high class grades and pure-bred registered Holstein cattle, all ages, males and females; some are fresh, some to freshen soon. Priced for quick sale. For further information and prices write H. H. Wickwire at Laurel, Miss. or write him at Hubbardsville, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

GRANDSONS OF THE

World's Champion MILK COW

Out of dams milking over 20,000 pounds of milk per year. $250.00 each delivered your station.
ANTRIM FARMS, SYRACUSE, N. Y.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

Sir Inka Prilly Segis Albino

Born Dec. 3rd, 1917.

A Real Bull For Some Small Breeder.

IF YOU ARE A SMALL BREEDER or beginner in the Holstein business and in the market for a herd sire, here is one that is worthy of your best consideration.

JUST A YEAR OLD—Ready for service. He is well grown, a splendid individual with faultless topline and marked nearly all white. As an individual he will suit the most particular.

SIR INKA PRILLY SEGIS, his sire, is one of the famous sons of the great King Segis, who has proved himself to be one of the greatest, if not the greatest, transmitting sires of the breed.

THE DAM OF SIR INKA PRILLY SEGIS is Inka Prilly with a record of 30 lbs. in 7 days. She is from a 25-lb. daughter of old Prilly and sired by a grandson of this same famous foundation cow.

THE DAM OF SIR INKA PRILLY SEGIS ALBINO is Princess Douglas Urmagel, a 24-lb. four-year-old daughter of Sir Urmagel Burke, a full brother to the 35-lb. cow, Urma Burke, and from the 31-lb. cow, Urmagelsche 2d A.

PRINCESS DOUGLAS URMAGEL is from a 29-lb. four-year-old daughter of DeKol Beets Segis, another well known son of King Segis.

THE THREE NEAREST DAMS of this young bull average over 28 lbs. Two of them being only four-year-olds. His seven nearest dams average 26.93 and his eighteen nearest dams average 26.77.

HE CARRIES THE SAME RELATIONSHIP TO King Segis as Segis Fayne Johanna, the only 50-lb. cow, Fancher Farm Maxie, the world's champion heifer with 47 lbs., and Mabel Segis Korndyke, former champion four-year-old with 40.32 lbs.

HE CARRIES A DOUBLE CROSS of both King Segis and the famous foundation cow, Prilly,—both animals familiar to breeders from coast to coast.

AND WE ARE OFFERING this young bull to you for $650, guaranteed sound in every respect and tuberculin tested by Federal veterinarians.

IF YOU WANT HIM, do not wait to write but send us a wire instructing us to hold for you.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was ***Grand Champion*** of a ***National Dairy Show.*** A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — **HOLSTEINS** — **3 BULLS**

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams. For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Lashbrook Holsteins

Sixty head, high class A. R. O. cattle. On the Minnesota and Federal Accredited List, free from tuberculosis. Herd headed by a son of BEAUTY BEETS WALKER SEGIS. WORLD'S CHAMPION senior two-year-old heifer, yearly division, 25,343 lbs. milk, 1,040 lbs. butter in 365 days. Bull calves for sale.

U. L. Lashbrook & Sons, Northfield, Minn.

HE IS SIRED BY A SON OF

Sir Pietertje Ormsby Mercedes

that is out of a 30-lb. sister of Pietertje Maid Ormsby. His dam is a 17-lb. three-year-old daughter of a 28-lb. grandson of Sir Ormsby Hengerveld DeKol. He is mighty good to look at. Dropped last August. $300. We have some for more; a few for less.

POPLAR HOLLOW STOCK FARM,
Bertram D. Scott, Prop. P. O. Station F. Minneapolis.

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖

❖ Born May 1917 Black and White ❖

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

Arden Farms Winter Sale

Who Said "Bull Calf"?

WE SAY "BULL *CALVES*", AND ANY NUMBER OF THEM AT ALL AGES AN COMBINING ALL OF THE BEST BLOOD LINES OF THE HOLSTE ARISTOCRACY.

WE ARE OFFERING OUR USUAL FALL CROP OF BULL CALVES—EVER ONE OF THEM GOOD ENOUGH TO HEAD ANY HERD IN THE COUNTRY OR IN THE WORLD FOR THAT MATTER.

DO YOU KNOW, That it is up to us to re-stock the devastated countries of Europ just as it has been up to us to clothe and feed them?

We must be in a position to furnish the very best stock that it is possible to produce.

REPRESENTATIVES OF BELGIUM AND FRANCE HAVE BEEN TOURIN THIS COUNTRY, IN SEARCH OF PURE-BRED STOCK. LET US SHOW THE STOCK TO BE PROUD OF, JUST AS WE HAVE SHOWN THEM AN ARMY O WHICH THE WHOLE WORLD IS PROUD.

DO YOU KNOW, That we have headed the PRIZE LIST for two successive years We have, and we did it by buying

THE VERY BEST SIRE WE COULD FIND.

YOU CAN DO IT TOO

WE ARE HERE OFFERING YOU THE BREEDING AND INDIVIDUALITY T MAKE PRIZE-WINNING, RECORD-BREAKING HERDS, JUST LIKE OURS.

AREN'T YOU GOING TO TAKE ADVANTAGE OF IT?

WE OFFER YOU: Sons of *KING SEGIS PONTIAC COUNT*, whose first twenty four daughters to freshen broke more than One Hundred World's Records, a reco never attained by any other bull of any breed. *SONS OF HIS DAUGHTER* BULLS SIRED BY HIS BEST SON, out of a 1,230-lb. dam. BULLS SIRED B *PIEBE LAURA OLLIE HOMESTEAD KING*, whose individuality and conformati are unequalled. SONS OF *SIR ORMSBY HENGERVELD KORNDYKE*, whose da is the famous cow, PIETERTJE MAID ORMSBY.

CAN YOU DO BETTER? WE DOUBT IT.

Write us for particulars and pedigrees.

JOSEPH M. HACKNEY, Arden Farms, St. Paul, Min

HEAD YOUR HERD WITH

A Young Bull of Ormsby Qual

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters b royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis

Young Bulls From Yearly Record Da

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official re 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. S and other noted herds. These bulls are well marked, heavy bone, straight and large for th We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls

The Greatest Bull on Ear

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World, Duchess Skylark O

Sons of Sir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Skylark fast enough to take care of the inquiries which we are receiving.

MAXWELL FARMS, WATERLOO, IOWA

HOME FARM HOLSTEIN FRIESIANS

We Will Sell One-half Interest in Korndyke Sadie Vale 24th No. 163

He is a son of ***King Korndyke Sadie Vale*** from a 20-lb. 2-year-old dau ***King Segis De Kol Korndyke.*** The only reason we are selling hi we have purchased ***Woodcrest Sir Clyde*** 20179 to breed on his da We will test and develop daughters of King and will not sell to any party not do the same. Write for particulars. A few good sons of King for sa

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BUL

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One world's record dam in yearly division. Breeding, size, individuality and price that your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or writ

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

CHOICE HOLSTEIN BULLS

A Few Ready for Light Service

We have a few choice young bulls for sale. They are nearly ready for service, are from A. R. O. dams and by one of Minnesota's good Holstein sires. We are short of room and so are pricing them to sell rapidly.

Write today for further information. They won't stay here long.

Fleck's Registered Holstein Farm,
Ed. Fleckenstein, Mgr. Faribault, Minn.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Never mind the 7-day record

The Other 358 D

that show a cow's producing abili are offering young bulls with

Yearly Record Back

at very moderate prices.

IOWANA FARMS, Davenport

Buy a Herd

that is bred for real production and in

You want cows that will produce we the entire year and that will average high butterfat test—4 per cent or be breed that kind and we have some young bulls for sale from those long producers. Write us today for pedigre etc. **Hargrove & Arnold Holstein Co., Nor**

OR SALE
27 HEAD
re-bred and 15-16 Pure-
ored Holstein Heifers
d 3 years old. Well marked. 18
l to be fresh soon. Sired by a
). bull and in calf to a 30-lb. bull.
ry choice lot—all my own raising.
L. BOSWORTH, DIXON, ILL.

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OFFERS A SON OF
e Hengerveld Fayne No. 77461
son of King Fayne Segis. Dam's record
s. as a 2-year-old and 24 lbs. as a 3-year-
th a semi-official record of 13,471 lbs. of
id 520 lbs. of butter. Pedigree and price
uest. Albert R. T. Lillie, Supt.,
Arlington Heights, Illinois.

START
rease your herd of Holsteins while they
the bargain counter. Send for our free
ist of 100 head of choice females that
uble and treble in value in the next few
over the prices we are asking. If you
bull send for our bull list.
DLAWN FARM, Sterling, Illinois.

ull Calf Born November 22nd, 1917
Ormsby Banostine Champion No. 166276. A son
orld's Champion Dairy Cow over all ages and
Duchess Skylark Ormsby No. 124514 who has a
f over 1500 lbs. butter and 27761.07 lbs. milk at 5
Dam, Emblagaard Pontiac Dot, No. 279877—7 day
s a 2-year-old—butter 21.38 lbs., milk 451.50 lbs.
am, Junior De Kol Dot No. 107665, 7 days at 9
ter 36.54 lbs. milk 633.50 lbs. butter for 365 days
., milk 19463.10 lbs. This calf is a good individu-
more black than white, weight 850 lbs. at 1
end for detailed pedigree.
aard Dairy, - Marquette, Michigan.

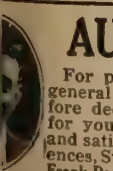
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We have what you want in
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or pedigrees and quotations, stating
ge desired.
City State Hospital, - Traverse City, Michigan.

e Pontiac Herd
ere the Champions come from"
ull Calves sired by sons of *Pontiac*
ce, *Hengerveld DeKol*, *Pontiac Dutch-*
Admiral Walker Pietertje.
u want a Pontiac in your herd?
AC STATE HOSPITAL, Pontiac, Mich.

gistered Holstein
Bull Calves
ve a number of bull calves up to eight
of age. They represent the very best of
and individuality. We will exchange
heifer calves of good breeding. Write
grees and any further information.
LIFF DAIRY, - Blackville, S. C.

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d one that knows values of both
red and Ordinary Live Stock
for dates as I have 95 per cent of all
his section of country. Also sell Real
Auction.
MBROOK, - Chetek, Wisconsin.

CREATOR
Pabst's New Herd Bull
Sire: Sir Pietertje Ormsby Mercedes, the greatest sire of Association and Show Ring prize winners of the breed. He has three daughters with yearly records from 1,140 lbs. to 1,389.45 lbs. butter and eight with 7-day records from 30.66 lbs. to 42.31 lbs. butter.

Dam: Spring Brook Bess Burke 2d, the greatest living cow of the breed in many respects. She possesses a combination of size, individuality, short, and long distance records that cannot be equalled by any cow, past or present. She is a superb individual, weighs 2,225 lbs., has three 7-day records above 35 lbs., and three yearly records above 1,000 lbs. butter.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.

Yearly Record Bull Calf
Born Aug. 8th, 1918
Sire—Iowana Sir Ollie, 2 A. R. O. daughters including state record jr. 2-yr.-old for 7 and 30 days. He is a son of the famous 31-lb. cow, Ollie Watson Prima Donna and sired by a son of Jessie Fobes Bessie Homestead, 34.96 in 7 days and 932.73 in a year.
Dam—Groveland Inka Netherland. Butter 1 yr. 83.75, milk 19,640.4 lbs. Butter 7 days 24.87, milk 556.20. Her sire is the old time show bull, Groveland Inka Hijlaard, and her dam a granddaughter of DeKol 2d's Butter Boy 3d. Calf is ¾ white and an out-standing individual. Write now for price, pedigree and photo.

WALCOWIS FARMS,
Lake Geneva, Wis. N. Dickinson & Son.

Rock River Valley Farm
Awarded
FIRST PRIZE
In Wisconsin Dairy Cow Competition
The *Winner, Queen Juliana Dirkje*, produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.
A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

WANTED A BULL
A little more white than black, of serviceable age, with dam and sire's dam with records not less than 31 lbs. butter. Description, pedigree and price wanted at once.
J. E. BARSTOW, - RANDOLPH, WIS.

$25 Holsteins $25
We have thousands of satisfied customers and we want you as one. Buy the best. Five weeks old, 15-16 pure, $25 crated. Express paid. C. O. D. Write us for anything in cattle.
Dr. J. A. Roberts Stock Farms, Oconomowoc, Wisconsin.

Grade Holstein Calves
From the Dairy Center of the World selling at $25 express prepaid. On account high price whole milk. *Order now.* Also pure-breds.
R. B. Hellen, Sec'y Milk Producers Assn., Jefferson, Wis.

How About a Herd Sire?

MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.
His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).
The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.
This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.
The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

HOLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, ready for immediate shipment. Several bulls ready for service.
GUERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.
PERCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.
DUROC JERSEYS Anything you want in Duroc Jersey Swine.
All cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

EDGEWATER STOCK FARM, Fort Atkinson, Wis.



Cloverlawn Johanna Piebe
His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.
JOHN PULS, - HARTFORD, WISCONSIN

A Bull That Will Suit You
He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
WAYSIDE STOCK FARMS, A. L. Williams, Est., O. A. Williams, Exec. Fond du Lac, Wisconsin.

WEST SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to eight years old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, and one of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 heifers and 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot 8th. Well grown and nicely marked. This stock is priced to sell in single or car lots. Also offer breeding stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, or write us for just what you want in Holsteins or Polands. We can please you. Farm located right in City Limits.
J. D. McDONALD, WEST SALEM, WISCONSIN.

A. R. O. Holstein
In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to
WISCONSIN STAR STOCK FARMS,



Cows and Heifers
our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.

HIGH GRADE HOLSTEIN
Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

FOR SALE—REGISTERED HOLSTEIN BULL We still have one dark colored bull about eleven months old, well grown and a splendid individual, show ring type. His two nearest dams average 25 lbs. of butter for seven days, and 700 lbs. for the year, one of them as a two-yr.-old who gave 16,000, lbs. of milk in a year. They will be tested again at their next freshening and we feel very sure that both dams will make at least 30 lbs. He is sired by a grandson of the great King of the Black And Whites. Will make a great bull for somebody. Price $250.00—decidedly reasonable quality, breeding and records considered. Address:
Elm Leaf Stock Farm, Bear Creek, Wisconsin.
James McKone, Proprietor. William Lucia, Mgr.

TWO DANDY ORMSBY BULLS
No. 1 born Feb. 25, 1918. Dam a 16.85-lb. 2-yr.-old daughter of a 35.43-lb. sire. Second dam 21.80 lbs. butter. Bull marked about ⅔ white. Extra good individual. Price $200, delivered. No. 2 born Mar. 2, 1918. Dam has a 4-yr.-old record of 21.80 lbs. butter, one of the best yearly producers in the herd. Bull is about evenly marked, a good individual. Price $150, delivered. Both of these bulls are sired by my 29-lb. Ormsby bull. For further particulars address. A. M. Anderson, Whitewater, Wis.

Holstein Bull Calves
One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

Bulls—Bulls
ALL AGES
Johanna and Ormsby Breeding.
Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY
Sheboygan Falls, Wis.

Cedar Lawn Farms
A 5 months old bull sired by Cedar Lawn Champion and out of a 19.37 lb. daughter of Sir Johanna De Kol. A splendid individual ¾ white. Price right.
O. A. SCHROEDER & SONS, West Bend, Wis.

Six Bulls 10 to 13 Months Old
Sired by bull whose dam is full sister to Pietertje Maid Ormsby out of A. R. O. dams. Also 15 females from 1 year to 8 years old. Write your wants. Satisfaction guaranteed. FAIRVIEW STOCK FARM,
W. G. Marshall, Proprietor. Whitewater, Wis.

A Word from the Publishers of Hoard's Dairyman

FORT ATKINSON, WISCONSIN

We wish it might be possible to persuade every reader of our paper to "take us up" on the offer we are making. Not alone for the extra subscriptions it would bring us—welcome as they would be! But, because we feel that every one of our readers ought—this winter—to have a copy of Henry and Morrison's wonderful book "Feeds and Feeding".

How About You, Mr. Reader?

Your milk, butter, poultry, hogs, beef—everything you sell—is today bringing a good price. You are **taking in** more money than you ever did. But are you "getting ahead" any faster? Or are you paying it right out in feed bills?

Are you **sure** you are feeding your cows the very cheapest and best ration that will keep up their milk flow and keep them healthy and thrifty?

Are you **sure** you are feeding your other stock (hogs, horses, etc.) as economically as possible?

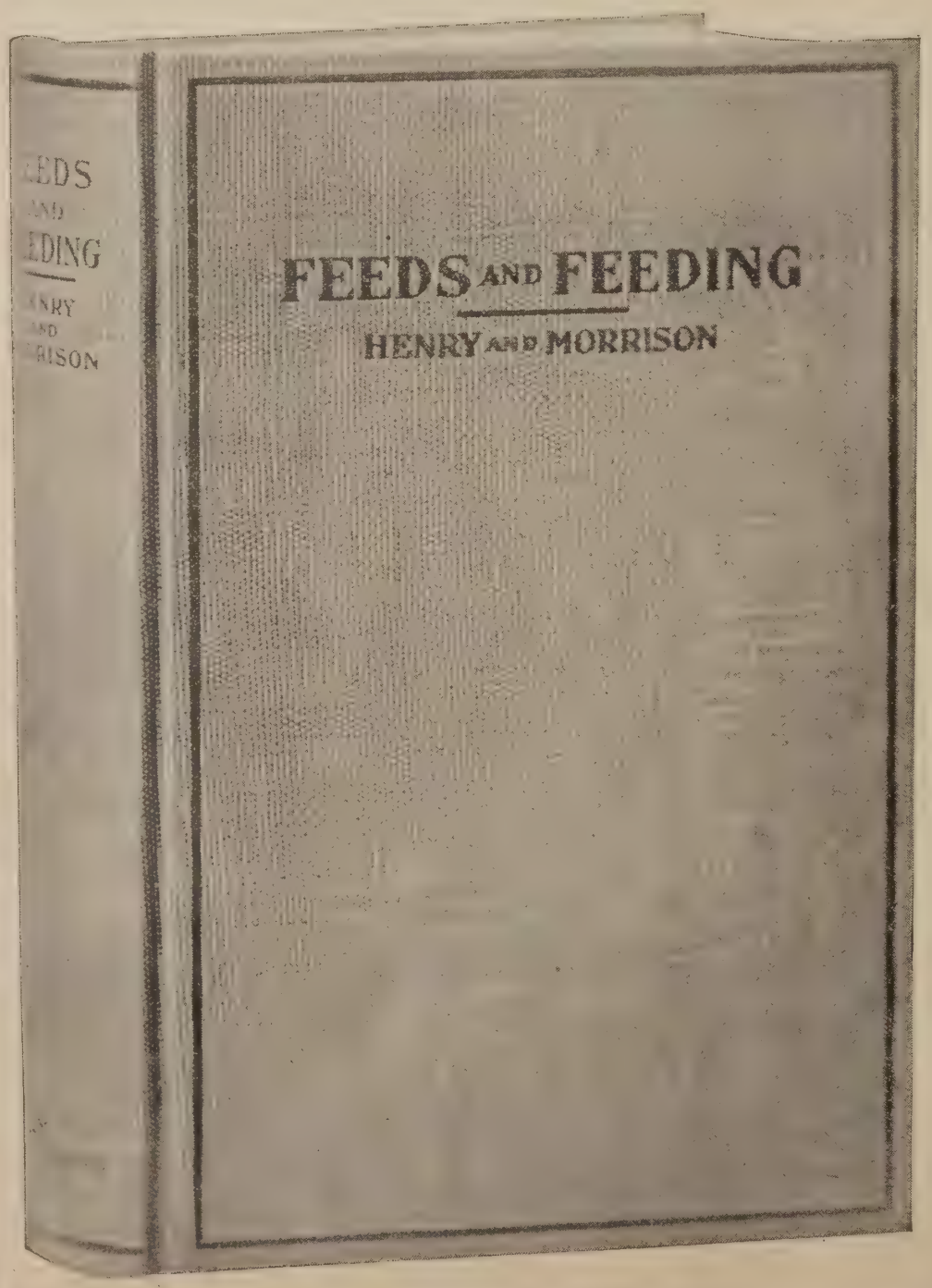
Don't guess! Not this winter!

If there ever was or ever will be a time when it would pay you in dollars and cents to look into the whys and wherefores of the feeding business—to find out what science and practical experience have discovered about the feeding of dairy cows, hogs, horses, etc.—that time is **now!**

"Feeds and Feeding" is a 691-page volume. It represents the life work of many men. It was first written and published by W. A. Henry, formerly Dean of the Wisconsin College of Agriculture. He devoted the best of his years to gathering, testing and putting into usable form all that men have ever learned about the feeds for, and the feeding of domestic animals. And the best of it all, is that the book is perfectly indexed. Within a few minutes time—and no trouble at all—you can find out **all** about any problem in feeding.

In times like these, the wealth of information this book contains, and the fact that anyone who reads the English language can understand and use that information, makes Henry and Morrison's "Feeds and Feeding" almost priceless.

Get a copy—**now**—of "Feeds and Feeding". Plan to spend a few minutes during each of these long winter evenings studying it. "Square up" **your** feeding practices with what you learn. And we'll promise you that the "high cost of feeds" will be less of a "bug-a-boo" to you than it is now!



OUR OFFER

The price of this book is $2.50. You can't **buy** a copy anywhere for less than that. But we will send you a copy—without any charge, and postage paid—if you will do us a little favor that will take very little of your time. **Send us just four yearly subscriptions to HOARD'S DAIRYMAN at $1.00 each.** They may be either new or renewal subscriptions—and your own renewal may be included in the club. But, your own renewal does not count unless accompanied by three others.

Here's a real chance to put this encyclopedia of feeding on your reading table—without cost—and at the same time to give a few of your neighbors a "lift" along the road to bigger dairy profits!

USE THIS COUPON

Or—if you don't like to cut up your copy of HOARD'S DAIRYMAN—write about the same thing in a letter—

HOARD'S DAIRYMAN,
Fort Atkinson, Wis.

Enclosed is remittance of $4.00. Send me a copy of the latest edition of "Feeds and Feeding".

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(Sign your name here)

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HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

lume LVI FORT ATKINSON, WIS., JANUARY 3, 1919. Number 24

FEED THY COWS

A. C. PALMER, Indiana

ere to take a text from which alk to a gathering of dairymen, ld paraphrase the twenty-first r of the Gospel according to hn, the 15th, 16th, and 17th . There Jesus was speaking to asking, as you remember, "Si- on of Jonas, lovest thou me?" on Peter's reply, insisting that l, Jesus urged and impressed him the single ce, "Feed my .

d thy cows! e-tenths of the ien are at fault t their cows are ed, and no small tage have cows ir farms that are ly starving. To e extent, this is an ignorance of properties and as, for instance, ng that corn fod- or corn silage, and bran make a ed ration. But the common rea- nd I say it to the of the majority rymen—is plain, ight stinginess he creature that pay with high in- every cent spent ner proper nour- t.

earliest recollec- f this stinginess hen I was a boy, g the family cow. ran and linseed s a basis, I had up what I t was a balanced for Old Speck. s responding to in a most encouraging way. ening I was milking, and the as eating her regular meal, an uncle came up. A single at the big feed of what he t was plain bran threw to exclamations against my gance and wastefulness. And he learned there was linseed ixed in it, too, he nearly ex- But when I showed him the llons of milk I got and told him had been getting it while his vere averaging 50% less, he to learn how much we would or the cow! As though she do any better for him than his cows on the same feed they etting.

that is just one trouble with so f us. We get word of a fine cow and figure that all we have to do to get a milk production of her average in our herd is to buy her and some more like her. We forget that 75% of a cow's production depends upon her feed and care, and not over 25% upon her ancestors.

Perhaps I was a little harsh in saying this fault of short feeding is due to stinginess. It is hardly that. Rather, I would call it a lack of nerve. The poor feeder cannot, to save him, stand to dish out more than the small amount he has been feeding for years. I have actually known farmers who would take the trouble to figure out a system of rationing for their cows, and really feed them accordingly for a few days, but when there was no immediate gushing forth of increased volume, they simply had not the nerve to continue, but dropped back to the old methods.

I think the greatest good that could be done us ordinary dairymen would be a visit to some breeder who is conducting a 30-day milk test. We could then see the enormous quantities of rich feed a dairy cow can consume without her losing her hair and hoofs through foundering. We would come back feeling a little ashamed of the pitiful portions we had been measuring out, and then watching the milk scale for an increase.

You cannot eat your cake and have it too. It's a hard thing to get rooted entirely out of our minds, but we can't get something for nothing from a milk cow any more than we can from a confidence man. The cow is a milk-producing machine, and she is not a magician—she can't eat a corn nubbin and produce a bucketful of milk; she can't make rich, warm milk out of wind and ice water. We have got to give her the raw material or we can't get the finished product.

Only a few months ago we read of an Iowa dairyman picking up at a local stock yards a common grade cow that was producing less than 150 lbs. of butterfat a year, and was slated for roasts and soup bones. He took her home, gave her proper care and feed, and in a year or so that same cow, labeled a failure by her owner, was one of the local record-breakers. And I am willing to wager that there are scattered through the hills and valleys of my own county, or any other county in the United States, many a high-producing cow that is kept down to a miserable production because of the lack of nerve, or the ignorance of her owner.

The trouble is that it takes time to raise the standard of a herd through proper care. One can't start today with even a perfect ration and expect a big increase next week, or next month. Many cows are run-down; they have been underfed and their systems are deranged. It takes time to get them straightened out and nature working right. I believe I am safe in saying that it takes from six months to a year to notice the real results that will come from proper feeding of a cow that has been undernourished for years. These things can't be done in days.

And, strange though it sounds, it is a fact that the greater part of the underfeeding on the part of the farmer with pasture comes during the summer months. Just consider: The practice is to turn the herd on to pasture about the middle of May. Then along about June the pasture is good and the cows come in with their sides bulging. Their milk flow picks up. We look at the milk pails and the paunches of the cows stuffed with new grass and say, "Well, there's no need of foundering them. We'll just leave off the bran from now on." It's left off and it stays off all through the summer; all through the dry August weeks when grass gets short and clear on until frost drives the cows into the barn for a feed of grain.

Now, what is grass anyway? What sort of a magic food is it that it should be considered a perfect feed for dairy cows? The answer is that grass is practically hay with water in it. And what farmer that even pretends to keep cows would think of feeding his stock on moist hay all winter? Yet that is all the feed the poor cow usually gets throughout the summer.

I have heard the argument raised that since grass is the natural food for cows, then when there is plenty of it, that is all she needs. The answer is that since the production of milk in larger quantity than is necessary for her young is an unnatural function of the cow, unnatural methods must be adopted to produce it. Green grass will furnish the nutrition for a cow's body maintenance, and its appetizing and stimulating qualities will encourage milk production. But all too often the stimulating quality

[Continued on page 822]



BARN AND HOLSTEIN HERD ON FARM OF HENRY HAGERMAN, WISCONSIN

Hoard's Dairyman

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We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.

Holstein Association Service

It is the desire of the Holstein Association to be of service to all dairymen. Let us help you in the re-organization of your dairy herd to secure greater net returns than ever before. During this winter it is best to attend agricultural meetings whenever possible and gain from them help which will result in: First, finding out the individual production of each cow, and her total cost of production together with her gross receipts, then her net value to you and your herd. Second, learn how to better feed and care for the remaining good cows in your herd. Third, become familiar with plans of how to secure the services of a good pure-bred sire through co-operation with your neighbors. Fourth, secure information as how best to market your milk products and surplus stock, through co-operative effort. Fifth, learn the value of pure-bred dairy cattle and resolve to begin now to found a pure-bred herd.

Dairy farmers unable to attend meetings as suggested above are urged to communicate with the Extension Department of the Holstein-Friesian Association of America at Brattleboro, Vermont, and assistance will be given in every way possible. We have educational pamphlets which help, and can assist you in getting other facts from different sources that will increase the efficiency of your herd. It is through better organization of one's own herd and dairy business first, and then by co-operation with known organizations of local, state, and national standing, that the dairyman can best prepare himself to meet the new demands during the period of readjustment.

WM. R. RIDER, Director,
Extension Service.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

A Moral in the Separator

I never see the cream, each day
Done in a separator way
That life, itself, does not present
A parallel of what is meant.
Some of us, sit around and wait
For deeds to head and consecrate.
We say: "Oh, well, the time will come
When I can help my neighbors some.
Why worry over reaching out
To help these fellows all about."

We have a selfish, thin veneer
Of charity that's mighty queer.
We skim a good deed, from the top
And sigh complacently—and stop.
No depths of charity are found;
No peaks of love and faith abound.
It's just a case of "good enough",
A sort of superficial bluff.
And we are cheating, all the while,
But do it nicely and in style.

Apply the "separator" scheme
To life and see it bring th' cream!
Get all the good in you to show.
Bring out the things you scarcely know.
Let every virtue you possess
Get busy—not a fraction less.
Efficiency in thoughts and deeds
Is what a thrifty nation needs.
And—best of all—in many ways,
You'll find this skimming process pays!

True Patriotism

A young soldier while engaged in the desperate fight at Cantigny, was found by some of his American pals at the conclusion of a particularly desperate fight, squatting in the middle of a piece of grass-covered ground. He had a little pile of hand grenades at his side and there were several enemy dead on the outskirts of the little green oasis. He had been fighting like a demon, single-handed.

"What's the idea?" asked the sergeant, running up, "why stay here—it's all over?"

"See this grass?" was the answer, pointing to a lush patch that had been put to seed by French peasants, before their retreat in the face of falling shells, "I'm keeping it for a cow back of the lines that belongs to a family I'm billeted with. It's the only pasture in forty miles."

If There Was No Milk—

What about "peaches and cream"?

How do you suppose coffee would taste?

Would you miss that dish of ice cream?

Where would the rosies in baby's cheeks go?

Milk toast has helped many an invalid.

And then there is cheese.

Milk chocolate is mighty good, isn't it?

Imagine what the pastry cook would say!

Ever try eating cereal with water?

Could father get along without his milk shake?

And then there are the blessed little calves.

Just supposin' there was no milk.

One reason why young folks leave the farm is because they think the work is so hard. Humph! When they strike the city they find there's nothing else.

"What's the idea of building your silo with a sharp edge on one side?"

"Read where any silo would help cut the feed bills in half and I wanted to make things dead sartin."

Farmer's wife (to new helper)—"We are all vegetarians here—are you?"

The helper—"I'm liberal that way, ma'am—just so it's a church, it don't make no difference to me."



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ONVALESCENT AMERICAN SOLDIERS ARE LEARNING FARMING AND DAIRYING AT THE AMERICAN RED CROSS HOSPITAL FARM AT SARISBURY, ENGLAND

This farm includes about 186 acres and is the largest American hospital farm in urope. The American soldier in front, leading two fine Jerseys, is Corp. Niell of orth Carolina. He is wearing a Red Cross comfort bag on his head.



A GROUP OF JERSEYS AND GUERNSEYS AT THE AMERICAN RED CROSS HOSPITAL FARM IN CHARGE OF CORP. W. C. BARR OF NEW YORK, WHO IS SHOWN IN THE CENTER WITH HIS ARM IN A SLING. SEVERAL FARM GIRLS, ALL OF WHOM ARE ENGLISH, ARE EMPLOYED ON THIS FARM.



IRST CONSIGNMENT OF JERSEYS, THE GIFT OF THE PEOPLE OF THE ISLAND OF JERSEY TO THE AMERICAN RED CROSS HOSPITAL FARM



THE CONVALESCENT SOLDIERS ARE GREAT FRIENDS OF THE COWS OF WHICH THIS FARM HAS SIXTY—HALF GUERNSEYS AND HALF JERSEYS



ONE OF THE JERSEY COWS AT THE HOSPITAL FARM



MUCH OF THE WORK ON THE FARM AND IN THE DAIRY IS DONE BY CONVALESCENT AMERICAN SOLDIERS. THE "LAND GIRLS" ALSO ASSIST



BRINGING HOME THE COWS



THE INSTRUCTRESS IN MILKING

Contagious Abortion of Cattle

GEORGE M. POTTER. Kansas College of Agriculture

CONTAGIOUS abortion, abortion disease, or slinking of the calf, is a disease of the first importance wherever cattle raising is an important industry. Its contagiousness was recognized by Europeans early in the eighteenth century, but the true nature of the disease remained a mystery until the development of the science of bacteriology made it possible for investigators to work out its cause and the manner in which it affected the animal body. In 1896, Doctor Bang, a Danish veterinarian, discovered the germ of abortion disease and since that time a great deal of investigation by many of the foremost scientists of the world has added to our knowledge concerning it.

Nature of Abortion Disease

This is a peculiar disease in that it seems not to affect the general health of the mother; but the germs gaining entrance to the pregnant uterus set up an inflammatory process which breaks down the attachment between mother and offspring. The latter, unable to receive either nourishment or oxygen, dies, whereupon it becomes a foreign body and must be expelled. Other organs of the body are not involved, except that the germs are frequently found in the udder where, however, no disease is produced. It is believed that the bodies of bulls and calves are not affected, but this point is still in controversy.

The disease is so chronic, requiring months for its development, and so insidious, being introduced by animals apparently normal in every respect, that it is hard for the average stockman to realize that he is dealing with disease. Mild symptoms and usually rapid recovery of the cow disarm suspicion. He believes that the loss of the calf is due to accident or improper feed and so fails to take the necessary precautions. The first few cases are usually neglected and every opportunity is given for the spread of the infection. It is only after the disease is well established that the stockman realizes the seriousness of the situation.

The complications which attend this disease are more serious than the disease itself. Retained afterbirth, barrenness, the loss of milk in dairy herds, and the lessened breeding efficiency in valuable herds are often of greater importance than the mere loss of calves. Calves may be born alive but so weakened because of the disease that they quickly die of other ailments or do not thrive.

Cause of the Disease

The primary cause of abortion disease of cattle is conceded by practically all investigators to be the abortion germ or organism called the Bacillus of Bang, from its discoverer, Doctor Bang.

Investigators have been able to produce abortion experimentally in various species of animals by inoculating them with the abortion organism, but under natural conditions the disease does not readily spread from one species to another, as from cow to mare. Very peculiarly, the same result—abortion—is produced in three different species of animals by three different organisms, there being one for the cow, another distinct germ for the mare, and still another for the ewe.

The belief is common that injuries to the mother, eating spoiled feed, drinking cold water, etc., are the cause of abortion. Space forbids a discussion of these questions, but it is sufficient to say that nature has so well provided against these accidents that they are of slight importance compared with infection as the cause of abortion. It would be foolish, however, to deny the existence of contributory causes. It is a general principle that anything which lowers the vitality of an animal contributes to the development of disease; therefore, starvation, spoiled food, accidents, or other disease, may well assist in causing the death of the offspring. Recent investigations have shown that the reproductive function has been seriously interfered with where the pregnant animals were restricted to feeds deficient in the elements necessary for growth. Calves came dead or poorly developed and weak, while calves from properly nourished cows were strong and vigorous. This feature should be most carefully investigated to ascertain to what extent our present methods of handling and feeding our breeding herds influence reproduction.

Symptoms

The act of abortion is but a symptom of the disease. The disease itself exists within the uterus, and the undeveloped calf is expelled because it can on longer live in the infected organ. For the dead calf to remain would result in its decomposition, and the life of the mother would be endangered through the absorption of poisonous products. The expulsion of the dead calf is therefore the first step in the process of healing.

The symptoms of approaching abortion are merely those preceding normal calving, and consist in the swelling of the udder, or making bag, and the swelling of the external genital organs. The swelling of the udder would be more apparent with beef cows and heifers than with cows in milk. Not infrequently the calf is expelled without any warning symptoms. Following abortion there occurs a characteristic, dirty, yellowish to brownish, flaky discharge that in turn gives place in a few days to purulent discharge, which may persist for several weeks unless proper treatment has been given. In addition, there are certain inflammatory changes present in the body of the dead calf, the membranes, and within the uterus of the cow, which can b recognized by the expert.

Abortion may occur in susceptibl cows at any period of their lives, fror first pregnancy until 15 or more year of age. It may also occur at any tim during the period of pregnancy Young animals in first pregnancy us ually abort early—at from two to fou months—while older cows may carr calves five to eight months or even t full time. In very early abortions th calf and its membranes are expelle intact. In such cases the calf is ofte not found, there are no observab symptoms, and no disturbance in th health of the cow, consequently th owner thinks the cow failed to bree Where abortion is delayed, retentic of the afterbirth is a common occu rence. Retained afterbirth and steril ty are also recognized symptoms abortion disease.

Complications

Retention of the afterbirth is pe haps the most serious feature connec ed with the disease. Not only does occur in connection with the untime birth of the calf, but in a herd whe abortion exists it is frequent ev where the calves are born at full tin

(Continued on page 830)



1. ST. MAWES SUSY
2. SUSY'S TWIN MAIDEN
3. ST. MAWES BLOSSOM
4. LUCY OF PLEASANT VIEW

FOUR JERSEYS, FULL SISTERS—ALL PRODUCERS

The accompanying illustration shows a breeding example that is worth the attention of all cattle breeders and dairymen because it points out the value of a good sire through the evidence-producing Babcock test. St. Mawes was a great sire because he was capable of getting high producing daughters, and he became known as such because his daughters fell into the hands of men who believed in the official yearly test.

St. Mawes has twenty daughters in the Register of Merit, with a yearly average of over five hundred pounds of fat. One of his daughters, St. Mawes Poppy, made three official yearly records, the highest of which was nine hundred and fifty-two pounds. The four of his daughters shown here are all out of the same dam, Susy of Forestdale, and the average production for six R. of M. records is slightly over six hundred pounds of fat. Their official records to date are as follows:

	Milk Lbs.	Fat Lbs.	Age Yrs.	Mos.
St. Mawes Susy 219991	11,583.1	692.00	5	2
Susy's Twin Maiden 262409	9,383.3	546.19	5	5
St. Mawes Blossom 229066	9,709.7	599.20	4	3
1st reentry	10,174.3	638.40	5	6
2nd reentry	11,068.7	713.84	8	10
Lucy of Pleasant View 282564	6,477.0	410.98	3	4

St. Mawes went the way of many good bulls (the beefsteak route) before he had had a chance to prove his worth, but his record may encourage other breeders to test cows in order to discover not only the best females but the proper sire. Discovering a good sire is like finding a buried treasure on the farm. —A. L. TICHANE.

College Practices Gospel of Self-help

M. W. MUTE, Illinois

WN at Carlinville, Illinois, there s a college that is developing A.). cows and, what is even better , "Advanced Registry" men and ien. This is quite an old college, ng been founded in 1837 by ion Blackburn and christened i his name, but this old college been born again through the gos- of self-help. Five years ago, un- the direction of a new president, Wm. M. Hudson, there was estab- d a new order of things and since there has been a remarkable vth because this college is filling a need.

verywhere there are colleges pro- ig for those who can afford to for the purpose of Blackburn) offer a practical :ation for young and women who) little means but hungry enough for education to work it. The fixed ges per year for n, board, and tui- are nominal and e from $100 to) plus, and this is a in the truest sense hat word, two and lf hours' work each with the hands. rough this work the hands practice oined with theory the how of things the why of things. young women are ht household ce, just as other ols, and then there at plus; they work what they have ed in the class in the college en and dining hall, l the housework is by the young en. In the same ier the young men caught agriculture then work out they have learned on the college of two hundred acres. From farm the bulk of food consumed e college commons comes.

e readers of Hoard's Dairyman be most interested in the dairy i had a humble beginning indeed. enty-five thousand dollars had spent in improving the plant and g up-to-date equipment, the were low, there was a big and how to start the dairy was blem. Money was secured to buy de Holstein cow, then a friend loaned a grade Jersey, and another friend was kind enough to call these two cows "the college herd". Nothing fits better into the general scheme of things in a self-help college than a dairy. The work comes largely in the early morning and late evening, no class conflicts with the milking job, the students have an abundance of good milk, and more profit is realized from the dairy than any other department of the farm. In the rapid growth of Carlinville a fine local outfit for milk at good prices has opened a large field for a profitable dairy.

There was the same problem in regard to barn and silo. A friend, living in the town and becoming interested in the project, said: "There's a barn on the back of my lot which I do not need and I should be glad to give it to the college if the boys will take it down and move it. Fortunately it was an old fashioned pin frame barn and the moving was quite simple. This work was done entirely by the students and furnished them many valuable lessons in farm carpentry. In the same way, friends donated the material for a solid concrete silo and the students did all the work on it under the direction of a competent supervisor. This silo is 12x36 and has been such a success that Blackburn students are all silo boosters. When it comes time to fill the silo, there is a holiday on Friday which, with Saturday, gives ample time for this and the threshing. This is a fine illustration of the value of this work with the hands. It might be possible to learn just how to fill a silo out of a book, but how much better it is to help fill one under the direction of a farm boss who knows just how it should be done. The same rule holds true about feeding the ensilage. In fact the student at Blackburn, who must needs weigh and measure the feed for each cow, and who weighs the milk and tests it for butterfat, learns much that will be of immense practical value to him later, and in addition he is all the while earning part of his education.



FILLING THE SILO AT BLACKBURN COLLEGE, ILLINOIS



LSTEIN COW, WAKEFIELD CANARY PONTIAC
in A. R. O. record as a senior two-year-old of 464 lbs. 3.1 lbs. fat in 7 days. Robert E. Murphy, feeder and

OWNED BY BLACKBURN COLLEGE, ILLINOIS

The problem of equipment in the barn was put up to Mr. William Louden and he very kindly donated that. The students put it in, more learning by doing: the *plus* element in education through the self-help plan.

And so the days have gone along till now the college has a small herd of pure-bred Holsteins of which the boys are duly proud. Quite recently two of these cows were put on official test. One was a two-year-old heifer, Wakefield Canary Pontiac, sired by King Pontiac Dione, one of the great sons of King Segis Pontiac. Just after school opened this heifer dropped a fine bull calf, sired by another great son of King Segis Pontiac, King Segis Pontiac Chicago. This heifer was presented to the college by Mr. George E. Van Hagen, owner of the Wakefield Farms and a firm believer in the gospel of self-help. As soon as she freshened she was turned over to be cared for by one of the students who came up to Blackburn from a farm and knew something about cows from practical experience, but the dairies about his home are made up largely from grades and many of them scrubs at that. In three weeks he had this two-year-old heifer milking sixty-six pounds a day. Then zeal and inexperience put the cow off her feed and she was not back in condition when the tester came, but despite that fact, she gave 464 pounds of milk and 13.1 pounds fat in the seven-day test. Not a bad record considering the age of the heifer and the boy. There is a certain community in Illinois that is going to hear much about heifers that give eight gallons of milk and make two and a half pounds of butter in a day when this boy returns home and surely this gospel of the pure-bred is going to have a new meaning in this community that heretofore has heard it only from strangers.

The other boy selected to do the feeding and milking comes from the opposite extreme, literally from the streets of Chicago. A minister, working in a mission field there, found this



HOLSTEIN COW, FLOSSMOR CANARY LADY
Has an A. R. O. record of 4[illegible]5 lbs. milk, 14.1 lbs. fat in 7 days. Jack DeMichaels, feeder and milker.
OWNED BY BLACKBURN COLLEGE, ILLINOIS

boy and had faith in him. He knew all too well where such environment leads boys, so he sent this youngster to this school out in the open country. This boy had never seen a cow milked when he came to Blackburn. He said, "When I first tried to milk I took my pail and sat down on the wrong side. The cow knowing that I needed a lesson gave it to me with her foot and the lesson was administered with some vigor." The contest between the boys was quite exciting but the city boy won out, because his cow was older, with 405 lbs. of milk and 14 lbs. fat. This should be written down as part of the great story of redemption, for when this youth goes out from school to useful and successful manhood, part of the credit must be given to the black and white cow.

And so this little red college down on the Illinois prairie is performing a real service in a sadly neglected field. Through the great principle of self-help it is training young men and women for useful citizenship and sending them out to help feed a hungry world.

Ration With Clover and Silage

Please give us a formula for a good dairy feed for Guernsey cows? We have on hand some excellent clover hay and corn silage, also barley and oats, and our own mill to grind same. What should we add to make a balanced ration?

Green Bay, Wis. H. FARM.

We would let each cow have daily about 30 lbs. of corn silage and all the clover hay she would care to consume without waste. A mixture consisting of 300 lbs. ground barley, 200 lbs. ground oats, and 200 lbs. gluten feed would supplement the roughage splendidly. We would advise feeding about 1 pound of this mixture for each 3½ to 4 lbs. of milk produced; that is, to a cow giving 24 lbs. of milk daily, or in the neighborhood of three gallons, we would feed from 7 to 8 lbs. of this mixture.

It may be said that distillers grains or brewers grains may take the place of gluten feed; or, if these can not be obtained, the gluten feed may be substituted by using 100 to 150 lbs. of oil meal or the same amount of cottonseed meal. In other words, the barley and oats will not furnish quite enough protein to supply the animal with an adequate amount for sustaining her milk flow.

Victor Jr. Churn



Practical and Complete—a Combined Churn and Butter Worker.

The Churn That Helps You to Make Firm Butter

The **Victor Junior** Churn puts butter making on the farm on a level with creamery butter making. It keeps the temperature down much better than the ordinary churn both during the churning and the butter working.

The mechanism of the churn is such that it will not only churn quickly but will get all of the butter. It also preserves the butter from dust and flies because when the churning is done, the butter can be salted and worked right in the churn. It does not have to be removed until finished.

To get the best butter, the temperature of cream for churning should be from 50° to 60° F. according to the density of the cream. A rich or dense cream requires a lower temperature than a thin cream. Having the cream at the right temperature to start with counts much in producing firm butter of good appearance.

The **Victor Jr.** will do the rest. The drum of the churn is built of heavy, well seasoned lumber. Under average conditions the temperature in the churn should not rise more than a few degrees during the churning and working process. The rolls work the butter thoroughly. It comes out with a good grain and firm.



We make and sell more churns for creamery use than all the other concerns combined so you can depend on our recommendation of the Victor Jr. as the ideal farm churn. It is covered with our iron clad Guarantee.

Full information in our Dairy Supply Catalogue.

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KLEEN KUP

"The Package of Quality for Foods of Quality"

The meat packers and other great corporations make most of their profits from by-products. More than 4000 users of Kleen Kup have proved that by-product profits are equally possible in the dairy business. They use Kleen Kup packages also for buttermilk, fancy butter, etc. Let us show *you* how. We'll mail you Kleen Kup samples, and the Kleen Kup story—*free*. Send today.

The Mono-Service Co., Newark, N. J.

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your dairyman comes in say to him—"Need some more **"Dandelion Brand!"** Keep him supplied.

For you want to be sure that the butter you're selling has that rich golden June shade that every housewife wants—that shade only obtainable by the use of

"DANDELION BRAND"

for thirty-five years the standard butter color of the whole world.

We guarantee that Dandelion Brand Butter Color is PURELY VEGETABLE and that it meets the FULL REQUIREMENTS OF ALL FOOD LAWS,—STATE AND NATIONAL.

WELLS & RICHARDSON COMPANY, Burlington, Vermont.
Manufacturers of Dandelion Brand Butter Color

Dandelion Brand *The color with* **Butter Color** *the golden shade*

Dairymen's League of New York

H. H. LYON, NEW YORK

A REQUEST is at hand for information relative to the Dairymen's League of New York. Considerable has been published about this but the League has become so strong and is probably the largest dairymen's organization in the world, so that it may be best to repeat some of the facts relative to it. All told, it is a long story and the organization has been long in building, especially if we take into consideration the various organizations that preceded it and which led up to its formation. Farmers' organizations come from long continued effort and almost invariably after failures, sometimes many of them.

Without looking up dates it must be a dozen years or more since the organization in the five states that supply New York City with milk had a five states' organization that was thought to be strong enough to bring dealers to terms. To my mind it was mismanaged, and many believe dishonestly managed, and when a strike was ordered it failed. It made some people think, however, and after a time the Bordens undertook, I think honestly, to increase the price of milk to dairymen. It is true that they had a big bump of compassion for themselves in making the prices, but in it all they were not followed by other dealers, they lost trade and had to go back to the old plan. I think other dealers would have been glad to pay more and get more but they feared the loss of trade and the attempt went down.

Matters drifted for a while, but immediately after the failure of the Five States' Association certain granges took up the work and from these the League was formed. Considering what was to be done at the start, the plan of the League and its officers were about as good as could be expected. The officers appear to have been honest from the start, which is an all-important item. It was thought that the officers were not as efficient as should be, but of this I am not certain considering what was to be done at that time. Slow growth seemed to be the only thing, and this it had. The League kept growing slowly for a number of years. Once it was thought that a strike ought to be ordered, but the president of the League thought it inopportune and the project was omitted. People commenced to distrust the League and increase of membership became slower. It reached a point where it hardly supported itself. Officers became anxious. Farmers were coming to be suspicious. Something must be done. Mr. Manning, the secretary, took up the matter with several parties. I well remember when it was talked over with Professor Tuck of the College of Agriculture. Mr. Thomson, then not an officer but since has been the vice-president, was taken into the council as was Mr. Dillon and others. A new campaign was organized and new members secured to quite an extent.

It was now 1916. Activity became the watchword. Many new members came in and it seemed now to be the best time to test titles with the dealers. There were those who felt that a general strike would not be successful for they thought farmers would not stay by such a movement. Among these was Mr. Gerow, who had been president since the start of the League. He was called an obstructionist and even pronounced dishonest by some. I do not believe this but that he actually thought it unwise to launch a movement at that time.

Now before going into the events of 1916, I want to mention something of the plan of organization of th League. In many ways the plan i about the only one that can be ex pected to be successful. Any such or ganization must be properly finance That is the thing of first importanc It is true that many organization have been launched with a strong f nancial foundation and then worke simply to get the money into th hands of a few and then wrecked. I is first important that there shall b honest hands hold of the affair, eve if not the brightest. Brightness is r disadvantage if honest. These thr are important, honesty, sound fina cial plan, and good executive abilit The League had a fair share these. The plan was to charge ea farmer twenty-five cents a cow f membership when joining and no du afterwards except a commission f selling the milk. This membersh fee paid expenses for several yea when the League was in the form tive period, but early in 1916 fun became short.

Here seemed to be the critical tin Good men took hold of the situati and organization advanced. A gene plan for asking an advance in t price of milk was formulated and September it began to look as thou something would happen. Mr. H. Kershaw, of my own county of C nango, became one of the most act of supporters and assisted materia in organization. He invited Gerow to come to our county speak. As already stated, Mr. Ge felt that a better time could found than that moment, but events proved, he was mistaken. attitude angered some and a m ment was instituted to substitute other president. This was succes and Mr. Brill was selected. again a man was mistaken. Mr. favored the strike if necessary bu had plans of his own which did meet the approval of others. Instea co-operating in the difficult situa he seems to have obstructed, over-ruled by the directorate w went ahead and asked the price set the conditions. Many men parts to play in those eventful of late September and early Oct There were many factors and if than one or two of them had fa the result might have been diffe So evenly divided were the f that possibly one failure might lost us the day. Every man played an honest part in the gram ought to have credit. The decision, however, depended on farmers and they stayed by the and the day was won.

When the test came the dire simply asked a fair price, unde conditions. They did not ask full or any profits. They set the were refused, and farmers asked and urged to withhold the until prices and conditions wer justed. One of the important tions was that dealers should nize the League and deal with it organization. This was necessar any attempt to deal locally by a ing the price and leave others t for themselves would have been to organization. This caused dissatisfaction, for there were ers and many business men in who wanted to see the affair and advised the acceptance of regardless of organization. It in my own town. Even the b who is supposed to be one to ful ligations and promises, advised abandon the League as an or tion and sell to the dealers local like others, was looking to the

y interests of the towns folks or business interests in the village. der the influence of business men failed to look ahead and see what ıld be the effect in years to come, n to the business interests of the n, to say nothing of the interests the local farmers. It was so in ny places but not in all. Many iness men saw the final effect of h a course and stood with the mers in relation to organization.

Iere is a point that I want to phasize. It is necessary that we ow the directions of the organi- ion, sometimes when it is mistak- It may be necessary to observe di- tions when an error of a clerical ure is made because we do not w that such an error has been le. We had an experience of that t last summer. It cost us some ney, a lot of worry, and much hard k. The office made an error. We yed directions. We got into trou- over it. In the end we came out better for it. We did not get mad h the office manager but took the sequences. The result is that we have a fine creamery of our own, ause we were forced into buying . It is much better that we have nd we would not have it yet if no take had been made and we had found ourselves practically at the cy of the dealer, who was dis- ed to take advantage of the situa- ı and expected to force us to our es and make our local league look than thirty cents. It cost us twen- ive thousand dollars nearly, but ry man who stood up straight is pleased and proud of the achieve- ıt.

t is appropriate to say that any anization must have the loyal sup- t of the members. To get this, est and conservative leaders are ded. Have a definite plan and be e that the need is clear. It must be and of considerable importance. enthusiasm can take the place of eal issue, a real need. We had a vance and found a remedy. We e not achieved all that is neces- y. One of the essential things is the smoothing out of rough es. There is still a great deal of k to be done. Greater confidence some features needs to be earned. re is need of a financial system t will be plain to all and an ac- ıting that shall inspire greater idence, or at least relieve any icion. Local people might well be n into confidence still more in or- to strengthen confidence in the gue. There is not so much criti- ı but much wonderment. Things ht to be cleared up a little better. League is strong and very united. s must continue. Local people and ials must all try to make confi- e greater even than it is now. It ne now, but strengthen it by all ns possible.

e now have the largest, and we ve the strongest, milk producers' nization in the world so far as now. New York State alone has iderably over a half million cows he League. This is the largest ingent, but the five other states many. Other organizations are ıed in various sections of the na- These are more or less strong. ı can learn from the other, but is not all. There is need of a ıg national organization, and this ıderstand is in the process of ıation. It is to be hoped that a ıg management of this national ciation can be made. It looks as gh it might.

nnecticut Boosts Calf Clubs

confident are two of Connecticut's ng Holstein men in the fact that y benefits will be the outcome of boys' and girls' calf club work, they have contributed a prize to be awarded the Fairfield County boy or girl who raises the best grade heifer calf under club conditions. John T. Hunt offers a pure-bred heifer calf from one of his cows having a semi-official record of at least 16,000 lbs. of milk per year. It represents the best blood in his herd. The value of this prize is still further increased by the offer of Richard E. Dodge for the free service to the prize heifer of his famous herd bull, Maple Crest Farsedo Butter Boy.

The prize itself is of secondary importance to the interest which leading breeders in this state are now showing in calf club work. The opinion that permanent improvement of the dairy industry, as well as other farm issues, must get the strongest impetus from the careful training of boys and girls for better farming, is steadily increasing.

All members of the Fairfield County Calf Club must keep records of their work and file a report with their County Farm Bureau. It is expected that the youngsters who try for the prize heifer will, during the next two or three years, bring out some interesting facts which will be of benefit to the community.—LEONARD M. JOHNSON, County Club Leader.

Ration With Cottonseed Hulls and Cottonseed Meal

How much cottonseed meal should be fed to grade Holsteins and grade Guernseys? We have cottonseed hulls and pasture for roughage. We also have velvet beans soaked 12 hours before feeding; also oatfalfa consisting of alfalfa, oats, corn, and molasses.

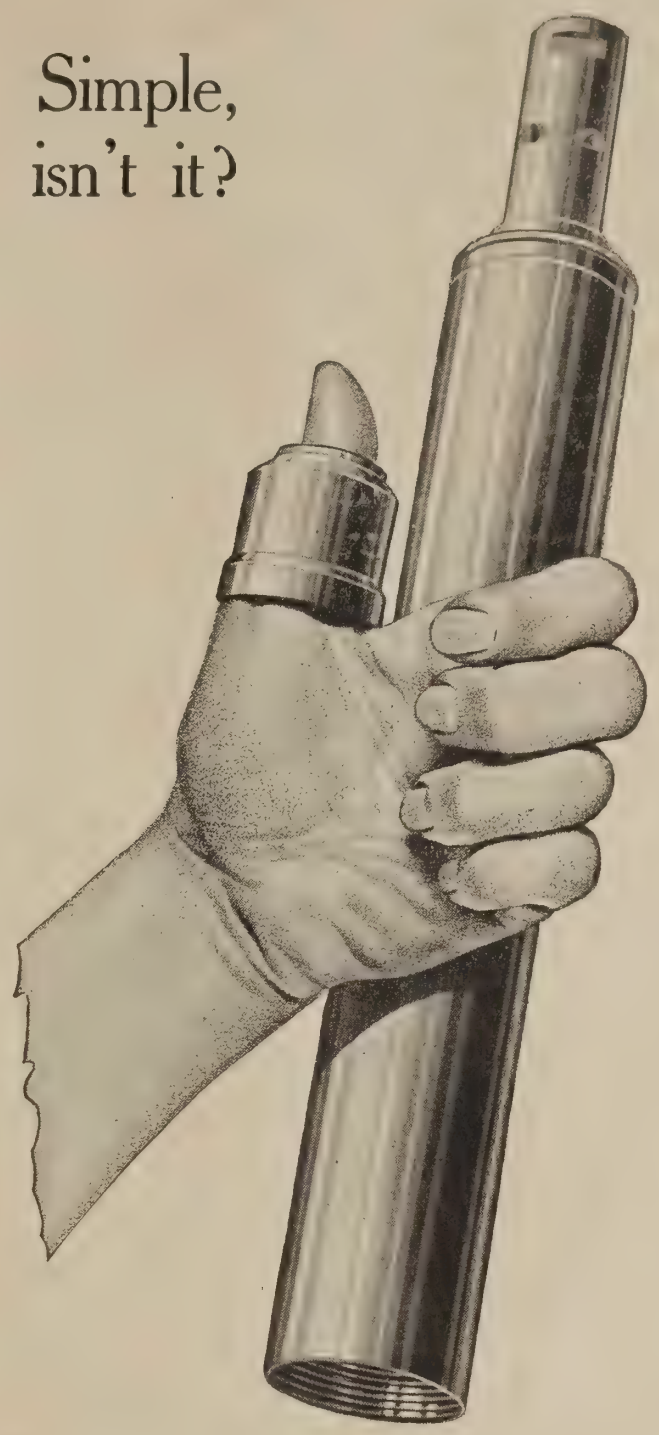
Warrenton, Ga. H. A. W.

The amount of feed, both roughage and meal, to use depends upon the pasture. We presume that from now on until February or the first of March there will not be a great deal of pasture, and in suggesting a system of feeding, we will not allow very much for what the pasture will furnish.

We would let the cows have all the cottonseed hulls they would care to consume. We do not value this roughage very highly. We only recommend it when there is an absence of more nutritious roughage. We believe that in the South where there are such splendid opportunities for growing cowpeas, soy beans, and alfalfa, dairymen should provide themselves with that kind of roughage, for they are not only more nutritious but they supply a large amount of protein, so highly desirable for cows giving milk.

A mixture to supplement the cottonseed hulls may consist of 300 lbs. of the mixture of alfalfa, oats, and molasses, 300 lbs. velvet beans, soaked 24 hours before feeding, and 100 to 150 lbs. of cottonseed meal. Feed about 1 pound of this mixture for each 8 to 3½ lbs. of milk produced. With good legume hay, we would not advise feeding as much meal, but since the cottonseed hulls do not furnish a great deal of nutrients, it is necessary, if the cow's milk flow is to be kept up, to use a liberal allowance of the concentrates.

As a rule, we would not advise feeding more than 1 to 2 lbs. of cottonseed meal daily. We recognize that in the South it is not uncommon to feed all the cottonseed hulls an animal will consume and then 7, 8, or 9 lbs. of cottonseed meal. The animals seem to do fairly well on it, but we are satisfied they will do much better when fed less cottonseed meal. In the North, one to two pounds a day is the common allowance, and animals not accustomed to eating cottonseed meal would not do very well if fed as much as is the practice in some instances in the South.



There is only one piece in the Sharples Tubular Bowl—no discs! Sharples Suction-feed Separator skims clean at any speed!

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Sharples Milkers—used on half a million cows daily.

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Perfect Lubrication Necessary to Efficient Work and Long Life

The teeth of friction get busy quicker on a tractor than on other machines, because of the trying circumstances under which it must work. No matter how well your machine is built, it can not do good work unless the lubricating system is right.

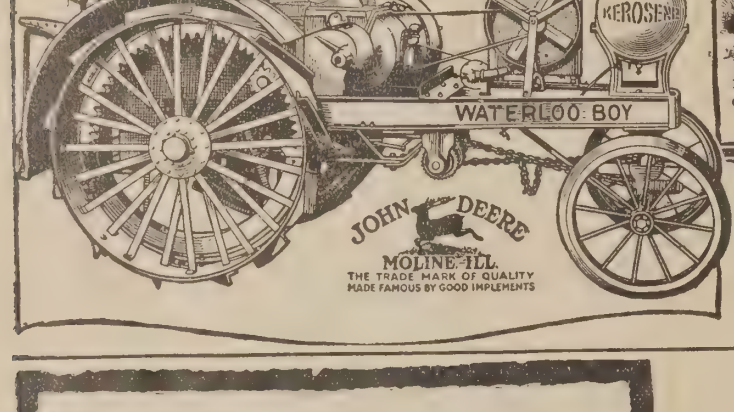
The Waterloo Boy is equipped with the well known circulating splash and pump system of lubrication, which is employed on high class automobiles generally. This constantly maintains a substantial oil flow between all friction points. With dust-proof gears and bearings, it prevents wear, increases power, keeps down repair expense, insures smooth, steady work.

High quality material and workmanship throughout guaranteed.

Write us for illustrated catalog showing many photographic views with letters from users, also details of construction.

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Patented Inbuilt Kerosene Manifold—Makes All of the Kerosene Count Fully



Adaptable to every Power Job on the Farm

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Clean Milk At Low Cost

You must produce clean milk—but at a *reasonable cost*. This is easily possible with a Natco stable. The glass-smooth walls can be easily and quickly washed down. Dust and dirt cannot filter through them. The air-chambers in these walls prevent sudden changes of temperature—keep the stable cool in summer and warm in winter.

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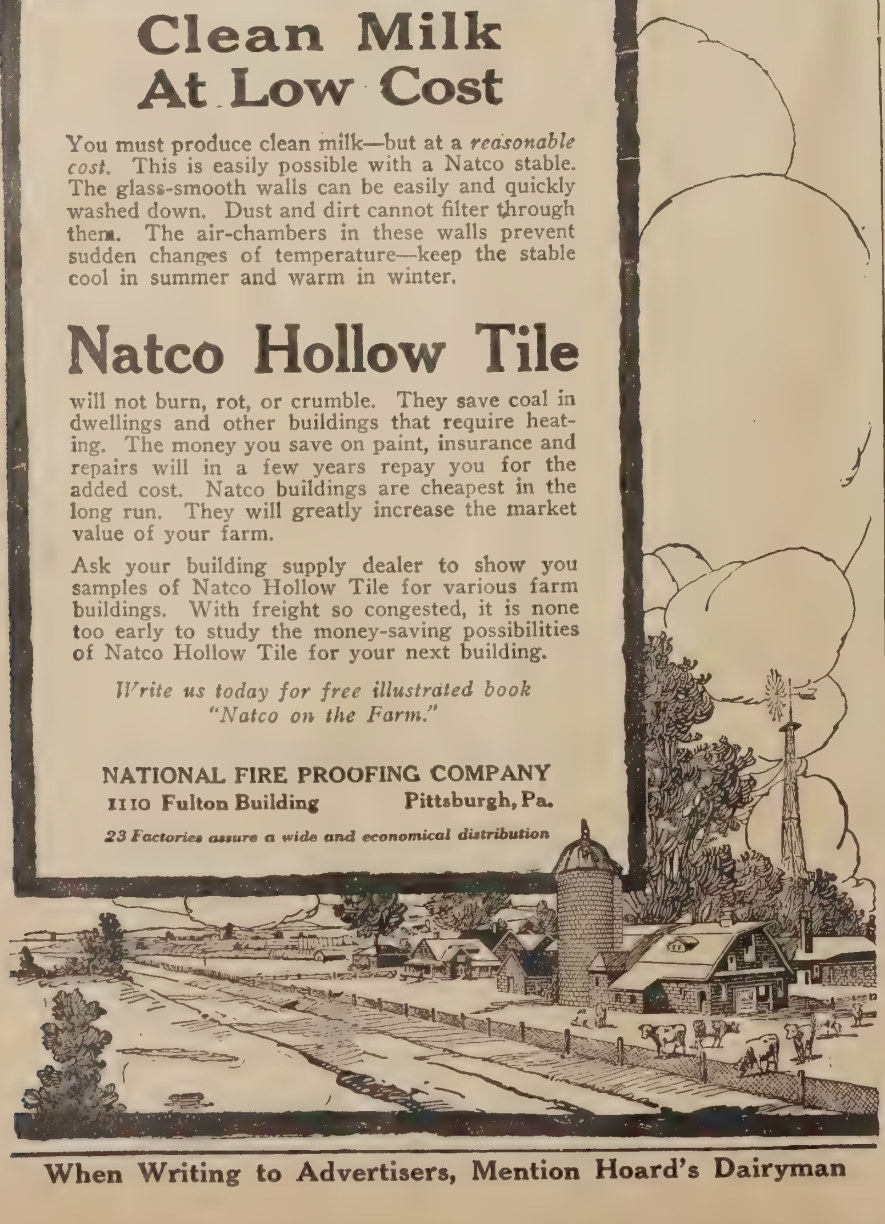
will not burn, rot, or crumble. They save coal in dwellings and other buildings that require heating. The money you save on paint, insurance and repairs will in a few years repay you for the added cost. Natco buildings are cheapest in the long run. They will greatly increase the market value of your farm.

Ask your building supply dealer to show you samples of Natco Hollow Tile for various farm buildings. With freight so congested, it is none too early to study the money-saving possibilities of Natco Hollow Tile for your next building.

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When Writing to Advertisers, Mention Hoard's Dairyman

Cow Testing Associations

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Wis.	Polk County	B. H. Wycoff	Nov.	303	3	55.4	A. Eastlund
Wis.	Ft. Atkinson	R. L. Kargl	"	265	10	54.4	E. G. Roberts
"	Hebron	F. J. Molzahn	"	285	15	48.4	Ben Hook
Va.	Orange	R. S. Gillispie	"	325	38	63.0	J. P. Taylor
N. J.	Middlesex-Somerset	J. G. K. Duer	"	395	17	68.9	Forsgate Farms
Mich.	St. Joseph Co.	E. G. Barrett	"	280	8	65.5	A. G. Wade

Association Notes

Polk County, Wis.:—This association was organized the first of August but as yet no noticeable changes have been made in herd management. The creamery paid 69 cents per pound fat in November. Oil meal cost $3.25 per cwt.; oats, $40 per ton; bran, $34; timothy, $24; silage $4; clover hay, $24.

Fort Atkinson, Wis.:—Several pure-bred sires were bought during the month. Two unprofitable cows went to the butcher. Every member in this association has one or two silos. In November market milk sold for $3.70 per cwt. The average test required was 3.5% and 4 cents were paid for each point above. Milk retailed for 12 cents per quart and butter 70 cents per pound. Feed prices: Bran, $38 per ton; silage, $6; oil meal, $52; corn, $38; hay, $25 to $35.

Orange, Va.:—In Washington, D. C., market milk sold for $4.65 per cwt., and 40 cents per gallon. The average test required was 3.5%, 4 cents being paid for each point above. The creamery paid $1.00 per pound fat.

Hebron, Wis.:—Three unprofitable cows were sold for beef during the month: One pure-bred bull was bought to head a grade herd. In November market milk sold for $3.[illegible] and $3.68 by test per cwt., and $3.[illegible] flat rate. The average test requir[illegible] was 3.5% and for each point abo[illegible] 4 cents were paid.

Middlesex—Somerset, N. J.—"I wi[illegible] to call attention to an error in pu[illegible]lishing the report of the Novemb[illegible] test of this association appearing your issue of Dec. 13. This shows t[illegible] fat production of high cow of For[illegible]gate Farms as 33.4 lbs., which was t[illegible] average fat production of the her[illegible] the production of their high cow [illegible]ing 68.9 lbs."—J. G. K. Duer, test[illegible]

St. Joseph County, Michigan—M[illegible] of the members are beginning on w[illegible]ter feed now and as there are mo[illegible] cows coming in, milk producti[illegible] shows an increase. One member h[illegible] his herd on official test and anoth[illegible] expects to start soon. A farmers' c[illegible] operative shipping association is [illegible]ing formed at Three Rivers that w[illegible] help farmers of this section conside[illegible]bly. In November market milk s[illegible] for $3.50 per cwt. The cream[illegible] paid 59 cents per pound fat. Milk [illegible] tailed for 12 cents per quart and b[illegible] ter 62 cents per pound. Feed pric[illegible] Silage, $10 to $12; alfalfa hay, $[illegible] to $30; mixed hay, $20 to $30; c[illegible] tonseed meal, $62; oil meal, $58; c[illegible] flakes, $56; bran, $35; gluten, $54

Lime Made Clover Grow

HOARD'S DAIRYMAN:—We don't grow alfalfa. We tried it 6 years ago and it was a failure. We grow clover instead. This is our story:

We have been reading Hoard's Dairyman for a good many years and I guess every column of alfalfa growing interested us more than anything else for we took a whole season almost to get a field ready. We limed, harrowed down, inoculated, and sowed just as per Hoard's Dairyman and by August 15 of that year we had a good stand of alfalfa.

The winter was hard on the alfalfa but it pulled through fairly well and it began to grow fast in the spring. Soon after the first of June we harvested it and it made about a ton to the acre. Then something went wrong. The weeds began to grow, the alfalfa got yellow, and a county agent said that probably we had forgotten to harrow in the soil for inoculation after sundown and that the sunshine had killed the "bugs".

I remembered that was right. We did get a lot of soil from a sweet-clovered hillside and I had hauled back about a dozen stalks of sweet clover and scattered them over the ground. Our neighbor coming across the field the next day noticed them and picked them all up and threw them into the woods. He told us later that they were a dangerous weed and he didn't want to get them into his field from ours. The next season I went over to the woods and there was a patch of sweet clover 10 feet square and about 8 feet high. I guess the bugs on that bunch of clover was not hit by the sunshine.

We mowed the weeds down instead of the second crop of alfalfa and noticed then that volunteer clo[illegible] was starting and in fact was cro[illegible]ing out the alfalfa. By fall we [illegible] an excellent stand of clover plowed it down for corn the foll[illegible]ing spring.

For ten years previous we ne[illegible] could get a stand of clover and [illegible] to find that clover was really cro[illegible]ing out alfalfa was too much to b[illegible] But anyhow we had a hankering [illegible] the lime had something to do wit[illegible] and since that time have limed al[illegible] 60 acres, and will repeat every [illegible] years. We have been using abou[illegible] ton of hydrated lime but expect to[illegible] 2 tons of ground limestone hereaf[illegible]

Our stands of clover are now [illegible] over the entire farm and we h[illegible] adopted a rotation of corn, wh[illegible] and clover which of course would [illegible] allow alfalfa to fit in very ea[illegible] While we do not get as much [illegible] from an acre of clover as one w[illegible] from an acre of alfalfa, we often [illegible] two tons for the first crop and s[illegible] times a ton from the second crop [illegible] is not allowed to produce seed.

When the wheat is taken of[illegible] July we have a good growth of [illegible]ver that we frequently pasture [illegible] about three months in the fall. [illegible]ing the next season it may be [illegible]tured again or may be made [illegible] hay. Anyway we aim to get [illegible] 30 to 40 pounds of pork from an [illegible] after wheat harvest. We could [illegible] pasture alfalfa in this manner.

Some day we may become [illegible] specialized and grow some alfalfa [illegible] now we grow clover instead. Th[illegible] our story.

Ohio. CLARENCE M. BAK[illegible]

What is a Good Cow Worth

HOARD'S DAIRYMAN:—"I can not ord to allow you to take your ice from my herd for double that ce. You would take away the best t of my herd and leave me no ther ahead than I was several rs ago. With the present high ces of butterfat, they are worth re to me than to you." Such was answer of a Wisconsin dairy mer to a certain out-of-state ry cattle buyer when he remarked t he would like to select several -year-old heifers and three-year- cows for an average price of $125, s he had just done at a nearby ghbors.

hat man probably placed his price high as far as their actual worth producers was concerned, but as as their actual value to him in lding up his herd is concerned, he omized the opinion of every good sconsin dairy cattle owner.

n the other man's herd where the ice animals were selected there e 18 or 20 animals. Ten or lve of these were well marked by use of a pure-bred Holstein sire, the remainder either had black , were too dark in color, or had markings. By taking out six of best animals in the herd, which buyer was allowed to do, it can lily be seen what was left for that er.

ortunately, men who are interest- nough to build up good herds by use of pure-bred bulls are usual- ar-sighted enough that they will part with their best animals re- iless of the attractiveness of es offered. Nevertheless, out of n herds visited in one day the ers allowed the buyer to prac- lly have his own way.

hen a herd is overstocked, and and ready cash is scarce, it s on first thought to be the prof- le thing to sell the animals which bring the highest prices; but n herd building is considered as ow, careful process of breeding selection, the only logical and ral thing to do is to sell the culls he butcher for lower prices and the herd improving until it hes a level where good ones can old without interfering with the ity of the herd and its produc- By such practices a point can eached where the poorest animals ie herd would be equally as good he best animals that are being today.

a man sells the best part of his and finds what a mistake he has when it is too late, he should blame the buyer. He should re- ber that that buyer was under ation to other farmers to buy est for the lowest price, and it is o the owner to analyze his own tions and study his own herd so ughly that he will know what als to sell and what price to for them. In this way, and only is way, can he ever expect to as- le a herd that will return a good, antial profit.

sconsin. E. L. LIDDLE.

vesting Ice Pays Dividends

ARD'S DAIRYMAN:—Five dollars per cow annually, by providing r thorough cream cooling, can be ed by farmers in the natural ice n of the country. There usually period of leisure in the winter when any farmer can arrange te advantage of this paying in- ent. It is estimated that the sion of 1,000 pounds of ice per sufficient to cool the cream dur- he year besides furnishing ice ther incidental purposes about me.

ifteen-cow dairy would require about eight tons ice costing about one dollar per ton to harvest. The proper use of this ice in producing higher quality cream, for which the creamery will pay a premium, will add practically $85 to the annual income from fifteen average cows, or $5 net for each cow.

Ice Helps Quality

The immediate cooling of cream to 50°F. or less will keep it sweet usually a day longer than cream not sufficiently cooled. If cold spring water be abundant very little ice will be required. Usually in the hotter part of the season the supply of spring water may become so diminished that its temperature rises to such a point that proper cooling can not be accomplished without the aid of ice.

Quality is the watchword of the progressive creamery. So keenly do the creameries appreciate quality of their raw product that they are willing to pay from three to five cents per pound more for the butterfat in clean sweet cream than they will offer for sour cream fat. They will pay this difference because they are able to get more on the market for the product made from well cared for cream.

Good quality sweet cream makes a high scoring and fancy piece of butter. Butter is now sold according to its score. The higher the score the better is the price. The more the creamery can get for its butter the more is it able to return to the producer for his butterfat. It follows that if the creamery is to pay good prices, it is necessary for the patrons of that creamery to deliver the highest quality cream.

Ice Means Fewer Deliveries

Many farmers who do not have cold springs or ice on their farms are obliged to deliver their cream daily in warm weather in order to have their cream sweet and thus command the premium price. By proper cooling in clean, scalded utensils to at least 50° F. this same producer could keep his cream sweet long enough that only three, instead of six, weekly deliveries would turn the trick. A little ice for thorough cooling in this way saves several hours of valuable time needlessly spent taking the cream to the creamery when the time can be more profitably spent about the farm in the busy growing and harvesting seasons.

High Prices Demand Quality

As prices advance the trade becomes more particular about the quality of the goods. It therefore is the producer's problem to do his bit in maintaining high prices by supplying only the very best raw product which is the prime essential in the manufacture of a fancy article for which there is ever a good demand.

By observing absolute cleanliness about the dairy equipment and personnel, by keeping profitable cows, and especially by thoroughly cooling each batch of cream, is the producer really doing his duty in making possible the supply of the best dairy goods to an appreciative demand.

A little ice house, some sawdust or hay, a few loads of nature's ice, and the progressive dairyman has made an investment that gives his community a reputation and his pocket book a paid tax receipt.

Vermont. A. D. LYNCH.

The farmers of Winneshiek County, Iowa, recently made a very liberal contribution to the American Red Cross. The farmers of this county gave 2,250 of the finest hogs ever raised in Iowa. It made a full train of 30 stock cars, which went to Chicago as a Red Cross Special. Here again the farmers have shown that they have done their full share in support of the war.

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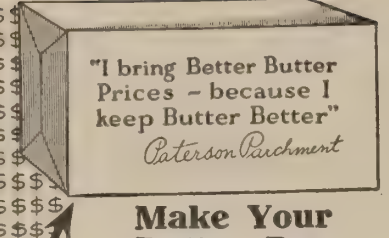
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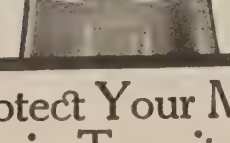
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Southwestern Dairy Notes

HOARD'S DAIRYMAN:—Dairy interests of Kansas, Missouri, Oklahoma, Nebraska, and other southwestern states effected a considerable saving in feed bills the last two months. Besides the excellent grass made possible by liberal rains and a plentiful supply of sunshine, wheat attained such remarkable growth as to afford excellent grazing. Fields of the golden grain were about as green in November as in early May and June, and throughout the territory dairy herds and other stock relished the pasturage.

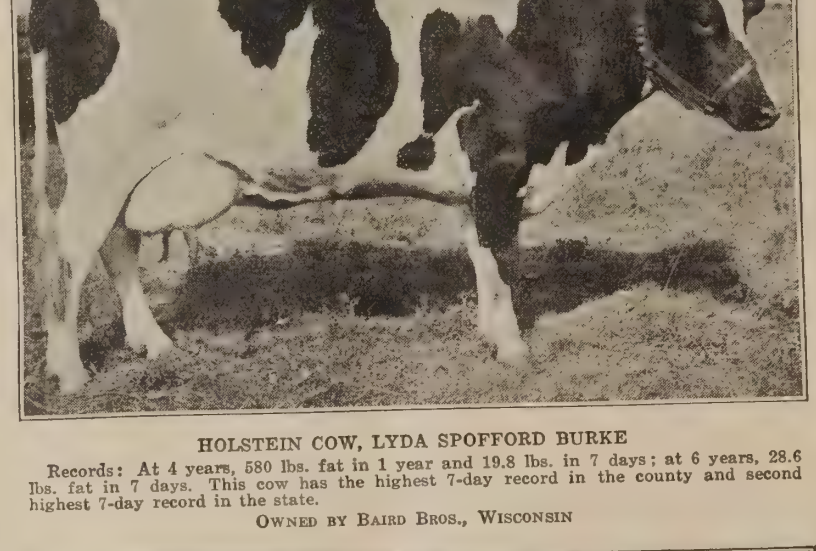
According to crop investigators, the winter wheat plant in the Southwest never before was in such excellent condition. The growth of the plant was so rapid during the fall period, the result of mild weather, as to make grazing imperative. The plant had developed sufficiently to joint, thus making "winter-kill" damage possible. But dairymen were eager to take advantage of the excellent wheat growth. With hay prices at the highest level in history and feeds in general scarce, the desire to economize in feed purchases was general.

One of the reasons for the abundant pasturage is the fact that a record has been achieved by the farmers of Kansas that will doubtless live with the ages. According to the annual report of the Kansas State Department of Agriculture, 10,825,631 acres of the soil of the Sunflower State were seeded to winter wheat the past fall, the largest acreage in the history of the state. Were one able to estimate with any degree of correctness the saving in feed bills of dairy interests made possible by the abnormal grazing period, the figure would doubtless run into the millions of dollars. The late grazing, which made up in a great measure for the drouth losses during the summer and early fall months, has been the outstanding factor in the easier tone in the feed markets of the country.

Restaurants in Kansas City are making capital of the fact that "we serve the best creamery butter". Signs proclaiming this fact are considered in Kansas City as strong attractions to patrons. With butter quoted in that city at more than 65 cents a pound, it means much to serve it in restaurants. But this is not increasing the use of oleo, for the patrons in some restaurants pay extra for butter, say five cents a tiny cube, or make payment through the prices put on the other food which they order.

In addition to the natural osbtacles, dairymen of the Southwest are forced to combat, in placing the milk producing industry on a profitable scale, propaganda of some public food workers, which under the cover of patriotism and conservation, must now be overcome. The latest campaign inaugurated in Kansas City and generally throughout the Southwest by state food administration officials is the "Use Oleomargarine" slogan. Consumers are being urged by the local food officials to substitute the margarine products for butter, and "thus reduce by practically 100 per cent the food costs in the home".

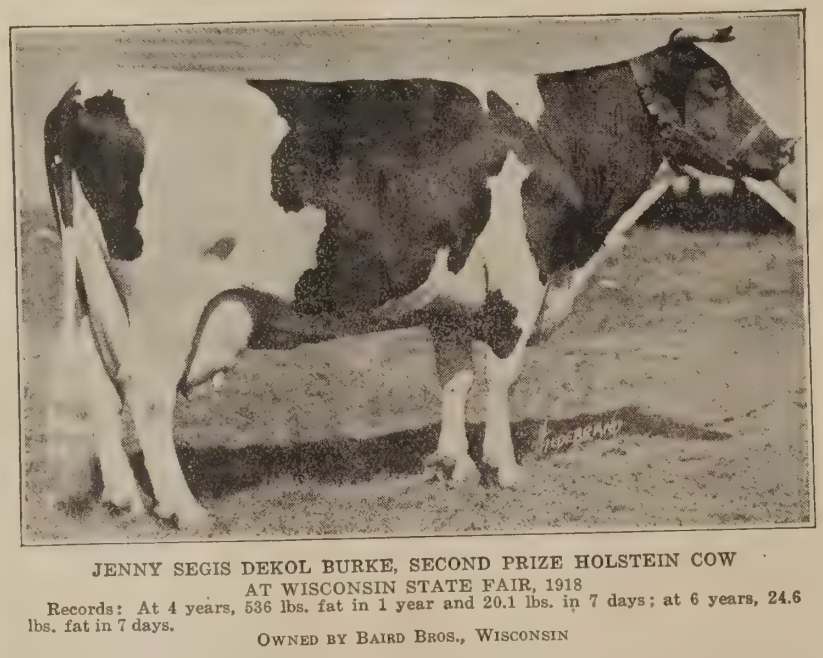
However, the large butter distributors report that the newer consumers are particularly dissatisfied with the so-called substitutes for butter. "It is evident," one distributor of both oleo products and butter remarked, "that we are receiving few, if any,



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Records: At 4 years, 580 lbs. fat in 1 year and 19.8 lbs. in 7 days; at 6 years, 28.6 lbs. fat in 7 days. This cow has the highest 7-day record in the county and second highest 7-day record in the state.

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BOX 13, - BIG VALLEY

-back' orders, and many retail-ho have widely advertised the articles find themselves with accumulations. The faddists be successful in persuading the wife to give oleo products a try-ut that is as far as their success ds."



ie East hasn't a thing on Kan- So remarked an official of the aign committee for "Free Milk France," of Wichita, Kansas, city has undertaken with con-ible vigor the collection of funds ie shipment of milk to the suffer-eople of France. The campaign lect funds with which milk prod-nay be purchased for shipments ance was inaugurated in New and soon extended to the larger of the East. Wichita, Kansas, in eart of a country that knows the ies of milk, is the first city of Vest to enter the campaign. Suc-is reported in collecting funds.



alves instead of pin trays," is the n adopted by a Butler, Missouri, and from a comparison of de- statements of the institution in ast year, the change from pin is proving highly profitable to ank and to its customers.

e pin trays referred to were the tising articles the bank officials buted among depositors. Of e, the pin trays had their value, ll advertising is profitable, but ank officials discovered that the of the trinkets was not perma-

The article strengthened the s position in the community, o maintain the increased friend-of its customers, the institution it necessary to distribute occa-ly pencils, blotters, thimbles, other articles upon which its might be displayed and thereby efore the community.

it why not something that will rmanent and at the same time able to both the customer and ves?" the bank asked. And, lly, it sought the source of the money which the institution's ners could show in their deposit nts.

re was no extensive investiga-for the bank officials spent a short time in discovering that most prosperous customers gave ing" as their principal source ome.

. so it came about that the bank lton, Missouri, turned from pin to calves. An official of the together with an authority on ng and the county agent, de- for Wisconsin to make a pur-of calves. After carefully buy-9 calves of the Holstein breed, g in size from four to six . were returned to Belton. The were distributed among the en of the community who or-d a calf club. The bank accept-e children's notes, due in one is payment.

t now? The calves are enjoy-e excellent pastures and grain le in Bates County, and the en are so optimistic over the e as to declare they will refuse their animals at less than $100 Broad smiles are being worn cials of the Belton bank, too, indicates they are satisfied eir part in the venture. A re-tatement showed a heavy in-in deposits, with the number ositors increasing almost daily. another angle to successful g," remarked the Belton bank . "You must know where the comes from."

ouri. SANDERS SOSLAND.

Advocates Less Labor in Silo

HOARD'S DAIRYMAN:—In a recent article on filling silos you state that the silage should be two feet higher around the edge than in the center. It is at this point that I wish to take issue with you. While I do not doubt the truth of this, I am inclined to believe that the gain does not balance the extra cost.

The farm where I gained most of my experience with silos and silage was equipped with three 250-ton silos of the hinge-door kind and one 200-ton concrete pit silo. These silos were air-tight. In filling the silos the end of the blower pipe was so arranged that the silage would fall directly in the center. In this way the silage would pile up in the center and then slide down to the wall. It would appear that all the corn would roll down to the wall and somewhat hinder the feeder as it would have to be mixed as taken out. This, however, was not the case, as was afterwards proved. The air being forced into the silo through the blower pipe caused the leaves to be evenly distributed. In fact, there was a little more corn in the center than around the edge. Three or four times a day a man would go in and tread the edge for ten or fifteen minutes. Experience proved that it was necessary to pack it some to prevent pulling away from the wall. There are always times when a machine man can go in as it only takes a few minutes to do it. In this way the labor of one man is saved, which, by the way, is no small item at the present time. From observations on different farms with silage in all stages of maturity, I am led to believe that it ought to be packed next the wall not less than four times daily for best results. With any amount of work and packing you cannot expect to make wholesome, sweet silage in any but an air-tight or nearly air-tight silo.

When silage is solidly packed it will freeze harder and to a greater depth than when loosely packed. The reason is very plain. If the edge is kept a foot lower than the center you will have very little difficulty with frozen silage in winter.

Before the above plan was adopted several experiments covering three years were carried out. The first experiment was the one you advocate. This proved too costly even when labor was cheaper and more plentiful than it is now. Neither was the corn evenly distributed in the silo. In the second experiment the silage was blown in but was not packed with the result that it pulled away from the wall and spoiled to a depth of about one foot. This was a costly experiment. The next experiment was the one described above. This one proved to be the happy medium. With it you are assured good, sweet silage without extra cost. Alfalfa has been used alone and with corn and so far as I can see the results have been the same. With the present scarcity of labor any plan or system that will eliminate one man and still give the same results ought to be a Godsend to the farmer.

Ft. Madison, Iowa. G. E. C.

[Editor's Note: Possibly we have been wrong in our silo filling methods, but it has brought us good results in our own experience and is the general practice. It is quite possible that the silos of our correspondent were high and the greater weight of silage compensated for the lack of keeping the outer edge high and well tramped. Also, the corn may have contained more moisture than usual and therefore packed better. Until further experience is cited we cannot approve of allowing the cut material to drop into the center of the silo and to give it practically no further attention. We would be pleased to hear from others who may have followed or observed both methods.]

10,000 More Farmers Every Year



In engines, as in all other farm machinery, the modern movement is toward light weight.

A few years ago, many farmers could not understand how a Cushman, weighing only 40 to 60 pounds per horsepower, could do as much work, and run as steadily, as an engine weighing 200 to 250 pounds per horsepower.

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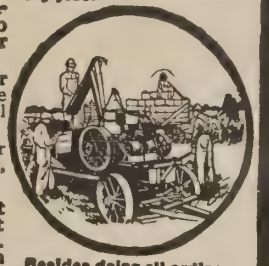
The famous 4 H. P. Cushman on a Binder just as satisfactory for all stationary jobs.

4 H. P. weighs only 190 lbs., being only 48 lbs. per horsepower. This is the most useful farm engine ever built. Besides doing all ordinary jobs, it may be attached to any grain binder, saving a team; and in a wet harvest saving the crop. Also it may be used on corn binders and potato diggers. Very easy to move around from job to job.

8 H. P. weighs only 320 lbs., being only 40 lbs. per horsepower. For all medium jobs. Also may be attached to hay presses, corn pickers, saw rigs, etc. 8 H. P. and larger Cushman Engines are all double cylinder.

15 H. P. weighs only 780 lbs., being only 52 lbs. per horsepower. For heavier farm jobs, such as 6-hole corn shellers, ensilage cutters, large feed grinders, small threshers, etc.

20 H. P. weighs only 1200 lbs., being only 60 lbs. per horsepower. For heavy duty jobs, such as shredders, shellers, grain separators, heavy sawing, etc.



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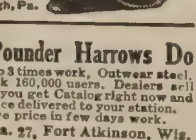
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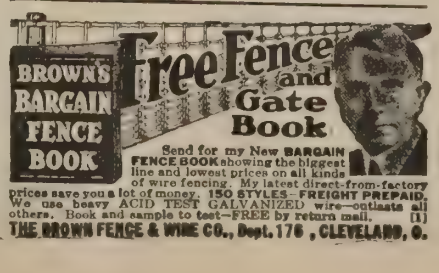
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Coming Events

Montana Dairymen's Roundup at Billings, Jan. 9th and 10th, 1919.

Massachusetts Dairymen's Association meets in Horticultural Hall, Boston, Mass., Feb. 10, 1919. Acting Secretary, O. A. Jamison, Amherst, Mass.

Illinois Dairymen's Association meets at Bloomington, Ill., Jan. 21-23, 1919.

Western Dairy Products' Show and Annual Meeting of Western Dairy Instructors' Association will be held at Boise, Idaho, Feb. 10, 11, 12, 1919.

Minnesota State Dairymen's Association hold annual convention at Waseca, January 15-17, 1919. Chris Heen, Secretary, Osakis, Minn.

Illinois State Dairymen's Association at Bloomington, January 21, 22, 23, 1919. George Caven, Secretary, 136 W. Lake St., Chicago.

Wisconsin Buttermakers' Association hold annual convention at Eau Claire, February 4-6th, 1919. Prof. G. H. Benkendorf, Secretary, Madison.

Kentucky Dairy Cattle Club meeting and Dairy Show, Jan. 30, 1919, at State University, Lexington. Secretary, J. J. Hooper, Lexington.

Minnesota Dairy Course

The dairy short course offered every winter by the College of Agriculture of the University of Minnesota will open on January 6 and close on March 1.

This course offers work both in production and in the manufacturing of dairy products. For the first month the students in both production and manufacturing follow the same subjects: Dairy cattle selection, feeding and management; milk and cream testing; farm butter, cheese, and ice cream making.

With the beginning of the second month the class divides into two sections. Students of production continue their work in feeding and breeding, and in additio.. make a study of the subjects of registration and transfer of pure-bred animals, and of pedigrees. A course in dairy farm records is also offered. Beginners in creamery buttermaking spend their time in the creamery, making a study of starters, cream pasteurizing, churning, making tests that aid in control and quality of composition, and, if they so desire, making a study of creamery bookkeeping.

The tuition fee is $10.

While positions cannot, of course, be guaranteed, the division of dairy husbandry, under whose auspices the course is offered, makes every effort to locate those who, after finishing their work, wish to secure places.

Prevailing Milk Prices

The following table presents a comparison of prices received by farmers for milk in the month of November, with the prices agreed to for the month of December, 1918. The prices as stated are quotations for one hundred pounds of 3.5% milk, delivered by farmers at local milk plants or at the farmers' country shipping points:

Geographic sections	Dec. range of prices	Ave. Dec. prices	Dec. increase over Nov.
New England	$3.86—$4.53	$4.09	$.03
Middle Atlantic	3.78— 4.44	4.09	.20
East North Central	2.85— 3.95	3.72	.15
West North Central	3.16— 3.88	3.59	.01
South Atlantic	4.00— 5.65	4.52	.22
East South Central	3.52— 4.80	3.39	
West South Central	4.20— 5.00	4.60	.58
Mountain	3.15— 4.06	3.58	.02
Pacific	3.15— 3.70	3.45	

The prices given in the above table were secured by the Bureau of Markets, U. S. Department of Agriculture, from reports from 300 different markets.

Prices per quart of standard grade milk received by producers and paid by consumers in several widely scattered sections of the country during the month of December were as follows:

Market	Cents per quart: Producer receives	Consumer pays	Butterfat allowance*
San Francisco, Cal.	7.7	14	$ .40
Denver, Colo.	7.5	13	1.00
Washington, D. C.	10.0	17	.46
Jacksonville, Fla.	11.2	18	.50
Chicago, Ill.	9.18	14	.40
Indianapolis, Ind.	6.8	14	.90
Des Moines, Ia.	7.8	15	.50
Topeka, Kans.	7.9	14	
New Orleans, La.	9.5	16	.23
Boston, Mass.	9.75	16.5	.40
Grand Rapids, Mich.	7.5	14	.30
St. Paul, Minn.	9.0	13—14	.50
St. Louis, Mo.	9.1	14	.30
New York, N. Y.	9.6	17	.40
Cincinnati, Ohio	8.8	14	
Eugene, Ore.	7.2	14	
Pittsburg, Pa.	9.4	15	.50
Philadelphia, Pa.	10.25	14	.40
Memphis, Tenn.	8.5	16	
El Paso, Tex.	9.9	19—21	.40
S. L. City, Utah	7.1	12.5	
Spokane, Wash.	7.6	15	.50
Milwaukee, Wis.	9.0	13	

*The prices per pound of butterfat quoted in this column refer generally to the allowances made for variations from the butterfat standard applying to the basic price for whole milk shown in the first column of this table. In those markets where the price of whole milk is based solely upon its butterfat content, the given quotation per pound of butterfat includes payment for the non-fat contents of natural milk as well as for its butterfat content; and for that reason the butterfat allowances in such markets are generally much higher than those quoted for markets in which the given allowances refer only to premiums or deductions per point of butterfat above or below the given standard.

The prices quoted for producers are for milk f. o. b. city and to get the actual price the various transportation costs must be deducted. It will be noted that in December Chicago producers were paid 9.18 cts. per qt. ($4.27 per hundred) f. o. b. city, whereas the producers actually received 8.1 cents per quart ($3.77 per hundred) at their country shipping station; like variations occur for other cities according to differences in transportation costs from various shipping points. The prices given are based upon an average test of 3.5 per cent, a differential of 4 to 5 cents per point being paid for higher tests. The consumer's price is for milk bottled in quarts and delivered. The average fat content of the milk as delivered is 3.5 to 3.7%; Washington, New Orleans, and Memphis selling milk testing 4%. Comparison with November prices may be made by referring to a similar report appearing on page 700 of our issue for December 13, 1918.

In Minneapolis and St. Paul the f. o. b. prices are based on the average price of cheese as established by the Plymouth, Wisconsin, Cheese Board. The price of ten pounds of cheese plus 70 cents transportation and marketing expense is the price paid by dealers in these cities for one hundred pounds of 3.5% milk.

Special or Grade A milk retails for 19 cents per quart in Boston and New York, for 18 cents in Chicago, and for 16 cents in Philadelphia. Certified milk retails for 24 cents per quart in Boston, 23 cents in New York, 26 to 27 cents in Philadelphia, 21 cents in Chicago, and 20 cents in San Francisco. Buttermilk retails for 10 cents per quart in these cities, except for San Francisco where the price is 8 cents. Special fermented milks retail for 10 to 18 cents per quart. Cottage cheese retails for 30 cents per pound in Boston, 10 cents in New York, 9 cents in Philadelphia, 20 cents in Chicago, and 15 cents in San Francisco.

Commercial cream testing 15 to 20% retails for 15 cents per half-pint in Boston and Chicago, 14 cents in New York and San Francisco, and 18 cents in Philadelphia. Cream testing 22 to 30% retails for 17 cents per half-pint in Boston, 18 cents in Chicago, and 27 cents in New York.

Annual Meeting of Dairymen's League

HOARD'S DAIRYMAN:—The New York Dairymen's League has held its annual meeting. There were some differences of opinion in relation to the League management, but nothing seriously obstructive came up. An opposition ticket for directors was prepared, but was not presented. There is some change in League plans which seem to be for the better. We are glad to know that it is proposed to turn back to the locals some of the money collected from the sale of milk, which is only a fair proposition. In the election of directors there were only a few changes, and the executive committee remains in practically the same hands as last year. A large amount of money is collected by the one cent a hundred asked for making sales. The sums collected for membership at twenty-five cents a cow, it is proposed to set aside for a permanent fund as soon as it can be accumulated from commissions. The original twenty-five cents a cow had to be used for several years to maintain the organization, but it can now be refunded for the most part, and very shortly in its entirety. T seems like a wise move.

It is proposed to prepare to re Lurse dairymen whose milk cannot sold at full League prices by sc sort of a tax on those who do get prices. There are localities every r and then where dealers refuse for reason or another to buy the milk least at full prices. This leads to crimination and dissatisfaction. seems clear that all members ough come in for equal benefits, and hope that the plan mentioned solve the difficulty.

While there has been some c cism in reference to the League, may have been beneficial. It app that the management has, for most part, the confidence of the m bership. Close inspection of its tivities is perfectly proper, and so as known is encouraged by the m agement. The finances are seemi in good shape. The investigation the city have attempted to throw trust on the League's finances hint at serious charges in relatio the public. So far as members concerned these hints are laughed but in the city there is apparently increasing distrust of dairymen their organizations.

While the League meeting was ing held in Jersey City there was lished many insinuations. "Dairy and milk distributors meeting secr in Jersey City are formulating p to thwart the Swann investigatio is what one paper had to say, much else of a similar character. one case it was urged by an off of the city that the city should do pasteurizing because now it is clai that the consumers are paying 000 a day for this service and the milk is still sold in the raw s This, the report affirms, is detrime to health and in addition is a swi Then the first-page report goes to say that the "Dairymen's Le officers who combine with the tributors' trust to control the su and fix the price for milk, will tolerate any municipal pasteu tion." They say, "Threats were newed that unless the Swann inc was withdrawn the combine w stop the supply of milk for the c So many such items of nonsense being published that one hesitat believe there is any reliability le the city press.

The board of directors is so stituted that practically all o former officers are to be re-ele and have already been so ele The only change that I know of is of the substitution of John D. M of Susquehanna as vice-preside the place of F. H. Thomson of land Patent. Mr. Thomson has in poor health for a part of the past, and it is not a matter of prise that he wishes to be rel from the most active service. Miller has been the attorney fo League for some time and has a timate knowledge of its affairs. Cooper continues as president Albert Manning as secretary. er, Manning, Thomson, Kershaw Kirkland continue as executive mittee.

Resolutions were adopted at meeting looking to certain impo reforms. Among these is the e lishment of 250 miles instead o as the basic zone distance in m prices. Another asks that payn be made by all companies twice month, and still another req that daily weights be given the ers. One important item had with admission of new membe stockholders, who have thus fa fused to become members. I d understand that this applies to territory or new men coming a locality, but only to those who

Sale Announcements

Jan. 7-8-9, '19—Holsteins. Moyer's Holstein Sale, Earlville, N. Y. H. A. Moyer, Director, Syracuse, N. Y.
Jan. 7, '19—Holsteins. Rock Brook Farms Dispersion at So. Omaha, Neb. H. C. Glissmann, Sta. B., Omaha, Neb.
Jan. 15—Holsteins. Edward C. Waller, Jr., Cary Station, Ill. F. H. Everson, Sale Mgr., Lake Mills, Wis.
Jan. 15—Guernseys. Dispersion of W. B. Quarton's herd of Registered Guernseys. Algona, Ia.
Jan. 26, 1919—Holsteins. Central Michigan Holstein Breeders' Second Annual Sale at Michigan Agricultural College Live Stock Pavilion, E. Lansing, Mich. A. E. Jenkins, Mgr., Lansing Mich., R. 5.
Jan. 28, 1919—Holsteins. Dispersion of Frank White & Son's herd of Registered Holsteins, Woodstock, Ill.
Jan. 29—Holsteins. Tri-County Holstein Breeders' Ass'n. Second Semi-annual Sale at Evansville, Wis. F. B. Green, Sec.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 6—Holsteins. Central Michigan Holstein Breeders at Michigan Agricultural College, East Lansing, Mich.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
Feb. 25—Holsteins. Dr. A. D. Blackburn, Cuba, Ohio.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
May 9-10, 1919—Holsteins. Waukesha Co. Holstein Breeders' Ass'n. Semi-annual Consignment Sale, Waukesha, Wis. W. L. Baird, Sec.

len offered and urged to assist and ve refused.

The meeting at Grand View Hall in rsey City was well attended, the legates numbering 1,500, represent- 60,000 producers. It is a ques- n in my mind whether proximity New York City is the best place such a meeting. This is a farm- ' meeting and does not need too ch publicity by the city newspa- rs. When it comes to the question publicity relative to the benefits of lk and its cheapness as a food, the y is the place, but the annual busi- ss meeting might as well be less spicuous in the city and more so the country.

New York. H. H. LYON.

ennsylvania Holstein Breeders

The State Holstein-Friesian Breed- ' Association of Pennsylvania will d its annual meeting at Harris- rg, January 22nd, beginning at ten lock, in the Assembly Room of the an Harris Hotel. A very interesting gram has been arranged. Speak- recognized as being the best Hol- in authorities have been secured. D. Aitken, president of the Nation- Association, is to be one of the akers.

t is anticipated that this will be e of the greatest Holstein meetings r held in the state of Pennsylva- , as the breeders throughout the te realize that a great effort must put forth if the National Associa- n, which meets in Philadelphia next ne, is to receive the royal recep- n that it has been accorded in other tes. The meeting is called during Farmers' Week at Harrisburg, en all the various state agricultural anizations have their meetings. vernor Sproul will be inaugurated the 21st, and this will give the eders throughout the state an op- tunity to visit Harrisburg for the uguration and spend the week fitably attending the various ex- its and meetings.

t is planned to hold a consignment e the day following the meeting, uary 23rd. Many of the most minent breeders from the state e consigned cattle to be sold at t time, and buyers wishing to se- t some choice foundation stock uld do well to attend this sale. Mr. Eugene B. Bennett, president the State Holstein-Friesian Asso- tion, will be at the Penn Harris tel, Harrisburg, after January 1st, l will answer any questions or cor- pondence pertaining to the sale or eting. H. C. REYNOLDS, Sec.

Farm Community Organized—Gets Results

What a farm community can do for own progress when the get-to- her spirit prevails is well shown h the Burwood community, Will- ison County, Tenn. This commu- y, encouraged by the county agent, med an organization which em- ced men's interests, women's in- ests, canning clubs, corn clubs, and ltry clubs. In this way they re- ed a community charter and pro- ded to work. When the wheat in- ase was asked, 50 acres was as- ned to Burwood community; the mmunity came across with 323 es in 10 days. Similarly organized mmunities made it possible for lliamson County to pledge an in- ased acreage of 2,000, while the nty was asked for only 1,369 es.

Jersey Cattle Notes

or week ending Dec. 20, 1918: umber of animals registered: ls, 210; cows, 526; total, 736. nber of transfers recorded: Bulls, ; cows, 593; total, 779.

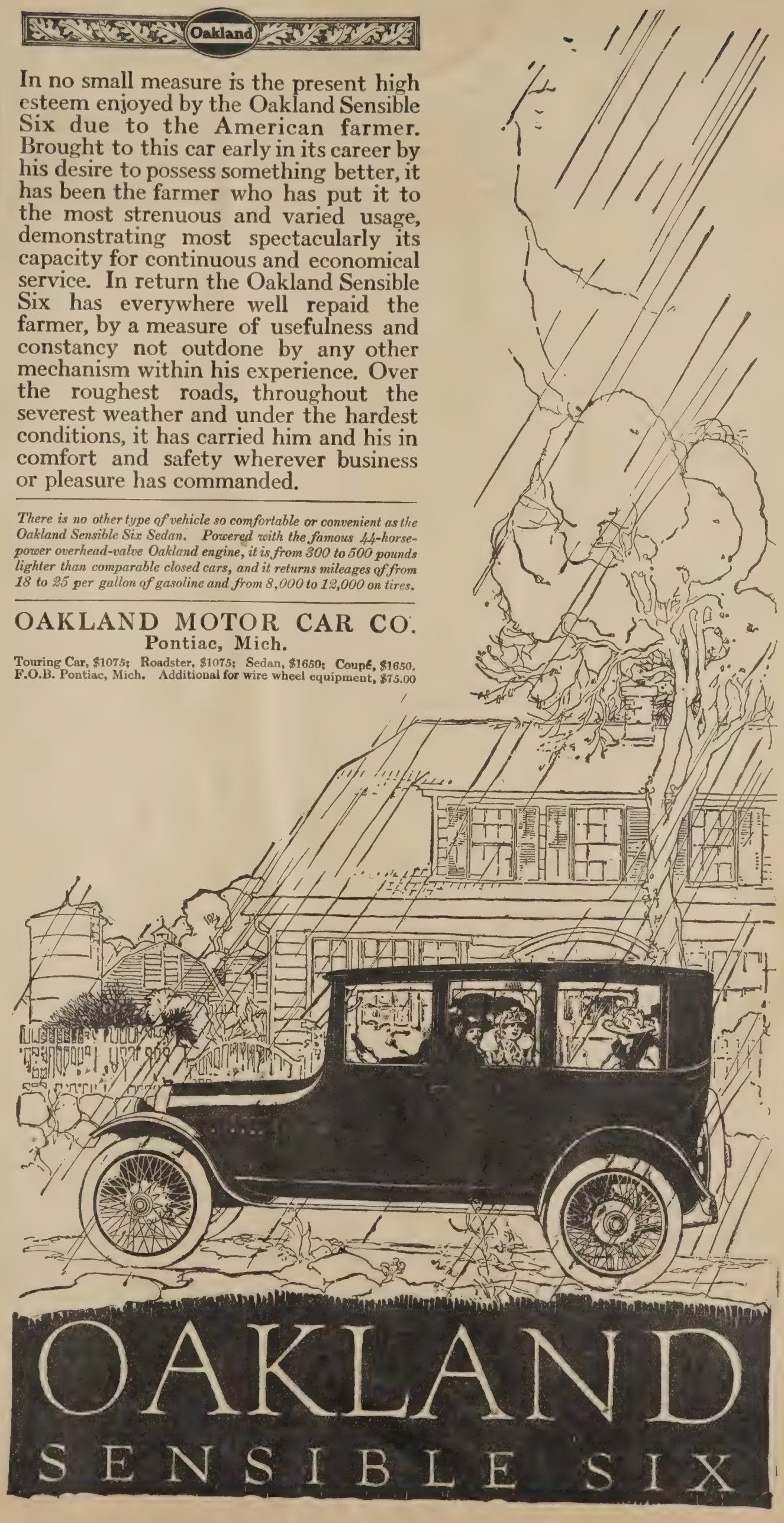
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OAKLAND
SENSIBLE SIX

EDITORIAL COMMENT

CO-OPERATIVE MARKETING COMPANY

The Chicago Milk Producers' Association recently formed a co-operative marketing company, the president being George Brown; vice-president, Robert Oman; secretary, D. L. Putnam; and treasurer, F. H. Reese. These men have all been active in the work of the Chicago Milk Producers' Association and fully appreciate the necessity of a marketing company. It is our understanding that it is not the purpose of this company to enter into retailing market milk, but rather to lay plans to take care of the surplus milk which has always been a large factor in depressing the wholesale price of market milk.

We most heartily believe in making arrangements to take care of the surplus milk, but we are not yet ready to subscribe to farmers retailing their milk in the city. This is a tremendous problem and it requires large capital and much experience to do it successfully and economically. We believe the producers should first learn how to prepare their own products for market and to sell them co-operatively before they attempt to handle the distribution of milk in a city.

We shall watch this new co-operative marketing association with a great deal of interest, as we believe in the establishment of institutions for taking care of the surplus milk. We have again and again stated that the milk producers in the Elgin district were shortsighted in permitting local creameries and cheese factories to go out of existence, as they offered the only means for caring for their product when the dealers in Chicago did not pay a fair price for milk.

HOUSING FARM MACHINERY

Does it pay to go to the expense of building a machine shed, or provide canvas to cover the machinery at night that it may be protected from rain or dew? Mr. Heddles, chairman Wisconsin Council of Defense, in riding from Lancaster to Madison, a distance of 70 miles, busied himself in noting the amount of machinery he could observe from the car window on one side of the track. He listed the machinery and then went to a dealer and found that he had seen $6,000 worth of machinery on one side of the track in that short distance.

In discussing this subject with men who have been engaged in farming for over 40 years, it was brought out that a harvester put under a shed when not in use and covered with a canvas at night during harvest would last at least 20 years, providing the operator took good care of it in other respects. It was held by these men that a harvester exposed to the elements would last but five years. One farmer in the crowd stated that the harvester he used this year for cutting his grain was 27 years old. It was either put into the machine shed at night or covered with a canvas. He further makes it a practice when the harvester is put away to see that all worn parts are replaced and it is made ready in every respect for use the next season.

The shiftless farmer can't afford to build a machine shed for the protection of machinery. He can't afford to put it into good repair when he is through using it. But the good farmer, the one who makes money, says he can't afford to leave his machinery exposed to the elements or neglect to give it proper repairing.

BLIND STUPIDITY

On the bill of fare of a hotel in one of the biggest dairy counties of Wisconsin, we found the following statement:

"Your attention is respectfully directed to the fact that the women of the Lake Shore Counties, together with all patriotic societies, have agreed to refuse to use eggs and butter for ten days beginning Wednesday, December 11th. All homes, hotels, and public eating houses have been requested to co-operate to the fullest extent and you are asked not to insist upon having either of these articles. In this way it is hoped to lessen the present high cost of living. Troco butter and jelly will be served as a substitute."

Here is a splendid example of misdirected reasoning. The proprietor of this hotel depends largely upon the dairy industry for his support. The women of the Lake Shore Counties are, too, profiting to a large degree through the dairy industry of Wisconsin, yet they have bound themselves together for the purpose of breaking down the prices of butter. They are striking at the very heart and vitals of Wisconsin's greatest industry. These people have not considered the reasons for butter being high in price.

The truth of the matter is, that the price of butter is only in its proper relationship to its cost of production and the prices of other foods. Butter at its present price has not risen proportionately higher in price than sugar, flour, shoes, etc. Yet these people have picked out butter, a product most vital to their own welfare, and hope by not using it to decrease the high cost of living. They have not asked themselves whether they would get butter if they did not pay the cost of production. They have failed to ask if Troco, which they recommend, will nourish their growing children or themselves as well as butter. For blind stupidity and ignorance of facts, the appeal which is made on the menu of this hotel would be difficult to equal.

SKIMMILK CHEESE LAWS

The present statutes of Wisconsin permit the manufacture of skimmilk cheese, but it must be so made as to measure ten inches in diameter and nine inches high. The purpose of prescribing this particular size was to distinguish such cheese from the regular cream cheese on which the reputation of Wisconsin is built, and relieve the latter from unfair competition of the skimmilk product.

This law has generally been held to apply to cheese made on the Cheddar or similar process, special exemption having recently been made for Swiss cheese. Despite long usage and understanding to the contrary, Dairy and Food Commissioner Weigle is of the opinion that impartially construed, the law applies to all cheese manufactured either from skimmilk or partly skimmed milk. It would, of course, be ridiculous to require cottage cheese, Camembert, and other similar types of cheese to be put up in packages ten inches in diameter and nine inches high. Mr. Weigle has, therefore, recommended to the state legislature that the law be so amended as to allow the manufacture of these special types of cheese in the manner they are now made.

We doubt whether the law would ever be enforced to the ridiculous point feared by Mr. Weigle, but there is no reason that we now see why it should not be so amended as to specifically permit the manufacture of the several kinds of cheese now made from skimmed or partly skimmed milk. We do not believe that the shape of the cheese manufactured on the Cheddar process should be changed. There should be some clear demarcation, so that a cheese made from skimmilk or whole milk may be easily distinguished. Further, we do not believe that a cheese, like Brick, Limburger, or Swiss should be permitted to be made of skimmilk and placed on the market in the form in which it is now known, as this would deceive the consumer and prove injurious to our cheese industry.

WANTS GOOD BUTTER

Recently at a homelike and splendidly conducted hotel in Alabama, this conversation took place between the proprietress and several of her guests. She said: "I am glad to meet you gentlmen as I would like to learn where I can purchase butter at a lower price. My butter bill these days is extremely high, as I use it in cooking instead of other fat."

One of the guests suggested cottonseed oil for frying steaks. To this, the woman replied: "I cannot prepare a steak which suits my taste without a liberal use of good butter." Another suggested that pie crusts could be made of lard. To this she said: "I know lard is used for shortening, but I cannot make pie crusts without butter. The fact of the matter is, nothing I make has the right flavor unless I use good butter."

This woman has a keen taste and a splendid conception of a toothsome meal. If we had more people like this, there would be no danger of so-called butter substitutes replacing the demand for good butter. We appreciate that when the prices of butter are high many people use some oleomargarine to supplement the butter. Even at the present high prices of butter people are using it freely and as far as their pocketbooks will permit. Of course, many do not appreciate the food value of butter, and there is need of an educational campaign to inform these people regarding the superiority of butter. Let us ever bear in mind that good butter is always in demand and its future to no small degree depends upon its quality. The flavor characteristic of butter appeals to the finer tastes of all people. Good butter is the strongest enemy of oleomargarine, and for this reason it is highly essential that nothing but good butter be made.

PACKERS AND THE DAIRY INDUSTRY

There is some danger of the dairy industry falling into the same plight as the meat industry. Several of the large packers are already handling large quantities of butter and cheese and each year finds them doing a larger volume of business. If the dairy farmers of this country are alert to their own welfare they will not permit a few large concerns to dominate their business.

The report of the Federal Trade Commission, regarding the dealings of packers, states: "The five great packing concerns have obtained such a dominating position that they control at will the market in which they buy their supplies and the market in which they sell their products, and hold the fortunes of their competitors in their hands." This is not a healthy condition. It breeds discontent, even though the packers pay a fair market price to the farmer for his products and sell to the consumer at a small margin of profit. We must sustain a certain amount of competition, of independence in marketing, if farm products are to be sold at fair prices and if the consumer is to buy them at a reasonable price, and all concerned satisfied.

We hope that through organization, which is growing on so rapidly among the milk producers of the country, they will see the trend of affairs and will not permit the dairy industry to fall into the hands of a few firms. Enterprises like those in Vermont where butter, cheese, cream, and ice cream may be manufactured or whole milk may be sold for direct consumption, should be established everywhere in this broad land. If we do not organize the dairy industry and provide ways and means for handling milk and its products, we are likely to find ourselves in the same position as those who produce meat.

TRACTORS AND DAIRY FARM

The tractor has had a large part in solving the labor shortage dilemma and in making it possible for farmers to increase their production despite the war handicaps. It has demonstrated its value in many communities, not the least of these being where the average sized dairy farm prevails. According to Professor Jones of the Wisconsin College of Agriculture, one farmer out of every four operating a 100-acre farm in that state used a tractor last year and a large increase in number is predicted during the coming year.

As an indication of the demand and adaptability of the tractor, we know of no better illustration than was recently brought to our attention by receiving a copy of the Highland Press, a local paper published in a Wisconsin village of only 1,000 people. The first item to meet our eye was the report of cheese prices as paid on the local board, and the importance of the cheese industry is apparent from the fact that Iowa County, in which Highland is situated, has some 140 cheese factories. Immediately following this item was the report that a local implement dealer had just received a shipment of twelve 10-20 tractors, ten of which were already sold. The newspaper then went on to describe just where these tractors had gone and that the dealer had already an order in for another similar shipment.

The above item is significant from the fact that these tractors were sold in a small village at the end of a spur railroad, and in a peculiarly strong dairy district, and also from the fact that Iowa County is quite a hilly section. This is but further evidence of the adaptability of the tractor to dairy farm conditions, and that hilly land does not bar their introduction. The future of the tractor on the dairy farm is best told by illustrations of this character and by the further fact that in visiting dairy communities, one notes tractors placed here and there throughout the country and the interest of the neighbors in what is being accomplished by the somewhat noisy, smelly, iron horse.

Leasing Queries

As a subscriber to your valuable paper I am going to ask you what is customary and considered fair rental when renting a farm on a share basis. Landlord furnishes a 150-acre farm, good barn and silo, a fair house, and the usual farm buildings, also stock and machinery as well as horses. Tenant to assume one-half of agreed value of stock and all the machinery. Tenant has $500 worth of s

s part of his stock. Tenant also has a delivery
which will be used almost entirely for business
onnection with farm work. Should landlord as-
e one-half in the car or at least of maintenance
ense? Should tenant get his meat, milk, and
s prior to figuring a division of products? Ten-
ve agreement is a half and half proposition.
andlord's investment is approximately $20,000.
ant has an earning power in town of better
1 $1,800 a year. Should this have any bearing
ivision of income, tenant being an experienced
ner and business man?
fton, Minn. A. G. C.

nder the share system of renting a dairy farm
owner furnishes the farm, buildings, and one-
the productive live stock. The tenant fur-
es the movable equipment, the work stock, and
all the labor including the delivery of mate-
to the farm and the marketing of the product
he creamery and city. The two parties share
ally as a rule in the purchase of feed, seed, and
ilizer. They also share equally the cost of
shing and silo filling, with the exception that
tenant is presumed to furnish all the extra
r required with the exception, possibly, of the
neer and the owners or operators of the equip-
t itself.

nder the general rule that the tenant is to de-
r all material to the sale point, we would ex-
that where horses are not used, the tenant
ld pay for the automobile up-keep and running
ense. The tenant is usually allowed a certain
of ground for his private garden, a reason-
amount of milk from the herd, and a reason-
amount of the poultry. In the case of the kill-
of meat animals the tenant and landlord usu-
divide half and half or some other equitable
ngements are made. In general it may be said
the owner is to receive half of all products
from the farm, including surplus poultry prod-
, fruit, garden stuff, etc.

nder this system of renting the earning power
he tenant is seldom considered, except that the
wd owner will appreciate that in order to se-
a man of this character he must make certain
essions and that it is profitable for him to do
We have known of cases in which the owner
supplied all the cattle and still permitted the
nt to share in half the proceeds of the farm,
uding the increase in stock. In particular
s where the owner has a personal interest in
tenant he will sometimes turn over the entire
n equipment and share half and half with the
tenant. In such cases, however, the tenant
chases all new machinery required and is pre-
ed to keep the equipment owned by the pro-
tor in good repair, ordinary wear being except-
The original personal property continues in
name of the owner, but ordinarily he does not
uire any payment for the natural wear and
reciation. This latter method is quite unusual
most often applies where a son or relative of
owner becomes the tenant.

Wages of Farm Manager

is my intention to place upon our farm a pure-
l herd of Holstein-Friesian cattle free of tuber-
sis, and in so doing the problem confronts me
o what arrangement is made in regard to farm
. Heretofore we have allowed the estate to be
ned on shares, and as first class cattle are a
ty in our county, pure-bred stock farming is an
rely new project.
desire to place a married man on the farm who
apable of taking care of high class pure-bred
le and at the same time is an able farmer.
at would you consider an adequate salary for a
in such a position, the farm being 175 acres?
, what would you consider an adequate salary
ordinary farm help laboring under such a man?
it be understood that we furnish all the imple-
ts and accessories necessary to farming.
ewisburg, Pa. G. F. M.

ages or salary are so much a matter of pri-
bargaining that it is difficult to give any exact
res, and should we do so we might lead our in-
er materially astray. Then, too, there is the
ing capacity of the men and their relative
ndance or scarcity in a particular community.
order to get the viewpoint of a well informed
, we referred this inquiry to Professor Hibbard,
l of the Economics Department at the Wisconsin
ege of Agriculture. Professor Hibbard gives us
following reply:

t can only be said that he must pay whatever
equired to get the sort of man he wants. Prob-
this will be not less than $125 a month. How-
, there are so few men capable of undertaking
sponsibility of this kind, who are in the market
ll, that the individual bargaining becomes the
n factor. It would seem to me that he would be
to find some young man who is interested in Holstein cattle and knows something about the care of pure-breds, but who lacks the capital for going ahead on his own account. Such a man as this might be started on the share basis and the prospects of satisfaction and success made much greater than is likely to be the case with a hired manager. One instance of this kind out in Iowa resulted in developing one of the finest herds of Holsteins in the state. Of course, much depends on the owner's knowledge of the project he is going into, the frequency of his visits to the farm, and the amount of energy which he can put into the management himself.

"As to the wages of men to work under the foreman, all that can be said is that they must pay the going wages of the community. I have no way of knowing how much that is at the present time."

Feeding Young Pigs

I have a bunch of thrifty pigs, 16 in number, that are eight weeks old. I have plenty of skimmilk and corn. Corn is $2.50 per hundred; middlings $37 per ton; oil meal, $60; and salvage barley, $32. Should I sell corn and buy some of the other feeds? Tankage is $100 per ton. Which of the above feeds should I use together and how much? How soon should I put them on the self-feeder? These pigs are very greedy fellows.
Middlebury, Ind. I. E. C.

Where there is an abundance of skimmilk and plenty of corn, it is an easy matter to grow good hogs. We would advise feeding about 3 lbs. of skimmilk to one pound of corn. It has been found in actual feeding trials that skimmilk and corn fed in this proportion produce the largest and most economical gains.

It might not be out of place to buy a few middlings to mix with the skimmilk. We would not use large amounts, but they are a little cheaper than corn and would add variety to the ration, which is never a bad thing to do.

Good barley is worth about 10% less for fattening hogs than corn. If the salvage barley, on the whole, is good, it is quite possible it would be more economical to sell the corn and buy the salvage barley at $32 per ton. This transaction would depend upon the distance the corn must be hauled and how badly the salvage barley is damaged by fire and water.

We would not think it advisable to buy tankage when there is an abundance of skimmilk, as it will furnish an adequate supply of animal protein.

The barley may be ground and placed in a self-feeder and the corn may be put there without grinding, as there is no particular advantage in grinding corn for the pig, but barley being a small hard berry makes it advisable to grind it before using.

If there is no skimmilk, then we would advise placing tankage where the hogs could partake of it at will, the same as barley or corn. Professor Evvard of Iowa has found that a pig uses pretty good sense in balancing its own ration when given an opportunity.

As soon as the pigs are weaned they may be placed on a self-feeder. For that matter, they may be given an opportunity to eat from the self-feeder before being weaned.

Feeding Cows and Calves

I am feeding the following ration to Jerseys milking 20 to 40 lbs.; hominy, 80 lbs.; ground oats, 100 lbs.; gluten, 100 lbs.; bran, 100 lbs. Do you consider it well balanced with 30 lbs. ensilage and 10 lbs. alfalfa hay? How much would you recommend feeding to cows?

What do you recommend feeding to calves 4 months and over in the way of grain?
Springfield, Mass. T. D.

The ration being fed to the cows is a very good one and we would expect it to give good returns. We would favor, however, feeding about 200 lbs. of hominy instead of 80, for the alfalfa hay supplies a liberal amount of protein and, further, the hominy is a good supplement to the hay. It would not be out of place if 300 lbs. of hominy were used, especially during the cold weather. Feed one pound of this mixture for each 3½ lbs. of milk produced.

It may be said that if the cows were accustomed to more than this, it would not be advisable to reduce their allowance, especially if they have established their milk flows. Any change in the system of feeding, even though it is from a poorer to a better one, should be done gradually and the time to adjust the relation between the grain and roughage is when the cow is fresh. Cows can be trained to do considerably more on good roughage than they have been accustomed to in our country, but if they have been fed heavier than we suggest and the cows are doing well, it is doubtful whether any large change in their feeds is advisable at the present time.

A very good grain mixture for calves is a combination of equal parts by weight of bran, shell corn, and whole oats, and when the calf becomes six months of age, it may be given the same mixture as is provided for the herd; or feed a mixture of equal parts by weight of bran, corn, and oats, but have the oats and corn ground. We would also give the calves an opportunity to eat all the alfalfa hay they care for, beginning with a small allowance at first, as they are apt to eat too much at the beginning and alfalfa hay will cause them to scour. The finer portions of silage are also good to give to the calves.

Dividing Silage in Silo

Our silo is 18 ft. inside diameter by 50 ft. high. The ensilage (settled to date) from corn nicely dented and just right for good silage, is 24½ ft. 6 in. from top of seal to bottom in silo. It is owned jointly, half and half, by landlord and tenant. Tenant's share is for sale, but landlord will neither sell his share with tenant nor buy tenant's share. How many feet in depth from top of seal shall the tenant go to get half of the ensilage, both parties knowing that the lower half of ensilage is much heavier than upper half? Should the purchaser of the upper half lose all of the top or seal or should he have half of the depth of the seal from the lower half to reimburse him for a part of the seal?
Kersey, Colo. G. W. H.

A silo 18 feet in diameter and filled to a settled depth of 24½ feet will contain approximately 113 tons. The upper 15 feet will weigh approximately 57 tons and the lower 9½ feet will weigh approximately 56 tons.

The seal (spoiled silage) belongs to the owner and tenant, half and half. Therefore, the whole of it should not be included in the tenant's share. This division cannot be made by taking a like depth from the lower part of the silo as this would not give accurate division. The better way is to compute the total depth of the good silage and then make the division, which we apprehend may be nearly correct by allowing the owner to retain 9½ feet at the bottom.

Sugar Beet Tops

Please tell me what feeding value there is in sugar beet tops if fed green.
Waukesha, Wis. W. J. M.

The following concerning the value of beet tops is taken from "Feeds and Feeding" by Henry & Morrison:

"At harvest an acre of sugar beets will usually yield about four tons of fresh leaves and one ton of the severed upper portion of the roots. The leaves have about half the feeding value of the roots. These tops, freed from soil as much as possible by shaking, may be fed fresh or ensiled. As fresh or ensiled leaves tend to purge the animals, they should always be fed in a limited way with such dried roughages as corn stover, straw, or hay. When large allowances of leaves are fed, Kellner advises giving about 3 ounces of chalk or ground limestone to every 100 lbs. of leaves, to counteract the effect of the oxalic acid which the leaves contain, and which may otherwise be injurious. The tops may be ensiled in pits or silos in alternate layers with straw or may be mixed with cut dry corn fodder or stover. German farmers add 7 lbs. of salt to each ton of leaves as they are ensiled."

Cabbage Leaves for Silage

As a subscriber of your journal and for the general benefit of farmers owning silos in this section, will you please give us what availabl data you can regarding the possible use of cabbage tops for silage? There are several large canning companies in this vicinity and heretofore cabbage tops have been wasted. We understand that the term "cabbage tops" applies to the outside leaves of the head.
Ogden, Utah. I. C. C.

We have no reliable information upon the ensiling of cabbage leaves. It is our opinion that the cabbage leaves will not make a good grade of silage owing to their high water content. Rape, which is somewhat similar in composition, has not been found satisfactory even when ensiled in connection with straw or some other material which would take up the excess water. However, this supposition is purely theoretical.

If any of our readers have attempted ensiling cabbage leaves, rape, kale, or similar crops, or have any information on this subject, we would be pleased to have them write us.



Help Your Men to Like Their Work

IT is difficult to keep farm hands on the farm. Although much comparative wage data has been put forth as the reason for this, the real cause lies in the petty annoyances farm workers repeatedly have to fret about.

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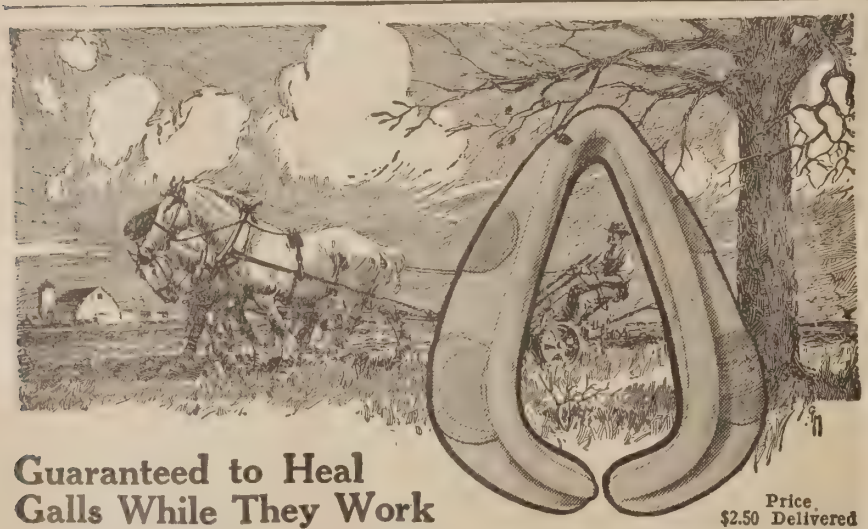
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New York Federal Food Board Drops Milk Price Fixing

HOARD'S DAIRYMAN:—The New York Federal Food Board will no longer take part in the consideration of prices for liquid milk in New York City. The announcement was made to the trade press this week at a conference of the milk producers and distributors held in the office of the Federal Food Board. It was explained that the action was based on a declaration by the United States Food Administration at Washington, D. C., that in view of the armistice there would be no further need for federal control of liquid milk, in this or any other state, and that the matter would be left to the local authorities. The conference had been called to fix prices for January, but after the announcement of the Federal Food Board no action was taken by the milk producers and distributors.

John Mitchell, chairman of the Federal Food Board, and Arthur Williams, Federal Administrator for New York City, said that the Board had received no suggestion from either the milk producers or distributors of any proposal to increase the price of milk for the month of January, and added that, "it is hoped that soon thereafter the price will show material reductions with an increased flow and lowered cost of feeding, following the practice of former years."

Representatives of the milk producers at the conference were: Roswell D. Cooper, president of the Dairymen's League; Albert Manning, secretary of the League; F. H. Thompson, M. Eastman, and J. D. Miller, counsel for the League. The distributors were represented by I. Elkin Nathans, secretary of the New York Milk Conference Board; G. Scudder of the Milk Conference Board; and H. Van Bomel of the Sheffield Farms Company.

The milk inquiry being conducted by the district attorney's office before Chief City Magistrate McAdoo was resumed yesterday afternoon. I. Elkin Nathans was the only witness examined by District Attorney John T. Dooling, who is conducting the investigation.

It was stated at the Federal Food Board office that Mayor Hylan of New York City probably would now take up milk prices and at the mayor's office later it was said that the Mayor had taken notice of the action of the Food Board and would prepare a statement.

New York. A. H. KOLBE.

654,375 Holsteins Recorded

Volume 38 of the Holstein-Friesian Herd Book is off the press and ready for delivery. It contains a record of all pure-bred Holstein-Friesian cattle approved and admitted for entry since the close of Volume 37. The registrations include bulls numbering from 216626 to 230705, and cows from 391506 to 423670—a total of 14080 males and 32165 females recorded between September 1, 1917 and February 26, 1918. The grand total registrations of Holstein-Friesian cattle recorded in the Herd Books to date reach 654375, with Volume 39 in course of preparation.

Volume 38 contains a complete record of animals registered, their age, sire and dam, also their breeders and owners. The price charged for the Herd Book—$2.75 delivered—is much below the actual cost of compilation, and every owner of pure-bred Holstein cattle should avail himself of the opportunity to obtain a copy by ordering one immediately from the office of The Holstein-Friesian Association of America, Brattleboro, Vt.



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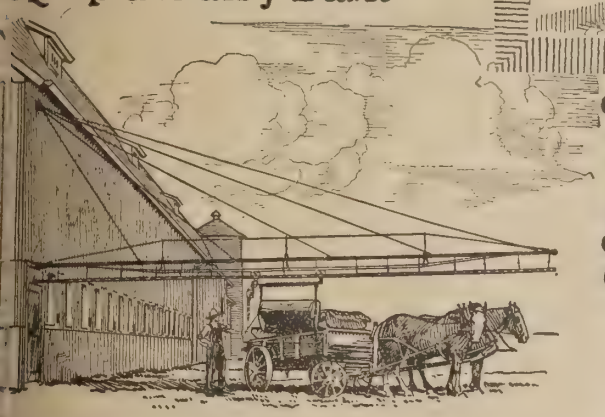
Barn Planning Service

dvice on building, ventila-
on, etc., and floor
ans, free.



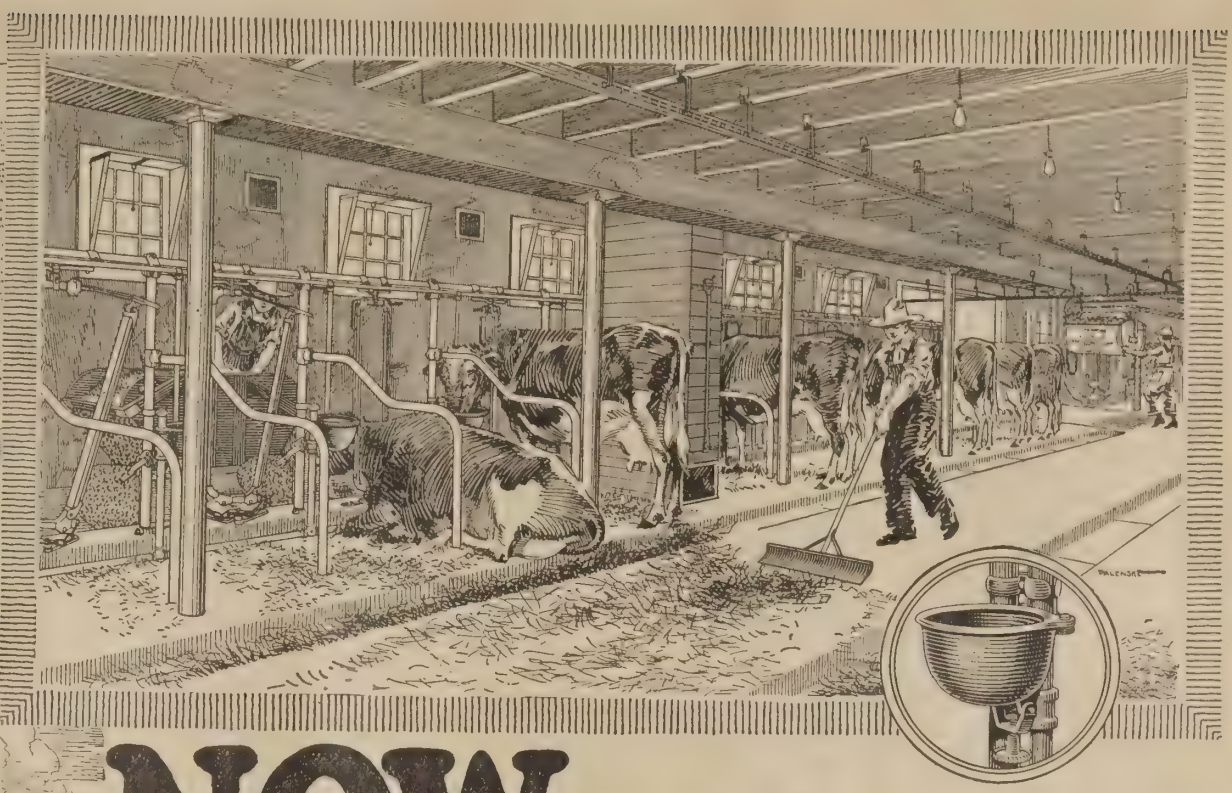
320 page
Book FREE

Tells how to plan and
equip a Dairy Barn



rom Gutter to Field with but one handling





NOW BOYS and GIRLS DO MEN'S WORK- With James Equipment

Throughout this land upon the farms, thousands of boys and girls have taken upon themselves the work of men who are at war. Boys too young to don their country's uniform, girls too young for army nurses, have put on overalls to serve the nation.
In dairy barns they milk, clean the stable, feed and water cows—do work that before the war none would ask of children so young.

But in the barns that are James Equipped the task is not too great for children's strength; for James Equipment makes barn work easy. The easy running James Carriers make chore time almost play time, turning a disagreeable, dirty task into a near pleasure.

The James Carrier makes a boy's job of what used to be shirked by all and is an investment that pays a profit of 25% or more a year in labor saved.

James Scrapers make quick work of cleaning up cement floors; the James Stanchions keep stalls and cows clean, by lining up cows at the rear, so that manure falls in the gutter and not on the standing platform; and the James Swinging Sure-stop saves time and trouble.

The James Feed Truck or Feed Carrier saves much walking to and from feed rooms,—makes unnecessary the lifting of heavy baskets of feed.

James Drinking Cups

not only save time—cows have fresh water before them day and night—but they do away with the nuisance of tending bothersome tank heaters in blizzardy weather; save fuel expense; and on top of that increase milk yields.

Drinking cups earn 200% and more a year on their cost.

And so with other James Equipment—stalls, steel pens for cows, calves and bulls, ventilators, bull staffs, mangers and swinging cranes.

Free Book

The 320-page book "The Jamesway" tells all about these James inventions that save labor, increase milk yields, promote better cow health and prevent spread of disease, protect against dangerous bulls and make simpler the care of calves and sick cows.

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It explains the easy way of putting up carriers, erecting the stalls and pens, and attaching drinking cups. Skilled help is not required.

Barn Plan Service

It tells about the James barn plan service; the James barn experts who know what has been successful and what has not; what not to do as well as what to do in planning convenient, money saving barns.

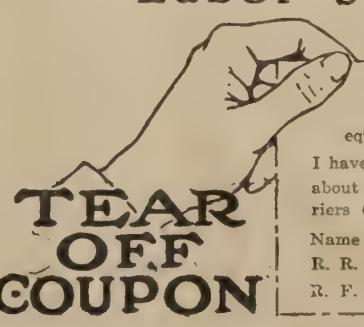
Their advice on barn planning, ventilation and other barn problems is free. No charge for floor plans.

Let James Equipment solve your labor problem. Send for the book—mail the coupon now—get full details of how you can cut barn work in half and make more milk.

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Labor Saving Barn Equipment



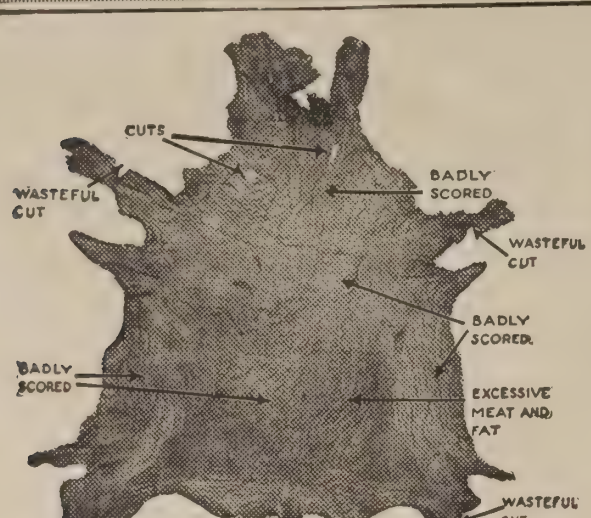


James Mfg. Co., Fort Atkinson, Wis., or Elmira, N. Y. H.D.S-1

Please send me your free book on barn planning, ventilation and equipment. Also the James Barn Magazine (free).

I have ..... cows. I hope to build ..... remodel .....
about ..... Am interested in Stalls ( ), Stanchions ( ), Carriers ( ), Drinking Cups ( ), Ventilators ( ), Steel Pens ( ), Bull Staff ( ).

Name .....
R. R. Station .....P. O. .....
R. F. D. ..... State .....



Country Hide



Packer Hide

Good hides make your cattle worth more money

Leather tanners are very careful about the hides they buy.

They want hides that are as nearly perfect as possible — hides that are without cuts and scores, and that are properly cured.

There are two classes of hides on the market—"country hides" and "packer hides."

Country hides are those taken off by small butchers and farmers. Packer hides are those taken off by the packers.

* * *

To take a hide off correctly is not easy. Unless great skill is used the hide will be marred by cuts and scores.

The packers have made a careful study of hides. They have trained experts who do nothing else but take them off. Hence, packer hides have few cuts and scores, and are uniformly and properly cured.

Swift & Company sorts its cured hides into grades or classes, according to quality and to the purposes for which they are best adapted.

Some country hides are good; others are very poor.

They usually have cuts and scores and are not cured so well. Some have also begun to deteriorate because of being held too long. Besides, they cannot be graded so uniformly. In the same batch there are both good and poor hides.

Because of this superiority of packer hides, tanners pay from two to five cents a pound more for them. If country hides were as good, tanners would gladly pay an equal price.

This increased value of packer hides means that you get for your cattle from $1 to $3 or more per head, additional.

Swift & Company does not deal in country hides at all, and has no interest in their purchase or sale. It is the hide dealers and tanners who notice the difference in quality, and pay accordingly.

Swift & Company uses skill in taking off hides, not because it wants to see country hides bring lower prices—but because it is part of its policy to produce articles of the highest quality.

* * *

This is only one way the packer has increased the value of your cattle. Many other by-products have been improved in a similar way.

Swift & Company is constantly on the lookout for new ways to improve the value of its products, and hence to make your cattle worth more money to you.

When Swift & Company says that its profit on beef averages ¼ of a cent a pound, this includes the profit from the sale of hides.

Swift & Company, U.S.A.

A nation-wide organization owned by more than 23,000 stockholders

Feed Thy Cows

(Continued from first page.)

reacts, and by encouraging grea milk production when she does not ceive a greater supply of food, body makes up the difference, so t by the end of the grass season—e a good grass season—her body weaker than in the spring. Then dairyman is up against the prop tion of building her up during cold winter months, and receivin greatly reduced milk flow while ing it.

Honestly, I believe this one faul pasturing all summer without sup menting feeds is one of the grea sins of the dairyman and the th more than all others responsible decreased milk and butterfat proc tion. I speak from an experience my own.

In 1917 I fed my cows until J 10, and, like my neighbors, gave th pasture alone until September when their steadily decreasing m flow made me hurry feed shipme But even then the damage was d and the decrease continued until t to dry them. This year I decide continue the grain feed throug the summer, and the same cows, ing calved at nearly the same t last year, are giving now over 4 more milk than the season bef Some credit must be given to the proved pasturage conditions this y but to my mind the biggest reaso the feed they got the past sum is now giving results. And extra 40% is more than making g the feed the cows ate.

But feed short in quantity is worse than feed short in quality. man who thinks he can winter a of dairy cows on a ration of fodder or hay and bran, is lackin the knowledge necessary for his cess. This is a business that calls brains and study as much as any ness a man may enter. The prol of percentage of protein, carb drates, and fat needed to produ certain quantity of milk in a co a determined weight must be sc if the dairyman is to produce mi a profit. It is a problem that man of intelligence and an ur standing of the first principle arithmetic can solve. Tables of analyses of feeds are at the dis of every one, and the feed req ments of a cow for the milk she duces are closely known. It req only a few simple processes to out a balanced ration in both qua and quality that will insure each on the place having a fair trial giving the maximum amount her tem is capable of producing.

That is the answer to the adm tion of "Feed thy cows".

Boys Teach Fathers Better Raising

Some of the boys in the two De County, Ind., pig clubs are sho their fathers how rapid and eco cal gains can be made in raising Under the direction of the local ty agent these boys have been to almost double the results obt by their fathers within the length of time and feeding pigs same litter. The boys used self- ers and the fathers did not, an pigs which were allowed to their own feed made gains of 2 day. The club members are pro beyond question, the merits of self-feeder, and hog raisers in county of many years' experienc beginning to copy the boys' met As a result of the club work county agent reports, many fa and sons are now planning to g partnership and raise pure-bred —Weekly News Letter.

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PINE TREE BRAND SEEDS
Timothy, Clover, Alfalfa and Other Field Seeds
If Your Local Dealer Cannot Furnish This Brand
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We save you money. Buy now before advance. Crop short. We expect higher prices. Don't buy Field Seeds of any kind until you see our samples and prices. We specialize on Guaranteed Quality, Tested Clover, Timothy, Alfalfa, Sweet Clover and Alsike; sold subject to your approval and government test. Write today for samples, special prices and big Profit-Sharing Seed Guide.
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FOR DAIRY COWS
CURTIS COMMISSION COMPANY,
713 Live Stock Exchange, Kansas City, Mo.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

SEEDS



OLDS' Catalog
TELLS THE TRUTH
With carefully written descriptions, true illustrations and conservative statements, **Olds' 1919 Catalog** is a true guide and a most valuable book for everyone needing seeds.
OLDS' SPECIALTIES
Seed Potatoes. The new Olds' White Beauty and 10 others, choice certified stock. **Seed Corn**—Wisconsin fancy ear corn. **Seed Oats, Wheat, Barley, Clover, Alfalfa, Timothy,** Wisconsin tested, high-grade seed. **Samples FREE,** all field seeds. Buy from samples. **Garden Seeds, Flower Seeds, Bulbs, Nursery Stock, Poultry Supplies, Tools, etc.**
Write today for **Olds' 32nd Annual Catalog**
L. L. Olds Seed Co. Drawer C 72 Madison, Wis.

"BEATS ANYTHING FOR CULTIVATING I EVER SAW"



"There is nothing that will beat the Moline-Universal Tractor. It will work wherever hitched. For plowing and discing it is fine; beats anything I ever saw for cultivating, just the thing for the binder and one man can handle all." Thus A. C. Paul of Middletown, Ohio, sums up in a few terse words the great advantages of his Moline-Universal Tractor.

This is not the opinion of just one exceptional individual, but is a typical expression of Moline-Universal owners.

Before designing the Moline-Universal Tractor, as manufacturers of farm implements, we knew a tractor would be of little value to the majority of farmers of the United States unless it would cultivate row crops. If a farmer is forced to keep his full number of horses for cultivating there is small economy in owning a tractor. Therefore the Moline-Universal was designed to cultivate as well as do all other work. We reproduce a few expressions from Moline-Universal owners to show just how well it has succeeded in cultivating and what bearing the cultivating feature has had on their farming operations as a whole.

It's Easy and Practical

"I was agreeably surprised at the ease with which we could cultivate corn with the Moline-Universal," says Miles Kinnick of Adel, Iowa. This is the usual expression from every one who has used the Moline-Universal for cultivating.

The Moline-Universal Tractor straddles the corn row and has as much clearance as the ordinary cultivator, so corn can be cultivated in all stages of growth. The tractor is attached to the cultivator and forms one complete unit—the tractor the front wheels and the cultivator the rear wheels. The operator sits on the cultivator on line with the right drive wheel of the tractor, where he has a clear, unobstructed view of the row ahead. This is of the utmost importance for good work.

In cultivating, you follow the same rows as planted by a two-row planter. As hills in these rows are exactly the same distance apart, only one row need be watched.

The Tractor is easily held to its position, and by keeping the right drive wheel, which is in line with the operator's eyes, a certain distance from the outside corn row, the only other attention the outfit needs is an occasional shifting of the gangs by the operator's feet.

The cultivator is extra heavy and holds to its work when the cultivator gangs are shifted. The electrical governor control within easy reach of the operator enables the tractor to be slowed down to as low as one-half mile per hour.

Injures Less Corn Than Horses

By using care in turning at the ends of the rows less corn will be injured than with horses.

"I have often, without hesitation, angled into position and proceeded toward the other end of the field without hitting a hill," says W. A. Marker of Van Wert, Ohio, who owns a Moline-Universal cultivating outfit and farmed 80 acres with it, living in town 8 miles away, devoting part of his time to other work. He goes on to say: "Practice soon will make you expert if you will but consistently study the game."

"This cultivator, I feel, more than paid for itself the first season through increased yield due to timely cultivation."

Harley A. Mishler of South Whitley, Ind., farms 185 acres. The Moline-Universal enabled him to dispose of four horses. He says: "For cultivating a Moline-Universal Tractor is better than horses a dozen times. It is steady, and stands the hot weather. It does not stop and switch flies but goes fast or slow just to please you."

* * *

C. R. Barr of Wyaconda, Mo., last summer had 130 acres in corn and 75 acres in oats and wheat. Since using the Moline-Universal he keeps only one team of horses. He used the Moline-Universal for cultivating and says: "I don't think we could farm again without the Moline."

* * *

Ed. Finnegan of Bradford, Ill., says: "I cultivated and tended, from the time corn came up until it was laid by, 80 acres of corn. In going over the corn for the first time you can throttle the motor down slow and not cover up any hills. After I bought my Moline-Universal I rented 35 acres more ground and the crops from this extra land paid for my tractor."

* * *

Another remarkable instance is furnished by E. E. Fletcher of Krum, Texas, who farms 500 acres—100 in cotton—and all the work is done by two Moline-Universals—not a single horse is used.

Even on the small farm the Moline-Universal is a profitable investment. Mr. Edward Belshas, Framingham Center, Mass., who farms 73 acres, says, "the Moline-Universal saved a whole lot of time, as 20 per cent tractor field work was spent in cultivating."

* * *

Fred Pabst of Oconomowoc, Wis., farms 1400 acres. He used his Moline-Universal for a great variety of work including cultivating and says: "That the tractor was satisfactory is indicated by the fact that we ordered a second one during the summer."

* * *

Chris. Walker of Blythe, Cal., raised 80 acres of cotton without a single horse. He says: "I think the Moline-Universal is the only tractor built that is practical for general farm work on account of its ability to cultivate. I would not farm in this country without a tractor, and it is needless to say that the tractor is a Moline."

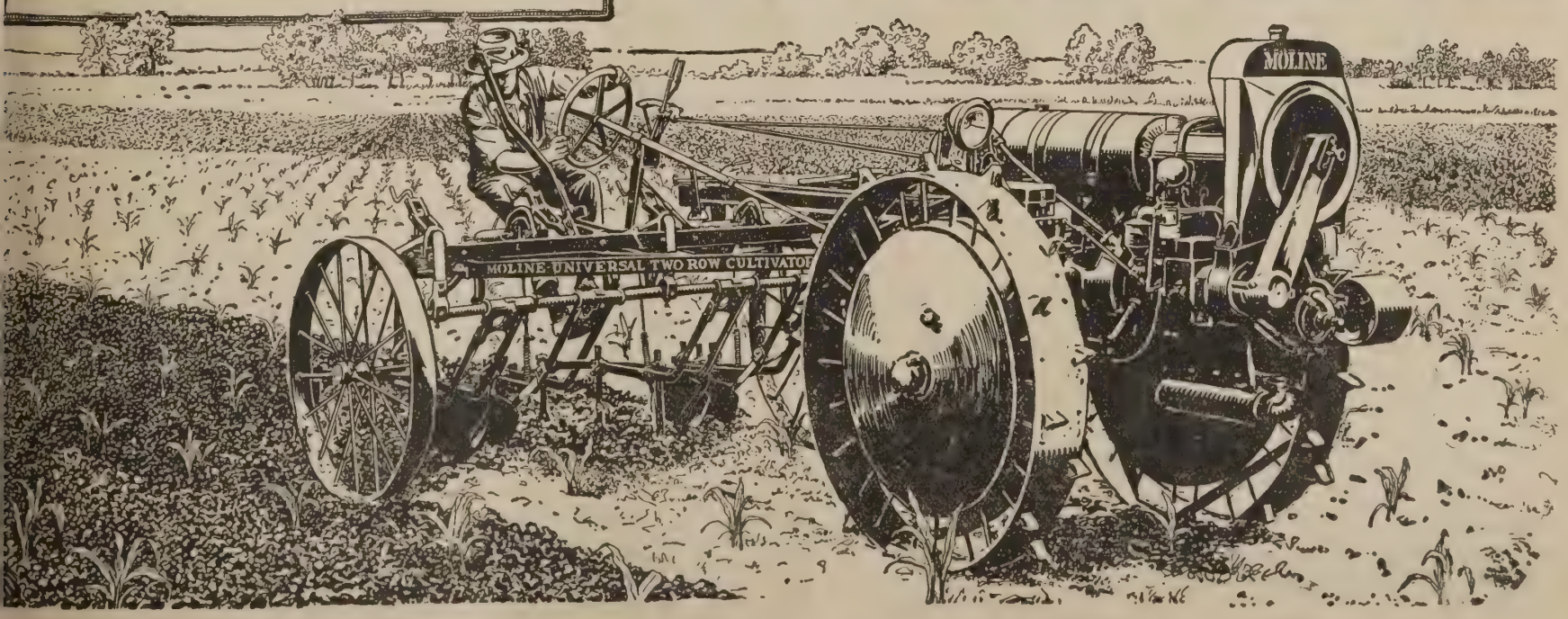
* * *

Remember the Moline-Universal does all farm work including cultivating and one man operates both tractor and implement.

Our tractor catalog gives full information. Write for free copy and name of your nearest Moline dealer. Address Dept. 18

Moline Plow Co., Moline, Illinois

MOLINE UNIVERSAL TRACTOR

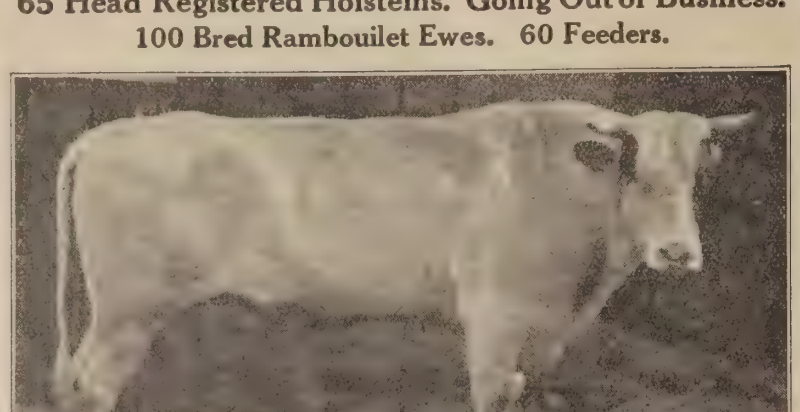


Complete Dispersion

of the Pure-bred Holstein Herd, owned by Edward C. Waller, Jr., at Cary Station, Ill.

Wednesday, Jan. 15th, 1919

65 Head Registered Holsteins. Going Out of Business.
100 Bred Rambouilet Ewes. 60 Feeders.



A fine Herd of Young Cattle, Healthy, Tuberculin Tested, Well Bred and Good Individuals.
Composed chiefly of first or second calf heifers, fine, strapping individuals, some of them Real Prizes. Five daughters of King Segis Pontiac and a number of daughters of Woodcrest Pietje Clyde, whose two-yr.-old daughters are making him famous.
Practically all these heifers fresh, or soon to be.
Sr. Herd Sire, King Segis Golden Bell, a 36-lb. 3-yr.-old grandson of King Segis. (See Picture.)
Jr. Herd Sire, K. K. S. V. Concordia Pontiac, a Yearling son of the mighty King Korndyke Sadie Vale. The first three dams of the dam of this bull average nearly 33 lbs. Absolute Dispersal. Nothing Reserved. Sale begins at 10:30 A. M. Wednesday, January 15, 1919, on the old Burton or Tiffany Farm near Cary Station, Illinois. Sale will be in comfortable building, and conveyances will meet all trains at Cary Station and Crystal Lake. For Catalog or other information write

F. H. Everson, Sale Mgr., Lake Mills, Wis.

Auctioneers: Haeger & Mack. S. T. Wood in the Box.

Entire Crop of 1918 Holstein Heifers

FOR SALE

Will offer for quick sale my entire lot of 11 heifer calves and a 25-lb. bull, from 6 mos. to a year old. All but two are sired by a 31.50-lb. bull and all but three are from dams with records from 20 lbs. at 2 yrs. to 24.60. 7 of the grandams have from 20 to 29 lbs. These heifers are well grown, splendid individuals, mostly light colored, and from exceptionally large cows and from the best blood lines of the breed.

JAMES P. TORREY,
Kenosha, Wis. Phone 258 Bristol.

Jean Du Luth Farm

No. 1, Duluth, Minn.

45 Red Polls for January Offering.

Jean Du Luth Farm

No. 2, Nickerson, Minn.

50 Guernsey Bulls and Females On Our Sales List.

Address Geo. P. Grout, Nickerson, Minn., for new sales list in each herd.

Whitehurst Farm

Offer Two Bulls Just Ready For Service

Both have Semi-Official dams. They are sired by M. M. Mercedes Mechthilde Homestead who carries the blood of Jessie Fobes Bessie Homestead and is closely related to Duchess Skylark Ormsby. No. 1 Dam has a record of 710 lbs. butter in 365 days at five years old. No. 2 Dam has record of 527 lbs. butter in 365 days at 2 years of age. These calves are fine individuals and are good enough to head any herd. Write for prices and pedigrees.

WHITEHURST FARM, Canton, Ill. A. F. Randolph, Prop.

OLD DEERFIELD HERD

FOR SALE—Young Holstein Bulls, 2 to 4 mo. old. Sired by King Piebe Korndyke Johanna No. 210878. Price $45 to $50 Registered, transferred F. O. B. cars my station. Herd tuberculin tested.

CARL FOLL. R. F. D. DEERFIELD, WIS.

FOR SALE

Holstein Bull Born May 17, 1916, a son of a bull whose two nearest Dams average 38.72 lbs. in 7 days. Dam 15.16 lbs. at 26 months, Daughter of King Walker, a 30-lb. Sire. Sire of a heifer who broke the seven and 30-day butter records for a heifer with first calf. Bull straight individual, more white than black, and sires calves likewise. Price $200.

H. H. WHITTEN, IRVING, ILLINOIS.

WANTED!

We want several high grade men, preferably Dairy School graduates inclined toward the mechanical side of the milk business. Must be in good health and not afraid of hard work.
To such men we offer a three months' course of instruction, with pay,—in our factories, and if qualified, a position as traveling Erecting Engineer. Applications must be in own hand writing and give full particulars.

Address—Operating Dept. C, 122 Morgan Street, Jersey City, New Jersey.

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Superior in Hardiness and Yield.

My farms are devoted exclusively to the production of genuine non-Irrigated Grimm Alfalfa Seed. No other crops are produced.
My seed is grown on my own farms, near Benkelman, Duncy County, Nebraska, under my personal supervision; is shipped in double sacks, sealed, and a sworn Certificate is furnished guaranteeing the seed to be Genuine non-Irrigated Grimm. True Grimm Seed will be difficult to procure later in the season. Write for circular.

Henderson's Alfalfa Seed Farms, Benkelman, Nebraska. Stonewall J. Henderson, Prop.

GUERNSEY BREEDER'S JOURNAL

Indespensable toall interested in Guernseys or improving their herds of dairy stock. Well gotten up. Full of pertinent facts. Giving latest records of production. With Hoard's Dairyman 1 year, $2.75.

Send for sample copy.

GUERNSEY BREEDER'S JOURNAL, Peterboro, New Hampshire.

Small Quantity of Hay on Hand

Please balance a ration of the following feeds: Barley, $1 per bu.; oats, $.70; oil meal, $65 per ton; gluten, $57; bran, $35. I have corn, silage, good oat straw, and some mixed clover and timothy hay for roughage. Not enough hay to feed very heavily. I also have about six tons alfalfa hay which I intend to feed in April and May. Will it be better to buy alfalfa hay at $36 per ton than bran at $35 to feed with the silage? Cows give a moderate flow of milk.

Hartford, Wis. A. C. E.

Since there is not enough hay to feed it liberally during the winter, or, at least, until grass comes, it would be our suggestion that some alfalfa hay be fed to each cow, even though it isn't more than two or three pounds daily. Then, feed some of the mixed hay, trying to proportion the two hays so that they will last until the cows are turned to grass. In view of the shortage of hay, we would advise using more silage, say 35 to 40 lbs. daily per cow, and if possible to get along without it, we would not feed any of the straw. Straw is not very nourishing. It helps to fill up the cow, and we sometimes think it interferes with her digestion of good feeds. However, in the absence of an adequate supply of other roughage, it would be better to feed straw than to have the cows hungry for roughage.

A mixture consisting of 300 lbs. ground barley, 300 lbs. gluten feed, and 200 lbs. bran would supplement the roughage very nicely; that is, especially for the rather moderate milking cow giving 18 to 22 lbs. a day. We would feed about 1 lb. of the mixture for each 3 lbs. of milk produced. To cows giving more than 21 or 22 lbs., we would feed one-half pound of oil meal daily, and to much heavier milking cows would feed about one pound of oil meal daily. It would not be out of place if all of the cows had a little oil meal, and it is quite possible it would bring a return, even though it was not shown directly in the milk pail.

We would not advise buying alfalfa at $36 a ton when bran can be purchased at $35 a ton. From experiments conducted, it was shown that alfalfa was quite equal to bran, but in such experiments it must be borne in mind that the alfalfa was exceptionally good. However, the average alfalfa hay would not be worth as much as bran for feed.

DAIRY MARKETS

CHICAGO, Dec. 26—Butter—Creamery, extras, 66c; standards, 61½@62c; dairy, firsts, 60@65c; seconds, 55@59c.
Eggs—Ordinary, 59@60c; firsts, 62@62½c.
Cheese—Twins, 35@35½c; Young Americas, 37@37½c.

MILWAUKEE, Dec. 26—Butter—Creamery, tubs, 67@67½c; prints, 68@69c; extra firsts, 64@66c; firsts, 61@63c; dairy, fancy, 45@50c; poor, 20@30c.
Eggs—Fresh firsts, 57@58c; cases, new, included, 58@59c; miscellaneous, 55@57c; dirties, 38@40c; checks, 34@35c; April recandled, 45@48c.
Cheese—Twins, 35@35½c; Daisies, 35½@36c; Longhorns, 36c; fancy, Brick, 33c; Limburger, new, 1 lb., 29c; Limburger, new, 2 lbs., 29c; Young Americas, 36½@37c.

NEW YORK, Dec. 26—Cheese—Quiet; state milk, common to specials, 30@37½c; skims, common to specials, 12@28½c.
Butter—Steady; receipts, 6,211 lbs.; creamery, extras, 67½@68c; state dairy, tubs, 52@65c; imitation creamery, prints, 47@48c.
Eggs—Steady; receipts, 64,164 cases; nearby white fancy, 82@85c; nearby mixed fancy, 62@66c; fresh firsts, 61½@66c.

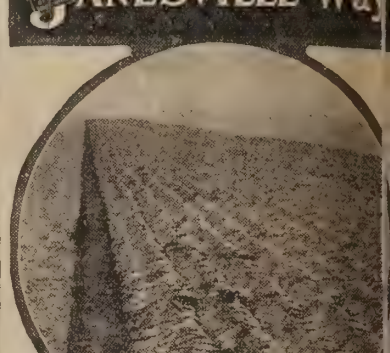
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When You Plow the JANESVILLE Way



Just As the Camera Saw It





Janesville Tractor Plow



Budlong Disk Harrow



Budlong Tandem Disk

You have the isfaction of see your furrows over the Au Twist moldbo the *natural* like a shavi

You know that are plowing and that your will be known a best plowed in community.

The Janesville through the soil a flexible moven The plow bott have just eno floating motion the cutting edg take away the p at plow points. duces the pull o team.

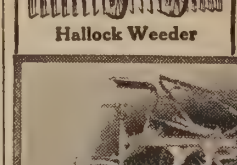
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Janesville Corn Planter



Floating Arch Cultivator



Hallock Weeder

It illustrates an scribes entire of Janesville wal and riding plow shows Janesv Two-Three-Bo Tractor Plow wi extra heavy fle frame, the plow accommodates to any soil condi

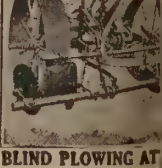
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A Word from the Publishers of Hoard's Dairyman

FORT ATKINSON, WISCONSIN

We wish it might be possible to persuade every reader of our paper to "take us up" on the offer we are making. Not alone for the extra subscriptions it would bring us—welcome as they would be! But, because we feel that every one of our readers ought—this winter—to have a copy of Henry and Morrison's wonderful book "Feeds and Feeding".

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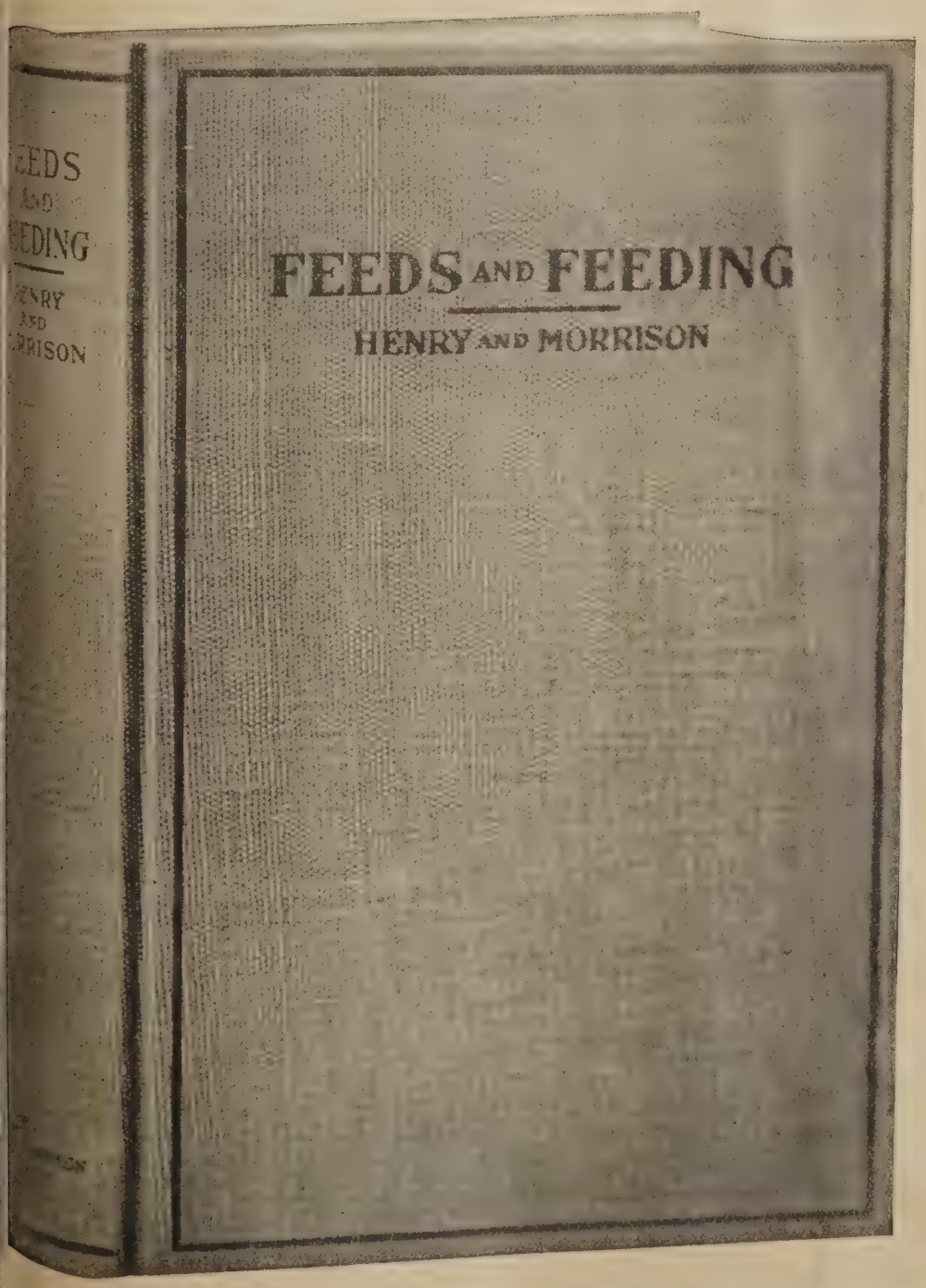
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If there ever was or ever will be a time when it would pay you in dollars and cents to look into the whys and wherefores of the feeding business—to find out what science and practical experience have discovered about the feeding of dairy cows, hogs, horses, etc.—that time is **now!**

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The price of this book is $2.50. You can't **buy** a copy anywhere for less than that. But we will send you a copy—without any charge, and postage paid—if you will do us a little favor that will take very little of your time. **Send us just four yearly subscriptions to HOARD'S DAIRYMAN at $1.00 each.** They may be either new or renewal subscriptions—and your own renewal may be included in the club. But, your own renewal does not count unless accompanied by three others.

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HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

Achievement Boys

Bob Ramsey, our champion corn grower, is an Achievement Boy. He wears the Achievement Badge, a picture of which is seen on this page. We want all of our American boys to wear this button of honor, but in order to do so each must do something —achieve some results that will make him worthy of it.

Bob earned his button in the corn club contest. To him it means a great deal. He was able to do something better than anybody else who tried to do the same thing. He is proud of it and he is always seen wearing his badge. He is an honor boy in America's great nobility of young people. Other boys are wearing them, too, for they have won honors either in calf, pig, or poultry clubs.

Bob told me all about the meaning of the button and what everything on it stood for. It pleased me so that I want all of the boys and girls, too, to know about it. It's a capital idea and we want Hoard's Dairyman Juniors to all get into the class of Honor Boys. "You see", said Bob, "in order to be an Honor Boy, you must first join some boys' club and pledge to work as one of its members. There are lots of clubs to join. It all depends upon what you are interested in. I got interested in corn first and that is why I joined a corn club. Some of the boys belong to a calf club, some to a pig club, or a sheep club, and others to a poultry club. You can join any of them; they are open to all farm boys.

"When I entered the corn contest work I started out to raise the largest crop of corn on an acre, and I did it. So they gave men an Achievement Button. I am awful proud of it. It shows that I belong to a great national fraternity of workers in which we learn to do things.

"Joe Peters wears a button, too. He raised the best calf of anybody in the calf club last year. I have just joined that club and I already have my calf picked out. Gee! she's a dandy calf. She is a Holstein and I bought her with some of the money I earned from my corn. I told Joe yesterday that he would have hard work from now on holding the championship of the boys in that club. I guess he is getting a little afraid of being beaten, too, because he told me that his father was going to buy him the best calf he could find to raise for this year's contest. That doesn't worry me very much though. I'll take my chances on Betsey with the judges when the day comes for our show. She looks better every day. It's such fun to take care of her."

"But, Bob," I interrupted, "I thought you started to tell me about your Honor Button and what it stands for."

"Oh, that's so; I am glad you reminded me of that. I get so excited when anybody asks me about my club work, that I forget everything else. Guess I am too interested in it. But some day I am going to tell you how I take care of Betsey.

"Now about my Achievement Button. First of all, only those who get certain results in club work can wear the button. We have some rules that govern all of the work in the clubs, and unless we live up to them and produce the goods our chances are not very good for coming out on top. We are called Achievement Boys because we do things. I think that is a good word to have on the button. It kind a lets other people know that you are worth your salt. It meant a lot of hard work to earn that honor, but I learned so much, and had such a lot of fun doing the work. You see, everything was my own.

"I made quite a little money too. Do you know that I am figuring on making enough money in this club work to pay for my own college education, when I get through high school? I am planning on going to our state agricultural college some day. Of course, I am always going to stick to farming, but an agricultural education will make me the best kind of a farmer.

"Did you notice the three words on the lower edge of the button? They mean that the boys are training for state, home, and school. Our teacher told us that the most useful life one can live is one of service. You see in this work we are serving as useful citizens. Everything we do adds to the wealth of our state. It makes us like better homes and good schools."

"I wonder why the word home is printed on the open book shown in the achievement badge," I asked."Oh, I guess that means," replied Bob, "that we can learn a great deal from reading good books and that they should be in every home.



THE HONOR BADGE FOR CLUB WORKERS.

We generally have a reading hour in our home every evening. Sometimes mother reads out loud to father and me. I always read the junior page of Hoard's Dairyman out loud and then father and I talk things over. They tell us fellows a lot of good things on that page.

"Those four letter H's stamped upon a four leaf clover in the center of the button stand for lots in this work. Kind a funny that four words each beginning with H should fit in here so well.

"The first one stands for head. It means training the mind. By thinking out all of our own plans and doing our own work, our minds grow and become trained. You've got to use your head if you want to come out on top.

"Health is what the second H means. You can't have a good working head unless your health is sound. Our work exercises both mind and body and keeps us healthy and contented. Health is one thing you can't buy. You've just got to take care of it by living right, and work helps one to do that.

"If you set out to succeed,—well, that just means your whole heart and soul have got to go into your work, and that is what the third H stands for,—Heart. That's how I won out in the corn contest last year. Interrupting him I said: "Don't you think it could stand for kindness, too?" "Well," Bob answered, "I hadn't thought so much about that. But I guess you are right. I know that I don't like to see anybody cruel to stock. I wouldn't whip my calf for anything. It doesn't do any good; they don't know any better.

"We use our hands as well as our heads. The last H stands for Hand. You surely learn to use your hands in this club work. Then I guess it means lending a helping hand to others too. Our clubs pull together and that is why we do so much. We believe in what Rudyard Kipling said:

'It ain't the guns nor armament, nor funds that they can pay,
But the close co-operation that makes them win the day;
It ain't the individual nor the army as a whole,
But the everlastin' teamwork of every bloomin' soul.'

"I think President Wilson hit the nail on the head when he said, 'the only patent to nobility in modern times is achievement'. He meant that the only nobility worth while nowdays are the working people, those who devote their lives to achieving things of value to everybody."

"Yes, sir, Bob, that's exactly what he meant, and Abraham Lincoln once said something that I have always remembered. Your club members all should know it. He said, 'I do the very best I know how, the very best I can; and I mean to keep on doing so until the end. If the end brings me out all right, what is said against me won't amount to anything; if the end brings me out wrong, ten angels swearing I was right would make no difference.' "

Junior Letters

Hoard's Dairyman Juniors:—As I have not written to you for so long a time I though I had better write.

I have a heifer calf which my father gave me for my fourteenth birthday. On 3 lbs. of whole milk and 1 lb. of skimmilk she gained 18 lbs. in three weeks.

We are now milking 9 cows and 9 others are dry.

We have eight horses and two colts and a tractor. We would like to sell some of the horses. My father belongs to a cow testing association and we weigh our milk every night and morning.

We have two silos and had them both full but they have settled quite a lot now.

I would like to hear from some of the juniors. My address is R. R. 1, Montague, Mich.

Charles Myers.

Hoard's Dairyman Juniors:—My father has four hogs and four horses, one calf, and a cow that we milk. I have four chickens. I had a garden but it wasn't very big so I didn't get much from it.

My sisters and I go to school on the street car. I am nine years old and in the third grade.

I hope that my letter goes on the junior page. Well, I guess I will close.

Hastings, Minn. Walter Metz.

Hoard's Dairyman Juniors:—It certainly is my turn to write to the juniors. Several times I have attempted to do so but you all are well aware how easy it is to let such chances pass by.

I have been a member of the junior club for a long time and enjoy reading the junior page. Much valuable information and suggestions have I secured from this column. I have been a subscriber of the Hoard's Dairyman for a long time. I won last year's subscription for a prize.

Perhaps it will be of interest to tell about our boys' cattle judging contests, etc., which have been held at the Harford and Montrose fairs, of Susquehanna County, northeastern Pennsylvania. Many valuable prizes have been given each year for the past three years, at least first and second prizes being pure-bred Holstein calves. The first year I did not enter, yet a young boy from near my neighborhood won the prize, again another boy won last year's prize from near the same place, and this year's prize went practically to the same tion, and second prize to me, being calf. Boys, was I surprised? Indeed I

We judged the first two years by u score card and this fall by placing the in a class and choosing the best dair cow and why? Anywhere from 20 to 4 have entered each year. Also we have h growing and corn raising contests. Th are under the operation of the Farm B which is a wonderful investment fo farming county.

Hence there are many young jun would like to hear from and, too, n never too plentiful in camp as I have the S. A. T. C., of Uncle Sam where n all kinds is appreciated.

Let's hear from the juniors and I w to come again. Thank you. R. 1, S hanna, Pa.

Kenneth S. Ba

Hoard's Dairyman Juniors:—Well, d think I was dead?

School had been started a little ov month when everything was closed up count of the influenza. There are abo cases in and around Bishop.

We are only milking seven cows nov are to be fresh next month. One of ou had twin bull calves. The mother died two weeks later. We have and are seven calves.

The corn crop is not very good thi because we had so much cool weather summer. It is only about one-half the should be.

Our chickens are molting now a haven't had an egg for ever so long.

We are going to haul some hay today the fourth cutting we've had on this pi is Peruvian alfalfa. We have both P and Chilian alfalfa. The Peruvian gro or three inches higher but not so thi one piece we have both kinds and the P is about 2½ inches higher.

Well, I must close now, wishing juniors good luck.

California. Enid La

Hoard's Dairyman Juniors:—I am another pure-bred heifer calf this yea has a great deal more white on than th one. Her name is Queen Laurella Aagg cedes DeKol. I let her suck the cow u was five weeks old and then I began her milk out of a pail, then I comme put water in the milk and in four day gan to feed her calf meal and when t of calf meal was gone we got anothe I expect to feed her ensilage. You recor ed it to me for calves last winter and I to feed it to my calf and she grew fast that. We are raising three others wi My sister is raising a bull calf. He w in March 1918 and was on an old lar for five months. He grew like a weed before he was five months old we took the Orange County fair and he took prize against the breeders. He then about 600 lbs. He, too, is a pure-bred.

We are just cutting corn here. W about 30 acres of corn. It is pretty go year.

We have a new 15 H. P. kerosene eng a new cutter size L. We have one silo by 43 feet.

Good-bye juniors.

New York. Birdsey A. Yo

Hoard's Dairyman Juniors:—I am ju ting over an operation. My sister and our tonsils and adenoids removed.

Our beans are all threshed. I got te from my acre.

Our last month's milk check was from thirteen cows.

My heifer calf is growing fine. I her a few days ago. She is now abou months old.

I feed my rabbits alfalfa hay and E corn. I sometimes feed green stuff a rots. I always keep plenty of water the rabbits. I have two, two-story for them. The market for rabbits is have never had any trouble selling th

At high school they are organizing and pig clubs. I am joining the sheep am going to buy a Merino ewe for $20. enjoying my agriculture class very muc are studying the soil now.

It is nearly supper time so I will clo address is Box 136, R. B, Modesto, Ca

California. Merrill Worthin

Hoard's Dairyman Juniors:—I shou answered your letter a long time ago have not had time. My brother and I sheep. We sold 10 sheep this fall. W first started we bought 2 sheep and rowed a ram from the neighbors the fir By selling the rams and keeping the e soon had a small flock of sheep.

I have a liberty bond, war saving

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and some money in the bank, all of which I have gotten from my half of the sheep.

We are husking corn now; we are putting the stalk in the barn and will feed it to the cows this winter.

I take music lessons on the piano ever Wednesday at fifty cents a lesson.

Wishing all the juniors good luck.

Wisconsin. Kenneth Hagestad.

Hoard's Dairyman Juniors:—I hope that all the juniors are well. I am.

I have a cousin in the service.

At school football is a great sport.

I have a cow and a calf, five pigs and fifty hens and pullets. My cow is giving 27.03 lbs. of milk per day.

My pigs are doing fine. I will sell my sow and raise the pigs. The next pigs I buy will be registered stock.

I saw that war-time ration in the paper which some junior wrote. My hens are not laying good now.

My garden was a success this summer. I am putting some products in an exhibit this Monday, wishing to get a prize.

We had a fine exhibit. I won no prize but my sister won second on her cabbage.

New Hampshire. Archibald Thompson.

Hoard's Dairyman Juniors:—I have not written for a long time but I was going to school and did not get home very early. School is closed now because the Spanish influenza is going around.

We have nine little pigs and they are growing fine.

We went to Pleasant Valley Sunday afternoon and on our way we got some mistletoe from an oak tree. The hills are very pretty there.

We have a little brown pup named Twinkle.

I am going to town tomorrow and have a tooth pulled.

We are having unusually warm weather for this time of the year. The farmers are sowing their barley and wheat on the ground that was summer fallowed and are also winter plowing now. Most all work is done with tractors in Solana County.

Mamma's pullets are laying fine now. They were hatched in April. We sold all the roosters. Mamma's young gobblers are very large this year.

My sister belongs to the Hoard's Dairyman Junior Club but she never writes. My letter is getting long.

Wishing the juniors good luck.

California. Nina Van Pelt.

Hoard's Dairyman Juniors:—This is my second letter to the junior page. The first one I guess found the wastebasket. We have 16 head in our herd. They are Jerseys and grade Guernseys. The herd consists of 8 milk cows, one of which we want to sell, five heifers, two of which are imported Guernseys. They belong to my brother and me. We got them by being in the Boone County Guernsey Calf Club.

We have two old brood sows and one young one. We have one male hog and 12 shoats. All these hogs are pure-breds. We have 3 horses and 2 colts.

I hauled gravel last week. We are going to cement our calf stable.

The frost got most of our corn this year.

I wish some of the juniors would write to me. My address is R. R. 1, Kirklin, Indiana.

Paul Irwin.

Hoard's Dairyman Juniors:—It has been a long time since I wrote to the juniors. I am going to write the juniors a story of dairying.

We have a tester of our own. One day a man brought some milk to test so we tested it. He wanted to pay us so he gave me a quarter. I took the quarter and bought a setting of eggs. I set the eggs, then the eggs hatched. I raised the chickens and sold them. With the money I bought a sow which had a litter of pigs. I traded the sow and pigs for a heifer. I sold the heifer for $25, then I bought another for $25, then sold her for $30, then bought another for $25 and kept her until Oct. 7, and sold her for $100. Then I bought a $50 registered Liberty Bond and a registered Jersey heifer for $46.

Wish the juniors good luck.

Indiana. Russell Utz.

Hoard's Dairyman Juniors:—It's been a long time since I wrote to you. I enjoy reading junior letters.

I finished the country school and started in high school this fall. Last spring I joined the chicken and corn club and set 30 White Rock eggs and hatched 24 chickens. I raised 23 of them. There are 19 pullets and 4 cockerels. I took 5 of my best chickens to the fair and got $4 worth of premiums.

I have one acre of corn. The corn is fairly good considering the dry weather. We are going to begin husking it next week. We are harvesting our sugar beets now. They are pretty good. We are going to haul them to town next week. We have three old hogs and they have 26 little pigs. We have 37 pigs in all.

My oldest brother works at Edgewater Stock Farm. My other brother and myself help my father with the work. We have 27 head of cattle. We are milking 15 cows. We have 5 horses and 2 colts.

I live on a 95-acre farm 2½ miles from Fort Atkinson. I milk 4 cows every night and morning and tend to the chickens every day and gather the eggs. My brother has 12 ducks We are going to eat all of them.

My letter is getting long so I will close wishing the juniors good luck.

Wisconsin. Teddy Saur.

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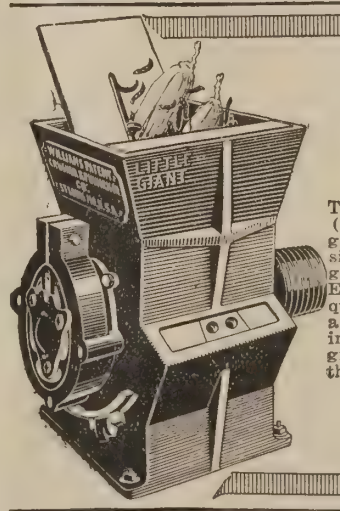
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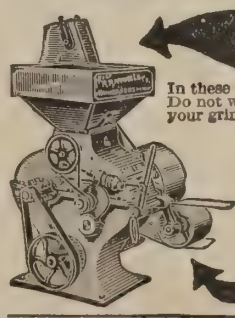


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STOCK FOR SALE

Registered and high grade Holsteins. We have a very choice car of high grade springers four to seven years old at from $100 to $130. OAKGROVE FARMS, Oxford, Wis. 19-8

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Registered Holstein bulls. 30-lb. breeding, $125. LAWRENCE MURPHY, Hartford, Wis. 22-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—Registered Holstein bulls ready for service. Tuberculin tested. Our breeding. S. E. JONES, Watertown, Wis. 19-8

Waukesha County Holstein-Friesian cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 20-13

For Sale—One hundred choice high grade Holstein springing cows and heifers. J. A. KNORR, Blanchardville, Wis. 20-8

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

A carload of choice heavy springing high grade Holstein cows, priced for quick sale. Also registered Holstein bull, ready for service. H. F. McNUTT, Oxford, Wis. 21-5

For Sale—Registered Holstein bull calves from 29-lb. sire, fine breeding both sides, well marked, large. $60 each. GEO. J. KRAFT, R. 1, Waukegan, Ill. 22-3

Holstein-Friesian bull born June 1, 1917, two-thirds black, for sale, or trade for one about the same age, if right. His dam is "Lady Lyons Chesterfield" No. 122629; sire, "Long Beach Hengerveld Blossom", his grandsire "Pontiac Hengerveld Parthenea"; dam, DeKol Blossom Hengerveld. H. W. SOLLARS, Daleville, Ind. 22-3

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Holstein cows and springing heifers for sale. GEO. F. DERBY, Cameron, Mo. 23-5

Registered Holstein cows due in January, bred heifers and heifer calves. H. M. LYON, Wyalusing, Penn. 23-2

Registered Holstein bulls ready for service; heifer and bull calves. 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 23-tf

For Sale—Registered Holstein bull calves $50.00. MAPLE LANE FARM, Cassadaga, N. Y. 23-tf

Registered Holsteins for Sale—Cows at $200; bulls 10 months old, at $100 with good records. ANTHONY ENGEBRETSON, Gratiot, Wis. 24-3

For Sale—Four-month-old grandson of Spring Farm Pontiac Cornucopia, $125. Also grandson of King Segis Pontiac Manor from 14-lb. junior 2-year-old. W. W. PFLUG, La Grange, Ill. 24-2

For Sale—80 head of high producing grade Holstein cows; also some registered Holstein cows. F. L. LEHR, R. 1, Hutchinson, Kans. 24-3

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Highly bred grade Guernsey heifer calves for sale. B. McADAM, Mosinee, Wis. 22-spl

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

Three registered Guernsey bulls for sale, sired by Langwater Frederick and Dairymaid Glenwood of Pinehurst 3rd and from A. R. dams; 740 lbs., 529 lbs., and 510 lbs. fat. Sale list. HOMER F. RUNDELL, Livingston, Wis. 19-tf

STOCK FOR SALE

Guernseys—Registered bulls 3 months to 1 year. Four heifers, Glenwood May Rose breeding. Tuberculin tested herd. Prices reasonable. M. M. HOLLINGSWORTH, Wasteland Farm, Landenberg, Pa. 22-4

25 high grade Yeksa bred, springing, Guernsey cows, three to five years old. Some have records. OAKLAND GUERNSEY FARM, Mukwonago, Wis. 22-tf

For Sale—Four registered Guernsey bulls from 9 months to 18 months old. Sired by Langwater Frenchman or Dairymaid's Glenwood of Pinehurst 3rd. Two are from A. R. cows. Priced to sell. Send for sale list. DALE E. RUNDELL, Livingston, Wis. 23-3

Yearling May Rose Glenwood bull. Records: Dam, 560.07, Class Leader; grandam 687.8; great-grandams: 648.15, 889.57, 513.3 butterfat. RICHARD F. KLEMM, Baraboo, Wis. 23-2

Will sell twenty high grade Guernsey heifers of our own raising. These are from high test cows and a nice lot. Also a few cows. GROVE FARM, Deerfield, Illinois. 23-4

Guernsey Bull—Registered, 18 months old. A. R. breeding. J. LEROY CUNNINGHAM, R. 5, Indiana, Pa.

For Sale—Three Jersey bulls from two to eight months old. Also yearling heifers. M. C. VOSBURG, Fort Atkinson, Wis. 23-2

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

STOCK WANTED

Wanted—One or two carloads of young registered Holstein heifers. W. E. HEWIT, David City, Nebr.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

David W. Williams, Lake Forest, Illinois can buy you dairy cows of any breed. 20-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 23-5

SWINE

Durocs all sold. Sows farrowing now. Am booking orders for these pigs to be shipped at three months old. FRED SNYDER, Marion, Iowa. 22-tf

POULTRY

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

Bronze, Narragansett, Bourbon Red, White Holland, Black and Slate breeding turkeys, from the finest and largest flocks in America. Write for prices. F. A. CLARK, Freeport, Ohio. 21-4

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

SEEDS

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.70 per 100 lbs. Sacks free. Price of Hansen Cossack $80 per 100 lbs. AT TRIANGLE RANCH, Cottonwood, S. Dak. 21-tf

New Danish Cabbage Seed—Pedigreed strain. Cut over 20 tons per acre for last 10 years. Guaranteed because we sell only what seed we grow. Reference—State College of Agriculture, Ithaca, N. Y. Price $20 lb. postpaid. REED BROS., Cortland, N. Y. 23-2

Moline-Universal Tractor. 1918 Demonstrator. Slightly used. Looks like new. Good as new. FRED A. GENTEMAN, O'Fallon, Mo. 23-3

DAIRIES

For Sale—Sweetwater Dairy, 80 cows and dairy equipment, a good paying proposition, only dairy here. Pressure of other business reason for selling. Come and look it over. J. D. WEEDEN, Florence, Ala. 22-3

For Sale or Exchange—Fully equipped dairy located in city of five or six thousand doing a retail business of $45 per day. Complete modern barn 80x100. 50 cows, cheap pasture. Requires $5,000 cash to handle. City power, lights and water. J. S. WATERS, Weyburn, Sask., Canada. 24-2

FARMS WANTED

Would you sell your farm, if you got your price? Sell direct, no commissions. Particulars free. CHARLES RENICH, Woodstock, Ill. 14-tf

Have customers for 25 farms with stock. JOHNSON, 618 Hartford Bldg., Chicago, Ill. 22-4

MACHINERY

Wanted—A twenty-cup watering set of gravity system, for dairy cattle, second-hand will answer the purpose. Send me your best cash price, name, and condition. G. G. WHITE, Elkader, Iowa. 23-2

For Sale—One new Double-unit Calf-Way milking machine including vacuum pump and tank. Best outfit on the market. Have gone out of machine business, will take $280 to close. Regular price $350.00. First come first served. Address BOX 317, care Hoard's Dairyman. 20-5

Litter Carriers—Price only $14.95, write for catalogue to O. A. TORGERSON MFG. CO., Baldwin, Wis. 21-4

For Sale—Drop center Armleder milk wagon, used part of two seasons. Price $125 F. O. B. Waynesboro, Va. IRA SHOWALTER. 22-3

For Sale—One extra Hinman unit, good as new. First check for $40 takes it. Address BOX 370, care Hoard's Dairyman.

For Sale—We are closing out our line of milkers and offer at a bargain one new, double unit, Empire Milker. Write GREELEY CREAMERY CO., Greeley, Colo. 24-4

For Sale—A complete retail dairy outfit, consisting of one four-bottle filler; one No. 100 DeLaval clarifier; one No. 5 Chilly King Dairy Cooler; one two-compartment washing tank, power washer attached. One No. 3 Eureka boiler, new. Write for further description. PURITY DAIRY CO., Cherokee, Iowa.

Sale or Exchange—Complete dairy outfit for bottling and delivering milk. FARNERHOLM DAIRY FARM, Colfax, Wis. 24-3

EXCHANGE

Wanted—Pure-bred Holstein herd in exchange for good farm. W. W. WALKER, Austin, Minn. 23-2

Wanted to Exchange—Registered Holstein yearling heifers for registered Duroc brood sows, bred to farrow early; also unrelated boar. HARRIS HOLSTEIN FARM, Sextonville, Wis.

For Sale or Exchange—One team mules 10 and 12 years old. Will exchange for young cattle or two serviceable bulls. Holstein or Guernsey preferred. E. C. KURTZ, Honey Creek, Wis.

FEED BAGS

Second-hand bags and burlap. We pay highest prices and pay freight. Satisfaction guaranteed. LINCOLN BAG CO., Springfield, Illinois. 20-spl

HAY

Alfalfa hay for sale. Write or wire us for delivered prices. ALBERT MILLER & COMPANY, 192 North Clark Street, Chicago, Ill. 26-tf

Attention Eastern Dairymen—Alsike and Red clover hay, nice quality. Some alfalfa. Also timothy and stock hay. Any delivery. Write or phone. WALTER L. MITCHELL, New Haven, Conn. 24-4

CREAMERIES

Wanted—Creamery to supply me with butter, by contract. S. JACOBSON, 1204 Aisquith St., Baltimore, Md.

FEEDS

Cottonseed meal, oil meal, dairy feed and all other standard feeds for sale at lowest market prices. F. E. MOORE & CO., Union Stock Yards, Chicago. 24-tf

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

FARMS FOR SALE

Free Maps of Mississippi, showing views and describing the famous black prairie alfalfa, clover, corn, stock and dairy belt, located in Northeastern Mississippi, where Lincoln Harbold of Iowa, the largest hog feeder in the world, has located; 300 miles of hard pike roads; good well and artesian water; excellent climate; three creameries; lots of grass; best hog, cattle, sheep and mule raising section in the South. K. M. WISHART, Aberdeen, Mississippi. 22-4

Dairy farm bargain. 316 acres; choice corn, wheat, alfalfa land. 180 acres blue grass, timothy, clover and alfalfa; 35 acres wheat, remainder cultivation; choice improvements. Write for particulars and free descriptive booklet. MANSFIELD LAND & LOAN CO., Ottawa, Kansas. 22-3

Booklet on request presenting facts by State Commissioner of Agriculture describing the Mazarn Valley in the Ozarks, ideal for dairying and stock farming. Address MAZARN VALLEY LAND COMPANY, 847 Central Ave., Hot Springs, Arkansas. 1-tf

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

$15.00 to $20.00 buys $30.00 land out of our new tract of fine, gently sloping, silt loam, cut-over land; good roads; close to railroad; good neighborhood; good water; good wages while improving land; price good only to March 1st. Write for details. THE E. L. C. CO., E-M, Dept. 31, Merrill, Wis. 23-tf

A great opportunity to secure a splendid, large farm, located in the suburbs of a prosperous and growing city. Upon the farm a thoroughly up-to-date equipped dairy, stocked with Guernsey cows, and unlimited demand for milk at good prices. Modern farm utensils, and good farm buildings. Will be sold or leased. For particulars address P. O. BOX 565, Norfolk, Va. 23-4

FARMS FOR SALE

If you wish a farm in the best grass sect of the south where alfalfa and all the clov including Red White, Alsike, Sweet, Bu Crimson and Japan grow to perfection, soy beans, cowpeas, peanuts, velvet bea corn, oats, wheat, rye, and barley, where have a creamery making fine butter and p ing Elgin for butterfat, and where there is bovine tuberculosis nor cattle ticks; in a co munity of northern farmers, write to H. GURLER, Macon, Miss. 25-t

Farms in the Mississippi Prairie Belt, alfa and clovers. Corn, hay and live stock pro sition. Ideal climate, good neighbors, scho churches, good roads. Main line of railro Close to large markets. Write now. H. HANSEN, Macon, Miss. 11-t

For Sale—Fruit and dairy farm, 90 ac two miles from county seat. Price right terms easy. Write for details to BOX Washburn, Wis. 23-

Big Franklin County Bargain—240 acres miles town; good improvements; splendid ter; 75 acres wheat; ½ mile school. Only per acre. Owner changing business. Ask full description and free descriptive book Choice farms for sale. Write today. MA FIELD LAND & LOAN COMPANY, Otta Kansas. 24-

Northern Va. Stock and Dairy farms; electric and steam road; convenient to Wa ington. Phone or write me when to expect A. H. BUELL, Farm Agt., Herndon,

Indiana—Bargain in dairy farm; 124 ac Owen County; 74 acres tillable, 50 acres tom; good water, two sets buildings, two si within one mile county seat town of 3,000 ulation; will sell farm alone or with dairy equipment; no trades; easy terms. Inq W. E. JARVIS, Owner, Spencer, Ind.

Only $1,500 cash will handle rich 120 2½ miles station, with 60 acres level field. good Ubet region, Polk County, Wis., 60 m Twin Cities. 8-room house, fair log b other buildings. Splendid pasture with flow spring, considerable hardwood timber. No ter soil anywhere. Big bargain at $8, $1,500 down, balance 7 years. 5½ per c BAKER B-76, St. Croix Falls, Wis. 24

Valley View Farm—136 acres equip $14,000. Show your wife the picture of beautiful 2-story, 9-room residence and will want it for her home. Picture of modern basement barn, silo, hennery, pigg etc.; will please you too. Electric lights, water heat, bath, telephone. 12-room ten house. On improved road, only ½ mil depot town, high school, library, bank, den's. Fertile loam soil that has cut 3 clover hay to acre and grown 85 bu. oats 60 bu. shelled corn. This money-maker pink of condition, is offered for imme sale by aged owner. If taken soon he incl 18 cows, 12 heifers and calves, bulls, (17 registered Holsteins), pair horses, pou hogs, tools, wagons, machinery, potatoes, hay, straw, ensilage, etc., etc. $14,000 is low price, part down. Pictures and de page 34 "Strout's Bargain Catalogue" states. Write for copy. Dept. 3001, E. STROUT FARM AGENCY, Marquette B Chicago.

MISCELLANEOUS

Honey and Cheese—Honey of superior q ty. Also Green County's Famous Brick ch Write for prices. E. B. ROSA, Monroe, 22

Wanted—Car of rutabaga turnips. best price F. O. B. cars. A. C. ASKEW, Tulsa, Okla. 2

Raise Guinea Pigs for us. We supply s Laboratories need thousands. Big money easy and inexpensive to raise. Particulars book ten cents. DR. J. A. ROBERTS' L ORATORIES, Oconomowoc, Wis. 19

Yes Sir, we have a special opportunity you during spare time, an opportunity t some good work in your neighborhood, the betterment of dairy farming, that will you in cash for the effort you put forth. for our "Special Oppertunity Getting gether" folder. Address HOARD'S DA MAN, Fort Atkinson, Wis. 2

Farm and household accounts easily Write for particulars and special offer. ACCOUNT BOOK CO., 1822 Chadbourne Madison, Wis. 2

Leaf tobacco, Kentucky's Best, 2 years chewing or smoking, 3 lbs. $1.50; 7 lbs. prepaid. Special prices on large quant S. ROSENBLATT, Hawesville, Ky. 2

Landology, a magazine giving the fac regard to the land situation. Three mo subscription free. If for a home or as a vestment you are thinking of buying farm lands, simply write me a letter and "Mail me Landology and all particulars fr Address EDITOR, Landology, Skidmore Co., 47 Skidmore Bldg., Marinette, 24

Scotch, green or white peas for sale, als and straw. FROSCH & SONS, Grimms, 2



Advertising in this department is 5c per wo Remit in advance.

HELP WANTED

Wanted—Good, reliable farm hand, ma to work with owner on 160 acres. Refere RICHARD TON, Tinley Park, Ill. 24

Reliable single man, to work in dairy Registered Jerseys, modern barn and e ment. Must be clean, industrious and dry hand milker. Farm located on trai line near city. FINCH FARM, Dayton, 2

Wanted—Single herdsman for 50 pure Guernseys. A. R. and test association. ern equipment. Board and room furn State wages wanted and qualifications. FC FARM, Libertyville, Ill. 2

Wanted—A single man for general work. Must come recommended. Good w Position by the year. ARTHUR H. CAI E. Jackson Blvd., Chicago, Ill.

HELP WANTED

Wanted—Man and wife without children; to help with housework; must be good and housekeeper, man for dairy work, ing, bottling and delivery. Wages $70 month, everything furnished. Give full ulars first letter. Address ROLLA OLI- P. O. Box 701, St. Joseph, Mo. 23-2

Wanted—Single man on grain and dairy competent and experienced; good habits; d home; state wages; come visit farm. KIMBALL, Lake Geneva, Wis. 23-4

Wanted—Good milker and farmer, for 40- farm close in to city. Must be good fast \$50 per month and board. ROUTE OX 61, Battle Creek, Mich. 23-2

Wanted—Single man for general work with in herd. Must be a good dry hand milk- 50.00 per month and maintenance. Ad- MINNESOTA STATE SANATORIUM, Sanatorium, Cass Co., Minnesota. 23-2

Wanted—Man with dairy experience to care milk with Sharples machine 30 Guernsey to put entire time with the herd. Must pable to take entire charge and assume sibility. Board and room furnished. experience, reference and salary. IUR A. COOPER, Elizabeth, Ill. 23-4

Wanted—Herdsman for one of the best herds state. Holstein. Semi-official yearly State experience, age and wages ex- l. JOHN PULS, Hartford, Wis. 23-2

Wanted—Man and wife to work on farm. to run small boarding house; man to do al work. Good wages paid reliable and rious people. Enclose references and ad- BOX 358, care Hoard's Dairyman. 23-tf

Wanted—A superintendent for strictly mod- airy, located in the east, about six miles a city of 200,000 inhabitants. Milk dis- of by retail. 600 acres under cultiva- This is a good berth for the right man. to BOX 347, care Hoard's Dairyman, full particulars, experience and refer- Only first class man need apply. 22-3

Wanted—Head farmer; salary \$115 to \$135 month. Must be twenty-one years of age er and resident of Wisconsin. Examina- given. Apply MILWAUKEE COUNTY SERVICE COMMISSION, Pereles ing, Oneida and East Water Streets, Mil- ee, Wisconsin.

Wanted—Man with special experience and ng with pure-bred Holstein cattle, to pur- one-half interest in herd and farming ment (not including farm), and to take charge of the enterprise. We to share Fully equipped, modern, dairy farm, ern Illinois. Prefer young married man. arch 1st. Address BOX 368, care Hoard's man. 24-tf

Wanted—An experienced herdsman to take e of eighty head of milch cows, on cer- dairy. Milking machines are used. Ad- BOX 367, care Hoard's Dairyman. 24-2

Wanted—Competent married man as super- dent on medium sized modern general located in Chicago suburb. Pure-bred eins and Durocs. This is a good opening n up-to-date and practical man who wants nprove his position and opportunities. wages to the right man. Best of living tions. In answering state age, nation- and late experience. Address BOX 373, Hoard's Dairyman. 24-tf

Wanted—Farm superintendent. One who stands bookkeeping preferred. Address EFFREY FARMS, Leetonia, Ohio. 24-2

Wanted—Dairyman, salary \$90 to \$110 per h. Must be twenty-one years of age or and resident of Wisconsin. Examination . Apply MILWAUKEE COUNTY CIVIL VICE COMMISSION, Pereles Building, a and East Water Streets, Milwaukee, nsin.

Wanted—Good dry hand milkers. Good home. per month and board. No farm work. ESIDE FARM, Mt. Clemens, Mich. 24-3

Wanted—Herdsman on dairy farm. Will \$75 to \$90 per month, depending on ex- nce. House and garden space furnished. ied man preferred. Apply DAIRY DE- TMENT, University of Arizona, Tucson, na. 24-2

Wanted—Working foreman, experienced in and stock raising, willing to board two ree extra men on 360-acre farm, central If interested, address E. C. ARTHUR, minster Bldg., Chicago.

Wanted—Man and wife. Man with experi- in general farm work, machinery, and of stock. Wife must be good cook, neat keeper, economical, and willing to board extra men. Address BOX 378, care Hoard's man.

Wanted—Capable working manager to man- two-hundred-acre farm. Must be sober reliable. Single man preferred. Kindly wages wanted and references in first . Address BOX 377, care Hoard's Dairy-

HELP WANTED

Wanted—Good milker, (with one in family to help milk) to milk and care for small Jersey herd. We milk about nineteen cows using the rest of the cows as wet nurses. Live within 200 yards of depot and ship cream. Good proposition for right party. WATSON FARM, Strong, Miss. 24-2

POSITIONS WANTED

General manager is open for position. Lifetime experience. Have thorough knowledge of pure-bred stock, also buying and selling. A. R. O. work, feeding and developing young stock, and can handle help to best advantage. Married, two children, no bad habits. Address BOX 341, care Hoard's Dairyman. 22-tf

Practical man with life farm experience, also experience in cow testing and agricultural improvement work desires position as manager or herdsman on dairy farm. Only good propositions will be considered. Will guarantee results. College education. Will consider a renting proposition. Guernseys preferred. BOX 353, care Hoard's Dairyman. 22-3

Wanted—Position as farm manager. Honest and sober. Western farm preferred. Understand farming thoroughly. M. H. BRINKER, Lisbon, Ohio. 23-2

Position wanted as herdsman. Single, experienced in A. R. O. work, best of references, only Holsteins considered. BOX 354, care Hoard's Dairyman. 23-2

Wanted—Position as herdsman. Single, middle aged, sober. Up-to-date feeder in A. R. O. work. 6 years head feeder at the Woodcrest, Rifton, N. Y., when the farm was under the management of A. S. Chase. Best reference. FRANK BROWN, 668½ 27th St., Milwaukee, Wis. 23-2

Do you want a herdsman, farm foreman, assistant on farm, greenhouse men, tractor men, or farm help? We have young men trained in our school, competent to fill these positions next spring. State full details including wages. BERNARD OSTROLENK, National Farm School, Farm School, Pa. 20-spl

Working herdsman wishes position on up-to-date dairy farm where best of services will be appreciated. Life time experience in all branches of the dairy business. Thoroughly understands certified milk production. Capable of handling men. American, age 34, single, steady, industrious, no bad habits. Any first class proposition will be considered. Address BOX 369, care Hoard's Dairyman.

Farm manager desires position on large farm or estate. Experienced in all breeds of pure-bred stock. Advanced Registry, modern farming and machinery. Energetic, capable, economical. Would consider good, up-to-date farm on shares. Excellent references. Address BOX 372, care Hoard's Dairyman.

High class executive invites correspondence in regard to management of milk producers' association or city milk plant. Life experience in this work. Address BOX 371, care Hoard's Dairyman.

Situation wanted by married man on stock and grain farm. Experienced in handling all kinds machinery and tractor work. WM. E. FREEMAN, Grays Lake, Ill. 24-2

Wanted—By dairyman with family, place in South. Alabama, Georgia or Florida preferred. Salary or part salary and part share of profits. Must have school for two boys. R. 1, BOX A-10, Crichton, Alabama.

What opportunity have you for returned soldier? Married, desires first class position at once. Wide experience and good reference. MELVIN F. HORNE, R. 1, Box 97, Templeton, Wis.

Thoroughly experienced farm manager. Crop rotation, machinery, A. R. O. fitting and testing. Good executive, college graduate, age 29, married. Eastern states only. Address BOX 374, care Hoard's Dairyman. 24-3

Wanted—Position as dairyman or manager on good dairy farm. Have had three years' college work in dairy husbandry and practical experience with dairy cattle and modern equipment. Married, 23 years old and not afraid of work. To make the dairy pay is my aim. Address BOX 376, care Hoard's Dairyman. 24-2

Honorably discharged soldier wants position on dairy farm at once where only the best of help is kept and barns with modern equipments. I am strong and a fast worker. I do not use liquor or tobacco or bad language. I have done dairying and farming all my life. I am an A No.-1 man, good calf raiser, good dry hand milker, good caretaker of all stock. I expect good room and board and \$75 per month. Give full description and location of farm in first letter. Also state how, where and by whom help is boarded, and how many men you keep. LOCK BOX 43, Niles, Mich.

Position wanted as dairyman by married man, age 30. No children. Both good dry hand milkers. Life experience in dairy farming. Can treat common diseases among cattle. Good milking machine operator. Understand all up-to-date farm machinery. Will accept position anywhere. Can furnish best of reference. State full particulars and highest wages in first letter. Address BOX 375, care Hoard's Dairyman.

Weights of Milk and Cream

Investigation by the U. S. Department of Agriculture shows that the weights of milk and cream containing various amounts of fat are approximately as follows, at a temperature of 68 degrees:

Per cent of fat	Weight of one gallon	Per cent of fat	Weight of one gallon
.025	8.63	15.0	8.47
3.0	8.60	20.0	8.43
3.5	8.59	25.0	8.39
4.0	8.58	30.0	8.35
5.0	8.58	35.0	8.31
6.0	8.57	40.0	8.28

For all practical purposes the weight of milk testing from 3 to 5 per cent butterfat may be figured at 8.6 pounds per gallon.

Kansas Creamery Short Course

As usual, this winter the Dairy Husbandry Department of the Kansas State Agricultural College at Manhattan, Kansas, will offer an eight weeks' creamery short course. This course is open to all interested in dairying, including women, and is intended to fit men for buttermakers, ice cream makers, and market milk employees. Work is also given in cheesemaking and dairy farming subjects. Men who have been in practical work for several years will find this two months' schooling a valuable chance to learn the scientific side of the manufacture of dairy products.

Work begins January 6, 1919, and closes March 1, 1919.

For additional information, address Department of Dairy Husbandry, Kansas State Agricultural College, Manhattan, Kansas.

A Million Farmers Back It

o make extension work effective as been found necessary to or- ze county councils, county boards f agriculture, and farm bureaus to perate with the state colleges of culture and the United States De- ment of Agriculture in employing unty and a home demonstration t and in aiding them in carrying heir work. These county organ- ons are generally composed of ers and others in the county in- sted in agriculture. As a part of organization, there are local clubs committees who aid the agent in different communities of his coun- At present there are more than 0,000 farmers who are members of organizations assisting the county agent in his work.

In the South, special emphasis is laid upon community organizations of farmers. These are increasing rapidly and involve the work among men, women, and children. The tendency and general policy of the work in most of the southern states is gradually to form central county organizations, composed of representatives of the community organizations, to deal, in co-operation with the county agents, with such problems as are county-wide in their nature.

In the northern and western states the county organization is usually known as a farm bureau. The farm bureau is a non-partisan, non-sectarian, non-secret organization representing the whole farming population of a county, men and women alike, and acting as a clearing house for every other association interested in work with rural people. Its primary purposes are:

(1) To bring to the agent the counsel and advice of the best farmers in the county as to what ought to be done and how to do it.

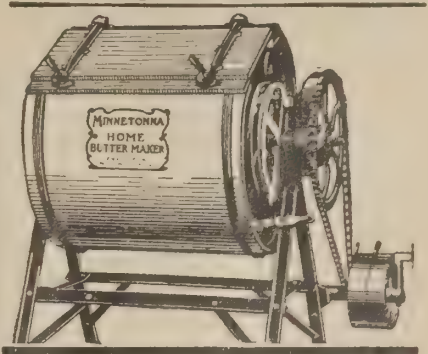
(2) To provide an organization for easily and quickly reaching every community in the county with information of value to that community or to the county as a whole.

(3) To provide a plan for organized self-help, enlisting the co-operation of all farmers interested in carrying out a county agricultural program of work.

Membership is open to all residents of the county directly interested in agriculture, men and women alike. A small membership fee (usually \$1) is charged.

While the original conception of the farm bureau was an aid to county agent work, it was quickly realized that it has a broader field, and now it is coming to be recognized as the official agricultural body interested in promoting all that pertains to a better and more prosperous rural life.—U. S. Department of Agriculture.

The county that is best organized to further its own agricultural interests this year and next and in the future will command the attention of the buying public. That means profit.



Make Butter The New Way!

Butter making is now as easy as separating cream. Wonderful new Minnetonna Butter Maker puts churn to shame. Saves half to three-fourths of your time in making butter. Churns, washes, works, salts, and moistens 3 pounds to 25 pounds or more, all in same machine in less than 25 minutes.

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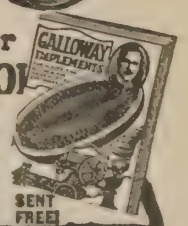
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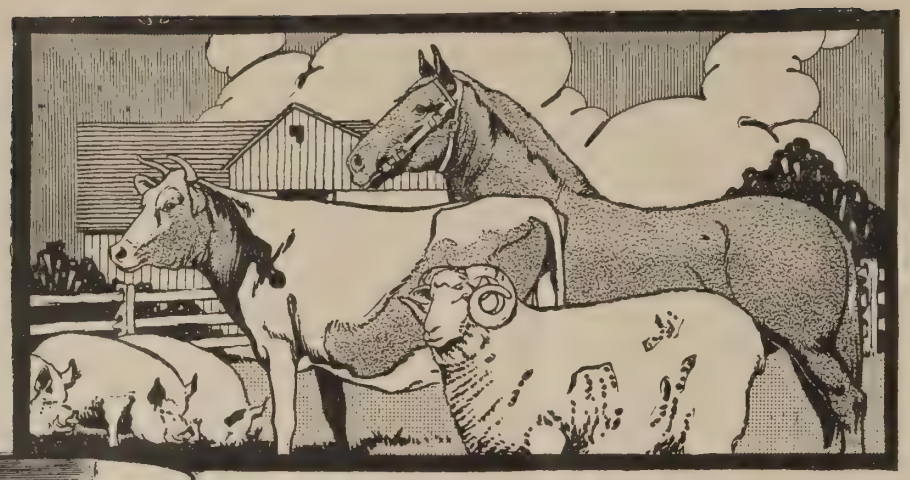
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Rye and Corn Feeds
Screenings, Mill Oats.

Milwaukee, Wis., 86 Michigan St.





ARE YOU FEEDING WORMS?

FEEDING wormy animals is wasting food. They eat more but they do not thrive.

Every farmer wants to be up to the limit of production now while the hungry world is calling for food.

Make every pound of feed you feed do its whole duty.

Drive out the worms and condition your stock for growth, for work—for beef, mutton and pork, by feeding Dr. Hess Stock Tonic.

Eliminate Waste and Increase Production

Condition your cows for calving by feeding Dr. Hess Stock Tonic before freshing. Then feed it regularly to increase the flow of milk. It lengthens the milking period.

It means healthy, thrifty animals free from worms. It contains *Tonics to improve the appetite, Laxatives for the bowels, Vermifuges to expel worms, Aids for digestion, Ingredients which have a favorable action on the liver and kidneys.*

The dealer in your town will sell you Dr. Hess Stock Tonic according to your needs and refund your money if it does not do what is claimed. Buy 2 lbs. for each average hog, 5 lbs. for each horse, cow or steer, to start with. Feed as directed and see how your animals thrive.

Why pay the peddler twice my price?

25-lb. pail, $2.25; 100-lb. drum, $7.50

Except in the far West, South and Canada.

Smaller packages in proportion.

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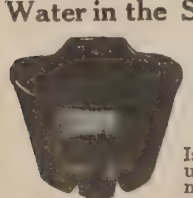
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Water in the Stable a Nceessity

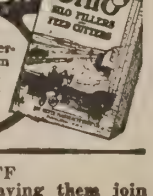


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Cow Waters Herself



with this wonderful new Libbey Automatic Water Bowl. Animal moves lever, opening water valve, when it starts to drink. Lever swings back, closing valve, when animal stops drinking.

15% More Milk

Milk is 87% water, and cows cannot give their greatest yield unless they have plenty of water constantly within reach. Farmers who use Libbey Bowls report an increase of 15% to 20%, which soon pays for the bowls.

Libbey Automatic Water Bowls

are the most sanitary and successful ever invented. Each bowl controls its own water supply, operated entirely by cow, and may be put at different heights, or in any stall or pen. No float tank required. Cannot overflow; cannot get out of order. Almost no water left in bowl to become stagnant. They save labor and feed and increase milk. Prevent spread of contagious diseases, as each cow has her own bowl and no water can pass from one to another, as with old-style bowls. Very simple and easy to install. Write for circular and prices, also FREE DAILY MILK AND FEED RECORD.

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MAKE More Milk Money

by providing your good cows with abundant pure, cold water. Install a

BETHALTO WATER SYSTEM

Simply made, it stays in order. No freezing troubles. Puts running water, on tap, in your pastures, stables, dairy, kitchen, bathroom, garden—wherever you want it, whenever you want it. Not expensive.

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116 Robert Avenue, St. Louis, Mo.

When writing to advertisers please mention Hoard's Dairyman.

Contagious Abortion of Cattle

(Continued from page 808)

and apparently healthy. In norma calving the membranes are quickl expelled. During pregnancy the serve as the attachment betwee mother and off spring rough whic the latter receives its nourishmen At the time of birth, however, tha attachment is broken and the youn animal begins to lead an independer existence, whereupon the membrane have no further function and becom dead tissue. Normally they are quickl ly expelled, but where there has bee disease the resulting inflammator process causes adhesions between th membranes and the uterus of th mother, which are not easily broke down. These dead tissues soon b come infected with the germs whic cause decomposition. If proper trea ment is not given, the protrudin parts rot through and drop away, an the uterus closes upon the retaine portions.

Nature attempts to remove th rotting mass, sealed up within th uterus, through absorption, and th poisonous products of decompositio and even the pus-producing germ themselves, are taken up by th blood. Blood poisoning results. The is an offensive, purulent dischar from the genital organs, the anim rapidly loses condition, and death not uncommon. If the animal h sufficient resistance to survive, the i flammation within the uterus caus a thickening of its walls and the d struction of its lining membranes, that there remains but a thick-wall sac containing a quantity of fo smelling pus. This completely d stroys the breeding function and t animal is rendered permanently ste ile. If she finally survives, she s dom regains her former condition health. These serious results c often be prevented and the breedi function preserved to the animal adequate treatment at the time abortion, but neglect has caused t ruin of many a fine cow.

Barrenness, or sterility, is anoth common accompaniment of abortio disease. It may result, as just d scribed, from structural change which render conception mechanica impossible. Furthermore, it has be discovered that the formation of cys within the ovaries operates to prevet breeding and, again, a chronic i flammation may have the same resu Experts are frequently able to remo these hindrances to breeding, b occasionally a case of barrenness s found where no structural defect c be detected and no other cause can discovered. The reproductive functi is one of life's processes so subtle i its operations that much still r mains a mystery, and causes of st ility can not always be assigned treatment prescribed.

Methods of Spread

It is necessary, before we can p ceed intelligently to control a disea to understand how the germs gain trance to the animal body, and methods by which they are carr from herd to herd. It has long b thought that the germs of abort disease were introduced directly i the organs of the female by the b at the time of service. Many ca cannot be accounted for in any ot way. More recently, however, in tigators have come to believe that fection may also enter through digestive system by means of c taminated food and water. In former case, the bull serves an fected cow; his genital organs bec contaminated, and he transmits infection mechanically to the n cow he serves. In the latter, the fected discharges from an abort cow contaminate the food, the ge

a carried into the digestive system, were they are taken up by the blood a l transported to the pregnant uter- u there to set up the disease which l er results in the death and expul- s n of the calf. In either case it is t infected cow that is the dangerous f tor. Infection is doubtless most f quently conveyed from herd to h d by the apparently normal but in- f ted female. The germs quickly die i the body of the bull and when once i ected, he does not become a con- s nt disseminator of the disease. P per treatment will render him s e again as a sire.—Circular 69, K nsas College of Agriculture.

[To be continued]

Eliminating the Middleman

HOARD'S DAIRYMAN:—To-day's pa- p says that the National Grange at S acuse recommends: "That the p sent system of marketing and dis- t ution is clumsy, wasteful, and in- e cient and should be abolished and t t unnecessary middlemen should b eliminated."

nasmuch as the difference between t farmers' 35 cents and the con- s ner's dollar is the price of distri- b tion, this is sufficient evidence of c msiness and inefficiency. And the p blem should be worked out scien- tically by expert economists.

Direct trading is no new thing in t world, but one thing has occurred t me, namely: The railroads, char- t ed for transportation and not for t imate distribution as are the ex- p ss companies or the mail service, a now under government manage- m nt and some reforms and efficien- c s have been effected. It is apparent t at the rights of way in all cities c ver large areas of real estate which i largely unused except for trackage. Why cannot this space be used for i mense produce terminals, munici- pal and other markets, cold storage plants, dehydrating facilities, etc?

A few days ago I laid aside a clipping from the North American of Philadelphia which I now send you herewith. And I would like to know how much the farmer gets for this same New York milk and just what are the facts? Incidentally, I note that the city papers do nothing to correct the prejudice against "those horrid old farmers who make our living cost so much". Even the Treasury Department's report on profiteering was edited for the papers under the headline: *"Large Profits of Dairies"* and said "The small dairymen made the largest percentages of increased profits—500% and more". What is the truth?

Le Raysville, Pa. H. G. N.

There is no question as to the need for a reformation of our system of distribution but just how it will be accomplished in a practical manner is the big question. It is mighty easy to criticize the present and prevailing methods but to get a workable substitute is what is most needed. We thought we had something along this line when the parcel post was established but experience teaches us that it has proven a mere drop in the bucket.

The larger question to be considered is as to whether the middleman's service is necessary; and if so, whether his charges are or are not exorbitant. On this subject we have had more discussion than we have had information, more noise than light. Our particular attention has been challenged by the cost of the delivery of milk. It seems inconceivable that it should cost as much to get the product to the consumer as it does to actually produce it on the farm, but it seems to us that this is not so much a question for discussion as it is a matter of proof, and thus far sufficient or adequate proof is lacking. Also, it has not been fully determined as yet as to whether the present system of distribution can be so changed as to effect the desired economies. As long as consumers demand a particular kind of service and will insist upon the liberty of choosing their particular milk distributor, they will have to pay the expenses of such delivery.

The unfortunate attitude of the average city newspaper, in so far as it concerns the producer, is due to a lack of understanding of conditions and the sorry fact that the majority of such papers are seeking to give their readers prejudicial information; or, rather, they are catering to their passions and prejudices rather than giving information. They seek to be known as the protector and friend of the consumer, whereas they may actually be his worst enemy in so far as ultimate effect is concerned.

In reply to the particular inquiry, we would say that the December price in New York will return the producer approximately 9 cents per quart for milk testing 3 per cent.

Show Way to Cheaper Pork

Pennsylvania farm bureaus, working with a number of hog raisers, have used feeding experiments conducted by the Pennsylvania State College to demonstrate that at least one-half of the grain feed bill in raising hogs can be saved by providing green feed throughout the growing season.

Jersey Cattle Notes

For week ending Dec. 13, 1918:

Number of animals registered: Bulls, 204; cows, 628; total, 832.

Number of transfers recorded: Bulls, 226; cows, 657; total, 883.

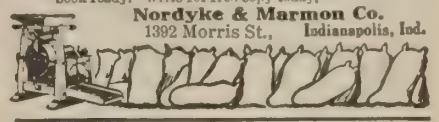
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Genuine **French Buhr Mill**

with imported French Buhr Stones. A boy can operate and keep it in order. Folks bring grain for miles to get it ground in this more digestible way by cleanest, fastest farm mill made. FREE TRIAL offer and brand new mill book ready. Write for free copy today.

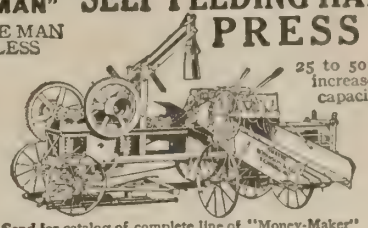
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HEAPS OF DIFFERENCE

BUFFALO CORN GLUTEN FEED

Very Highly Digestible

A FEED

Low in Digestibility



What Do These Piles Mean?

THEY are intended to impress upon you how important a thing the digestibility of feed is. Because too many men, usually those who can least afford to pay for poor choices, are influenced in their feed buying by the size of the bag.

Every dairyman must know, surely, that his cows can make milk from only that part of their feed which they can digest, and cannot make milk from the part they cannot digest.

Why is it, then, that dairymen don't pay more attention to *the per cent digestible* of the feed than they do, and less attention to how feeds compare in apparent bulk?

Suppose you are at your feed store to buy feed. The dealer shows you two piles of two different kinds of feed, and each pile weighs a ton. But one kind is nearly all digestible and the other is not.

You can't tell much about how they compare in digestibility by looking at them. . . .

But you certainly can by feeding them. There's a heap of difference in the amount of milk you get.

You naturally would expect to get the most milk from the Buffalo Corn Gluten Feed, because it is so highly digestible, and you know all the time that it's only the digestible part of feed that makes milk.

The next time you go for feed, tell your dealer you want the best there is.

NEW YORK **CORN PRODUCTS REFINING COMPANY** CHICAGO



A Healthy Ayrshire

This champion three-year-old is a notable example of PERFECT HEALTH. Her yearly record is 15,056 lbs. of milk and 589.2 lbs. of butter fat.

Join the "HEALTHY COW" Movement

Present-day prices for dairy products are making dairymen everywhere think more about the milk production of their cows.

A cow in bad health is an expense, and the higher milk prices rise, the greater the loss. *The poor producer must go.*

The "poor milker" is usually non-productive because of some disorder of the digestive or genital organs that is sapping her health and strength. Even apparently slight troubles of this nature usually lead to more serious ailments so common among dairy cows, such as Abortion, Retained Afterbirth, Barrenness, Scouring, Bunches, etc.

What to Do with Sick Cows

A sick cow should be treated like a sick person—with medicine that will correct the trouble. Kow-Kure is the most valuable and best known remedy for the prevention or treatment of cow ailments because its medicinal properties act on the organs where disease originates.

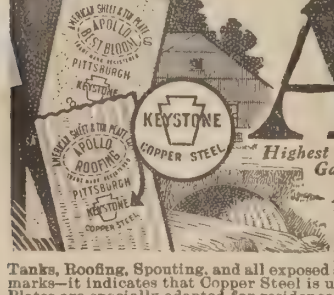
There will be no trouble about the milk flow of a healthy cow; keep **yours** healthy by having KOW-KURE on hand always. Feed dealers and druggists sell it, in 60c, and $1.20 package.

Our great, free book, "THE HOME COW DOCTOR," is yours for the asking. It is full of valuable points for cow owners.

DAIRY ASSOCIATION CO.
Lyndonville, Vermont



KEYSTONE COPPER STEEL



Apollo

Highest quality—Galvanized

Roofing Products

Afford best protection obtainable from fire, lightning and storms. Durable—rust-resistant.

Made from APOLLO-KEYSTONE Copper Steel Galvanized Sheets—the highest quality Galvanized Sheets manufactured for Culverts, Silos, Tanks, Roofing, Spouting, and all exposed sheet metal work. Look for the Keystone added below regular trade marks—it indicates that Copper Steel is used. Sold by leading dealers. KEYSTONE Copper Steel Roofing Tin Plates are specially adapted for residences and public buildings. Send for free "Better Buildings" booklet.

AMERICAN SHEET AND TIN PLATE COMPANY, General Offices: Frick Building, Pittsburgh, Pa.

20 to 25% Bigger Winter Milk Yields

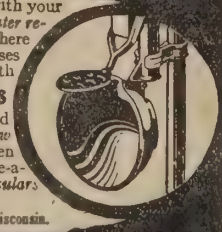


WITH pure, rich milk analyzing 87% water—and with your winter herd *getting only ¼ to ⅓ of their natural water requirement from icy outdoor tanks*, you can see where cold weather cow-thirst is one of the biggest causes of your year-after-year winter milk shortages. With

Simplex Improved Water Bowls

your cows drink "to their hearts' content" day and night. Result—*20 to 25% more milk from every cow all through the housed-in season.* And no more frozen tanks—no tank-heater makeshifts—no more twice-a-day "herding out" periods. *Write for Full Particulars on the Only Drop-Down Water Bowl on the Market.*

F. Rassmann Manufacturing Co., 31 Mill Street, Beaver Dam, Wisconsin.



The Only "Drop Clean" Water Bowl Made

Manurial Values of Dairy Feeds

When feeding dairy cattle, and especially if purchasing high priced concentrates, it is well to consider the fertilizing value as well as the feeding value of feeds. Just as the value of a commercial fertilizer depends on the amount of available nitrogen, phosphoric acid, and potash it contains, so, to a large extent, does the value of manure depend upon the amounts of nitrogen, phosphoric acid, and potassium contained in the feed consumed by the animals. Those feeds which contain relatively large amounts of the three important plant foods make good manures and those which contain small amounts make poor manures.

The following tabulation shows the equivalents of nitrate of soda, 16 per cent acid phosphate, and muriate of potash contained in some of the common dairy feeds. The amounts of nitrogen, phosphoric acid, and potash contained in these feeds were taken from Henry & Morrison's "Feeds and Feeding", appendix, Table III. The nitrogen was then calculated as nitrate of soda, the phosphoric acid as 16 per cent acid phosphate, and the potassium as muriate of potash because these are the more common forms in which these constituents are found in commercial fertilizers.

One ton of corn contains the equi lent of 196 lbs. of nitrate of soda, lbs. of 16 per cent acid phosphate, a 12 lbs. of muriate of potash.

One ton of oats contains the equi lent of 240 lbs. of nitrate of soda, lbs. of 16 per cent acid phosphate, a 18 lbs. of muriate of potash.

One ton of bran contains the equi lent of 310 lbs. of nitrate of soda, lbs. of 16 per cent acid phosphate, a 52 lbs. of muriate of potash.

One ton of oil meal contains equivalent of 716 lbs. of nitrate soda, 236 lbs. of 16 per cent acid ph phate, and 40 lbs. of muriate of p ash.

One ton of cottonseed meal conta the equivalent of 774 lbs. of nitrate soda, 354 lbs. of 16 per cent acid ph phate, 56 lbs. of muriate of potash.

One ton of clover hay contains equivalent of 248 lbs. of nitrate soda, 52 lbs. of 16 per cent acid ph phate, 52 lbs. of muriate of potash

One ton of alfalfa hay contains equivalent of 288 lbs. of nitrate soda, 72 lbs. of 16 per cent acid ph phate, 70 lbs. of muriate of potash.

Figuring the Manurial Value of Fe

Calculating the manurial value these feeds at the present high pri of fertilizers (nitrate of soda 5 ce a pound, acid phosphate 1.2 cent pound, and muriate of potash cents a pound) corn would hav manurial value of $13.90 per t oats, $17.80 per ton; bran, $33.23 ton; oil meal, $48.63 per ton; cott seed meal, $56.95 per ton; clover h $26.02 per ton; and alfalfa hay, $3 per ton. Although one would not justified in buying nitrogen and p ash in commercial fertilizers at present prices, the above figures sh the comparative value of these fe as fertilizers, and should be use in determining the relative values the different feeds. As a rule, h ever, it is not necessary to add ni gen to the soil, if legumes are gr in rotation with other crops.

Manure Should Be Carefully Sa

One must remember that not all fertilizing constituents in a feed recovered in the manure. Averag the results obtained at the Ohio periment Station and those repo in Henry & Morrison's "Feeds Feeding", we find that approxima 75 per cent of the nitrogen, 80 cent of the phosphoric acid, 80 cent of the potash in the feed consu by a dairy cow are recovered in manure. In addition to the const ents which are lost in the proces digestion, much may be lost afterw Much of the waste manurial va through the loss of urine, by leach and by fermentation, may be vented by hauling the manure rectly from the stables and spread it on the fields. When this is not p ticable the manure should be kept der cover and compacted by allow the animals to run over it.—R GRADY, in Ohio Experiment Sta Monthly Bulletin.

Northern Ohio Note and Comment

HOARD'S DAIRYMAN:—Rapid char in milk transportation to the citie Northern Ohio and its distributio the consumers are fast being inau rated. Out of Cleveland, in every rection, one now finds paved road brick or concrete extending from to 100 miles, and these are work many changes in placing country duce on the market, direct from farms, by means of the auto tr Not the least have been the motor trucks, huge double decked aff carrying into the city a hundred ty-quart cans of milk from 25 to 4 more miles away. These trucks

by different milk companies that ge a rate for carriage about a h less than the railway com- es and deliver the milk to the s in the city without charge for age. Along their country routes, sees the small milk platform at arms, while at the principal four rs the dairymen meet the trucks, ng from farms more or less te, exchange their full cans for y ones, and then the truck moves the next loading point, and final- aches the city about 10 a. m. of the large city dealers, with neries in the country, load the s at their own plants and take nmense loads. Such a truck is ng as I am writing this, carry- 25 forty-quart cans.

me trucks gather in part for city concern, and the balance to the small retailers who take share from the truck. Yet an- innovation is that of the dairy- who takes his Ford truck to de- the milk of his dairy, and pos- that of a neighbor, to grocers in city who are retailing "fresh " to their customers direct. This is rapidly extending as these retail at two and three cents a t below the regular prices. A is fast springing up, men with trucks scouring the country for poultry, fruits, vegetables, and ike, that is proving of great bene- the farmers. They are receiving to city prices for their produce, ut the cost of shipping and the rtainty of returns from the con- nent.

e unsatisfactory plan of making prices in the past, the old meth- f milk distribution, and the ad- of the milk truck have led to the ation of a very large milk con- in the city, now known as the r Meadow Creamery Company. company consists of something 100 retail grocers of the city, taking $1,000 worth of stock. A central plant was erected in the t and furnished throughout with most modern dairy apparatus, ng about $50,000. Here all milk ought to be pasteurized, bottled, then distributed among the gro- and small dealers who are now coming to buy of the new com- instead of buying in the coun- as before. The company does no ling, but hotels and restaurants now large patrons.

his new company started out in odest way, first knowing where could get a country supply and y demand. They send their trucks the country some 25 miles or so g different routes and five hun- -can trucks are now employed. is also shipped in by train. On mber 1, the company was getting thing like 750 cans a day. The e now paid the farmers is the one by the United States agents and n the embargo is lifted the com- will deal with the price com- ee of the Northern Ohio Protec- League.

he new company asks for little it. They pay every 15 days so e is never but 15 days' milk unpaid not 45 days as by the older cus- Neither does the new company pt accounts. Milk is spot cash y day on delivery; they do not to use so much capital. The com- y says that it is going to sell a so good, and at a living price for that there will be no occasion to r their stock or make tardy pay- ts to farmers. There seems to be eeling of confidence among the ners, and milk along their routes is g offered faster than the company now find place for. Its trade is dly extending, and will soon reach ll 1,000 cans per day, and all this showing at the close of the first month.

There seems to be a turn of the tide in selling train loads of cows in this section for export to somewhere in the United States and the farmers themselves now seem to be buying up all offerings, notably since prices of milk at the farms gradually went up from 28 to 35½ cents, where it is to stay for four months. There does not seem to be any great let-up to the auction sale of cows or any falling in price. The registered cow brings little more than a fine grade cow that promises as good milk yield. These grades are bringing from $125 to $175.

Ohio. JOHN GOULD.

"I've noticed", said the successful old farmer, "we're apt to value most those things which come to us because we go after 'em. And those who haven't the energy and force and fight to go after things, work overtime trying to convince the rest of the world that they have been cruelly left on the back door-step of Time."

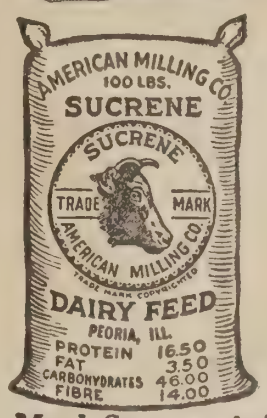
What We Dairymen Know About SUCRENE DAIRY FEED



Results Prove Quality

During the 18 years Sucrene Dairy Feed has been on the market its milk producing ability has been proved to the satisfaction of thousands of dairymen. Leaders in the dairying business have adopted it only after thorough tests made in their own way, as compared with other feeds. Their uniform experience is that:

Sucrene fed cows give more milk at less feed cost;
Sucrene fed cows produce fine flavored butter;
Sucrene fed cows are less liable to calving troubles;
Sucrene fed cows on pasture give more milk than cows on pasture alone and are better producers all year;
All cows enjoy Sucrene Dairy Feed because of its variety, palatability and easy digestibility.



Much Stronger in Digestible Protein Than Any Grain or Ordinary Ration Sucrene Dairy Feed takes the place of all other concentrates. The guaranteed analysis of 16½% Protein, 3½% Fat, 46% Carbohydrates and 14% Fibre constitutes a scientifically balanced milk producing ration. It brings a substantial increase of milk flow, above the ordinary ration, when fed only with the usual roughage, because it supplies the cow, every day, with the proper milk producing nutrients in correct proportions.

High feeding quality in Sucrene Dairy Feed is secured by a proper combination of the following materials: Cottonseed Meal, Germ Oil Meal, Cocoanut Meal, Corn Distillers' Dried Grains, Ground and Bolted Grain Screenings, Clipped Oat By-Product (for necessary bulk), Pure Cane Molasses, Calcium Carbonate and Salt.

We would like to give you the experiences of other dairymen with Sucrene Dairy Feed. Carefully prepared illustrated literature sent free on request. Fill out and mail us coupon or write us a postal.

American Milling Company, Dept. 4, Peoria, Ill.

Sucrene Feeds for All Live Stock and Poultry—18 Years the Standard

It costs less to make milk **with Sucrene Dairy Feed. It costs less to keep cows in good condition. Order a ton from your dealer. If he can not supply you write us his name and we will see that you are supplied.**

Please send me illustrated literature on feeds checked below: (4)

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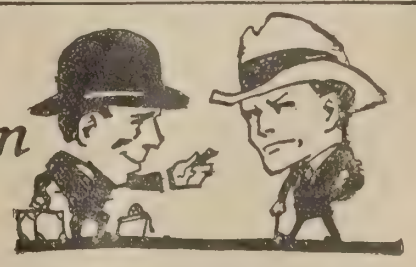
My Dealer's Name.....

P. O......*State*.....

My Name.....

P. O......*State*.....

There's a Salesman from Virginia



who was chewing and swapping yarns with the men on the Post Office corner. "Have a chew," says he to Jake. Jake doesn't think he's chewing unless his cheek bulges out like he had the mumps. "Call *that* a chew?" he snorts. "Sure!" says the salesman. "This is Real Gravely. That small chew satisfies, and the longer you chew it the better it tastes. That's why it doesn't cost anything extra to chew this class of tobacco."

• • • •

It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND

Real Gravely Chewing Plug

each piece packed in a pouch

P. B. GRAVELY TOBACCO CO., DANVILLE, VA.

When Writing to Advertisers, Mention Hoard's Dairyman



for Calf Scours

Save every Calf. High meat and milk prices make control of Calf Scours doubly necessary.

Scouring calves indicate a germ infection that is likely to run through your entire herd with serious losses. The loss of one calf is bad enough, but nothing compared to your loss when the infection spreads, as it will unless checked. Then your year's work in building up your herd is wasted and your profits lost.

Our method of handling calves will promptly stop scours and finally banish it from the premises. One good calf saved will repay the expense of protecting your stock for a long time against the disease.

B-K, the powerful germicide and disinfectant, is especially adapted to this work. B-K contains no poison, acid nor oil. When used internally it destroys germs, heals inflamed membranes, relieves irritation, restores healthy action. B-K may be given freely in the milk and drinking water.

The B-K plan is simple and practical. It is giving wonderful results. A well known breeder of registered stock says:

"We found vaccines of no value in stopping calf scours, but the prompt, efficient treatment with B-K checked the trouble quickly and saved us the loss of many valuable calves."

B-K is sold by Dairy and Farm Supply Dealers, General Stores, Druggists, etc. If your dealer does not have it, send us his name.

There are over "145 Farm Uses" for B-K

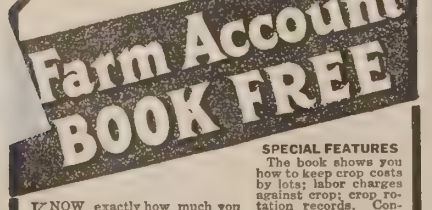
FREE BULLETINS: Send for our valuable bulletin No. 136, "Calf Scours," also information on other farm uses and our "Trial Offer."

General Laboratories

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Farm Account BOOK FREE

KNOW exactly how much you spend for what you buy and exactly how much you take in for what you sell. Keep track of every account easily with Bickmore's Farm Account Book. Enables you to file accurate income tax and helps you guard your profits. With the book we will send you a trial size lot of

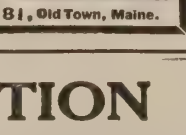
Bickmore's Gall Cure

--standard remedy for bruises, cuts, rope burns or any wounds on horses or cattle. Cures collar and saddle galls while the horse works--no lost time! Fine for chapped teats on cows. Heals mange and other skin diseases. Note the work-horse trademark.

Send a letter now for Farm Account Book and Trial Size of Bickmore's Gall Cure. Please enclose 10c to help pay for postage and packing. Address,

SPECIAL FEATURES

The book shows you how to keep crop costs by lots; labor charges against crop; crop rotation records. Contains also a table to keep accurate record of your breeding--dates, etc. Also a Workman's Time Sheet and Wage Table--saves a world of bother. Also pages for inventory; table of standard weights of all farm products. Also directions as to how to measure land; corn on cob in cribs; hay in different style stacks, etc., etc.



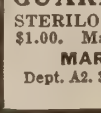
THE BICKMORE CO., Box 81, Old Town, Maine.

ABORTION

Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.

Dr. George Hollabush, Fort Atkinson, Wis.

ABORTION IN CATTLE



PREVENTED AND CURED PERFECTLY
YOUR COWS MADE PROMPT REGULAR BREEDERS BY
STERILOID

Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

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Dept. A2. 398-408 Columbus Ave., New York City
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This Beats Dehorning

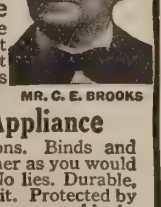
Fleming's Chemical Hornstop, used on very young calves, prevents growth of horns.

A 50 Cent Tube for 25 Calves

Horns never grow if Hornstop is used early enough. Money back if not satisfactory. Our "Veterinary Adviser" Free if asked for.

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MR. C. E. BROOKS

Brooks' Rupture Appliance

Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.

Brooks' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads.

Brooks Appliance Co., 467 State St., Marshall, Mich.

Shrink in Milk

I have a choice grade Guernsey cow that dropped her calf Aug. 17 and cleaned O. K. She gave about 16 quarts of milk per day up to September 20 when she gradually dropped off until now she gives about 4 quarts per day and has developed the hardest milker we have. Formerly she was a good, free, easy milker. I bred her October 10. Can I do anything to bring her back to her milk?

Wakefield, Mich. W. J. W.

The fact that the cow has become a hard milker would indicate that structures or growths have formed in the ducts of the teats or that the udder has become somewhat affected by mammitis. Sterilized dilators should be used to increase the calibre of the milk ducts or growths should be removed. Have a veterinarian make an examination and he may decide to operate with a teat bistoury, if dilators (teat plugs) do not suffice. Meanwhile massage the udder well at milking time, which should be three times daily in such a case.

Abortion

Last winter one of my cows lost her calf when about 3½ months along; another when about 7 months along. And now lately one lost her calf 5 months along. Please tell me what is the trouble.

Tony, Wis. E. L. K.

The cows no doubt are affected with the contagious abortion disease, regarding which a bulletin recently has been published by the agricultural experiment station at Madison, Wis. Apply to the station for a copy and follow its instructions as to treatment. Meanwhile, isolate the cows, have them disinfected by a veterinarian and also cleanse, disinfect, and whitewash the stable under his direction.

Some farmers never think of painting their farm machinery. They should remember that paint is not only a beautifier, but a preserver.

Retained Afterbirth

When the membranes remain in the uterus of a cow and decompose, inflammation of the lining of the womb may be caused, and this, with the absorption into the blood of the products of putrefaction, leads to ill-health, emaciation, diminished milk supply failure to breed, and often blood poisoning and death.

Hood Farm Breeding Powder

causes the afterbirth to come away naturally in a few days, and thoroughly cleanses and disinfects the parts, leaving the cow in normal condition for breeding.

"After four years of experience I find Hood Farm Breeding Powder very necessary, for keeping my herd from aborting. It cleans the cows out quickly and clean, they breed early and are sure to stand."

Stuart Bird, Cropper, Ky.

Try Hood Farm Breeding Powder once and you will never again forcibly remove the afterbirth.

Prices prepaid $1.15, $2.75 and $5.00. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75. Mention this paper.

C. I. HOOD CO., Lowell, Mass.

"What Will the Baby be Like?"

A question every expectant mother asks a dozen times a day. Does she know that the answer largely depends on her own health, and that her own intestinal system, which is especially liable to constipation, must be kept clean or it will encourage the breeding of serious disease? There is sound medical advice to every prospective mother in a booklet called

"The Days That Go Before"

which will be sent on request, free, to any address. Write today — it may save your baby's future.

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
50 Broadway, New York

GUERNSEYS

ISLAND **GUERNSEYS** FA

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, aver 516.09 lbs. fat.
17 of above 24, all ages, every record o 500 lbs. fat, 553.78 lbs.
10 first calf heifers included in abov average 10025.2 lbs. milk and 50 lbs. fat.

Bull Calves of this breeding for sale, t of cows of correct type and proven proc tion. Correspondence solicited. Inspec invited. Address

ISLAND A. N. HATHWAY, Herdsman, Floodwood, Minn. MI

SWEET SPRINGS GUERNSE

Herd Bull—Jacqueminot of Linda Vista
Sire—Langwater May King.
Dam—Langwater Rosie. 72423 lbs. fa

A number of bull calves six weeks to e year old, sired by this fine bull for sa reasonable prices; also a few cows and h ers each year.

Herd Regularly Tested For Tuberculosi

SWEET SPRINGS FAR
TROY, OHIO.

RAEMELTON FARM QUALITY BREEDING VALUE GUERNSEYS

Choice Yo BULL

Backed by Prod at reasonable Raemelton Fa Mansfield, O

619 POUNDS F

is the average of our first Advanced Register Recor

FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sir d made 655 pounds fat; dam made 488 pounds and cop two calves within year. Five nearest dams ave pounds fat A. R. Calf is a medium fawn and h well grown, straight in every way, clear nose. do the herd into which he goes a lot of good. Pr

Full particulars and pedigree from

Falcon's Flight Farms, Litchfield,

N. B.—No contagious abortion in over five y tuberculosis.

GRASSLAND FAR

Offers several exceptionally choice

Young Bulls For Sa

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.R.

GERAR GUERNSE

Production
Reproduction
Quality.....

Special offer until November 1st. Bull fro six weeks to one year for $75.00 to $400.00.

Louis McL. Merryman, Cockeysvill M

EDGEMOOR FAI

Santee, San Diego Co., Calif.
Offers at moderate prices choicely b

May Rose, Gov. of Cl and Glenwood Bull Ca

Also a few heifers bred to Edgemoor Her Stock guaranteed sound.

Pinehurst Guernseys Pro

with *farm care*. *70 A. R. records* average 465 The former home of *Glenwood Boy of Hadd* where *26 of his daughters* were bred, whose *A. R.* ords average *554 lbs. fat*. His daughter *Dairymaid Pinehurst* made *860* and *910 lbs. fat*. Present he *a line bred Glenwood*, and *a line bred May Rose*.

E. W. Strawbridge, Moorestown, Burl. Co.

STOP LOSING CAL

You can **Stamp Abortion** OF YOUR HERD and **Keep It**

By the use of
DR. DAVID ROBER
"ANTI-ABORTIN

Small Expense.
Easily Applied. Sure Foo
Used successfully for 3 ye
Consult DR. DAVID ROBE about all animal ailme Information free. Se FREE copy of "The Specialist" with full information on Abortion

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UERNSEYS

ou want to increase your y profits you need to know ut the cows whose average duction, under tests super- d by State Agricultural ges, is three times as great as average of all dairy cows in the ed States. Ask for the "Story e Guernsey".

American Guernsey Cattle Club
x H Peterboro. N. H.

ernsey Bulls With A. R. Backing

1. Dropped April 22, 1918. Sire:— od King Regent 23641—3 A. R. daugh- overnor Chene breeding. Price $300.
2. Dropped Aug. 20, 1918. Sire:— Noble of Craigamoor 29215. Sold for t auction. May Rose blood. Price $250.
6. Dropped Sept. 29, 1918. Sire:— of Pencoyd 18901, a son of Imp. Secret. Price $200.

rom dams in A. R. or now on test. For ion and pedigree, write.

F FARM, LIBERTYVILLE, ILL.

ERGUE FARM GUERNSEYS
e offering now several choice young bulls ams are extra good producers. Our stock com- eeding and individuality. Also a few females Prices exceedingly low. New list ready. ated in Livingston Co. Sass Bros., Streator, Ill.

King of Columbia No. 34549

sire is a double grandson of Barrington's May 18312, purchased by U. S. Government. The records of his daughters with first calf not only he average first calf records of daughters of his e, Imp. May Rose King but also the average records of daughters of sons and other grand- mp. May Rose King. (See page 4 of Guernsey Journal July 1, 1918.) For Sale—young cows Columbia, also an occasional bull calf by him. lin tested, abortion free herd.

Farms, L. W. Sheldon, Manager, Fulton, New York.

gewater Farms

n the home of such noted Guernseys, as Cherry Ed water, Miranda of Edgewater, White Wing of ge ter, Imp. Queen Regent 4th, Imp. Topsey de rte , Miranda of Mapleton, Nellie Tostevin of Maple- 3: The Great Bull Imp. Holden 4th and many other ec nimals. We are offering a few choice Bull ve F. G. Benham & Son, Canandaigua, N. Y.

bor Hill Guernseys

We Bred and Developed
reed's Champion Roll of Honor Cow

nd Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 s. lk 785.89 lbs. fat Class CC. We offer a w ll calves carrying similar blood lines.
E HECHLER, Superintendent, Box 30, Roslyn, New York.

UERNSEYS

C ce young bulls of exceptionally good Adv. eg reeding for sale. Strong individuals and st s represented. Dams milking from 40 to 5 nds daily. Could spare a few young cows. W te for pedigrees and prices.
T W. POST, R. R. Station Owasco Lake, Ensenore, New York.

r Sale: Bull Calves

t months old. A. R. Dams. Sire a grand- on Dolly Dimple's May King of Langwater. ric Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

amont Guernseys

Headed by

Diavolo of Linda Vista he Great $10,000 Bull

C icest young bulls and several heifers for alt reasonable prices.
U. Bureau Animal Industry Health certi- ca with all animals over 6 mos. old.
HAARTZ, 10 High St., Boston, Mass.

reenway Farm Guernseys

WARE, MASS.

Yo g bulls of May Rose breeding out of A. R. ov and cows now on test. Herd tuberculin es . Prices low.
GEORGE H. TIMMINS, Prop.

he Mixter Farm

325 GUERNSEYS 325

E llent bull calves for sale at exceptionally low at it will pay you to visit our herd.
HARDWICK, MASSACHUSETTS.

LLSWOLD FARM

Shrewsbury, Mass.

R stered Guernsey bull calves for sale. Dams in Ad ced Registry and tuberculin tested. Prices right and imals guaranteed to suit. W. A. Cloues, Mgr.

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price —May Rose and Glenwood strains— write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam:—Florinda of Piedmont 39418, A. R. 3844. Record: 9,910.8 lbs. of milk and 458.9 lbs. of fat in class F. Now beginning retest in Class A.

This bull was born Aug. 1, 1917. He is large, bright and attractive, an excellent individual.

Write us for further information.

Mountain Bros., R. 5, Des Moines, Iowa.

A Bargain in Guernseys

I am offering for sale several excellent young bulls up to 9 months old, sons of Hilda's Pride of Riverside, he an A. R. son of Lord Waukesha. All of these youngsters are from A. R. dams. They are well grown and good straight individuals. I am also offering 4 heifers by the same sire; 3 are 15 months old, one 4 months old. My herd is accredited. These animals are priced to sell. Write at once for pedigrees and prices. **Maple Heights Guernsey Farm, Frank E. Swan, Wauwatosa, Wisconsin.**

Mound City Farm GUERNSEYS

At the present time we are offering two splendid young bulls 9 months old sired by Imp. Clara's Sequel who is a wonderful show bull and sire of 24 A. R. cows. The dam of one calf Alma Ethel has an A. R. record of 495 lbs. fat, class G. and 621 lbs. fat class A.A. sixth in the last class. Dam of the other calf Mabel Olive has an A. R. record of 494 lbs. fat class G. 837 lbs. fat class A. Also a few other young bulls. Write for sale list.
Mound City Farm, Chas. A. Wilkins, Platteville, Wis.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several yearling sons of Invincible of Walter Maple 36398, whose sire was a half brother to the World's Champion May Rilma and whose dam has an A. R. Record of 684 pounds of butterfat. These bulls out of some of our best cows. We are also offering some very choice yearling and two-year-old heifers both pure-bred and grade. Herd tuberculin tested and free from disease.
Tilden Farms, James H Murphy, Mgr., Delavan, Wisconsin.

He's Ready For Heavy Service

For Sale: A two-year-old son of Kedge Anchor of the Glen from a granddaughter of Imp. Raymond of the Preel VI. The dam was first and junior champion at the 1915 Wisconsin State Fair and a real dairy cow. The bull himself is a splendid individual, very well grown. He is a brother to Polly's Beauty, 774 lbs. fat at 4 yrs. (class leader) and to Kedge Anchor Queen of Sunny Side, 505.88 lbs. fat.

Write us for full information.
Maple Hill Farm, Fruit Bros., Waukesha, Wis.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.
John H. Williams, Park Farm, Waukesha, Wisconsin.

BIRCHWOOD GUERNSEYS

Young bulls for sale sired by May King's Vrangue of Ingleside No. 15430 who has ten A. R. daughters that have A. R. records that average about 600 lbs. fat and all but one of these were 2 and 3 year olds when the records were made. The dams of these bulls are officially tested. Herd on the state accredited list. Send for sale list. **M. L. WELLES, Rosendale, Wis.**

GUERNSEYS

Absolute Dispersion

of W. B. Quarton's Registered Guernseys at Algona, Iowa.

January 15th, 1919

26 YEKSA BRED GUERNSEYS 26

Including our four foundation cows and 16 of their female progeny. We were very careful to select for the foundation of our herd, 4 Yeksa bred females with both individuality and production and today that herd represents ten years of the most careful line breeding.

Six young bulls from 6 to 18 months old are included in the sale.

This is your opportunity to buy the best at your own price.

Write today for catalog.

W. B. Quarton, Owner, Algona, Ia.

Geo. V. Spiegel, Sale Manager.
Sale commences promptly at 2:00 P. M.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

LONE TREE FARM

GREEN LAKE, WIS.

Has in its Herd 15 A. R. Guernseys and 11 R. of M. Jerseys
And Carries About 16 Cows on Test.

To inquiries for BULL CALVES we give full, honest particulars and stand behind every animal sold.
Jersey Sire—A Son of Pogis 99th. Guernsey Sire, Langwater Islander.

We Are Offering 2 Registered Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by "Pencoyd's Golden May Secret" (39626) a son of Nella Jay 4th.
W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.
HOMER RUNDELL, LIVINGSTON, WISCONSIN.

SARNIA

Imported and Home Bred Guernseys

No more to spare from 1918 importations. Place your order early for heifers from 1919 importations.

Several high class bulls for sale from A. R. cows, and sired by best bulls money can buy.

Send for sale list.

Charles L. Hill & Son, - Rosendale, Wis.

Tratt Guernsey Herd

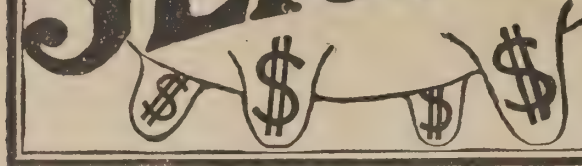
Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. records averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows with good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER, WIS.

JERSEYS



How much are a cow's teats worth?

This depends on how much it costs to fill the udder and how rich the yield in butter fat. Jerseys are famous for the richest let-down at the lowest possible up-keep. Jerseys are known as "the profit breed" because they are natural money makers. Beautiful and hardy, their perfection has been standardized for over two hundred years.

Ask breeders for pedigrees and prices. Let us send you some very unusual information about this record-breaking breed.

THE AMERICAN JERSEY CATTLE CLUB, 351 WEST 23rd STREET, NEW YORK CITY

SOPHIE'S TORMENTOR JERSEYS
"Production" Our Watchword

BULL CALF FOR SALE

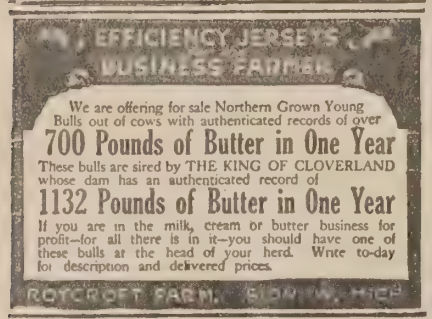
Our No. 252, dropped April 29, 1918; solid golden fawn with black tongue and switch; well grown for his age and an excellent individual in every respect.
SIRE—Lou's Torono 106614, whose first four daughters on test averaged 602.71 lbs. 85% butter, from 9,450.9 lbs. milk, at 1 yr. 11 mos. of age; all four finished in Class AA, having carried calf an average of 183 days.
DAM—Van's Warden Lady 336390, an excellent individual of extremely good dairy type. Write for particulars.

FAIRVIEW FARMS, INC.,
R. L. PIKE, Genl. Mgr. P.O. Box 1404
ATLANTA, GA.

MERIDALE JERSEYS

Several foundation herds of particular merit are available from the Meridale Herd this summer. They are fully described in a small leaflet, mailed on request.

AYER & McKINNEY
300 Chestnut Street, Philadelphia, Pa.



We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order.

Ashland Farm Dairy, Inc.
ALTON PARK, TENN.

Golden Sunset JERSEYS

We have a few elegant young bulls nearly ... for service at $100.00 each. The famous Belle-Golden Rosebays.
...nnis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

...neland Farm Jerseys

Big Milkers—Prize Winners.
100 Head - - 100 Head
A few for sale.
H. C. YOUNG, 33 and O Sts., Lincoln, Neb.

Burn Brae Jerseys
Ibsen's Chief

HERD SIRE
High class bulls for sale—all ages.
CHAS. A. PETERSON, ROSENDALE, Wis.

BULL FOR SALE

Island bred and ready for service. Dropped April 26th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 652,768 lbs. butter. Write for particulars or come and see him.
OAK GROVE JERSEY FARM,
W. M. KNIGHT, EAGLE, WISCONSIN.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

FOR SALE

Straight Island Bred 5-yr.-old granddaughter of Eminent and Noble of Oaklands. A show cow and producer. Bred to Mable's Noble King 146295, to freshen in January.
G. D. Gilbert, Ceylon Court Farm, Lake Geneva, Wisconsin.

Meadside Farms
Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred, Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

WE OFFER

Three Young Island Bred Cows

—strong in the blood of Oxford Lad, Oxford Majesty, Gamboge's Knight and Golden Maid's Prince,—which we are pricing attractively. They are carrying calves, sired by sons of Oxford Lad and Royal Majesty and will freshen during the winter. Address
FINCH FARM, - DAYTON, OHIO.

POLLED JERSEYS

Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
CHAS. S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.

"The Hermitage" near Centreville, Maryland
Pure - bred Jerseys For Sale

Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
Susan Williams, Owner. Edw. A. Nelker, Herdsman.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.
Roberts Poultry Farm, Ft. Atkinson, Wis.

READY FOR IMMEDIATE SERVICE
A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea R. 2, Box 99, Baraboo, Wisconsin.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write
FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm*. Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
R. C. GREEN & SON, ALBION, WIS.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.
J. Q. EMERY AND SON, - Edgerton, Wis.

AYRSHIRES

RAVINIA AYRSHIRES



Our purchase of the entire milking herd of Willowmoor Farm, Redmond, Wash., is the major event of this decade in Ayrshire history.
This is a herd of show individuals backed by the world's greatest consistent production; a herd that has bred more world's record cows than any other and which now holds more world's records than any other. It is the greatest collection of record production Ayrshire cows in the world today.

In offering Ayrshires of all ages from this herd, we divide our wonderful heritage with you. If you want the best, write today

GOSSARD BREEDING ESTATES
Martinsville, Ind. Preston, Kans. Axial, Colo.
Address all correspondence to the General Offices, 1007 So. Michigan Ave., Chicago.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.
FRED TSCHUDY & SONS, MONROE, WIS.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.
J. W. CLISE, Redmond, Wash. (Near Seattle



ALTA CREST FARM
AYRSHIRES
CHOICE BULL CALVES
AT FARMERS PRICES
ARTHUR H. SAGENDORPH
SPENCER, MASSACHUSETTS

World's Champion Ayrshires

Extraordinary Bull Calf out of Imp. Torr's Tropicohn.
A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
PENSHURST FARM, NARBERTH, PA.

Cresmont Farm
AYRSHIRES

Are offered in choice bull calves, cows, ... heifers. "Finlayston", and "Baron's Best ... Bargenoch" breeding. We have what you w... at reasonable prices.
W. H. DRUCKEMILLER, Sunbury, ...

REGISTERED AYRSHIRE... FOR SALE

Some fresh cows. Also two choice young bu...
E. R. McCONNELL, - Wellington, O...

BROWN SWISS



Productiveness in age makes th... Brown Swiss Supreme.
Send postal for free information. Address
IRA INMAN, Sec'y Brown Swiss Breede... Association, Beloit, Wis.
William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Pleasant View Her...
Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, ... grown, good individual. *By sire* out of ar... R. dam with 16,500 lbs. milk, 650 lbs. t... *Out of* a dam weighing 1,600 lbs., which ... milked 75 lbs. a day. Priced for sale.
VISITORS WELCOME.
H. W. AYERS, HONEY CREEK, W...

Walhalla Farms
Pure-Bred Brown Swiss Cattle

Only high class, well bred animals fro... clean and healthy herd offered for sale. ... than 100 head to choose from and our 20 ye... experience is back of every one. Write us ...
F. FREEMYER, WALHALLA FARMS, Middleburgh, ...

SWINE

POLAND CHINAS

THAT WEIGH AND WIN. We bred and own the Wis. 1918 Grand Champion Boar, Double Hay...
Herd boars and farm boars, open gilts or... shipped when bred, sired by 3 Grand Cha... pion boars. Boars and gilts not rel... Raised without corn, and IMMUNE. Tel... what you want. We can please you. M... pigs weigh up to 275.
Dobson, Eastman & Rech, Lancaster, ...

Cedar Crest Farm Berkshi...
Cholera Immune

The wonderful bargains we offered in Berks ... were so quickly taken advantage of that we have ... single boar of serviceable age for sale and only a ... brood sows, weighing 250 to 300 lbs. bred for their ... or second litter and a limited number of unbre... gilts. Our stock is right and our price is right. ... us today for complete information. Remember—... come first served—the quicker your order is place... better the selection to choose from.
CEDAR CREST FARM, J. K. Dering, Prop., Lake Vill...

Kilehurst Farm
DUROCS OF QUALITY

We have a limited number of choice Spring Boar ... Gilts left. Order now. Prices right. We will s... you. Kilehurst Farm, Elwyn F. Bradley, Manager, Monmouth, ...

13,036 lbs. MILK—720 lbs. FAT

is the average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped April 20, 1918.
His sire is Sibley's Interested Prince, R. of M., who is transmitting the production and richness of his dam, 15,147 lbs. milk, 875 lbs. fat.
His dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. Her dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

MESCALERO JERSEYS

Do you want to breed beauty and type, plus *By-Production, Size and Constitution?*

Then write us for description and prices of several extra fine bull calves out of Register of Merit dams and strong in the blood of Rochette's Noble, Gamboge's Knight and Sybil's Gamboge.
Rochette's Golden Princess has just finished her year's test and qualified for R. of M. with following record: Milk, 15,286.5; fat, 752.6.
With just 22 cows in milk, we have already made four records in excess of 700 lbs. fat in 1918.
Does this mean anything to you?

MELDRUM GRAY, ROSWELL, NEW MEXICO.

IROQUOIS FARM
AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent
Cooperstown, New York.

HOLSTEINS



Life of a Dairy Cow

A Dairy Cow in No Country lasts to ve six to ten years. Age, accident failures constantly cause cows to ent to the butcher. Cows of the Hol- -Friesian breed are large, weighing to 1,500 lbs., and make an excellent lity of beef.

terested in HOLSTEIN CATTLE for our booklets—they contain much valu- information.

OLSTEIN-FRIESIAN ASSOCIATION OF ERICA, Box 101, Brattleboro, Vt.

LSTEINS AT AUCTION

Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of other month, Feb.5-6; Apr.2-3; June 4-5; -7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brat- the Holstein-Friesian Capitol of America.*

ss The Purebred Live Stock Sales Company.

sle Farms Co.

Offer High Class

olstein Bulls

ery dam with an A. R. O. or A. record. Herd tuberculin d. Prices right.

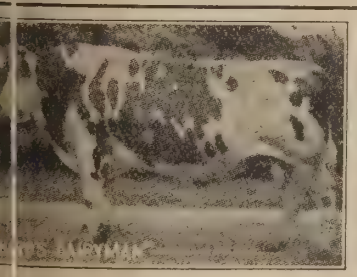
nd Today for Bull Sale List.

. Barker, Herd Mgr., Lisle, Illinois. n 25 miles West Chicago, on C. B. & Q. R. R.

BLACKBURN'S urth Annual Sale . . of . . gistered Holsteins Feb. 25th, 1919

Head of the Best Holsteins offered at auction in Ohio. 50 big fresh and close springers. 25 heifers, bred 36-lb. Herd Sire. (The Best Bred n Ohio.) Write for particulars.

A. D. Blackburn, Cuba, Ohio.



eauty Pietertje Prince (56435)

rst two daughters on yearly test as ar-olds:—Duchess Loella Ormsby, 8,589 lbs., Butter 835 lbs.; Duchess nea Ormsby, Milk 15,363 lbs., But- 8 lbs. Get a ¾ brother—CARNA- ORMSBY PRINCE (240006) born 7th, 1918. He will increase your pro- and is priced right.

On Oconomowoc Farms

ARNATION STOCK FARM, mowoc, Wis. Seattle, Wash.

An Auctioneer

nd one that knows values of both

red and Ordinary Live Stock

e for dates as I have 95 per cent of all his section of country. Also sell Real Auction.

EMBROOK, - Chetek, Wisconsin.

stein Pedigrees

ein breeders who appreciate prompt- accuracy in pedigree work, the *Wis- ive Stock Advertising Co.* will render e service.

ake a specialty of *sale catalogs*. Our $2.50 a page including pedigree for lots Write for particulars.

ONSIN LIVE STOCK ADV. CO. 15-16 Pioneer Bldg., Madison, Wis.

Winterthur Farms

OFFER FOR SALE

King Sadie Vale Urma 235352

Born March 30, 1918

Here are the records of his nearest dams:

DAM (two-year-old)	*20.04 lbs.*
ONE GRANDAM	*38.46 lbs.*
THE OTHER GRANDAM	*25.50 lbs.*
ONE GREAT GRANDAM	*41.06 lbs.*
ANOTHER GREAT GRANDAM	*41.06 lbs.*
The five average	*33.22 lbs.*
His 7 nearest Dams average	*31.27 lbs.*

Like his sire, he is dark in color, long, straight and deep-bodied.

The sire, King of the Sadie Vales, is out of a 38.46-lb. cow. His dam's dam is also his sire's dam, namely: Sadie Vale Concordia 4th (41.06 lbs. butter). His dam and grandam have the highest 30-day averages in the World, 157.71 lbs. butter. No other bull in the World can equal his three to nine nearest dams for 30-day butter production. The sire of King of the Sadie Vales is the only bull in the World with a 40-lb. dam, a 40-lb. sister and a 40-lb. daughter.

The dam of King Sadie Vale Urma recently made as a two-year-old: 20.04 lbs. butter, 399.20 lbs. milk (7 days); 73.26 lbs. butter, 1,571.30 lbs. milk (30 days). Her dam has a 25.50-lb. record, and her maternal grandam has a 26.38-lb. record. She is a granddaughter of Sir Urmagel Burke (three 30-lb. daughters), and a great granddaughter of Pontiac Korndyke (two 40-lb. daughters).

We have put the price on this bull that will put him well within reach of the small breeder. For further particulars, write, wire or come to

WINTERTHUR FARMS
WINTERTHUR, DELAWARE

Bulls—Bulls ALL AGES

Johanna and Ormsby Breeding.

Plenty of individuality. Unusual values. Satisfaction guaranteed or money refunded. Send for pedigrees and details.

PINEHURST DAIRY
Sheboygan Falls, Wis.

TWO DANDY ORMSBY BULLS

No. 1 born Feb. 25, 1918. Dam a 16.85-lb. 2-yr.-old daughter of a 35.43-lb. sire. Second dam 21.80 lbs. butter. Bull marked about ⅔ white. Extra good individual. Price $200, delivered. No. 2 born Mar. 2, 1918. Dam has a 4-yr.-old record of 21.80 lbs. butter, one of the best yearly producers in the herd. Bull is about evenly marked, a good individual. Price $150, delivered. Both of these bulls are sired by my 29-lb. Ormsby bull. For further particulars address. A. M. Anderson, Whitewater, Wis.

WANTED A BULL

A little more white than black, of serviceable age, with dam and sire's dam with records not less than 31 lbs. butter. Description, pedigree and price wanted at once.
J. E. BARSTOW, - RANDOLPH, WIS.

$25 Holsteins $25

We have thousands of satisfied customers and we want you as one. Buy the best. Five weeks old, 15-16 pure, $25 crated. Express paid. C. O. D. Write us for anything in cattle.
Dr. J. A. Roberts Stock Farms, Oconomowoc, Wisconsin.

Grade Holstein Calves

From the Dairy Center of the World selling at $25 express prepaid. On account high price whole milk. *Order now.* Also pure-breds.
R. B. Hellen, Sec'y Milk Producers Assn., Jefferson, Wis.

Six Bulls 10 to 13 Months Old

Sired by bull whose dam is full sister to Pietertje Maid Ormsby out of A. R. O. dams. Also 15 females from 1 year to 8 years old. Write your wants. Satisfaction guaranteed. FAIRVIEW STOCK FARM,
W. G. Marshall, Proprietor. Whitewater, Wis.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

Pocket Herd Register loose leaf

Fits the pocket—very complete—durable. Five-ring leather cover and 100 sheets. Order today. $4
Live Stock Printing Company, La Grange, Illinois.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Springdale Farms Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON,
Cortland, New York. Office 50 Clinton Ave.
Telephone 116 or 1476M.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. G. G. BURLINGAME, Cazenovia, N. Y.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.
RAY MEEKER, MUNCIE, INDIANA.
P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

FOR SALE—A YEARLING BULL

of 5% breeding, whose dam's 3-yr.-old record with two of her three nearest dams and his sire's three nearest dams, average 29.62 lbs. butter in 7 days. His sire from a daughter of Hengerveld De Kol, and sired by a son of K.P. Pontiac Lass. His dam by a 27-lb. son of Colantha Johanna Lad. Also, bull calves sired by a son of King Segis Pontiac, and whose dam is a daughter of Pontiac Korndyke. Priced for quick sale. For further information write, GLENN WILSON, Wanatah, Ind.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. C. I. Reamer, North Liberty, Indiana.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, - Whitewater, Wis.

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

$300.00

Buys a Son of the Great Sir Veeman Hengerveld

Bull calf born Oct. 20, 1918, a large growthy fellow, and a fine individual.

Sire:—Sir Veeman Hengerveld, the latest century sire, and the only living sire with sixteen 30-lb. daughters. His daughters average the highest for butter and third highest for milk of any sire having 60 or more A. R. O. daughters.

Dam—Blanche DeKol Segis, a granddaughter of King Segis, and has the following A. R. O. record: Butter, 7 days, 28.48; 30 days, 109.86. Milk, 7 days, 617.9; 30 days, 2,604.

This young bull is offered at less than half his value, on account of his being dark in color.
W. D. ROBENS, POLAND, NEW YORK.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. E. A. POWELL,
904 W. Genesee St., Syracuse, New York.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

BULL CALF

Dams Record (4 yr.) 25.79 lbs.
Sire's Dam's Record (3 yr.) 31.18 lbs.
Dam is Granddaughter of Pontiac Korndyke.

Calf born Sept, 29th, 1918. Beautifully marked, fine individual. Write for full pedigree and photo. Delivered express prepaid any point in U. S. A. Price $225.00.
Harry L. Benedict, R. D. No. 2, East Syracuse, New York.

HOLSTEIN BULLS

GRANDSONS OF THE

World's Champion Milk Cow

Out of dams milking over 20,000 pounds of milk per year. $250.00 each delivered your station.
ANTRIM FARMS, SYRACUSE, N. Y.

BULL CALF FOR SALE

Born Nov. 9th. About 90% white. His sire has a 26-lb. record with three nearest dams averaging 29 lbs. His dam an 18.5-lb. granddaughter of Pontiac Korndyke. Price $125.

Also a bull calf born Dec. 6 out of the above sire and a half sister of the above dam.
R. H. DOWNING, AVON, NEW YORK.

BULLS

Send For Our Free Bull Calf

price list with a lot of choicely bred bulls on it at bargain prices or if interested in females ask for our female list.
WOODLAWN FARM, STERLING, ILL.

Buffalo Creek Farm HOLSTEINS

We have a number of well bred bulls nearly ready for service, from dams with yearly records. Write for pedigree and price.
H. L. BINGHAM, Arlington Heights, Ill.

Pure-bred Holstein Cows and Heifers

Good young A. R. O. cows, to freshen in January and heifer calves of superb breeding and individuality for sale at prices that will move them quickly. Herd bull also for sale.
THOS. STEWART, BIGGSVILLE, ILLINOIS.

Uneeda King Alcartra Pontiac

Born January 3rd, 1918

A Real Winner For Some Small Breeder or Beginner...

IT WOULD BE HARD to find a better individual than this young bull. He is marked about three-fourths black.

HIS DAM HAS MADE 21 lbs. butter in 7 days as a two-year-old. In 30 days she produced 78.86 lbs. butter from 1,755.2 lbs. milk.

SHE IS FROM Marion Korndyke DeKol, a cow with a record of 28.23 lbs. in 7 days from 648.60 lbs. milk. As a junior four-year-old she made 27.86 lbs. butter from 565.90 lbs. milk.

THE DAM'S SIRE is Korndyke Pontiac Aaggie, a son of Aaggie Alban Shadeland, 30.52 lbs. in 7 days from 616 lbs. milk.

HE IS SIRED BY Korndyke Pontiac Pet, a son of Pontiac Korndyke, who has 147 A. R. O. daughters, two of them above 40 lbs. and 19 above 30 lbs.

THE SIRE OF Korndyke Pontiac Pet is Pontiac Pet, 37.68 lbs., a former world's champion and daughter of Pontiac Korndyke.

NOW, COMING BACK to the sire of Uneeda King Alcartra Pontiac is the famous young sire, Uneeda King Alcartra, a full brother to King Joh.

HE IS FROM Uneeda Korndyke Abigail, the 33-lb. daughter of Johanna McKinley Segis, the only 40-lb. son of the famous King Segis. His dam is Johanna DeKol Van Beers, 40.07 lbs. in 7 days.

UNEEDA KING ALCARTRA is sired by the $50,000 bull, King Segis Pontiac Alcartra. He is from a world's record daughter of King of the Pontiacs and sired by King Segis Pontiac.

SON OF KING SEGIS and the world's champion producer, Pontiac Clothilde DeKol 2d, 37 lbs. in 7 days and 1,271 lbs. in a year.

TRACING, AS HE DOES, four times to Pontiac Korndyke, through two 37-lb. daughters, through King of the Pontiacs, his greatest son, and Korndyke Pontiac Pet, a 37-lb. son, Uneeda King Alcartra Pontiac has every reason to be a great sire.

$600 BUYS HIM DELIVERED to any point in the U. S. If he does not suit you as an individual, send him back at our expense.

FEDERAL TUBERCULIN TESTED and guaranteed sound in every way.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.

All by a 23.3-lb. SIRE

No. 3 ready for service, his grandam has A. R. O. record of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Lashbrook Holsteins

Sixty head, high class A. R. O. cattle. On the Minnesota and Federal Accredited List, free from tuberculosis. Herd headed by a son of BEAUTY BEETS WALKER SEGIS. WORLD'S CHAMPION senior two-year-old heifer, yearly division, 25,343 lbs. milk, 1,040 lbs. butter in 365 days. Bull calves for sale.

U. L. Lashbrook & Sons, Northfield, Minn.

HE IS SIRED BY A SON OF

Sir Pietertje Ormsby Mercedes

that is out of a 30-lb. sister of Pietertje Maid Ormsby. His dam is a 17-lb. three-year-old daughter of a 28-lb. grandson of Sir Ormsby Hengerveld DeKol. He is mighty good to look at. Dropped last August. $300. We have some for more; a few for less.

POPLAR HOLLOW STOCK FARM,
Bertram D. Scott, Prop. P. O. Station F. Minneapolis.

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

Born November 1916 Black and white — Born February 1917 Black and White — Born May 1917 Black and White

3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Qualit

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by t royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Mi

Young Bulls From Yearly Record Dam

The dams of these bulls have A. R. O. records of 15 to 25 and yearly semi-official records 500 to 650 pounds of butter. The offerings are sired by bulls secured from the E. C. Schroe and other noted herds. These bulls are well marked, heavy bone, straight and large for their a We Guarantee Satisfaction.

Otter Tail County Holstein Breeders' Association, J. V. Bopp, Fergus Falls, Mi

The Greatest Bull on Eartl

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World, Duchess Skylark Orms

Sons of Sir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Orm Skylark fast enough to take care of the inquiries which we are receiving.

MAXWELL FARMS, WATERLOO, IOWA

HOME FARM HOLSTEIN FRIESIANS

We Will Sell One-half Interest in Kir Korndyke Sadie Vale 24th No. 16393

He is a son of *King Korndyke Sadie Vale* from a 20-lb. 2-year-old daughter *King Segis De Kol Korndyke.* The only reason we are selling him is t we have purchased *Woodcrest Sir Clyde* 20179 to breed on his daught We will test and develop daughters of King and will not sell to any party that not do the same. Write for particulars. A few good sons of King for sale.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from world's record dam in yearly division. Breeding, size, individuality and price that will n your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

VERY HIGHLY BRED YOUNG

Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see **"LIVE FAIR" VIEW, Waverly, Iowa. Otte Bradenburg, Mgr**

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one-half mile west of Rosemount, Minn.

CHOICE HOLSTEIN BULLS

A Few Ready for Light Service

We have a few choice young bulls for sale. They are nearly ready for service, are from A. R. O. dams and by one of Minnesota's good Holstein sires. We are short of room and so are pricing them to sell rapidly.

Write today for further information. They won't stay here long.

Fleck's Registered Holstein Farm.
Ed. Fleckenstein, Mgr. Faribault, Minn.

Do You Need a Bull?

I am offering a splendid yearling for sale. He is growthy, well marked, and as straight as a line. His dam is a 24-lb. 4-year-old daughter of Sir Veeman Hengerveld and his sire a 28-lb. son of King of the Black and Whites. His 11 nearest dams average 28.34 lbs. in 7 days. Several younger bulls for sale.

E. J. BROSIOUS, STILLWATER, MINN.

FOR SALE

A BULL CALF

Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

Lake Shore Holsteins

Health accredited by state and federal government. Stock of both sexes and all ages for sale at reasonable prices. **E. J. Oppliger, Box 20, Forest Lake, Minn.**

Young Holstein Bulls For Sale

Sons of King Record and Judge Lyons from A. R. O. dams for sale. Three weeks to 9 months old. The kind that are fit to head a breeder's herd.

F. H. Sohre & Son, - Good Thunder, Minnesota.

Buy a Herd Sir

that is bred for real production and individua

You want cows that will produce well dur the entire year and that will average a fa high butterfat test—4 per cent or better. breed that kind and we have some excel young bulls for sale from those long dista producers. Write us today for pedigrees, pri etc. **Hargrove & Arnold Holstein Co., Norwalk, I**

FOR SALI

Heifer Calves

Registered Holstein-Friesians, also a few ch bull calves all sired by my Senior 30-lb. and Junior sire from 21½-lb. 2-yr.-old. Th calves are of the best Pontiac and Korndy breeding, nicely marked, good individu from dams with A. R. O. records and milk as high as 90 lbs. per day on dairy rations

WM. WICKERSHAM, Embreeville,

"NO HORNS"

Naturally Polled Holstein-Friesian bull ca sired by a son of the **World's Record** senior 4-yr. 1294.7 lbs. butter in 365 days, at $100 and up. Descri catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit

Bull Calf Born November 22nd, 1917

Sire, Sir Ormsby Banostine Champion No. 166276. A of the World's Champion Dairy Cow over all ages breeds, Duchess Skylark Ormsby No. 124514 who record of over 1500 lbs. butter and 27761.07 lbs. milk years. Dam, Emblagaard Pontiac Dot, No. 279877— record as a 2-year-old—butter 21.38 lbs., milk 451.50 Dam's Dam, Junior De Kol Dot No. 107665, 7 days yrs., butter 36.54 lbs. milk 633.50 lbs. butter for 365 874.53 lbs., milk 19463.10 lbs. This calf is a good indiv al, little more black than white, weight 850 lbs. year. Send for detailed pedigree.

Emblagaard Dairy, - Marquette, Michi

THE TRAVERSE HER

We have what you want in

BULL CALVES

the large, fine growthy type, guaranteed r in every way. They are from high produ A. R. O. ancestors. Dams' records up to 30 Write for pedigrees and quotations, sta about age desired.

Traverse City State Hospital, - Traverse City, Mich

The Pontiac Her

"Where the Champions come from"

Offer Bull Calves sired by sons of *Por Korndyke, Hengerveld DeKol, Pontiac Du land, or Admiral Walker Pietertje.*

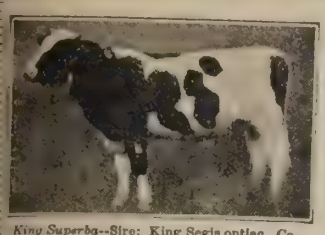
Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, M

Registered Holste Bull Calves

We have a number of bull calves up to e months of age. They represent the very be breeding and individuality. We will exch them for heifer calves of good breeding. W for pedigrees and any further information.

RED CLIFF DAIRY, - Blackville, S



King Superba--Sire: King Segis ontiac Colombo. Dam: Milanhurst America De Kol. 34.60 lbs. in 7 days, 1261 lbs. in 1 year. Owned by Baird Bros., W. J. Wright, Dr. David Roberts, W. J. Mann & Son.]

Waukesha County Holstein-Friesian Breeders' Association

[Organized 1907. Incorporated 1916.]

The *largest association* of its kind in the United States. There are *more tuberculin tested* cattle in Waukesha County than in any other county in the state and in the United States. There are *more high record sires* in service in Waukesha County than any other county in the state. What does this mean? That Waukesha County offers you the best opportunity to buy bred for production, Holstein-Friesian cattle. Watch the space in the corner. The copy changes each issue. It will tell you facts worth knowing. Write for further information to **W. L. BAIRD, Secretary, Waukesha, Wis.**

Young Bulls

We have for sale a few young A. R. O. sons of Sir Homestead Rose, he a 30-lb. son of Homestead Jr. De Kol. These youngsters are 6 to 10 months old, good individuals and well grown. Write **MASONIC HOME FARM**
Chas. Cole, Supt., DOUSMAN, WIS.

Holsteins For Sale

Johanna Ormsby Mechthilde heads my herd. He is a son of Johanna McKinley Segis that now has more than 40 A. R. O. daughters. His Dam is an A. R. O. daughter of Ollie Johanna Sir Fayne and from a good record daughter of Sir Skylark Ormsby Hengerveld. Write me before buying your herd sire.
Dr. J. A. Roberts, • Oconomowoc, Wis.

BULLS FOR SALE

We have several calves out of dams, with records from 20 to 33 lbs. of butter in seven days, also making up to 129 lbs. in 30 days and beautiful individuals. Sired by King Pontiac Artis Sadie Vale. A 37.60 bull, son of the great King Korndyke Sadie Vale, we also have some others. Send for pedigree and price list.
Tamarack & Hollyhock Farms, Dousman, Wis.
Gustave Pabst, Prop., F. J. Southcott, Mgr.

CARNATION ORMSBY PET

heads my herd. He is a son of Johanna McKinley Segis, A.R. O. daughters, and from Beauty Pietertje Ormsby Pet, a 24-lb. 2-year-old daughter of Beauty Pietertje Prince, 26 A. R. O. daughters including a 30-lb. 4-year-old. J. C. WILTON, EAGLE, WIS.

Ready For Service

Two good bulls. Dams records 23.85 lbs. and 23.29 lbs. Sire's dam 23-15 lbs. at 24 mos. 783 lbs. butter and 18451 lbs. milk in 1 year at 24 mos. Good individuals and well marked. $125 each.
C. J. WILL, • TEMPLETON, WIS.

Heifers For Sale

Bark River Stock Farms offer for sale two two-year-old heifers sired by Count Johanna McKinley, he a son of Johanna McKinley Segis. Write **CONNELL BROS., COLGATE, WIS.**

Holstein Bull 10 Months Old.
Sire, a 30-lb. son of Rag Apple Korndyke. Dam, an 18-lb. Ormsby bred cow. $150.00 takes him. Also two 2-year-old cows cheap on account of slight defects. WM. F. MIELENZ, 312 First National Bank Building, Milwaukee, Wisconsin.

RIVERVALE FARM

Offers cows and heifers with good A. R. O. breeding at reasonable prices.
GEO. H. GIBSON, Nashotah, Wisconsin.

We Have Several Bulls Six Months Old

out of good record cows and sired by 30-lb. bulls. Also have two small calves sired by our 40-lb. bull. Write us about them. **Aitken Bros., Waukesha, Wis.**

SIR PIETERTJE ORMSBY MERCEDES 43rd heads our herd. Write us for a price on one of his good sons from an excellent A. R. O. dam.
M. E. GUNDERSON & SONS
Route 25, • • • Oconomowoc, Wis.

BULLS IN SERVICE

Woodcroft Perfection No. 199441, who has a 40-lb. dam made from over 700 lbs. milk and over 1000 lbs. butter in one year, average for 2 nearest dams 38 lbs. Pabst Blackberry Korn. No. 186830. Dam's record, 31 lbs. at 3½ yrs. sired by a 38-lb. bull **Maplecrest King DeKol 2nd.** A 26-lb. grandson of King Pontiac Champion. Young bulls for sale. Dam's record 16 lbs. at 23 mos. to 31 lbs.
Muckleston, Howell & Schwartz, Waukesha, Wis.

We Offer a Son of Pabst Pontiac Champion No. 105106

from a granddaughter of Homestead Jr. DeKol. Ready for service. Faultless individual. Priced to sell quick. Dam has good 7-day and yearly record as a 4-year-old. She has 1 A. R. O. Son and 2 A. R. O. daughters.
S. A. BAIRD & SON, Waukesha, Wis.

KING SUPERBA

King Superba's Dam is the great Milanhurst America De Kol, World's Record 4-year-old, with 1231 lbs. butter in 365 days, and 28 lbs. butter nine months after calving. Eight of her records have never been equaled in all respects by any other cow. Come and see his sons and daughters at the Wisconsin State Fair, Sept. 9th to 14th. (See W. J. Mann & Sons ad.)
BAIRD BROTHERS, Waukesha, Wis.

RUST BROS., WEST ALLIS

Size, good individuality and large 7-day and semi-official yearly records are the points for which our herd is noted. The following are two of our records: Aaltje Salo Netherland Pontiac has 33.3 lbs. in 7 days and 134.8 lbs. in 30 da. Ida Lotta 5th 29.74 lbs. in 7 days at 4½ yrs., 27.12 lbs. in 7 days and 816.9 in 365 days at three yrs. We now have a couple serviceable young bulls from A. R. O. dams for sale.
RUST BROTHERS, West Allis, Wis.

GRAMLING BROS.
Dousman, Wis.

CHAS. BURBACH,
Waukesha, Wis.

HENRY J. KOESTER,
R. 22, Nashota, Wis.

Need a Bull?

Write and ask us how to get the use of a good bull for two years, sired by a 34-lb. bull—KING SUPERBA, 176125, or PABST KING PONTIAC LAD 129298, and dams with 7-day and yearly records. **Dr. David Roberts Stock Farm, Waukesha, Wisconsin.**

For Sale—Bull Ready For Service
Sire, King Superba. See Baird Bros. ad for sire's breeding. Dam, a 22-pound 2-year-old with second calf, a good prospect for 30 pounds. He is individually correct, about half white, half black. A state fair winner. First check for $600.00 gets him.
W. J. Mann & Sons, R. 1, B. 16, Waukesha, Wis.

BELLEVIEW STOCK FARM

Breeds the big, high producing kind. We are now offering for sale a few good sons and daughters of Aaltje Salo Johanna Pontiac 57169.
E. B. WATROUS, • Troy Center, Wis.

We Offer Three Young Bulls

4 mos. of age sired by Sir Pietertje Ormsby Mercedes 43d whose dam and sire are among the greatest of the breed. They are out of high producing A. R. O. dams. Send for photo and pedigree. Herd on U. S. Accredited List. We will price these bulls cheap because they are young. A good chance for your next year's sire.
J. J. REID & SON, Oconomowoc, Wis.

H. E. REDDELIN
Oconomowoc, Wis.

ADAM GRASER,
Waukesha, Wis.

MRS. ANNA REIS & SON,
Waukesha, Wis.

Wisconsin Home and Farm School,
Dousman, Wis.

HOMER DOPP,
Oconomowoc, Wis.

W. D. McGILL,
Menomonee Falls, Wis.

CHAS. HOPPE,
R. 22, Nashota, Wis.

CREATOR

Pabst's New Herd Bull

Sire: Sir Pietertje Ormsby Mercedes, the greatest sire of Association and Show Ring prize winners of the breed. He has three daughters with yearly records from 1,140 lbs. to 1,389.45 lbs. butter and eight with 7-day records from 30.66 lbs. to 42.31 lbs. butter.

Dam: Spring Brook Bess Burke 2d, the greatest living cow of the breed in many respects. She possesses a combination of size, individuality, short, and long distance records that cannot be equalled by any cow, past or present. She is a superb individual, weighs 2,225 lbs., has three 7-day records above 35 lbs., and three yearly records above 1,000 lbs. butter.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.



Yearly Record Bull Calf

Born August 8th, 1918

Sire—Iowana Sir Ollie, 2 A. R. O. daughters including state record jr. 2-yr.-old for 7 and 30 days. He is a son of the famous 31-lb. cow, Ollie Watson Prima Donna, and sired by a son of Jessie Fobes Bessie Homestead, 34.96 in 7 days and 932.73 in a year.

Dam—Groveland Inka Netherland. Butter, 1 yr., 832.75; milk, 19,640.4 lbs. Butter, 7 days, 24.87; milk, 556.20. Her sire is the old time show bull, Groveland Inka Hijlaard, and her dam a granddaughter of DeKol 2d's Butter Boy 3d. Calf is ¾ white and an outstanding individual. Write now for price, pedigree and photo.

WALCOWIS FARMS,
Lake Geneva, Wis. N. Dickinson & Son.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje*, produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

FOR SALE—REGISTERED HOLSTEIN BULL
We still have one dark colored bull about eleven months old, well grown and a splendid individual, show ring type. His two nearest dams average 25 lbs. of butter for seven days, and 700 lbs. for the year, one of them as a two-yr.-old who gave 16,000, lbs. of milk in a year. They will be tested again at their next freshening and we feel very sure that both dams will make at least 30 lbs. He is sired by a grandson of the great King of the Black And Whites. Will make a great bull for somebody. Price $250.00—decidedly reasonable quality, breeding and records considered. Address:
Elm Leaf Stock Farm, Bear Creek, Wisconsin.
James McKone, Proprietor, William Lucia, Mgr.



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.
JOHN PULS, - HARTFORD, WISCONSIN

A Bull That Will Suit You

He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, and whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna De Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show cow,—took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is backed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been looking for. Other young bulls by the same sire and from A. R. O. dams for sale. Write
WAYSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

WEST SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to eight years old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, and one of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 heifers and 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot 8th. Well grown and nicely marked. This stock is priced to sell in single or car lots. Also offer breeding stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, or write us for just what you want in Holsteins or Polands. We can please you. Farm located right in City Limits.
J. D. McDONALD, WEST SALEM, WISCONSIN.

LSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, for immediate shipment. Several bulls ready for service.

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HERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

OC JERSEYS Anything you want in Duroc Jersey Swine.
tle sold on a 60-day retest guarantee. Write us at once before the best ones go.

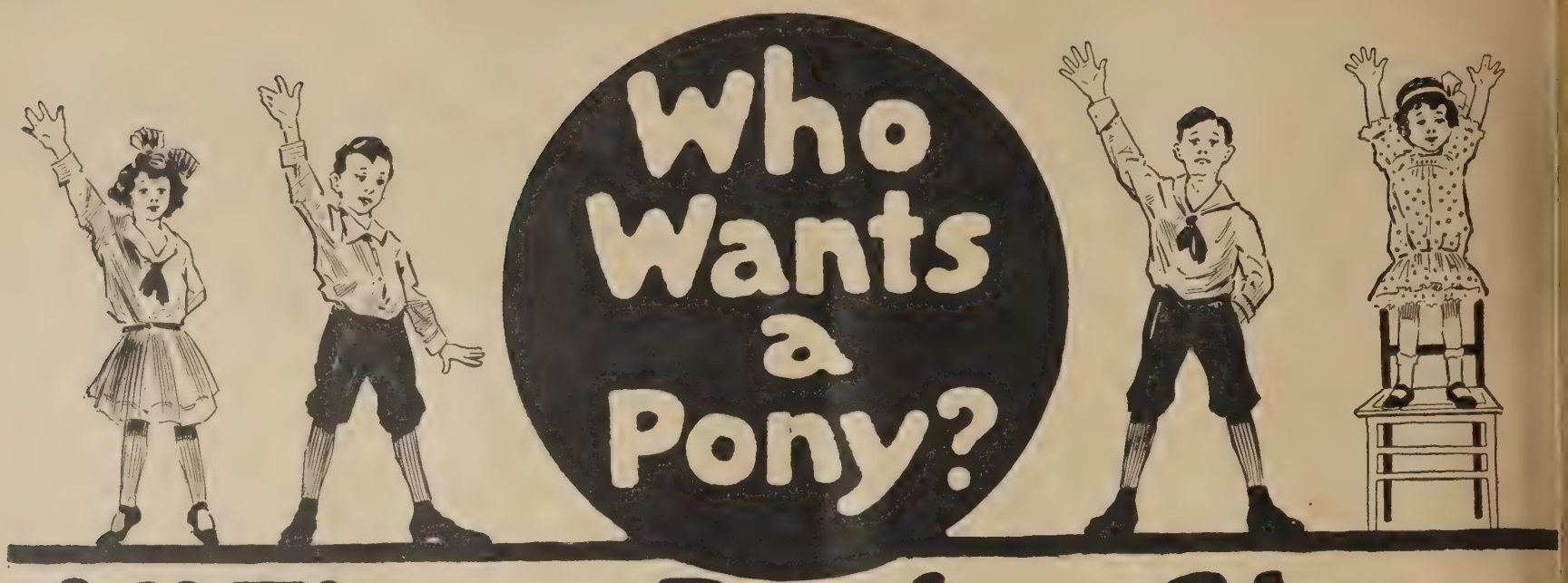
GEWATER STOCK FARM, Fort Atkinson, Wis.

A. R. O. Holstein

In order to make room in our barns we must sell a number of cows and heifers that are backed by large official milk and butter records. They are bred to
WISCONSIN STAR STOCK FARMS,

Cows and Heifers

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.



All These Ponies Given to Boys and Girls

More than 500 Boys and Girls, all over America, have received Ponie from me without paying one cent for them. Read below what six o the Boys and Girls say, who have received Ponies from me without cos



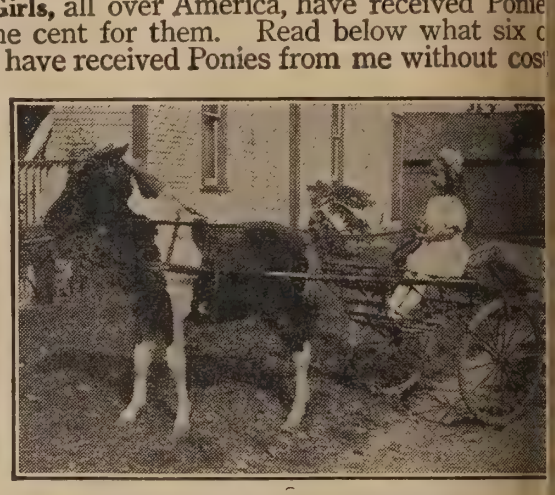
"Dolly" Given to George

George Edwin Adams lives in Cayuga County, New York. He sent in his name and I gave him "Dolly." George says: "Dolly" is a very fast little horse and he has been offered $150 for her.



"Snap" Given to Jennie

Can you guess which girl is Jennie Nadeau? Jennie should be the happiest-looking, because she sent in her name and I sent her "Snap." By the way, "Snap" is very fond of a bath, being unlike many people. Jennie and "Snap" live in Ionia County, Michigan.



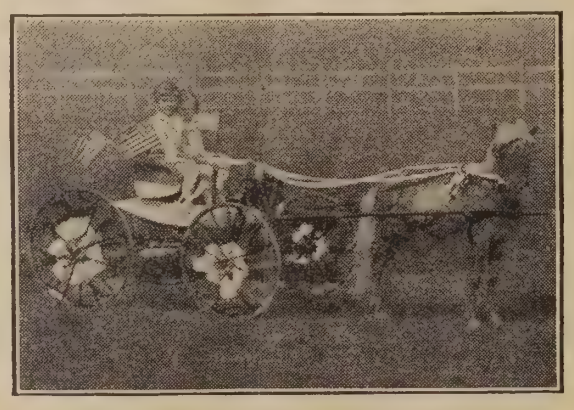
"Kip" Given to Anna Ruth

Anna Ruth Miller lives in Logan County, Ohio, and she is one the little girls that received one of the 500 Ponies I have giv away. She is very fond of "Kip" and says he is a great pla fellow. "Kip" eats watermelon, cakes, crackers, candy and fru



"Marmalade" Given to Crystal

Crystal A. Andreas lives way out in San Bernadino County, California. She sent in her name and I gave her "Marmalade." Crystal says she can't tell all the good times she has with her little pet.



"Dapple" Given to Ernest

Ernest L. Heckert of York, County, Pennsylvania, saw my advertisement and sent in his name. This is the pony "Dapple," and the buggy and harness that I gave him. Ernest is driving here in the Memorial Day parade.



"Snip" Given to Harold

"Snip" is really one of the best looking ponies I ever gave aw although all of my ponies are prize winners. I sent "Snip" Harold Wilcox of Greene County, Iowa. "Snip" certainly has appetite; Harold writes me he eats candy, peanuts, cracke cookies, bread and butter, cake and ice cream.

Send Your Name for Free Pony Pictures

Now I am going to give away five more Ponies, and I want every Boy or Girl who sees this paper to stand the same chance. **If you are a Boy or Girl** send me your name right away. If you are the Father or Mother of a Boy or Girl, send in your Child's name. I will enter the name in my big Free-for-all Pony Club that starts right away, and write you all about how to win one. Don't let anyone tell you that you cannot win a Pony—our plan of giving Ponies is different from all others.

We make it easy for Children to get Ponies. We use them to advertise our big magazine, The Farmer's Wife. We have already given Ponies to more than 500 Boys and Girls, all over the country. Some of these children who received free Ponies were only 6 or 7 years old, so you know we must have made it easy for them to win. Just send your name and address and see. **No matter where you live,** no matter how young, every child will stand the same good chance to get a Pony with Buggy, Harness, Saddle and Bridle. Be sure to send in your name right now.

THE PONY KING, 321 Webb Bldg., St. Paul, Minn.

I want to send a Colored Pony Picture Circular Free to eve Boy and Girl that sends in his or her name. It gives the names and sho the pictures of the Ponies I am giving away. It also tells how to w one. Just write your name and address below and send it to me.

Just Send Your Name

THE PONY KING, 321 Webb Bldg., St. Paul, Minn.

Please send me the **Free Pony Pictures** and enter my name in your **Pony Club** so I will have a chance. I want one of the Ponies you are giving away.

My name is.....

P. O..... Age.....

State..... R.F.D.....

EXPT. STA
20 JUL 19
URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI | FORT ATKINSON, WIS., JANUARY 10, 1919. | Number 25

War Days on the Farm

HELEN S. K. WILLCOX, NEW YORK

H spring of 1917 was ushered in th an army of posters, adver- ents, and literature which blared t with much noise and thunder t "food will win the war", that farmer is in the first line n", that "an army travels on its l", in short—that the American r was expected, nay, command- gird up his loins, forget past emporary difficulties, and to "go as he never did before to literal- ed a whole new l.

I is ancient history how our farmers ntly met this new k on their re- es and responded st to a man with rd or a half more t crops. But, in pring of 1918, we not met with the en appeals and ng pictures of the previous. War become a matter ourse instead of tion and it was ly understood that body would shoul- his extra burden carry on without special urging. reasoning or con- on proved perfect- rrect, and, while on account of cription was not be had on many s for love or mon- nevertheless more larger crops were how planted, tend- and harvested this and now at the end of the present season, we find elves with breathing space and opportunity once again to look across the busy year and to take of our relatively big successes and l failures.

has indeed been a year of vement for the American farm- lso it has undeniably been a year exceptional toil, inconvenience, y disappointments—yet achieve- .

our own case, which might do as verage, we have encountered all e above mentioned difficulties and aps some additional ones—yet we very sure that it pays to work, as it "pays to advertise". Ours pure-bred Holstein dairy farm of ead and we are not yet out of debt his dairy. Hence for us there was an added incentive in doing just as much in the extra crop line as was possible—as well as being able to possess that sense of well-being which comes from a war duty conscientiously performed.

Our farm consists of 163 acres, 20 acres of which is wood-lot. It is a river farm and perfectly level and easy to work. We keep one man the year round when he can be hired within reason and last March my husband was decidedly fortunate in securing as helper an excellent young married fellow for $45 monthly and "findings". So we all got ready for business March first with a will. Our former man had left us in the lurch during haying the previous year—attracted to town by "war" wages. Hence my husband had been left alone during the 1917 harvesting and no fall plowing had been done. So we were handicapped for the 1918 season by having to literally plow up half the farm before planting could take place. This was done just as soon as the ground thawed out, but as one will recall—last winter was "some" winter and thawing took place far later than usual. But our new hired man was in truth a whirlwind worker—so he and my husband recognized no difficulties and forged ahead. The plowing and fitting was done as rapidly as possible and when the smoke had cleared away, our men had 14 acres of silo corn, 15 acres of oats, 1½ acres of potatoes, ¾ acre of beets and mangels, an acre of cabbage, and the remainder in clover, alfalfa, timothy, and pasture.

A real farmer can understand readily that even two young, strong, ambitious men would have to keep moving betimes in order to keep up with the hoeing, cultivating, spraying business of modern farming in war times. Our men did all this and more. They did our haying alone with the aid of a loader and although I longed to rake and ted because they were so rushed, the horse which was used on these implements was not a "woman's" horse—consequently I sat with hands folded (mentally) while neighboring women handled rakes and the like man-fashion. But my hands didn't remain long folded—you can be assured. During the fore-part of the harvesting of our 75 tons of hay, the beets needed weeding and I volunteered. If you have ever done this pleasant little chore, your back and little used muscles will remember it as long as they function. Oh—the aches—the stiffness—the reaction of that three weeks of back-breaking work on a woman who has never worked out of doors much can never be forgotten. But no one could be any more satisfied in her heart than I was when the work was finished and the men had not been called to assist.



AYRSHIRE CATTLE OWNED BY JOHN SHERWIN, OHIO

Along the first of August came potato digging time. Haying wasn't finished, although the two men worked until 9 o'clock each good evening—under the new daylight saving plan. So I, inspired and strengthened by contact with Mother Earth, as was the giant of old, started in to dig our spuds. At the end of the season I had mined nearly 200 bushels and picked them up—while the men at odd hours dug the remainder. I am sure those college-girl farmerettes had nothing on me! So the summer passed—the men on our farm working as they never worked before to keep ahead of the crops. The cabbages this year were exceptionally wormy and needed a lot of spraying. The potatoes threatened to blight and had to be sprayed weekly with expensive Pyrox. The clover and alfalfa were each cut twice—all taking time.

My husband owns an ensilage cutter and, with another man, who has an engine, goes to five different farms in the community "filling silo". These men in turn send their teams to each place and so the siloing is done community style. This took a solid month to accomplish this year. Then the threshing. We had 48 bushels of oats to the acre, which was nothing to brag of. Many had dried up and shaken off. We cut the immense strawstack into the big barn for bedding—running it through the ensilage machine. Lastly the cabbage was gathered—small, firm heads they were—and taken to the car at $12 a ton, a disappointing price. The beets have finally been pulled and stored—I helped pull, cut off their tops with a sharp jack-knife. Of these we have nearly 400 bushels and the pure-breds ought to make some fancy 40-pound records when we feed them! It is certain that beets "can't be beat" for milk, but they are too costly to feed as a general rule unless testing is involved.

For our year of all-round hard and strenuous labor, we have to show—75 tons of nice hay, 15 tons of which has been pressed and sold at $25 a ton. Our cabbage—9½ tons, brought in $113.

The refuse has eked out the pasture

(Continued on page 870)

Hoard's Dairyman

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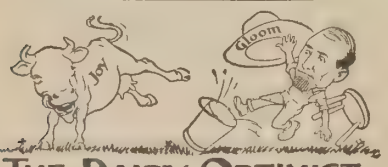
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Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The Humanized Cow

Long before milking machines ever came in and cows were connected up like parts of a bath tub, I used to love to do the job by hand. There was real sentiment in milking, provided you knew how and were an experienced milker. We didn't have cream separators, and keeping dairy books was unknown. You trusted to luck. At the end of each season, if the sheriff didn't take the farm, you knew that you had made both ends meet and that selling milk didn't cost more than you got for it. Folks had a strange idea that a cow was a cow. If she had four legs and strength enough to walk to her fodder, there was no reason why she should not be as productive as any other cow.

Pedigree and breeding did not disturb us much. If we had only stopped to think a little, we would have immediately recognized the stupidity of such arguing. By the same deductions, one man could make as great success as another. Blood wouldn't tell.

But I am thinking of a Holstein I had. She wasn't all pure Holstein. Parts of her were a mystery. There were times when I was willing to believe that her ancestry dated back to the mule age. She could kick beautifully. Her great, great grandmother might have been an ostrich.

"Betty" was half human. I maintain that, too. The cow possessed the faculty of reasoning. She could think calmly and with profound analysis. I would go out to the field myself and lean over the fence and call to her. She knew I was there—I did it every evening at exactly the same hour—but do you think she'd come? Not a bit of it. She would stand and glance at me casually, and flick off a fly or two. I know she was saying to herself: "I hear him but I'll have some fun with the old gentleman. I'll just stand here and pretend I don't understand. As a matter of fact, I want to get to the barn and be milked but it's worth a minute or so to tease him."

It was always necessary for me to go out after her. When I was within a yard or so, she would quietly turn and start for home. And if cows smile, she always smiled.

It was in her stall that her human qualities found expression. She was a creature of strange and whimsical moods. Betty would not notice the flies until I was all settled and ready to milk. Then she would begin to slap at them and kick. She invariably picked out flies that were on my side. She finally became so adept that she could snap me under my left ear with her tail, nine times in every ten.

Yes, I am satisfied in my own mind that Betty really used her mind in a human way. Her eyes indicated that she did. Betty had big, fine, clear, intelligent eyes. There were shades of genuine sentiment in them, too.

I am thinking of the times the youngster would come out to the barn with a handful of salt or some lump sugar. Betty would lower her fine head and rub it against the little fellow, oh so tenderly. Cows love children.

Betty's sense of humor was highly developed. One evening my stool snapped under me and I rolled over on the floor. The bucket of warm milk went with me. I felt as if the world had started revolving rapidly and that the milky way was spilling a white stream.

That Holstein turned with great deliberation and grinned. I say "grin" advisedly. The cow really and truly laughed. Merriment rippled around the corners of her lower lips. She seemed to understand that I was a funny sight. She turned several times, and always with the same mild expression of contemptuous humor.

"What's the matter, old gentleman," she was doubtless ruminating, "can't you stay on the stool? Does milking make you dizzy? I could have told you the leg of that stool was in bad shape. You have used it steadily for eleven years and each evening you throw it into the vacant stall. No leg can stand that sort of treatment."

But there were other sides to her nature. I remember, also, the night she was taken very ill from eating something that did not agree with her. I could hear her calling in the early hours of that memorable morning. And she was calling to me. She knew I would help her. In cow language, she said: "Please, please come right away. I don't like to get you out of bed at this hour but cows can't help themselves. I'm a sick Betty. You'll know what to do."

And after I had hung the lantern on the upright and doctored her and brought her around, she gave me a look I shall never forget. It spoke to me a world of gratitude. Her damp nose went scrummaging around for my hand. She was so eager to express her thanks. She wanted to talk.

Yes, sir-e—that Holstein was human. But anybody who knows anything at all about cows knows that they have wise heads on their shoulders. Haven't you found it so?

"I see they have milk in powder form, now, Rastus."

"How's dat, Boss?"

"Oh, you can buy milk just as you buy sugar or salt—in dry powdered form."

"Humph! Dey must do de milkin' wid er suction sweeper, Boss."



DE LAVAL

The World's Standard
CREAM SEPARATOR

What does that mean to you?

It means that all over the world men who have had experience with separators and who pay little attention to "claims" and a great deal to "performance" have set up the De Laval in their minds as the "standard" cream separator—the machine embodying the highest type of separator construction and rendering the best service to the user.

It means that the De Laval has more attempted "copies" than any other machine. No "makeshift" copy of De Laval construction or design, however, has ever been able to copy De Laval efficiency or to give De Laval service and satisfaction.

It means that if you buy a De Laval you will get a machine that will give you genuine service. That you will get the cleanest skimming, easiest turning, longest wearing cream separator that money can buy.

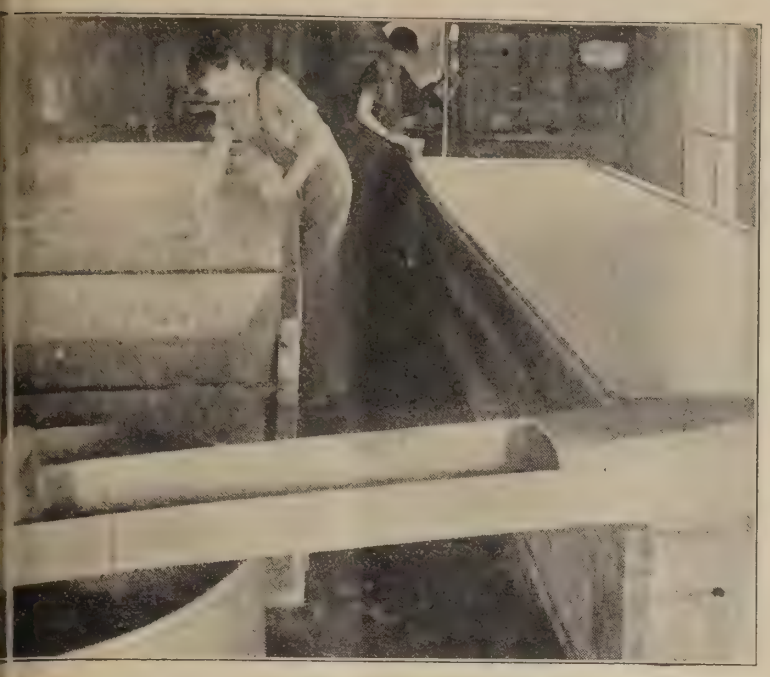
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165 Broadway, New York 29 E. Madison St., Chicago

OVER 2,325,000 DE LAVALS IN DAILY USE

AKING CHEESE IN EAST AURORA, NEW YORK



VATS IN WHICH MILK IS PUT TO BE WARMED

ennet is added at the proper time to coagulate the casein. The vat on the left is nearly dy to apply steam. The milk has been coagulated and the curd cut into fine clubes.



PRESSES OF A CHEESE FACTORY



EADY FOR THE HOOPS. AFTER THE WHEY IS DRAWN THE CURD IS MATTED, THEN CUT INTO FINE PIECES AND SALTED



A CURING ROOM—WEIGHING THE CHEESE AND MARKING THE BOXES



FILLING THE HOOPS WITH CURD



LOADING A CAR WITH CHEESE FOR SHIPMENT

Control of Abortion Disease

GEO. M. POTTER, Kansas College of Agriculture

[Continued from last week]

IN speaking of control, a distinction should be made between *control* and *eradication*. In the present state of our knowledge, we cannot truthfully say that the disease can be eradicated, but by methods to be later described it can be controlled to the point where losses are *negligible* and herd efficiency can be maintained.

It is natural, with such an obscure disease, that there should be great difference of opinion, especially regarding methods of control. Some believe that it is a hopeless proposition, but others, among them being some of the foremost veterinarians of our country, believe that by proper methods of herd management and attention to the principles of sanitation, it can be measurably controlled.

We have been groping about for cures, *but there is no cure*. At various times, drugs, such as carbolic acid, methylene blue, and others have been advanced as cures, but after trial have been discarded as worthless. The nature of the disease is such that drugs can have very little effect upon it. Some have claimed to be able to prevent an abortion, where the case is taken in time, but whenever the disease has progressed to the point that symptoms are manifest, the conditions are such that the calf can no longer live within the diseased uterus and it must be expelled. We would not prevent it if we could, for to have the dead calf retained would endanger the life of the cow.

Vaccines are somewhat more promising, yet they are still in the experimental stage, and only extensive use can demonstrate their true value. In many of our contagious diseases, where the animal survives, an immunity remains, and man has been able to induce this immunity artificially through the use of vaccines. In abortion disease, too, there is a decided tendency toward immunity, but our efforts toward developing a satisfactory vaccine have not been crowned with success. Our main reliance, therefore, must be placed upon preventive measures rather than drugs and vaccines.

Control of abortion disease is dependent upon three fundamental principles: Prevention of the dissemination of infection, developing herd immunity, and treatment of affected animals.

Prevent the Dissemination of Infection

It is through methods of herd management that most can be accomplished in combating abortion disease.

ISOLATE THE ABORTING COW AND DESTROY THE DEAD CALF AND MEMBRANES:—The dead calf and its membranes and accompanying discharges are teeming with the germs of the disease. They should be promptly gathered up and destroyed by burning, or buried deeply. The aborting cow continues to disseminate infection in her discharges for weeks, and far more disease is spread at this time than at any other. Consequently, isolation of the aborting cow is of the greatest importance in preventing the spread of the infection. The germs may be conveyed to susceptible cows in many ways where efforts are not put forth to limit the infection. For instance, in the dairy herd, a cow aborting in the line drops the infectious material in the stable, a careless attendant tramps through it, soiling his boots; he then walks up and down the feed alley or climbs into the silo, spreading infection wherever he goes. In the beef herd, on pasture or in the feed lot, the discharging cow contaminates the feed of the other cows. Quite often the aborting cow becomes a chronic "buller", and where the bull runs with the cows, as is commonly the case, he is continually transmitting the infection in an active form from the infected cow to the remainder of the herd.

TREAT THE ABORTING COW—Treat the diseased cow by flushing the genitals as hereinafter described. Immediately after abortion is the one best time for applying treatment, as the uterus closes within a few hours and cannot then be opened, except by an expert, without doing violence to the parts. Treatment is not only for the purpose of promoting recovery, but to prevent serious complications and avoid the dissemination of infection.

CONTROL BREEDING:—Do not permit the bull to serve any but perfectly healthy cows. Discharging cows and chronic "bullers" contaminate the bull, who in turn may carry the infection to others. Under no circumstances should such cows be permitted in the herd.

DISINFECT QUARTERS:—Stalls or other quarters should be disinfected whenever contaminated, because of the danger of the transmission of the disease from the infected environment. Remove all manure and litter, thoroughly clean floor and walls and spray with compound cresol solution, one part to thirty parts of water, i. e., a 3 per cent solution. Any other good disinfectant may be used. Finish by whitewashing, the wash being made thin and applied as a spray. Whitewash itself is a good disinfectant, and it has the advantage of being easily seen, thus serving as an indicator to show the thoroughness of the work.

PROVIDE THE PROPER SANITARY SURROUNDINGS:—Provide clean quarters, for where animals are kept under favorable conditions they thrive and amply repay for added care and attention. In combating contagious disease, sanitation is doubly important. Disease-producing germs live for a long time in dark, damp, filthy stables, and those same conditions are unfavorable for animals, lowering their vitality and resistance toward disease. Disease germs cannot long survive in clean quarters, well ventilated and flooded with sunshine.

FOLLOW PROPER METHODS OF FEEDING:—The pregnant animal must nourish two, herself and the offspring, and certain elements which produce muscle and the bone must be supplied the cow if a vigorous calf is to be born. Starvation, the use of spoiled feed or feed containing certain poisonous principles may seriously affect reproduction, especially in the presence of infection. A varied diet, containing all the elements necessary for growth, must be supplied to the breeding herd to promote vitality and the power to resist disease.

The principles enumerated above, namely, quarantine and treatment of affected animals to limit infection, disinfection of quarters to destroy the infective agent, and sanitary surroundings and proper feed to promote health and resistance to disease, are used by sanitarians everywhere in combating disease, whether human or animal. In fact, success is seldom attained without employing them. *They constitute practically the only effective means we have for controlling abortion disease.*

Develop Herd Immunity

Abortion disease is self-limiting. This fact has been repeatedly demonstrated in herds where there have been severe outbreaks attended by heavy losses. Where the owners did not become panic stricken and s pose of their herds, the disease often subsided as rapidly as it be and the herds have afterward gon reproducing with only slight This happy result came about thro the development of immunity in individual animals. Investigation shown that approximately two-th of the cows that abort lose t calves but once where properly tr ed, and thereafter they become mune. About one-third abort a ond time, and only a small per ce third time. It is true that in herds the disease may continu manifest itself for some time b occasional abortion, a retained a birth, or a case of sterility, but p tically the disease may be said t under control.

RETAIN ABORTING COWS:—Bec of this tendency to become imm the cow that has aborted and thr proper treatment has been rest to health should be retained. Sh more valuable in the infected than a new cow, which in turn m contract the disease. Many a fine has been sacrificed because of the taken idea that abortion can be trolled by disposing of affected mals. *Never sell a valuable bre animal, whether cow or bull, be of abortion disease.* Unprofitable hopelessly sterile cows shoul weeded out on general principles they require attention that shou bestowed upon the good ones. these cows should go to slaughter often they are sold into other h without the new owner being a that they are diseased. This pra of surreptitiously selling disease mals has spread this and other eases, far and wide, and it cann too strongly condemned.

RAISE FEMALE CALVES:—The orous heifer calves which reach turity in spite of the disease ar urally from the more resistant and they seem to inherit this ance, consequently they are les to abort in turn than cows from sources. Raise them. They will building up a herd immunity. improvement can also be se through the use of pure-bred si

DO NOT INTRODUCE NEW BRE FEMALES:—Do not introduce breeding cows into the herd if ble to do without them. Abortio ease persists indefinitely in a where cows are constantly bought and sold. The new cow n either infected and a spreader ease, or free and susceptible to the former case she introduce infection, and the owner has nothing by exchanging aborte the latter, a new victim has added to the herd. Abortion may be likened to a fire, wh new fuel is not constantly adde dies down. Herd immunity is oped, therefore, by retaining t mune cows, raising the calve avoiding the introduction of i cattle.

The foregoing practices hav found effective in preventing ination of infection and devo immunity to abortion disease in herds.

Treatment of Affected Ani

THE USE OF VACCINES, BAC ETC.:—The ideal method to contagious abortion, reasonin analogous treatment in other gious diseases, would be by v tion, and many such agents the market under the name of v bacterin, abortion, etc. The ma turers claim excellent results f use of their products. Some g as to issue a guarantee to e disease or refund the money. of this, careful unbiased inves accord but a very low immuniz ue to these agents. They h

(Continued on page 854)



PRIMROSE OF SCHLESWIG 2D, NO. 26500—OWNED BY F. F. THIELKE & SON, WISCONSIN
Record: 9,244.7 lbs. milk, 567.9 lbs. fat.

This pure-bred Guernsey won first place at the 1918 Wisconsin State Fair for the cow producing the most fat in a year's test in a Wisconsin cow testing association and entered for contest and exhibit. The feed consumed during the year consisted of 5 months pasture, 8,228 lbs. silage, 1,569 lbs. alfalfa hay, 395 lbs. clover hay, and 2,710 lbs. of a grain mixture consisting of gluten feed, oil meal, and bran. According to the association records this feed cost $104.91, while the value of fat produced was 61.7 cents per pound, or $350.26. This cow made a profit over feed of $245.35 and returned $3.34 for each dollar spent for feed.

Primrose was bred and raised by Thielke & Son, and her record is therefore of greater credit to them. Concerning the herd of which she is a member, Mr. Nander Nelson, the tester, writes:

"There are 18 Guernsey cows (13 registered) in the Louis Corners Guernsey Farm herd, of which Mr. Thielke & Son are the proprietors. The whole herd is of a uniform type and color and has made many good records the past three years in the New Holstein—Kiel Cow Testing Association. For the testing year ending March 31, 1916, this herd was first with an average production of 379 pounds fat. The next year, ending March 31, 1917, average production was 349 pounds fat, and the past year the average production of 18 cows was 369.3 pounds fat. Seven cows from this herd qualified and were entered in the Register of Production, which makes this herd one of the highest producers not only in Manitowoc County, but for the state of Wisconsin."

ensive Farming by the American Red Cross in England

CAPTAIN FRANK S. PEER

H Jersey cow was my first love,—
least among animals of the bo-
family. I look back on the day
e I secured my first Jersey cow as
letter day in my experience as
der. This was 'way back in the
l seventies.

ill recall most vividly my first
o the Island of Jersey in the
h Channel. It was in the spring
)2. I had been spending five or
eeks en route via the Azores,
gal, Spain, and France, and I
ssure you that I never was so
d to reach a place as I was at
ne when at last I set foot in a
where I could hear my native
spoken.

e that day my fondness for the
has "grown by what it fed up-
American farmers will forgive
r indulging in these personal
scenses, particularly when I
s to them that I am writing this
birthday. I am not going to say
one, as I do not care to see it
sed in numerals. I am feeling,
ard to my age, something like
cattleman I knew near Roches-
Y., who, when asked his age,
, "Well, really I most forgot,
near as I can calculate, I am
69 or 96. The truth is," he
reflectively, "I've been afraid
k in a glass for the last ten
for fear I would be tempted to
the wrinkles on my horns, and
might learn for a fact I was 96
l of 69."

r Jersey, I came to love Guern-
so. For several years I have
little home there. For twenty-
ars I have spent considerable
each year on these two beauti-
nds. Of course they are chief-
ble in the farmer world as the
f the Jersey and Guernsey cat-
One of their most attractive
s to me has always been the
ful production of the soil. I
ways been something of an en-
t on the subject of intensive
ture, and in this respect I be-
hese two little islands stand
nd shoulders above any equal
e of farming land in the world.
are endeavoring to install this
ype of intensive agriculture at
spital farm at Sarisbury, Eng-
Here the American Red Cross
chased an estate of 186 acres,
accommodations are being pre-
or more than 3,000 American
d wounded soldiers. The hos-
uildings will occupy about ten
f tillable land. Some sixty odd
ill be devoted to the needs of
spital, and the ground will be
ed on Channel Island lines of
ure.

arm organization is on the de-
ntal system, modelled after a
rganization which I installed
years ago near Wheeling, W.
ere will be six departments at
ry, each one under an experi-
irector, and each department
answerable to a comptroller,
l debit it with every expendi-
r its work and credit it with
ing which it produces. The six
ents will be as follows: the
oducing soiling crops and feed
cattle; the garden, consisting
t fifteen acres of vegetables
den truck; the cattle, consist-
60 head equally divided be-
Jerseys and Guernseys; the
about 100 to 150 head; the
about 1,500 to 2,000 head;
dairy, where the milk will be
d, bottled, and sent to the

ne thing that induced me to
ke to set up a farm organiza-
tion at Sarisbury hospital was that with the experience I have had in Guernsey and the years of observation of Channel Island methods of intensive agriculture, I hope to be able to demonstrate that the same principles of intensive agriculture are as practical in Great Britain as they are in Jersey and Guernsey.

At present the Sarisbury farm is in a low state of cultivation, and a good deal of hay, straw, and grain must be bought for several years before the farm becomes self-sustaining for the number of stock we have installed. But that does not worry me, for I have been through the same mill on my Guernsey farm and feel that what has been done can be done again.

The art and science of agriculture consists in taking the highest possible yield per acre from the soil while leaving it in as good or better condition for the ensuing crop. On this basis, the farmers of the Islands of Jersey and Guernsey may be said to stand at the head of their profession. Speaking from memory and in round numbers, I believe the Island of Jersey contains about twenty thousand acres of tillable land, including orchards and gardens, with a pre-war population of 55,000 and 40,000 to 50,000 visitors annually. The Island also supports 12,000 cattle, 7,000 horses, and 10,000 swine, to say nothing of goats, sheep, dogs, and poultry. This figures out at about 3 persons and 1½ animals for every acre of land farmed. The marvellous feature, however, is that this 20,000 acres not only largely supplies all this number of people and farm stock, but in addition provides for export five to ten million dollars' worth of agricultural products yearly.



A model farm, according to the latest American ideas of intensive agriculture, is being established by the American Red Cross on the grounds surrounding the American hospital at Sarisbury, England. This farm is in charge of Frank S. Peer of New York. Of the little patch of ground shown herewith, Mr. Peer said: "We have just completed a week's feeding for ten head of full-grown cattle on seven square rods of oats and peas. The land was formerly a vegetable garden. The oats stand over 5 feet high; the land would probably grow at the rate of 5 tons per acre."



Frank S. Peer, director of the American Red Cross Farm, with one of the Jersey cows which furnishes milk for the big hospital at Sarisbury, England.

I doubt if there is a finer example of intensive agriculture anywhere in the world. The little Island of Guernsey does even better per acre than Jersey, but she has something like 700 acres under glass, while Jersey is strictly confined to straight farming.

The Channel Islands, then, are an object lesson in agriculture and horticulture to all the world, and especially to Great Britain. Now that the British government has committed itself to a policy of encouraging small farms for the purpose of keeping its young men at home, there could be no better schooling for the embryo farmers than to send them to the Channel Islands for a time as farm pupils before putting them on a farm of their own.

I am sometimes almost afraid to tell the truth in England regarding the size of the crops the Island farmers are able to win from their soil, for it sounds like a fairy tale. Here is what these farmers are getting per acre:

Potatoes	300 to 500 bushels
Wheat	50 to 75 bushels
Oats	75 to 150 bushels
Hay	3 to 5 tons
Roots	50 to 100 tons

If what has been done cannot be done again—we mean at least to give it a try at the Red Cross farm at Sarisbury. If it fails we may have the satisfaction of knowing why.

Our cows, as has already been told, are a donation from the farmers of the two channel islands. Jersey has given us thirty of its finest blooded dairy cows, and Guernsey has given us the same number. About four of the cows from each of the islands were given outright by individual farmers, the pick of their herds. The rest were provided by individual subscriptions, running all the way from $1 to $125. The subscriptions in Jersey reached a total of about $8,500 and in Guernsey about $6,000.

Twenty of these cows have already been delivered, and in the first few weeks the cows themselves have added several fine calves to our stables. The remainder of the herd will be delivered to us just as fast as our stabling accommodations are completed.

The first cow donated in Guernsey was given by Mr. and Mrs. E. A. Best of the "Brickfield Farm", who contributed their finest cow—"Guilbert's Rouge of the Brickfield".

I have before me the minutes of the first meeting of farmers on Jersey to start the gift of cows. It may be interesting to American farmers to see what some of their Jersey brethren had to say on that occasion. Thus I note that the secretary, H. G. Shepherd, in opening the proceedings, said:

"We have met here today to think over and discuss what part we, as a society of an island, can take in providing cows to give milk to the wounded American soldiers who will be in hospital at Southampton. Our American friends are linked very closely to us. For years past they have bought our cattle and we on our part have been pleased to sell to them. It will therefore be a gracious and proper act, now that they require cows to give them milk, for us to provide them.

"The Americans have fought side by side with our men for right and liberty and for the old flag of England and for justice. I am sure that the farmers of the Island will make it a point of honor to assist these American soldiers and sailors who have helped them to keep their homes together.

"The hospital erected close to Southampton for wounded men is in need of milk, and if this is needed to bring back health and strength to the wounded men of America, they can find no better milk than that of Jersey.

"We should make this gift without idea of our own interest and profit, for our friends in need should have the very best we can give."

One of the farmers, Mr. J. A. Pearce, followed by saying: "America has spent money lavishly since she entered the war, and even before that she had been feeding Belgium and France. The Americans have denied themselves to supply us with food. I think that all work in connection with this gift should be voluntary, and if the necessary amount of money is exceeded, there will be plenty of ways of spending it for devastated France."

F. E. Luce, another prominent breeder, said: "This is a Red Letter day in the history of our Island and society. Our farmers have benefited by the American dollars in the days of yore and they will now generously support and help the wounded Americans who fought for our cause."

[Editor's Note:—Mr. Peer, who has recently been commissioned a captain in the field service of the American Red Cross in England, is widely known in America as an expert in cattle breeding and intensive farming. His "international farm" on the Island of Guernsey in the English Channel is a famous show place and

[Continued on page 874]



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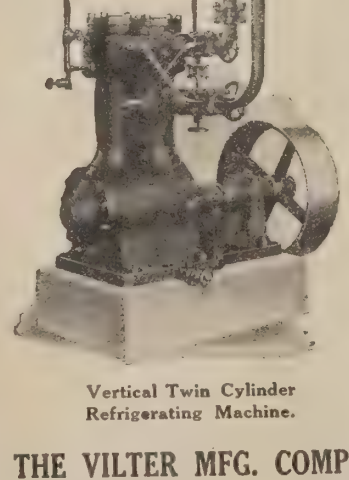
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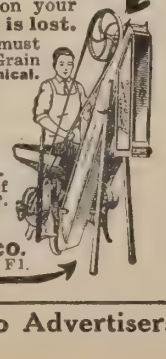
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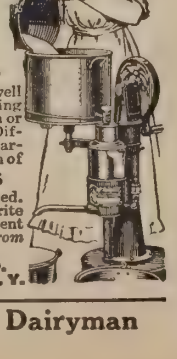


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"Hebe" Milk Likened to Oleo

CHESTER C. FARR, WASHINGTON

SEVERAL farmers' papers are carrying a full page advertisement from the Hebe Company of Seattle and Chicago, proposing that the county agents and other extension workers, in behalf of the farmer whose "interests they are guarding and to whom they bring all that is of immediate practical value in our scientific teaching, should become informed about the new product Hebe and its benefits to the dairy industry."

The county agents in dairy sections should know more than what has been said in this article about this new product, but which truly is no friend of the dairymen. Hebe is another friend to "oleo". He wears a tin jacket this time instead of annatto paint and oil paper. Hebe is made from skimmilk, it is true, but from whole milk purchased from the farmer, skimmed at the factory, incorporated with imported cocoanut oil to replace butterfat and the butterfat itself thrown back onto the market as butter. This company which purchases millions of pounds of whole milk each day on the Pacific Coast virtually has control not only of the fluid milk market, but also the butter market as well.

This cheaper fat which replaces the butterfat is a vegetable oil and as such has recently been proven to be an imperfect growth producing food substitute. The recent investigations of Dr. E. V. McCollum of Johns Hopkins University, who is recognized as one of the greatest authorities today on dietary matters states: "We are not to speak of fats in our discussion of nutrition without recognizing that all fats are not of equal value to the animal during growth." To further explain this he says: "A butterfat substitute is not equal in its physiological properties to an equal amount of butterfat. It may possess as much energy and be as easily digested, but it will in no way perform the functions of growth." "So far as is known the only substances among human foods containing this are butterfat, eggs, and a small amount contained in meat." From this statement it is clearly shown that Hebe, containing none of the properties necessary for growth, cannot take the most valuable place of milk, that of food for growing children. This should be made clearly plain to every community. Those communities that are ordinarily poorly fed are usually those whose personal finances force them to purchase cheaper foods, and the package containing an equall, clean product, of equal volume and appearance, without making the purchaser conscious of the most recent information regarding its food value, will sell the more readily. These same purchasers are those who seldom buy meat or eggs at present prices, but a milk product is a part of every child's diet, and to supply it with this in face of present scientific knowledge of nutrition is to add materially to its improper health and growth.

In this respect the recent investigations of Professor O. F. Hunziker, embodied in his "Condensed Milks and Milk Powders", pages 177 and 178, states: "Nor does imitation condensed milk, such as 'Hebe' product, in which the butterfat has been replaced by a vegetable fat, supplement the lacking fat soluble accessory substance. The public should clearly understand that in milk or condensed milk, there is no substitute for butterfat and when the butterfat is removed the product no longer can take the place of milk."

And again it is made clear as to the best knowledge regarding Hebe as a food that "Experiments conducted at Ohio State University by J. L. Hutchinson, instructor in the partment of Agricultural Chemi under the direction of Professo Erf, Chief of the Departmer Dairy Husbandry, and Dr. J. F. man, Professor of Agricultural C istry, demonstrated that "Hebe" when fed to young white rats re ed in malnutrition accompanie stunted growth, sore eyes, and of some of the experimental in a similar manner as did othe tions in which the fat soluble mines were lacking.

Hebe milk has undoubtedly manufactured in this section ciently long to show its merits dairymen's friend. It was man tured here first and came into mercial life in these plants whic the farmers' milk. At this tim attitude of the dairyman here is thing but friendly toward "H He has failed to receive any market for his dairy products th sections where "Hebe" is not m factured, and his market has poorer than in some sections "Hebe" is not made. The dair feels and frequently expresses t lief that the Hebe product not acts as a means of lessening the sumption of his normal cond product, but also will lower the terfat market by placing on the ket the surplus butterfat which wise would have been consum milk in addition to the norma terfat demand, and thus the b fat supply is increased beyond n consumption. Certainly this p is not popular in its own home try.

Supplies of Cottonseed and Meal

HOARD'S DAIRYMAN:—With t minent abandonment of a majo regulatory price measures adop the government at Washingto ing the war, dairymen are nat wondering whether or not cott and linseed products will be af It is the claim of manufactur these feeds that the market wo on a higher basis than now qu not held in leash by fixed schedules. Still, the fixed pric much higher than in pre-war da view of this fact, it is well for men to take a glance at the con which prevail in the trade in seed and linseed cake and meal, are highly important concentra

An acute shortage prevails i cottonseed meal and cake and meal and cake in the face of a and urgent demand from live producers. First of all is the yields of both cotton and flax the United States this year which buyers of the by-produ commodities have been forced tend.

The production of cotton United States this year am to only 11,700,000 bales, co with 11,302,875 bales the pr year and a five-year average tion of 13,327,000 bales. The 1917 was the smallest on reco the production this year, only greater, has forced crushers of seed to operate without any over or possible surplus. The e timates of the Department of culture on the prospective 19 ton crop gave hope of a yield than 16,000,000 bales, but drouth sharply reduced the act turn.

American farmers, princip the Northwest, harvested a flaxseed this year of 14,657,00 els. The yield in the precedin

nunted to only 9,164,000 bushels, u he average for the 1912-1916 five- e: period is 17,600,000 bushels. rvers of flax have become dis- naged over crop failures the past e years, and the acreage devoted to ne crop has greatly diminished. Up o 909 yields of flaxseed in this ntry were comparatively large, u after that year, except in 1912, hi 28,000,000 bushels were pro- u-d, harvests have been light. The 9. yield of only slightly more than 0,000 bushels was the smallest on e d, while a crop of even 14,000,000 u els is far insufficient to supply e s of the crushing industry of this u try.

e following range of maximum ri s, fixed by the United States o Administration, prevail on cot- r ed feed: For Oklahoma and e s points, $50 for 36 per cent pro- i meal, $52.50 for 38.5 per cent e in, $55 for 41 per cent, and $57 r 43 per cent protein feed. In Ar- nas and states eastward, the price $ per ton higher than in Oklahoma exas.

Oklahoma is practically out of the a et as far as supplies of cotton- e cake and meal are concerned. All i., as a rule, are sold ahead for e maximum period of 60 days al- 1 by the Food Administration. n in Arkansas, Texas, and other t n belt states, the available sup- y of cottonseed cake and meal is compared with the outlets. e range cattle breeders and feed- s re in the market for heavy quan- i , but only those who entered the market have been able to obtain than an occasional car of the The experience of the preced- year, when buyers withheld pur- s until winter had approached then found themselves unable to t n supplies, owing to a generally at demand, congestion of trans- tion, and shortage of cars for ng freight material, has made e cattle handlers eager to enter arly market. But this is not par- arly true of the small feedlot cat- andler. He is rather disposed to in ton lots, rather than in car- , willing to stand the heavy added se incident to making the small ase. Such a situation is due, it lieved, to uncertainty and nerv- ss over the future of the market at bullocks and beeves in general, r than to any apparent hope of prices for cottonseed products. ed prices on cottonseed allowed e United States Food Adminis- n are abnormally high—the at which the mill obtains its lies will average about $70 a Crushers of cottonseed prod- maintain that there is not suffi- profit in the industry with seed s at such a level, and much dis- nt prevails. The crushers point e lower oil content of the seed re- g from drouth. Cottonseed oil s also are fixed, the only prod- having no set price being the But, of course, these commod- must naturally sell, owing to re- l feeding value, at a lower level the meal and cake. Owing to ight yields of cotton, a shortage ed is anticipated before the end e crop year.

other factor which tends to re- the operations of crushing s in the cotton belt is the acute ity of labor. Many mills in the have been forced to reduce their ting capacity to half normal, and in the face of an exceptional de- for the feeds, is further aggra- g the situation.

rmally, a large portion of the ction of cottonseed cake and in the United States is exported urope. Germany, Holland, and um were heavy buyers of cotton- cake and meal from this coun- rior to 1914, when the world was plunged into a great war. There is considerable talk today of a resumption of this export business, but close students of the trade situation declare it is needless to give even slight consideration to the possibility of an export outlet. For nearly a year and a half, there have been practically no exports, and the ban on foreign shipments continues. This is of especial interest to the grain trade, for the European countries which normally depend on vast quantities of cottonseed cake and meal may be forced to buy more corn from the United States to take the place of the high protein cottonseed feedstuffs.

The flaxseed situation is not encouraging in the least. Even on a normal yield of the product, crushers in the United States are forced to turn to other countries of the world for supplies. Argentine, India, and Canada before the world war found a broad outlet for their yields of flaxseed in the United States. What, then, can we expect under a situation with a short yield, no carry-over from the preceding year, an embargo on imports from Argentine, and a light movement from Canada?

A late ruling of the War Trade Board at Washington announces that import restrictions placed against flaxseed shipments to this country last July have been modified to permit the issuance of licenses for importation of this commodity when originating in the River Platte district of Argentine and Uraguay, in a total amount of 20,000 tons prior to January 1, 1919, and 16,000 tons for each month of the first four months of the next year. While this will aid appreciably the domestic situation, conditions will still remain far from normal. There is hope that the War Trade Board will, after January 1, rescind entirely its regulations against imports from Argentine, to which country the United States looks for a large portion of its supply. The Argentine crop, however, is not available until March or April, and heavy imports before that time are doubtful. Europe will be a heavy buyer of Argentine flaxseed, owing to need for linseed cake and meal to feed the starving herds. India's crop will doubtless find its principal outlet in the United Kingdom. Europe's requirements are unusually large, owing to general feed shortage and reconstruction of the dairy and general live stock industry of the Old World.

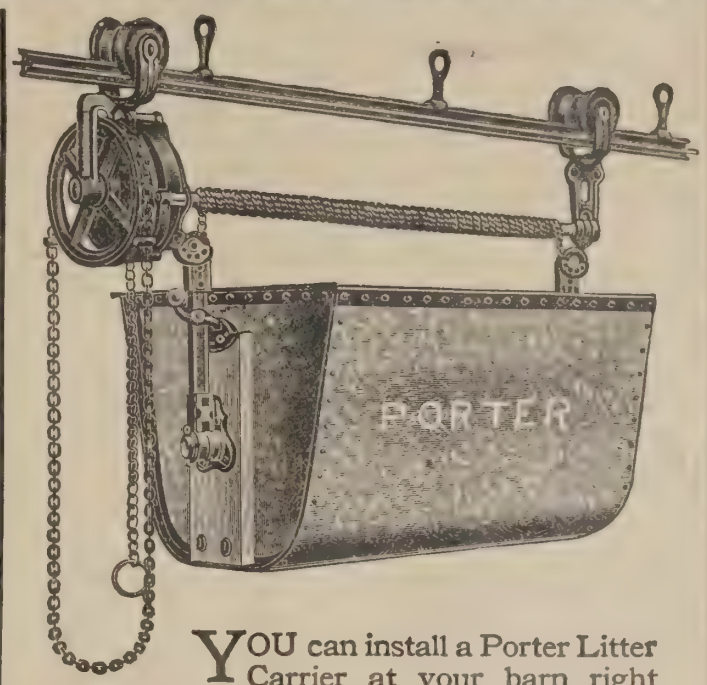
Duluth is receiving the greater portion of the shipments of flaxseed from the country. The movement as a whole is light, and it is doubtful whether crushers either in the East or West have accumulated sufficient stocks to carry them through the winter. Shipments to the East via Lake routes already have ceased.

Linseed meal is quoted at a maximum of $56 a ton, basis Minneapolis. Most of the crushers are sold ahead for 60 days, and numerous orders for the commodity are being refused owing to lack of supplies. A favorable factor in the trade is the outlook for an enormous demand for linseed oil with the resumption of building operations throughout the United States.

Not a few dairymen in the country are forced to substitute other feeds for the cottonseed and linseed feedstuffs, being unable to obtain an adequate quantity of the concentrates. In view of the government's refusal to change bran and shorts prices, its fixing of hog prices and its desire to help enlarge the food supply, it is doubtful if present fixed levels on cottonseed and linseed feed will be removed or even modified until at least another crop becomes available. The belief prevails that government control of prices will continue until feed, live stock, and allied industries adjust themselves to peace conditions. But

[Continued on page 878]

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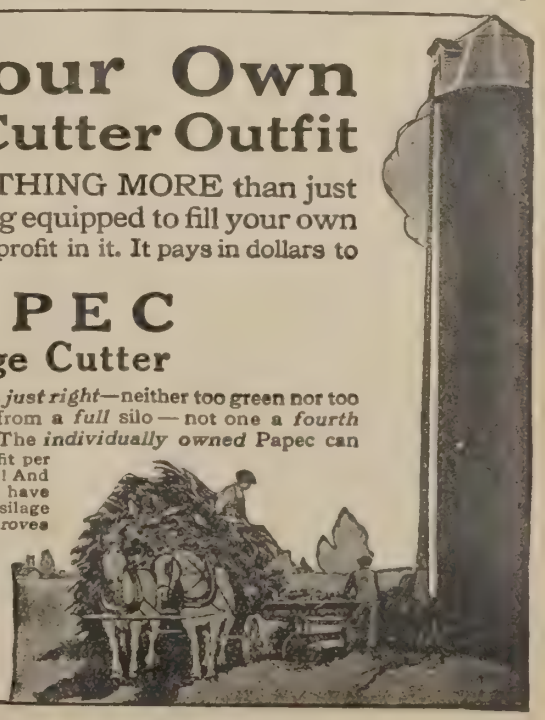
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do your cows show signs of discomfort? Do their knees shake and their flanks quiver? Are they unable to produce milk in normal quantities because their udders are chilled? One way of helping to keep your cows warm is to have your stall floors paved with

Circle A Cork Brick
For All Stall Floors

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Cow Testing Association

RECORDS, PRICES OF FEEDS, FAT, AND MILK

Following is the summary of reports received during the past week and up to the time going to press of this issue:

State	Association	Tester	Month	No. of cows tested	No. of cows producing over 40 lbs. fat	Fat production of high cow	Owner
Wis.	Polk County	Ben Wycoff	Dec.	266	8	56.2	E. Nelson
"	Sheboygan Falls	E. P. Lindow	"	271	3	43.6	J. C. Boll
Ill.	Lake Co. No. 1	R. E. Porter	"	327	32	65.5	G. Farman
N. J.	Middlesex—Somerset	J. G. K. Duer	"	376	24	82.9	Forsgate Farms
Tenn.	Rutherford Co.	E. M. Preiertt	"	244	27	60.0	A. L. Jones
Vt.	Rutland County	C. Wheeler	"	590	2	47.8	
"	Lamoille Valley	H. Gage	Nov.	275	14	59.6	A. A. Lewis
"	Craftsbury	P. E. Bassett	"	275	4	44.8	Hines Bros.
"	No. Chittenden	C. N. Howe	"	385	3	55.6	G. M. Nelson
"	White River	W. E. Parsons	"	246	25	65.3	Quechee Fells F
"	So. Chittenden	W. G. Martin	"	527	10	52.3	Wright Bros.
"	Washington Co.	R. W. Pike	"		8	62.2	Carver Bros.

Association Notes

Polk County, Wisconsin:—Two unprofitable cows were sold. Three new members have joined this association, one having a herd of pure-bred Swiss. The creamery paid 75 cents per pound fat. The feed prices are about same as last month.

Lake County No. 1, Illinois:—Cows are being fed winter rations now which improves their milk flow. Oats, barley, and oil meal are the chief grains fed. In December market milk sold for $3.77 per cwt. The average test required was 3.5% and for each point above 4 cents were paid. The creamery paid 72 cents per pound fat. Butter retailed for 67 cents per pound. Feed prices: Oats, $48 per ton; barley, $43; oil meal, $66; bran, $35; gluten, $59; alfalfa, $35; clover, $34; silage, $8.

Middlesex—Somerset, New Jersey:—Belleview Farm has a grade Holstein 8 years old showing a year's production of 11,907 lbs. milk containing 429.1 lbs. fat; fresh Dec. 5, 1917. The value of the milk was $433.96 and feed cost was $160.73, showing a profit of $273.23. Six pure-bred cows and eight pure-bred heifers have been bought this month and 12 boarders sold. There are 15 pure-bred bulls in this association.

Rutherford County, Tennessee:—Ten cows have been sold as unprofitable, two new barns are going up, one silo bought, one registered heifer bought with great production back of her, one pure-bred bull purchased. All members, with very few exceptions, are putting more enthusiasm in the work and are feeding and caring for their cows in a way which pleases. Needless to say production is increasing in most herds. The creamery paid 67 cents per pound fat. Silage costs $5 per ton; cowpea hay, $25; soy bean hay, $25; alfalfa, $28; bran, $2.40 per cwt.; cottonseed meal, $3.10; corn and cob meal, $1.40 per bu.

Rutland County, Vermont:—Five unprofitable cows were sold for beef, five other cows sold, and five registered cattle bought. Eleven herds are being tested for tuberculosis. In November market milk sold for $4.78 per 100 lbs.; test, 5%. Creamery paid 72 cents per pound fat. Feed prices: Unicorn, $70 per ton; bran, $45; cottonseed, $60; hominy, $72.50; molasses, $55; oat feed, $40; oil meal, $62.50; hay, $12; silage, $6 to $8.

White River, Vermont:—Golden Oxford Browne, a Jersey of Quechee Fells Farm, again leads the state for November. She has led in fat production several months. From April 8th to December 1st she produced 9,030 lbs. milk containing 567.7 lbs. fat.

Arkansas Valley, Kansas:—On Dec. 14th Arkansas Valley Association met and settled for 1918 and second year work and organized for 1919. Claud Wehrman, tester, stays with association for another year. He makes more clear money on a side-line than as wages. He buys go cows and puts them out on nal with a good caretaker. Result is th good grade cows paid for themsel in 1918 and he bought one registe at auction here Dec. 12 for $500, to handled on same terms. Every me ber of association use a pure-b bull.—F. L. H., Wichita, Kans.

New York Dairy Notes

HOARD'S DAIRYMAN:—As Dece ber advances and farmers are wo ing hard to catch up the work, feeli unusually pleasant over the mont income for milk, they seem to be vided between real satisfaction a certain dismal forebodings. They getting average cost of produc milk, but there are rumblings of proaching trouble. The city dai are stirring up discontent in the ci by publishing sensational trash garding the profiteering of dairym and the alleged conspiracy of p ducers and distributors to multch public in high prices for milk. Inve gations are in process to prove vi tions of laws in setting league pri and by dealers in respect to re milk, particularly the former.

As a result of this agitation th is a decrease in buying milk as a taliatory measure on the part of public. Poor people are said not to able to get milk on account of pr and they are doubtless buying les it, whether from necessity or f choice. Doubtless it is commonly f choice and the choice is due to ag tion. Where a wrong exists it is to make it known, but to contend t dairymen are getting abnormal pr ought not to be urged to the ex that it is without first finding such is really the case. It is doin world of harm to dairymen. If were all we could simply protest, it is also harming the consumers causing them to use too little milk their own good.

Uncertainty as to Future Mar

Farmers are becoming somev alarmed over the city attitude. do not know what the result will President Cooper of the Leagu the other day that there is a shortage of milk. Some of the c ers say there is a surplus. Cer creameries and stations are b closed. There is turmoil and anx in many quarters. Uncertainty se to be supreme. Somehow our problems seem to multiply and t is a good bit of need to be in gre readiness for all sorts of emer cies. A farmer-owned creamery fine thing but that is not enough needs an all around equipment, a needs experience and training to dle it. This the farmers should d

Nestle Company Absorbs Compet

The condensing, evaporating, dry milk business are all factors in our milk territory. The dry people appear to be coming to

rt somewhat. About all the con-
e ing would now seem to be under
n control, which is disconcerting.
veral years ago the Anglo-Swiss
o lensed Milk Company was oper-
ti g somewhat in this country. It was
e rted that they and the Bordens
n red into an agreement by which
h Anglo-Swiss were to stay on the
t side of the Atlantic and the Bor-
e this side. Within a short time back
h Nestles Company, an English cor-
o tion, has absorbed the Anglo-
w s and, if reports are correct, has
a n under control the condensing
n evaporating concerns of this
o try. This concern, the Nestles, is
n her cause of worriment in the
i situation. They are too strong
n may doubtless do harm. They
a the power. And so we worry
c g. The Bordens are said to be
o ng plants and striking further
e in the hope of securing cheaper
i. In a few days there may be
o sunshine in the situation. At
r rate e are doing fairly well in
e mber and perhaps we may as
e enjoy the comfortable feeling
h it lasts. It is not wise to be-
r too pessimistic, only a little so.
eds are advancing very consid-
a y. Many have thought we would
e a decline and some of us who
r put in a supply for the winter
r almost felt sick of the bargain.
oks now like a saving of five or
r lollars a ton on most of the pur-
a es. There are no wheat feeds and
a / of us are using ground oats.
n e cost nearly sixty dollars and
a is too much, but we pay it be-
u e we get nothing to take its place.

January Prices Not Fixed

Since I have commenced to write I
had a talk with one of the head
e among milk dealers. He expect-
s to get an agreement on January
l prices before this time, but there
s been a hold-up. The League
rs and the dealers seem willing to
t into an agreement, but the Food
l inistration appears to have with-
a n. The dealers say they do not
n to make a bargain with the
a ue without some legal authority
n npire, for doing so renders them
l to fine and imprisonment. The
a ue officers are exempt from pun-
n nt for such action by the law of
w winter, but not so the dealers.
i is the dealer's attitude. Once
l ight have thought it a policy of
a to bring this up, but now we
e inclined to think there may be
a n for the contention, especially
t the absurd comments of the city
e and of the investigating attor-
y office.

I does not appear at this moment
t the dealers are likely to contest
e eague price, although a day now
c change the situation. This deal-
w hom we have known for some
a and who is regarded with confi-
n , claims that the retail milk
l et has not been cut more than
e r two per cent by the December
r ice in the price of milk. There
s een a large decline in consump-
s since last August, he says, but
d not seem to attribute it so
l largely to advancing prices.
e are various views to take. He
t ts a surplus of milk much of
m me from now until next August.
t s be true, it looks a bit dubious
f r dairymen. Much now depends
e manufacturers, especially con-
s s. Butter and cheese can hard-
l us out on the present plan of
e prices except possibly in June
l little each side of that month.

abbages a Good Milk Feed

re may be too much milk pro-
even now, and the prospect is
ger production. We market but
xcept milk and a few potatoes
bbages. These two productions
are in over supply and there are really no markets for them.

Speaking of cabbages, only a few have been sold from our section this year. The price at the car has seldom been above thirteen dollars a ton, and most of the time only ten. There is a general opinion here that at anything less than fifteen dollars, the cows ought to get the most of them. Some dairymen assert that at the present price of feeds, cabbages are worth twenty dollars a ton. I have yet to learn of a dairyman who is not enthusiastic in reference to feeding cabbages. They are milk producers and not a difficult crop to grow. They are said to put on flesh as well as produce milk. It is a good deal less labor to harvest the crop if fed to stock than to prepare it for market, although when the prepared heads are sold there is quite a bit of refuse that may be fed. Saving labor in harvesting and in hauling to market is a good bit of an item.

New York. H. H. LYON.

Iowa Milk Prices

J. V. Lingenfelter, General Manager of the Iowa Dairy Marketing Association, Des Moines, has recently issued a circular letter to the members of that association, from which we take the following:

"It is with no little pleasure that we again advise you of another increase in the price of milk, effective January 1, 1919. The price will be $3.75 for 100 lbs. of 3.5% milk, with the 5 cents per point up or down. The distributors have been convinced of the wisdom of our demands and accept without protest this increased price. While the raise is beneficial to the farmer, the price of retail milk will not be affected.

"With these nice advances over our old, ineffective, individual methods, it seems to me that much has been accomplished within the past year. Few, indeed, would be willing to go back to the chaotic conditions existing before we had the organization.

"The past year has been one of many problems, but with your splendid support much has been accomplished. With an average price above $3.40 per 100 lbs. for milk for the year, and beginning another year with the price above announced, a membership of nearly 800, no debts over us, a nice surplus in the bank, we indeed have reasons to be proud of our efforts. With a loyal membership and your hearty support, we have much to look forward to."

Feed Rich in Protein Needed

Please tell me how I can make a good dairy feed out of corn, oats, and barley that I have on hand. Will I have to mix some other kind of grain to make a good milk feed? I have silage and mixed hay for bulk. Have a few cornstalks in the barn.

Marine City, Mich. C. W. K.

We would suggest a mixture of 200 lbs. ground corn, 200 lbs. ground barley, 200 lbs. ground oats, and 150 lbs. of oil meal to supplement the clover and timothy hay and corn silage. We would let each cow have daily about 30 lbs. of the corn silage and all the hay she would care to consume without waste. Feed about 1 pound of the mixture suggested for each 3½ lbs. of milk produced.

If oil meal cannot be obtained, then we would suggest using 200 lbs. of gluten feed instead of oil meal, or 150 lbs. of cottonseed meal. It is necessary to select some feed rather rich in protein in order to supply an adequate amount in the ration so that the cows will do good work.



Small But Important—

The service you get from ready roofing depends not upon the roofing alone. In the long run the roofing is no stronger than the materials which hold it in place. So the next time you buy roofing don't overlook those small but important items which are packed in the center of the roll—lap cement and nails.

Good lap cement must spread smoothly when applied. It must hold the edges of the roofing together *flat*. It must be water-proof and weather-proof. *And it must retain all these qualities throughout the life of the roofing.*

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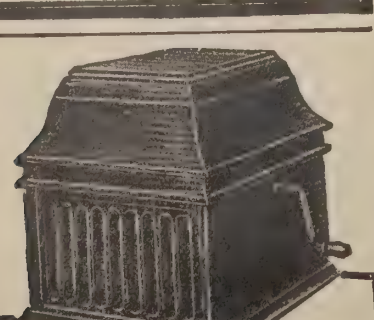
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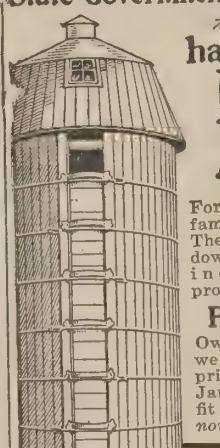
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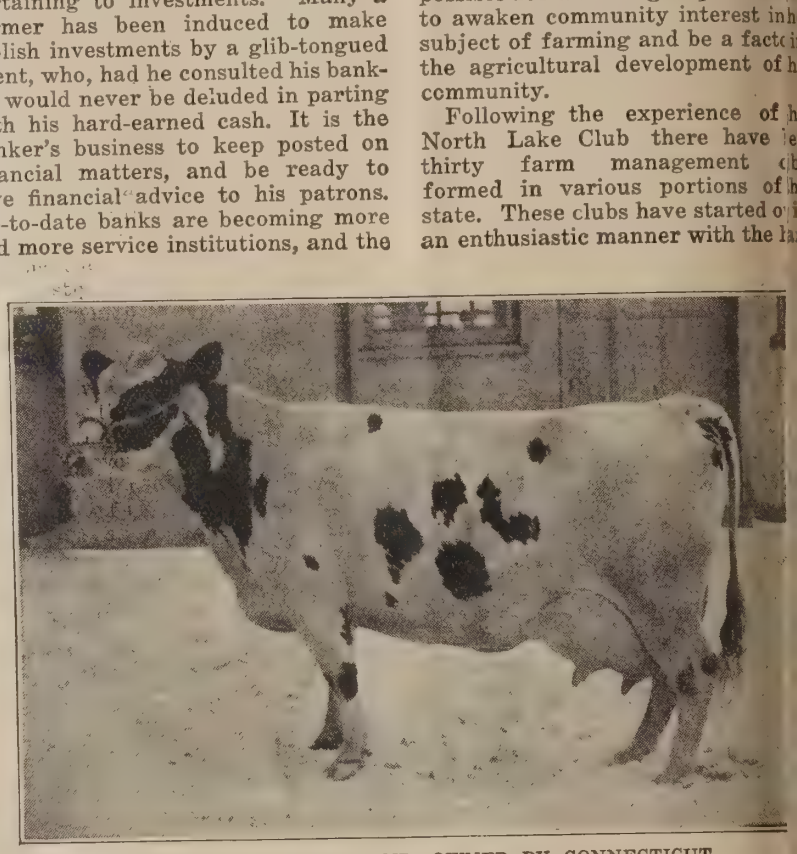
FARM management clubs have been organized in Wisconsin for the purpose of enlisting the co-operation of the banker and the farmer in a study of the business management of the farms for the purpose of increasing farm profits and encouraging farmers to do business in a business way, through the banks. There are probably no two classes of people who are more dependent on each other than the banker and the farmer. The country banker is dependent upon the farmer for the largest share of his banking business. The farmer is dependent upon the banker for a place to deposit his receipts, for loans to tide over certain periods of the year, and for advice upon financial matters pertaining to investments. Many a farmer has been induced to make foolish investments by a glib-tongued agent, who, had he consulted his banker, would never be deluded in parting with his hard-earned cash. It is the banker's business to keep posted on financial matters, and be ready to give financial advice to his patrons. Up-to-date banks are becoming more and more service institutions, and the farmer fails of his opportunity and privilege if he does not avail himself of this service.

During the last few years the bankers have taken a keen interest in the farmer and his business. They have not only loaned him money, but they have helped him to get better seed and better live stock. The Wisconsin bankers have published the Bankers' Farm Bulletin for the benefit of their farmer patrons. These bulletins have been full of helpful suggestions in matters pertaining to the farm. The bankers have also helped in arranging for banker-farmer meetings both locally and at Madison, and have provided programs full of practical suggestions for enterprising farmers.

During the past two years the banks have shown special interest in getting their farmer patrons to keep inventory and financial records of their business transactions. In order to do this effectively, farm management clubs have been organized with the banker usually acting as secretary and treasurer. The farmer who comes into these clubs promises to keep his records and study the results at the end of the year. In order to defray the local expenses of this work the farmer has paid a $2.00 membership fee. This fee has been used to cover the expense of his account book, the expense of collecting the account books at the end of the year, and also the expense of figuring out a factor sheet, showing where each man st in comparison with the average best at the end of the year.

One of these clubs, North Lake, a been running for three years, and interest and growth of the clu shown in its membership. It sta out with 22 members, the second this was increased to 30, and at beginning of the third year to 60. club has been instrumental in sti lating interest in farm managen problems in that community. In fall of 1917 it pulled off what called a "Banker-Farmer Mixer" the county. It provided an excel program and by vigorous adverti succeeded in getting 3,000 people This club has demonstrated that possible for a small group of far to awaken community interest in subject of farming and be a fact the agricultural development of community.

Following the experience of North Lake Club there have thirty farm management formed in various portions of state. These clubs have started o an enthusiastic manner with the l



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This cow holds the Ayrshire butterfat record for Connecticut and in four lactatio periods has produced in milk forty times her own weight. Her records are:
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4½ yrs. old—11,537 lbs. milk, 461.6 lbs. f
5¾ yrs. old—14,065 lbs. milk, 556.0 lbs. f

ty co-operation of the banker we believe that they will all be a er in their community. They se a nuclei around which large ag tural problems center.

As to the future development farm management clubs, we b these clubs furnish an opportuni greater co-operation between banker and the farmer. They it possible for the banker to with a group of farmers as w with individuals. It helps to the bank the local center, and banker and the farmer come to each other better the farme confide to the banker his fin problems, and the banker beca his knowledge of financial m will be able to give valuable a It also tends to get the farmer his business through the bank business way. The farmer's rec his business provides an adm statement to serve as the basis loan, and it also points to bo farmer and the banker the di in which investments can be that will prove the most profita

As these clubs develop it is e ed that more and more intere center around them, and tha vision will be made for r monthly or bi-monthly meeti discuss various problems tha arise in the successful manag of farms.

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Address, ALVIN DILLE, In Charge ...Agricultural Instruction, States ...Relations Service, U. S. Department ...of Agriculture, Washington, D. C.

...Cream, the Soldiers' Symbol of Home

...Ice cream in France has always ...been made more or less to pamper the ...particular taste of American tourists, ...now, of course, with the scarcity ...of milk it is a thing practically un...known. From the moment the Yank ...sets foot on a transport, ice cream be...comes one of the poignant memories ...of home, a symbol of all he has left ...behind, and a dangerous thing to men...tion. The word brings up a picture of ...docks and side porches and mother and best girl and everything like that.

An American soldier, blinded by gas, had been brought after weeks of torture to a hospital in the suburbs of Paris. Into his world of pain and darkness came suddenly one day the quiet voice of an American woman: "Wouldn't you like some ice cream?"

With quivering face he lifted himself from his pillow. "What!" he said excitedly, "is the war over?"

It was a woman from the Soldiers' and Sailors' club who put a dish of ice cream into that blind boy's fumbling hands. The directors of the club had asked themselves: What would give wounded doughboys the most sheer, undiluted joy? There was simply one answer—ice cream. "Why," said Mrs. Beekman on a hot September day, "if the American army thought there was ice cream in Berlin, it would be there next week!" So the club started its plan of taking ice cream to the Paris hospitals. The club originated the idea and gives the service; the Red Cross generously contributes the ingredients for the treat.

An American had been brought in from the desperate fighting on the Ourcq. He was unconscious. The identification tag had been torn from his wrist. He was dying. No one knew who he was. Then that question close to his ear, "Wouldn't you like some ice cream?" did what doctors had been unable to do—brought him back to consciousness. He couldn't eat the ice cream, but he gave his name, told what regiment he belonged to and how he had been wounded, and whispered a message to his people at home before he died.

When the men get in shape to be moved they are loaded into motor trucks and driven to the club for their cream. Almost any day you can see a row of trucks, borrowed from the army or the Red Cross, rolling up in front of the club rooms on Rue Royale near the Madeleine, out of which climb a bunch of expectant Yanks. Sometimes they have to be helped out and carried up the stairs, while others, with arms in slings or bandaged heads but sound legs, mount the stairs themselves.—From "A Little Chunk of U. S. A.," by Webb Waldron, in Collier's Weekly.

Who'd throw dollars out of the window? Yet many farmers throw manure out of the stable onto a heap where much of its fertilizer value is lost.



Another FEDERAL

A Federal which is earning bigger profits for the Lindell Dairy Co., of St. Louis, Mo.

Save Those Pennies With a Federal

DAIRYING is largely a matter of transportation. Your products must be delivered regularly, quickly and economically. This almost demands the type of service rendered by the Federal Truck, if you want to be sure of the utmost profit at the end of the year.

Many of the leading dairymen have found the Federal superior for their work, because of its unusual stamina, ruggedness and very low operating expense. It stays on the job—every day in the year—giving you the right kind of service—the service that makes for greater profit.

Write us and we will send you the monthly magazine, "Traffic News"—a publication for the truck owner and buyer.

Federal Motor Truck Company
33 Federal St. Detroit, Mich.

One to Five Ton Capacities

FEDERAL



SALZER'S 164 PAGE SEED CATALOG

(40 Pages in Natural Colors)

A postcard will bring it. 51 years' quality standard behind every sale whether "a packet or carload."

Write for your copy today

America's Largest Mail Order Seed House

IF IT IS ANYTHING IN SEEDS WE HAVE IT FOR FARM, GARDEN OR LAWN

Vegetable Seeds—Flower Seeds—Clovers—Alfalfa—Timothy—Sudan. Seed Corn—Seed Wheat—Seed Oats—Plants—Seed Potatoes—Rape.



It has always been our policy to supply the highest quality seeds humanly possible to grow, so that every purchase, no matter how small or how large, will, in results and satisfaction, continue to retain for us the good will and patronage responsible for our present large bu

JOHN A. SALZER SEED COMPANY

"America's Headquarters for Field Seeds"

Box 155 La Crosse, Wis.



DICKINSON'S PINE TREE BRAND SEEDS

Timothy, Clover, Alfalfa and Other Field Seeds

If Your Local Dealer Cannot Furnish This Brand

WRITE

THE ALBERT DICKINSON CO.

MINNEAPOLIS **CHICAGO**

Ford's Seed Catalog in Your Farm Office

will be a daily help in selecting seeds for the biggest and most profitable crops you can raise on your farm.

Old Virginia Ensilage Corn
Nectar Sweet Corn
Glory Cabbage

are only a hint of the profit-makers we have introduced.

Every farmer and gardener ought to send today for a free copy of this booklet—write now for it.

FORD SEED CO.
Box 61 Ravenna, Ohio

Grimm Alfalfa Seed

NON-IRRIGATED

Superior in Hardiness and Yield.

My farms are devoted exclusively to the production of genuine non-Irrigated Grimm Alfalfa Seed. No other crops are produced.

My seed is grown on my own farms, near Benkelman, Duncy County, Nebraska, under my personal supervision; is shipped in double sacks, sealed, and a sworn Certificate is furnished guaranteeing the seed to be Genuine non-Irrigated Grimm. True Grimm Seed will be difficult to procure later in the season. Write for circular.

Henderson's Alfalfa Seed Farms,
Benkelman, Nebraska.
Stonewall J. Henderson, Prop.

ALFALFA

AMERICAN NORTHERN GROWN

For fifteen years our advice concerning the seeding and care of Alfalfa meadows, and our seed for sowing them, have been standard—the best that was to be had. The catalog tells how, and prices the seed, not Turkestan, "Dwarf Alfalfa," which we refuse to handle, but the best of American grown seed, including usually Montana, Idaho, and the great "Dakota 30," which rivals the Grimm itself.

GRIMM ALFALFA Next to Hansen's Siberian, the greatest variety grown in America. We have the genuine; also limited amounts of the Siberian.

SOY BEANS Whether used for grain, hay, silage, or fertilizer, this crop pleases all who grow it, and is being more extensively grown each year. We have tested hundreds of varieties, besides breeding up some very remarkable sorts of our own, and offer only the best; standard or new ones that can be depended upon.

WING'S GARDEN and FLOWER SEEDS are grown for the most critical trade. Write for free catalog. Lists many new and rare specialties.

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Full information how to grow alfalfa, how to harvest and care for it, and how to feed this most profitable crop; together with sample of our extra choice seed, 130-page illustrated catalog and special red ink price list free if you mention this paper.

IOWA SHIELD BRAND SEEDS

IOWA SEED COMPANY

Dept. 55 Des Moines, Iowa

GRASS SEED FREE SAMPLES

Wonderful Value Wholesale Prices Profits Divided

with customers. Don't fail to investigate these bargains. Recleaned Tested Timothy $4.75 bu., Alfalfa $8.90, Alsike Clover and Timothy, $6.50. Sweet Clover and other Grass and Field Seeds at proportionately low prices.

All sold subject to State or Government Test under an absolute MONEY-BACK GUARANTEE. We are specialists in grass and field seeds. Located so as to save you money and give quick service. Send today for our big profit-sharing, money-saving Seed Guide which explains all, free. Buy now and save money. Write

American Mutual Seed Co. Dept 619 Chicago, Ill.

Oregon Butter and Cheese Makers Meet

With every section of the state represented, despite the epidemic of influenza, the Ninth Annual Convention of the Oregon Butter and Cheese Makers' Association was the most successful in attendance, number of exhibits of butter and cheese, and enthusiasm of any meeting the association has ever held. The convention was staged at the Hotel Portland, Portland, Oregon, December 11 and 12. There were over one hundred butter and cheese makers in attendance. Thirty-six samples of butter, and twelve samples of cheese were entered in the contest.

The assembly was opened Wednesday morning by President S. O. Rice at which time he appointed several committees to serve during the coming year. The two-day session was replete with splendid addresses and over ninety members remained for the banquet Thursday evening.

At the business meeting the following officers were unanimously elected: President, R. E. Cavett, Portland; vice-president, R. S. Trask, Cottage Grove; secretary-treasurer, P. S. Lucas, Oregon Agricultural College; executive committee: H. V. Franklin and H. C. Raven, Portland, and P. C. Jorgensen of Carlton. A resolution was unanimously passed urging the state legislature to oppose the suggested bi which would abolish the present office of dairy and food commissioner as such, and place it under a public health commission.

The awards in the butter contest went to C. M. Barklow of Norway Creamery, score 94; H. C. Berg of Douglas County Creamery, score 93.75; and S. O. Rice of Mt. Angel Creamery, score 93.5. In the cheese contest Albert Wade of Cloverdale Factory secured first place with a score of 96; H. W. Thomas of Red Clover Factory, second place with a score of 95.5; and Albert Schlappi of South Prairie Factory, third with a score of 95.

Fifth Liberty Loan

There never was a time during the progress of the war when the farmers of the United States as a class did not measure up to the standard of 100 per cent plus Americanism. They gave their boys and their hearts' blood to the cause of humanity and world democracy; they labored early and late and right loyally in raising bumper crops to feed America and her Allies; they bought Liberty bonds to the very limit of their finances, and gave cheerfully and generously to each and every one of the numerous war charities. They proved themselves patriots at "every spot in the road," and, to a man, they stood back of the fighting forces at the front and raised the food that put the final kick in the Yankee punch that finished the Hun.

Moreover, there is no reason to believe other than that the farmer fraternity of the country will as loyally rally to the support of the Fifth Liberty Loan, which is heralded by the Treasury Department as coming next spring. It further is announced that it probably will be of shorter maturity than any of the preceding loans and that the rate of interest will be attractive.

Some of the readers of Hoard's Dairyman, without giving the matter serious consideration, may ask: "Why another Liberty loan when the war is over and we are sending no more troops to France?" The reply to this natural query is best given by a statement recently made by Secretary of the Treasury Carter Glass—almost, by the way, his first official utterance

Sell Your —Milk—

Don't feed valuable milk to your calves. Sell it! You can put your calves through to a healthy, vigorous, early maturity on BLATCHFORD'S Calf Meal at less than half the cost of using milk.

Read What Mr. Rase Says

"Enclosed find pictures of the best twin calves in the state. Their mother died when they were six days old and have been raised by hand ever since, their only food being BLATCHFORD'S Calf Meal. They are ten weeks old, weighing 240 and 235. They are as sound as a dollar."—J. F. RASE, R. R. 11, Box 87, Ft. Wayne, Ind.



Raise Your Calves on

Blatchford's CALF MEAL

Blatchford's Calf Meal has been used successfully by farmers and dairymen in this country for over 38 years. It is the *original* Calf Meal and the *best*.

"We have used BLATCHFORD'S Calf Meal for several years. Noother will fill its place. We can't possibly raise good calves without it."—SANFORD S. PLAYLE, Montezuma, Ia.

Raise Your Calves Easily, Successfully and Profitably

Calf-raising is made easy and profitable by the use of Blatchford's Calf Meal. This is convincingly testified to by the perfectly matured calves that *have been* and are *now being* raised on it by thousands of farmers and dairyman. These people are using it because they have found it a complete milk substitute, easy to feed and more economical than milk.

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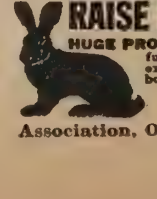
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☐ Milk Mash ☐ Fill the Basket Egg Ma
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RAISE BELGIAN HARES

HUGE PROFITS easily and pleasantly mad furnish stock and pay you $6.00 a p express charges for all you raise. Contr book "Fortunes in Hares," 10c. Nothin

American Food and

Association, Oconomowoc, Wisconsin

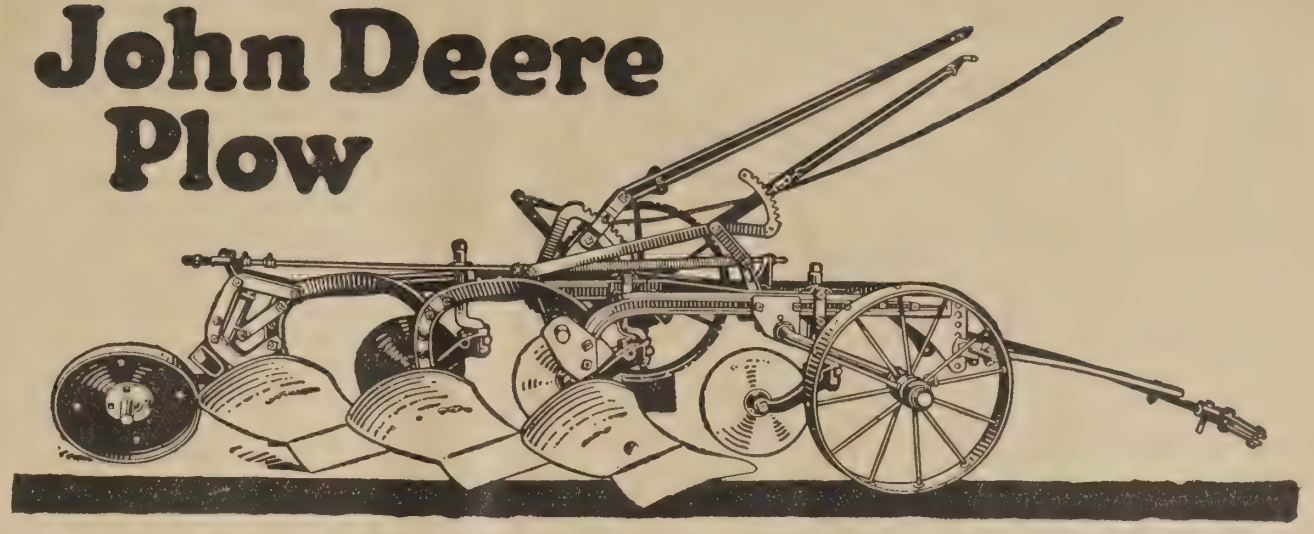
r taking up the reins of office laid
n by William G. McAdoo:
The initial stages of peace may be
id even more expensive to the
ple of the United States than war,
use several very essential mat-
have yet to be attended to. For
thing we are still at war with
many, although experiencing a
on of peace—the peace of an ar-
ice—and there is no telling what
unt of police work may have to be
. Germany has no stable or guar-
ed form of government, and revo-
n and armed opposition may be
untered by the American army
ccupation at any time.
An army of about 2,000,000 men
nearly half that number belong-
to our sea forces have to be paid,
transported, and then returned
e and demobilized. Enormous
rnment contracts for supplies
ot be repudiated; the goods must
aid for in full. Our great ship-
ling activities, designed to make
t least the second greatest carry-
power in the world, must be car-
out at a cost of hundreds of
ons of dollars, to the ultimate ad-
age of every business man and
er in this great country. Our Al-
if they need money, must have it.
To draw back now and refuse to
d money would be to place our-
s in the position of a business
who, having sunk an enormous
unt of capital and effort in a busi-
enterprise, quits just at the mo-
t when the business is on its feet
is about to pay dividends.
The war is over, but the govern-
t's need for money is not; there-
, the Fifth Liberty Loan. The
eeds from the Fourth Loan are
usted. Uncle Sam never was in
ter need of funds than now. Let's
h the job."

s Calves to Build Up Herd

OARD'S DAIRYMAN:—I like to read
rs published in your paper that
been written by men who have
e a success in dairying, and I very
n get hints in this way that are
h dollars to me in the dairy busi-
In your issue of November 29th,
Barnard discusses starting with
-breds in which he advises pur-
ing mature cows. During the
fifteen years I have purchased
a number of cows and calves,
every time I have found it much
to buy calves. A good dairy-
will keep a sire with a fine pedi-
and will grade up his cows. In
hasing look up the butter records
of this pedigree, then look over
ows and get your calves from the
cows and this sire. In this way
are almost certain to get better
than those which the owner al-
y has in his barn.
nother adv..ntage in buying calves
at you are not so liable to bring
contagious abortion, which is a
ty expensive disease. I would
r have a heifer abort with first
than to have it occur with a ma-
cow as the loss in milk will not
great and the heifer will gain
ze considerable for her second
tion.
would like to see all the dairy pa-
take a firm stand on this abor-
problem in order to get the gov-
ent and the states sufficiently in-
ted to clean up certain districts.
y opinion this may be accom-
ed by selling out the entire herds
have aborted and after six
hs or a year these farms be re-
ed with fine heifer calves.
nton, Ia. W. H. F.

nnesota has one hundred and six-
ousand people as her state fair
d and twenty-six million, five
red thousand acres in farm land.
you just see tractor salesmen
ng for that territory!

It's a John Deere Plow



FOR many years farmers everywhere have associated the name "John Deere Plow" with special plow quality—with better and longer plow service. Getting this quality is especially important when you buy a tractor plow. A tractor plow does work on a big scale—the quality of the work counts in proportion. A tractor plow must stand heavy strains—its ability to *keep on* doing good work year after year counts strongly in making plow profits. Remember, you get this special quality when you buy a

JOHN DEERE TRACTOR PLOW

Equipped With Genuine John Deere Bottoms—the kind that have an established world-wide reputation for long wear, good scouring and thorough seed-bed making. You can get the shape and type suited to your soil.

Holds To Its Work At Uniform Depth—It is *locked into the ground* at plowing depth through the action of the power lift. And here's another mighty important feature assuring the John Deere's good work—the land wheel is set back, balancing the weight of the plow over all three wheels, just as on your sulky or gang plow. Makes plow run steady and *assures plowing at uniform* depth in uneven ground.

Quick Detachable Shares—Strong and close fitting. Loosen one nut to remove the share. Tighten the same nut and the share is on tight. *It stays tight.*

Extra Strong Construction—Extra heavy beams of special John Deere steel. We guarantee them not to bend or break. Heavy beam braces, long lapped and securely joined to beam with heavy bolts and lock washers.

High and Level Power Lift—Lifting mechanism is simple, strong and positive. Parts move only when plow is being lifted or lowered—practically no wear.

Three Sizes—Two-bottom, three-bottom and *four-bottom.* One of the sizes suits *your* tractor. And, remember, the adjustable hitch adapts the plow for use with any standard tractor.

Farmers Everywhere are making sure of continued good plow service behind their tractor by getting John Deere Tractor Plows. You can't afford to get less than that behind your tractor. WRITE TODAY for full information.

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Let us send you free our big 156-page book, "Better Farm Implements and How to Use Them." Full of valuable farming information. A book to which you will often refer. Worth dollars. Tells all about the complete line of John Deere machines listed below:

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Riding	Plows:
Feed Mills	Walking
Grain Drills	Wheel
Grain Elevators	Tractor
Harrows:	Stalk Cutters
Disc	Wagons
Drag	Farm Engines
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TOP PRICES will prevail for many years' harvest, but the great war has drained men and animals off the farm. Replace them with a

BULLOCK CREEPING-GRIP TRACTOR

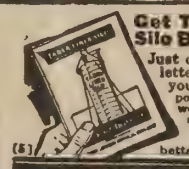
Protected by U. S. Patents

and sell your profits at the same time. Bad weather and unfavourable soil have no terrors for the British Battle Tank or for its worthy prototype, the BULLOCK CREEPING GRIP TRACTOR. Will work in ground so soft a man would mire, or a hillside so rough that the wheels of the ordinary tractor would spin and slip. The CREEPING GRIP has no wheels — it lays its own broad track and then rolls over it.

You can bank on the CREEPING GRIP doing more work than three men and six horses on any farm.

A three or four bottom tractor, depending on soil conditions. Write for catalog TODAY.

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Just drop us a postal or letter and we will send you a copy free and postpaid. Tells why wood silos make best silage; also why they keep silage from spoiling or freezing better than any other kind.

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made of clear, long leaf yellow pine boiled in creosote. Every one acid-proof lined to keep air out and moisture and juices of corn away from staves. Painted outside and double anchored. Won't shrink, swell, rot nor blow down. Finest circle doors and frame. Write today.
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Works in any soil. Makes V-shaped ditch or cleans ditches up to four feet deep. All steel. Reversible. Adjustable. Write for free book and our proposition.
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36% Protein	38½% Protein	41% Protein	43% Protein

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You can't *make* her relish feed she doesn't like—and unless she *does* relish her feed it won't digest properly or produce the most milk and butter fat. Feed her

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The scientific formula provides the proper food values. The molasses flavor assures palatability, digestibility, perfect assimilation.

THE EARLY & DANIEL CO.
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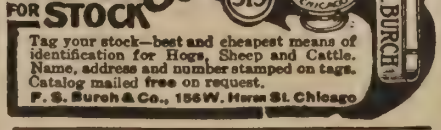
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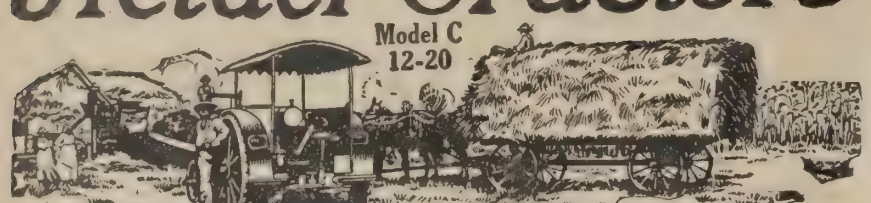
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Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 156 W. Hubbard St. Chicago

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Seeing your friends and having them join in for a club of subscribers.

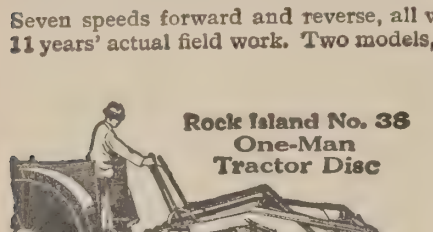
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The *Right* Power For Every Job On The Farm

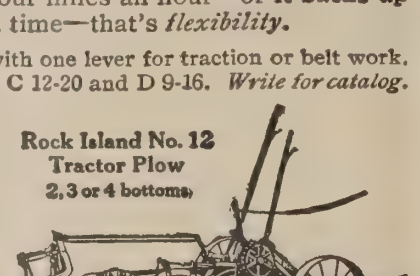
HEIDER TRACTORS give you a world of power—but only the Heider Friction Drive gives you the *right* power for every job on the farm. It has a steady, dependable pull for a three-bottom plow, with plenty of reserve power. It throttles down to just the right power for a cream separator. It travels four miles an hour—or it backs up to a load a fraction of an inch at a time—that's *flexibility*.

Seven speeds forward and reverse, all with one lever for traction or belt work. 11 years' actual field work. Two models, C 12-20 and D 9-16. *Write for catalog.*



Rock Island No. 38 One-Man Tractor Disc

Built exclusively for tractor work. Extra strong construction. Close-up position permits one man easily to operate tractor and harrow. Extremely flexible. Close coupled. Light draft. Two sizes—8 and 10-ft. cut. Fits any Tractor.



Rock Island No. 12 Tractor Plow
2, 3 or 4 bottoms

The tractor plow with **"Front Furrow Wheel Lift"** and "CTX" Bottoms. Ready for any soil and the pull of any tractor. Extra high clearance. "CTX" Bottoms turn furrow slices clear over—prevent air spaces stopping moisture.

ROCK ISLAND Farm Tools. Discs, Plows, Planters, Seeders, Cultivators, Listers, Hay Rakes, Hay Loaders, Manure Spreaders, Cream Separators, Litter Carriers, Gasoline Engines, Stalk Cutters, etc. *Write for Farm Tool Catalog.*

ROCK ISLAND PLOW COMPANY

150 Second Avenue **Established 1855** **ROCK ISLAND, ILL.**



Model D 9-16
With No. 9 Power Lift Plow

Rock Island Heider D 9-16 with No. 9 Rock Island Plow attached to the tractor platform is shown here. Entire outfit in one unit. Your hands guide tractor. Your foot controls plow. Sold with or without plow attached.



BUY an engine you can be *sure* of. You can depend on the TYPE "W" to deliver the goods, every time and all the time. Thousands of users have proved it.

INGECO TYPE "W" **Throttling Governor Kerosene Engines**

Write for free bulletin describing TYPE "W" Engines—1 to 15 H.P.—other modifications up to 160 H. P. Stocks carried at principal points insure prompt delivery.

INGECO Battery Lighting Plants—30-Volt systems—safe, convenient, inexpensive and a real necessity.

New Holland Feed Mills, Corn and Cob Grinders. Write for bulletins.

WORTHINGTON
Pump & Machinery Corporation
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Your Tree-Sprayer Makes an Excellent PAINT BRUSH for House Barn or Silo

IT won't "work while you sleep" but it will be just the thing to do that deferred painting job with on one of those fine, still, sunshiny winter days when your chores are the fewest.

And don't forget to use the paint that only takes ¼th time to put on. It costs only ½ as much because it spreads over twice the surface. Use

REILLY'S **WEATHERWAX**
The Liquid Wax Paint

It won't scale or peel off. It goes right into the wood. It fills pores and keeps out decay and water. Saves time, money and labor.

Four fine colors—Red, Maroon, Dark Brown, Natural Brown (clear). Large sample can, any color, 50c postpaid. Sold by lumber and paint dealers everywhere. Try it. ***It Lasts Like the Pyramids.***

THE REILLY COMPANY
Dept. 53 INDIANAPOLIS, IND.
Factories in Five Cities

Control of Abortion Disease

(Continued from page 844)

quired somewhat of a reputation among some cattlemen because the disease apparently abated materially following their use. But abortion being in a measure a self-limiting disease, the vaccines simply received credit for a result that would have taken place without their use. No responsible person claims that vaccination is not along approved lines of treatment in the handling of contagious and infectious diseases. But the chronic nature of contagious abortion and the low natural immunity following an outbreak indicate that by our present methods we canot hope to establish a satisfactory artificial immunity.

THE USE OF CARBOLIC ACID:—Carbolic acid administered in various ways, such as in the feed, with salt, or injected under the skin, has probably acquired a greater reputation as a drug valuable for the control of contagious abortion than any other agent. The chief reason for this is because, as a rule, no treatment is attempted until the disease has reached its maximum, and in the natural course of events there is a great reduction in the slinking of calves the following year. It is during the height of the disease that the use of carbolic acid is instituted, and it receives credit for the natural decrease in the number of aborted calves. The fact that abortion has increased, in spite of the use of carbolic acid for many years, is an indication that it is not a specific, and is of very questionable value.

THE USE OF METHYLENE BLUE:—This is an anilin dye, claimed to have antiseptic properties, and to have specific action in contagious abortion. It was extensively used a few years ago for this purpose and inquiries are still received regarding it. Its value as agent for the cure or control of contagious abortion was greatly overestimated, and it has almost fallen into disuse for that purpose.

FLUSHING OUT THE FEMALE GENITALS:—By this is meant the washing out of the uterus by introducing various liquids, especially disinfectant washes, which process mechanically removes a large amount of decomposing and putrid material. If properly performed it is undoubtedly of great value, though there are many limitations. For instance, it is recognized that it is impossible to absolutely disinfect such a large infected cavity as the uterus by any means now at our disposal. But we can by applying disinfectants reduce the vitality of all germs, and especially those causing ordinary infection, and thus control the infection so that nature will have an opportunity to effect a cure. Strong disinfectant washes should never be introduced into the uterus, as they have a certain corroding influence. When too strong they do more harm than good. Likewise, weak disinfectants should be immediately withdrawn, because if retained in the uterus they have the same, though slower, corroding effect, and in addition, being poisonous, they may be absorbed from the raw interior of the uterus and produce poisoning.

A general knowledge of the anatomy of the parts is absolutely essential to treatment. The opening into the genitals is spoken of as the vulva, and is succeeded by a large cavity known as the vagina. In the front portion of this is the neck of the uterus. This latter structure varies greatly, depending upon the pregnant or non-pregnant state of the animal, the nearness to parturition, the length of time after parturition, and whether the afterbirth is retained discharged.

There is a popular misconcepti regarding the neck of the cow's ut rus, largely because many live sto men have had occasion at some ti or other to examine this organ in t mare, and believe the anatomy to the same in the two animals. This wrong, for while the neck of the ut rus in the mare is soft, straight, a usually more or less open so that finger may readly be passed throu it, in the cow it is rigid or ha tortuous, and in its normal state i pervious to the finger. These latt facts many times cause a cat owner to believe that his animal barren because she is not "open".

In the pregna state, the neck the uterus is closed and sealed with plug of mucous. In the healthy n pregnant animal it is likewise i pervious, though there is no plug mucous. Immediately preceding a during calving, the "neck" is wid dilated or practically disappears, t it will again contract to its non-pr nant state shortly after the act calving is completed. However, if t afterbirth does not come away t hangs out through the "neck" it w keep the latter open, while, on t other hand, if the afterbirth is tained *entirely within the cavity the uterus, the "neck" will close* a imprison the decomposing afterbir The question of washing out the u rus depends entirely upon the ab ty of the operator to overcome these difficulties. As long as "neck" is open the procedure is a s ple one, becoming increasingly d cult as the "neck" closes, or the aft birth is retained.

Immediately after the abortion uterus may be washed out with fr a few pints to several gallons of lu warm disinfectant solution. amount used varies, as a rule m less being needed when there is little infection and when the abort has taken place at an early period, cause at this time the uterine cavit much smaller than at a later per The general rule is that the wash out is to be continued until the so tion comes away clear.

The following disinfectants may used: (1) A one-half of 1 per c water solution of carbolic acid, w for practical purposes may be m by adding a teaspoonful of carb acid to one quart of water. (2) A one-fourth of 1 per cent water s tion of compound solution of cre being one teaspoonful to one-half lon of water. In some instances, s pecially immediately after calving abortion, even such weak solut cause the animal to strain violen In that case it is probably bette use (for a few days) a salt water lution made by adding salt to t water in the proportion of a sm teaspoonful of salt to a pint of wa

The solution is best introduced means of a piece of soft rubber ing passed through the neck of uterus, and as far forward into uterus as possible, attaching a fu to the free end of the tubing, ele ing the latter three or four feet, permitting the solution to enter gravity. The use of an injec pump is not advisable, as by m of the latter too much force is times exerted, resulting in ruptur the uterus and death of the cow. the uterus becomes filled the solu may be withdrawn simply by lo ing and inverting the end of the and attached funnel, so that it act a siphon. During this process t is a tendency for uterine folds, a birth, and shreds of membranes t drawn into the tube so that the l must be kept free by means of hand inserted into the uterus al side the tube. If the solution ca be so removed, it then becomes n

s y to insert the hand and arm into t animal's rectum, with the palm of t hand downward, and then by s oking the uterus from before back- w rd, the solution may be massaged o .

he number of washings also vary g atly. If the infection is slight, as i icated by little or no discharge, o washing may be sufficient; if t re is much discharge, the washing s uld be repeated daily, gradually re- d ing them as the discharge de- c ases.

n all of this work it is of prime i portance that the strictest cleanli- n s be observed. Under no circum- s nces is it permissible to insert f y hands, or introduce dirty in- s uments into the genitals. Likewise b ore commencing the operation the o side genitals must be cleansed by w shing with soap and water, fol- l ed by an antiseptic such as pre- v usly recommended.

FLUSHING OUT THE MALE ANI- MALS:—The long hairs at the opening o the sheath should be kept clipped a short as possible. An area, having a iameter of about 2 feet immediate- l surrounding the opening of the s ath should be thoroughly scrubbed w h soap and water, followed by a 2 p cent solution of some good hog d or other reliable disinfectant. The i erior of the sheath may be disin- f ted with the same class of agents a previously recommended for flush- i out the uterus of the cow. The s ne form of apparatus may be used f irrigating purposes, i. e., a piece o rubber tubing and funnel, or a hu- n fountain syringe is very ser- v eable. The disinfectant is permit- t to flow into the sheath by gravity u il that organ is distended with the s ution. Outflow is momentarily pre- v ted by grasping the opening of t sheath in one hand, and at the s ne time manipulating the sheath w h the other, so as to cause the dis- i ectant to permeate all parts of the s ucture. By thus alternately filling u and emptying the sheath, and re- p ting the process before and after e h service the spreading of abor- t n by the bull will be practically e minated.

Removal of the Afterbirth

f abortion occurs during an early s ge of pregnancy, the afterbirth is u ually passed out with the young. At a later stage it is almost invariably r ained, and in those herds in which c tagious abortion is present, but in w ich the calves are carried full term, r *tention of the afterbirth is fre- q ently the only symptom. When this f lure to promptly pass the after- b th is observed in several members o a herd, it is almost c nclusive evi- d ce that the disease commonly spok- e of as "contagious abortion" is p sent.*

t is almost a physical impossibili- t to completely and thoroughly re- m ve the retained afterbirth of con- t ious abortion, and many good ani- m ls have been ruined by attempts to d so. In the cow the afterbirth is u ually held tightly in that portion of t uterus closest to the ovaries, and t s is beyond the reach of the longest a ned operator. The result of an at- t pt at removal is that most of the a erbirth, *with the exception of that i the inaccessible part* of the uterus, r emoved, and this remnant, through d omposition, causes a chronic dis- c rge. The diseased condition thus p duced causes a thickening of the w lls of the uterus, and possibly hope- l s barrenness.

n the present state of our knowl- g e the best that can be done with a r ained afterbirth is to keep the out- s e genitals as clean as possible with a iseptic washes, to wash out the va- g a daily with an antiseptic wash so a to remove accumulated decompos- ing material, and to insert into the uterus a gelatin capsule, having a capacity of approximately 1 ounce, filled with iodoform. The capsule will dissolve so that the practically non-irritating though powerfully disinfecting iodoform will be in contact with the afterbirth so as to prevent the formation of bacterial poisons and the resultant septicemia or so-called blood poisoning. Instead of a capsule containing iodoform, a mixture of 1 pint of olive oil and 1 ounce of iodoform may be used, being introduced by means of a funnel and rubber tubing. Cottonseed oil and mineral oil may be used as cheap and efficient substitutes for olive oil. One of the foregoing antiseptics should be used as often as twice a week as long as the afterbirth is retained.

Regarding the afterbirth itself, it is to be pulled on gently by grasping it with the hand in the vagina and as close to the neck of the uterus as possible, and it is to be removed only when it comes away easily. It may be necessary to repeat these manipulations daily for several days; patience and perseverance, combined with the skill of experience, will bring the best results. Under no circumstances should force be used, nor should a portion of the afterbirth be removed, because, as stated heretofore, as soon as the afterbirth no longer hangs through the neck of the uterus the latter will close and imprison the remaining portion so that it cannot be removed, but must be slowly absorbed, leaving the animal's health permanently ruined and her breeding power destroyed.

It is not the idea to convey the impression that ideal results will be obtained from the foregoing treatment. If properly carried out, though it requires severe and exacting labor, it will give better results than any other line of treatment practiced at the present time.

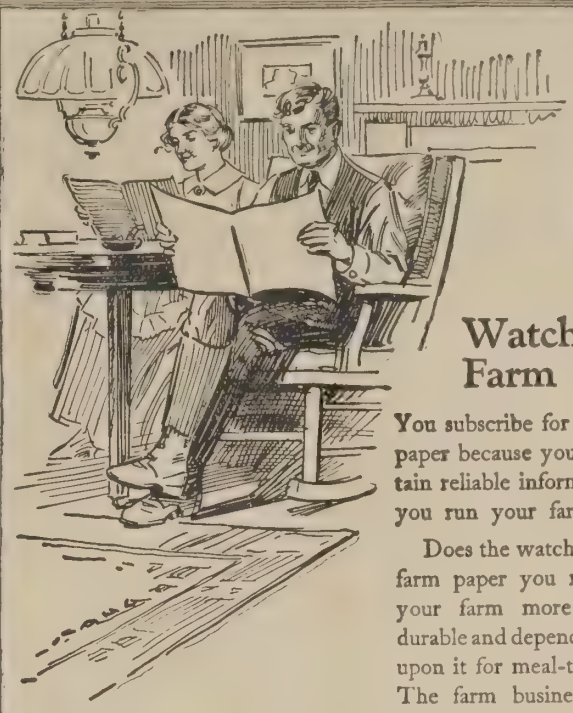
Treatment for Sterility

Sterility or barrenness is a condition in which the cow fails to conceive though bred repeatedly. It is a common sequel of contagious abortion as either the abortion germ or the germs that enter the uterus as a result of retained afterbirth are capable of maintaining the uterus in a serious state of ill health. Other conditions, in addition to infection of the genitals, that are responsible for barrenness are diseased ovaries and occasionally disease of some other part of the female genitals. The handling of these conditions demands an intimate knowledge of anatomy and pathology, and vast experience. The novice, and even the expert, is bound in some cases to be disappointed in the results obtained.

If a cow's afterbirth is promptly discharged or, if retained, the infection that accompanies it is controlled by the methods outlined in the preceding pages, then barrenness from that source will be reduced to a minimum. In this connection it is well to remember that in some cases a portion of the afterbirth is retained, or the infection is so severe that at the end of four to six weeks of treatment no improvement is observed. In such cases the animals should be slaughtered as incurable and as a menace to the remainder of the herd.

There are many erroneous ideas about barrenness, the commonest being that the animal is not open. It is well to repeat what has been stated previously, that in a state of health the neck of the uterus in a cow, contrary to that of the mare, is impervious to the passage of a finger or even an object much smaller than a finger, and an attempt to "open" a cow in order to make her conceive is bound to result in failure or may end

(Continued on page 862)



HAMILTON WATCHES

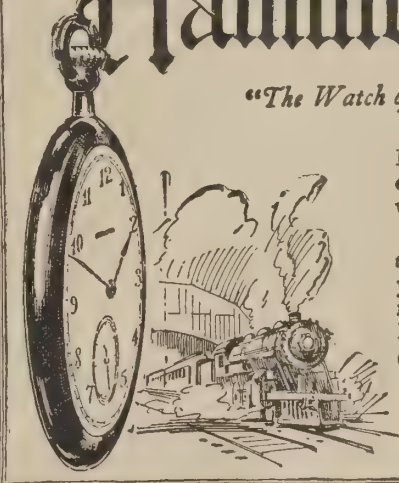
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Coming Events

Massachusetts Dairymen's Association meets in Horticultural Hall, Boston, Mass., Feb. 10, 1919. Acting Secretary, O. A. Jamison, Amherst, Mass.

Western Dairy Products' Show and Annual Meeting of Western Dairy Instructors' Association will be held at Boise, Idaho, Feb. 10, 11, 12, 1919.

Minnesota State Dairymen's Association hold annual convention at Waseca, January 21-23, 1919. Chris Heen, Secretary, Osakis, Minn.

Illinois State Dairymen's Association at Bloomington, January 21, 22, 23, 1919. George Caven, Secretary, 136 W. Lake St., Chicago.

Wisconsin Buttermakers' Association hold annual convention at Eau Claire, February 4-6th, 1919. Prof. G. H. Benkendorf, Secretary, Madison.

Kentucky Dairy Cattle Club meeting and Dairy Show, Jan. 30, 1919, at State University, Lexington. Secretary, J. J. Hooper, Lexington.

Waste Nothing at Butchering Time

HOARD'S DAIRYMAN:—In butchering various farmers have various ways, each no doubt believing his method best. So it is with myself. Having had many years of experience in the operation I wish to briefly relate some things which may or may not be of interest to other readers of Hoard's Dairyman similarly engaged at this season.

For 24 hours previous to killing I withhold all feed from the hogs. When this is done the entrails are less likely to be ruptured than when full and the work of removing the fat adhering hereto is more conveniently done. When ready to kill I exercise care to avoid all undue excitement. When the animals are quiet at the time of being killed this aids a freer discharge of the blood which, if retained in the flesh, prevents successful curing of the meat and causes it to not keep well during hot weather. Some men knock their hogs in the head with an axe before sticking, others simply stick them and let them bleed to death. The method I prefer is to shoot them with a good 22 calibre rifle before sticking them, being sure that the first ball fired enters the brain. I think we should be humane in killing hogs and do it as quickly as possible to prevent their suffering. When life is extinct the hog is stuck with a knife of medium length with a keen edge, the knife being inserted just forward of the breast bone and close to it. The blade is then turned and thrust full length toward the tail, being quickly turned from right to left to sever the veins of the neck and avoiding a side or shoulder stick or other defective work.

Before killing everything has been made ready, water heated, gambrels and spreading sticks at hand, etc. It is very important to get a good scald so that the hair can be easily and quickly removed by the scrapers. The water is first brought to the boiling point, then a small quantity of wood ashes is put in which helps loosen the hair and removes scurf from the skin. The water is allowed to boil briskly for a few minutes before being used. I am not in favor of guessing at the temperature for scalding. I use a thermometer with which the right temperature can be obtained every time. For large hogs weighing 300 or 400 pounds 170 degrees F. is about right, for smaller ones the water should not be above 150 or 160 degrees and then the hogs should not be kept in the water long. Anyone who has had experience in killing hogs knows that it is better to have the water too cold than too hot, for in the former case it may be remedied by adding hotter water, while in the latter case the hair becomes set and the skin cooked tender so that with ordinary scraping the skin comes off.

I have a scalding tank with two trace chains across it on which the hog is laid. One end of each chain is fastened on one side of the tank and when the carcass is on the chains two men each holding the free end of a chain let the hog down into the water, roll the body about three or four times and then pull it out to air. The process is repeated until the hair "pulls easy". When the hair comes off freely from the legs and ears the scald is sufficient. The carcass is then laid on the platform and the scraping process begun, the legs and head being first cleaned. After the hair is all removed the carcass is hung up by means of a rope and pulley blocks to a firm support previously prepared. The body is washed by drenching it with hot water and all scurf and stray hairs removed by scraping it down with a keen knife. When this is done the carcass is given a dash of cold water and the scraping continued until the hog is thoroughly clean.

To remove the entrails with dispatch and cleanliness requires some skill. With a sharp knife I open up the front of the body taking care not to cut into the intestines. As the entrails are being removed a large tub is ready to receive them. The fat is removed from the entrails while they are yet warm. The heart, liver, lungs, windpipe, and tongue are cut out all together. Then having placed a cob or piece of wood in the mouth to keep the jaws apart and the spread stick half way down the belly to open the sides, plenty of clean, cold water is dashed in until the interior is perfectly clean. The carcass is allowed to hang until cold, but not allowed to freeze. Then it is taken down and cut into sides, shoulders, and hams.

I always dry cure my meat. For every 100 pounds of meat I take 4 pounds of coarse salt, 2 pounds of brown sugar, 1 pound of allspice, 2 ounces of saltpeter which is well powdered, and one ounce of carbonate of soda. These are all mixed well together before being applied. I rub the meat first with about one pound of sorghum molasses for every 100 pounds of meat, then rub with one-half of the preparation until it begins to stick well, which is usually about five minutes. I then stack the meat



A CHAMPION HOLSTEIN JUDGE

Miss Elizabeth R. Cook won highest honors in judging Holsteins in the Students' National Contest at the 1918 National Dairy Show. Miss Cook ranked fifth in the contest which comprised the placing of three classes of each of the four leading dairy breeds and the writing of reasons on two of these classes. She has the further distinction of being the first woman to participate in this contest. She was a member of the Cornell, New York, dairy judging team.

in a large box, first putting in a thin layer of salt at the bottom. A layer of sides is put on this with the rind downward, then all the other cuts are placed on them. After 24 hours I turn and rub again, using one-fourth of the above named mixture, then in 48 hours I repeat the same process, applying the remainder of the preparation. I let the meat remain in the box for six weeks, wash it in water just warm enough to bear my hand in, and then brush each piece with a coarse brush which removes all fat, slime, etc. It is then placed in a tank of clean, cool water and let remain for 24 hours. This takes out the surplus salt. Afterwards I hang the meat up in a dry place where there is a good draft. If the days are fine and dry with a little breeze blowing, the meat is generally sufficiently dry in about a week, when it is smoked.

In smoking the cuts the smoke is conducted to them as cool as possible. The walls of the smoke house are 12 feet high, the meat being hung up close to the top and the cuts placed about six inches apart. From four to five days smoking is given, care being taken not to smoke too much, which greatly affects the flavor of the meat. I use oak wood for smoking. A small fire is started beneath the meat on a large piece of sheet iron. The wood is kept dampened which causes it to produce much smoke and little blaze. I smoke the meat until it is of a light brown color. After being smoked the meat is placed in cheap cotton cloth bags, care being exercised to tie t tightly at the top, and hung from ceiling of the smoke house until weather begins to warm in the sp It is then packed away in perf dry bran.

Some may think I go to unneces trouble in the care and handling o meat and I will admit that I p good deal of work on it, but I the best and I have never eaten that I liked better than the meat on my farm. By treating the me the way above described I can, should wish to do so, keep it for in good condition.

In the care of meat there is point that should not be lost sigh and that is maintaining as fa possible an even temperature. much heat will cause the fat to and turn musty, and if too dan will sweat and decay.

In refining the lard we use a iron kettle set over a slow fir small amount of water is poured the kettle, the vessel then being to the brim with fat which has cut in small pieces and washe free it from blood and other im ties. A lid is placed over the kett prevent the entrance of fo matter and the fat kept simmerin several hours. The cooking mus be hurriedly done. From time to the fat is stirred and the cooking tinued until the contents ceas bubble and become clear. There is water in the kettle as long as the tents show a cloudy or milky ap ance. To refine a large kettle of thoroughly, from six to eight constant cooking is required. Whe liquid becomes clear the kettle moved from the fire and the con allowed to cool. The cracklens dipped from the kettle, the then being pressed out of them a lard press. The lard is str through small wire sieves which vent any of the fine particles getting into the lard cans whic purchased at the stores. These are those used by packing house have, of course, previously held

The trimmings of the meat, tog with the head, feet, liver, and kid are used in making sausage, souse, and head cheese, all of are sold to people in town except which is preserved for future u our home.

Illinois. A. O. CHOA

Offer Reconstruction Cours Agriculture

Agricultural reconstruction lems are to be given careful con ation in a special eight weeks' c at the Ohio College of Agricultu ginning January 6 and ending F ary 28. The subjects taught w live stock management, soil fer farm crops, dairying, fruit gr and gardening, poultry raising, management, and farm mech While this course is in charge o same faculty members as the year course, it is distinctly diff and especially prepared for the farmer who wants to get the word in agricultural informatio as related to current conditions.

In commenting recently on th visability of enrolling in su course, Major W. S. Pealer o State Draft Headquarters said personally from my knowledge agricultural conditions existin Ohio would urge every agricu worker to avail himself of the o tunity offered by such a course. country must prepare for the justment and reorganization th going to follow a signing of peac one of the problems is going that of agricultural production. scarcity of labor must of necess made up by the increased efficie those engaged in such work."

T. G. WATSON, Secret

Sale Announcements

Jan. 15—Holsteins. Edward C. Waller, Jr., Cary Station, Ill. F. H. Everson, Sale Mgr., Lake Mills, Wis.
Jan. 16—Guernseys. Dispersion of W. B. Quarton's herd of Registered Guernseys. Algona, Ia.
Jan. 23, 1919—Holsteins. Dispersion of Frank White & Son's herd of Registered Holsteins, Woodstock, Ill.
Jan. 29—Holsteins. Tri-County Holstein Breeders' Ass'n. Second Semi-annual Sale at Evansville, Wis. F. B. Green, Sec.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 6—Holsteins. Central Michigan Holstein Breeders at Michigan Agricultural College, East Lansing, Mich.
Feb. 6, 1919—Holsteins. Central Michigan Holstein Breeders' Second Annual Sale at Michigan Agricultural College Live Stock Pavilion, E. Lansing, Mich. A. E. Jenkins, Mgr., Lansing Mich., R. 5.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
Feb. 25—Holsteins. Dr. A. D. Blackburn, Cuba, Ohio.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
May 9-10, 1919—Holsteins. Waukesha Co. Holstein Breeders' Ass'n. Semi-annual Consignment Sale, Waukesha, Wis. W. L. Baird, Sec.
May 14 and 15—Holsteins. The Holstein Breeders' Sale Co., Semi-annual Consignment Sale at Fond du Lac. S. H. Bird, So. Byron, Wis., Mgr.

ying in Three Forks, Mont.

Sunflowers as a Feed

OARD'S DAIRYMAN:—The geo- hical head of the longest river in h world is about three miles from h town of Three Forks, Montana. e the three rivers, Gallatin, Madi- o and Jefferson, unite to form the ouri, which from this point to the of Mexico is 4,200 miles long. town of Three Forks is thus situ- near the apex of a vast fan- ed body of land drained by the e rivers named, and whose valleys ain more fertile, arable land than er one of several of the states in Union.

e Gallatin Valley has been for 's noted as one of the most fertile s in the world, producing enor- s crops of wheat, oats, peas, bar- clover, timothy, and alfalfa. Po- es and all garden vegetables suit- to this latitude also grow abund- y. What is true of the Gallatin ey is also true of the valleys of Madison and Jefferson rivers. The ison Valley, having no railroad er than Three Forks, is not agri- urally developed like the others. Jefferson Valley, although the st settled portion of the state its tributaries are included), has cultural possibilities not yet med of by its inhabitants. But it f the possibilities of the country nd Three Forks for dairying that ostly wish to write. In the first e, it has unsurpassed transporta- facilities, the main line of the ago, Milwaukee, & St. Paul Rail- , and the Butte line of the North- Pacific running through the town. re is an empire of land lying just t to irrigate and oceans of water which to irrigate it. Alfalfa and t other kinds of forage and pas- grasses grow here to perfection. ithin the last three years the tana State College at Bozeman been conducting an extensive line experiments with sunflowers, both silage and fed green (chopped) gratifying results. By irriga- a crop of 24 tons, and in some s more, has been produced to the . Careful and exhaustive experi- ts at the state college have dem- rated that, pound for pound, sun- er silage is the equal of corn si- . When it is considered that near- wice as much of sunflower silage be raised here as of corn silage in consin or Iowa on an acre of land, that with irrigation sunflowers a surer crop than corn in the t, one can readily see that with our ge crops and abundance of good er and the cool nights here in sum- , that this part of Montana is des- d to become a dairy center of im- ance.

hree Forks has the honor of build- the first silo in the world for the usive purpose of ensiling sunflow- Many will be built next year and into operation. I know (for I e talked with many of the farmers think there is nothing but corn silage) that the idea of putting flowers into a silo will appear ri- lous. But let the scoffers remem- that not many years ago the silo corn was not popular and some ners, even in Wisconsin now, are osed to them. But the silo has e into pretty general use just the e.

GEO. H. WEBSTER,
Ass't. State Dairy Commissioner.

ick Spreading Saves 70 Per Cent of Manure

With manure worth $8 a ton, it is ntial that the whole amount be erved by hauling it right from barn to the field which is to go in- orn next spring," says Emil Truog he Soils Department of the Uni- ity of Wisconsin.

This statement is not true for the specialized farmer who has rough or hilly land from which the manure will wash off before planting time. On the hilly farm the manure should be carefully saved under sheds or manure pits and then used next spring on acres sown to corn. It has been estimated that at least one-third the value per ton of manure is lost by improper care, such as dumping the fertilizer outside and allowing it to remain there and leach over winter.

"The specialized farmer, such as the truck gardener, can probably make the best use of the manure by composting it. The well rotted manure of the compost pile will suppy best the requirements of the garden in the spring."

Ensiled Oats, Barley, and Wheat Straw

HOARD'S DAIRYMAN:—In the November 15th issue of Hoard's Dairyman I saw an inquiry from R. K. E. I am a herdsman at the experiment station here. A stave silo was built this season. The intention was to fill it with oat, pea, and vetch mixture. Owing to the wet, cold season, peas and vetches did not grow. It was decided by the manager to fill the silo with anything in the shape of grain. The oat crop was cut between showers and was shocked and remained about 15 days before filling started. Barley was cut past milk stage. Spring wheat, frozen in milk, was also cut into ½ inch lengths. Water from hose was turned on every few minutes, then shut off until more was cut. Interned German aliens from a camp nearby were put tramping in the silo. When nearly three-quarters of silo were filled, it was seen that there was not enough to fill silo, so a stack of threshed fall wheat straw, along with a few loads of rye (unthreshed), was cut near top.

When straw was being cut, I kept hose running pretty steady (¾ inch hose) and started to feed four weeks after filling was completed. About 8 inches were moldy but from there down it was fine. It was a rich brown in color and smelled very much like good corn silage.

The cows in milk failed about an average of 1 pound a milking when first fed, but seemed to relish it. I fed about 25 pounds to each cow once a day in evening. Calves, yearlings, and stock bull all are eating it fine. The only difference in handling it from corn silage is that if you do not use it every day, instead of getting moldy and unfit for food, it dries out and is much the same as cut, dry straw, the difference being in the color.

From our experience with this trial, never again will I be afraid to ensile anything that cattle eat in the way of grain, grass, or corn crops. I think R. K. E. may safely try it as we are highly pleased with the feed. I forgot to state after all the unthreshed rye was cut, there remained about 3 feet to fill. It was filled with threshed wheat straw alone, and was, as stated, relished by all stock at first feeding; not one since has refused to clean up.

I find Hoard's Dairyman better than when I first took it over 20 years ago. I may say it was largely through reading and putting into practice its teachings that I developed a fondness for dairying. I followed its precepts so closely in my first dairy that a gentleman visiting my barn and seeing the system carried out said to me, "Say, young fellow, you must be reading Hoard's Dairyman". I left the dairy some years ago and did not see a copy of it again until taking my present position. I subscribed for it again. It is the light on top of the bushel to dairymen.

Ontario. E. D. BERTRAND.

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Some feeds lose money for you, others just about put you even, but the feed that will make you the most money all the time is

Happy Cow Feed

There is no doubt about the quality of this feed. You will Okay it, even before you feed it, and you'll do it on its composition.

Happy Cow Feed is composed of cottonseed meal, corn meal, wheat bran, alfalfa meal, cocoanut meal, velvet bean feed, unhulled peanut oil feed, rice bran and polish, and ½ of 1% salt.

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Department 30

Edgar-Morgan Company
Memphis, Tenn.



No. 9



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Keep Tab on Your Cows!

Send 5c in stamps for samples and prices of our weekly and monthly Milk Record Sheets. Hoard's Dairyman, Fort Atkinson, Wis.

EDITORIAL COMMENT

In one of the Milwaukee high schools attempt is being made to determine the effects milk will have upon children who do not receive it in their homes. Quite a large percentage of children who come to the schools of that city are never given any milk, but instead are given strong coffee three times a day. It is to such children that milk is being given and their physical and mental improvement observed. Last winter one of the Milwaukee schools obtained milk for some of its children and a decided improvement was noted in the physical and mental conditions of the children.

ARE YOUR COWS COMFORTABLE?

The making of milk is the function of motherhood. The cow gives up much energy every day when she produces 20, 30, 40, or 50 lbs. of milk. This is a drain upon her system. Therefore she requires different attention than is given a steer. A steer gives up nothing until he is killed. As he proceeds to fatten, he provides himself with a blanket, so to speak, and does not mind cold or even lying in the snowbank when he is filled with corn or other feed, but not so with the dairy cow. In the first place she does not carry as much flesh and, also, the energy she gives up in producing milk is a drain on her body. Moreover, she is a mother once a year, and this draws upon her strength.

The cow should not only receive an adequate amount of feed but care should be taken, especially when it is cold, to give her a little extra carbohydrates. We consider it a good plan to feed a pound or two more of corn meal per cow per day when the weather is zero or below. Further, care should be taken to prevent the cows from being in drafts, but they should have an adequate supply of pure, fresh air; for air, in a measure, is a food. It is the substance that renews the blood. It is the little attentions given to a herd of cows, such as caring for their comforts, providing them with plenty of water and feed, keeping them warm and out of drafts, that provide for the largest and most profitable flows of milk.

ADVANCING THE CLOCK

The farmer works by the sun and not by the clock. Advancing the clock one hour last summer to save daylight did not meet his approval and many refused to advance their clocks. This was not stubbornness, for a farmer must adjust his work to the sun. The clock is incidental.

The cows come up from the pasture in the early evening. The horses know when it is noon. It is the sun that tells them the hour of day. Advancing the clock one hour has more disadvantages for the farmer than advantages. In the spring it forces him to do his chores in the morning by the lantern. At the time of haying, harvesting, and threshing, the dew is not gone by seven o'clock by the sun and it is eight by the clock; the dew governs the work in the morning. At night it is six by the clock and five by the sun. If the farmer follows the clock he quits, and in many cases he is forced to, because the hired help insists upon attending entertainments in the city, and the city is governed by the clock.

There was one advantage this past summer by advancing the clock one hour. It gave the business men an opportunity to go to the country after the stores had closed and give the farmers a boost with their work. Advancing the clock one hour as a war measure was undoubtedly of advantage to our industries as a whole, but in times of peace it would not be approved by the farmers.

BUTTER WANTED

It has been reported to us from several sources that oleomargarine is not enjoying the large sales anticipated by its manufacturers. The spread in price between butter and oleomargarine is larger than it has ever been, yet people are using good butter.

The Chicago Dairy Produce mentions editorially a dealer who handles both butter and oleomargarine. This dealer said that although there was a difference of 42c in the price of extra butter and the best so-called substitutes, the consumers pay the price for butter. In previous years, a difference of 8 or 10c was sufficient to turn a large part of the trade to cheaper products. This dealer reasoned from his own experience. He had gone into one of the poorest appearing retail groceries in Chicago, patronized by common laborers, to collect for butter delivered from his store. He asked the proprietor about the butter trade and the prices he was getting and was told the trade was very good for fine butter. The retailer had plenty of money, paid his bill, and increased his order. When asked about the demand for so-called substitutes, the retailer said it was poor.

People want good butter and they will buy it when they can pay for it and they have the money now. This is the crux of the whole matter in a nutshell. Oleomargarine does not satisfy the taste. We may grow concerned over so-called substitutes, but dairy farmers and manufacturers of butter hold the situation very largely in their own hands. Produce a high grade, even quality of butter and the consumer will buy it if his pocketbook will permit.

WAR BROUGHT MILK

Much has been written regarding the consumption of milk in the various countries and its importance to the welfare of the nations, especially in Europe. It may surprise our readers to know that Great Britain has adopted drastic measures to provide milk for her babies, according to J. C. Welliver in the National Geographical Magazine. "If an adult patron of a public eating house," he says, "buys and drinks a glass of milk as a beverage, he is liable to a fine of $25 and the proprietor subjects himself to a like penalty. The result is that the death rate among infants under five years old has been about half the rate in pre-war times. For the first time in the modern history of Great Britain there is milk enough for all the babies, and good milk."

In some of the European countries there has been a high mortality among babies because of the lack of milk, but it took the great war to teach the people of Great Britain the necessity and importance of good milk for babies. It is not a high compliment to Great Britain that her babies should not have had a sufficient amount of milk before the war, but the lesson learned through the war can never be forgotten.

The world war cost millions of lives and billions of dollars, but it has emphatically impressed upon the minds of all people the importance and food value of milk, and who knows but that this great war, horrible as it has been, might not be the means of saving millions of lives.

FARM AND CITY WAGES

In discussing editorially the question of the disparity between farm and city wages, the Chicago Tribune draws attention to a very important phase of the question that is more often overlooked than understood. It says:

"It is not proper to introduce sentimentalism into an economic subject; yet there is something of the artist in the average farmer, for he inevitably will neglect the economy of his labor that he may devote the full measure of his skill and energy to the art of agriculture. He perceives at the cost of infinite pains that he is creating life all about him and that upon him rests the responsibility of conserving that life to the point of a fruitful harvest. The mechanic lays down his tools at intervals scientifically calculated best to insure his physical, moral, and mental fitness. But a crop of wheat does not wait upon a neatly adjusted social survey. There is in the growing field the urge of creation. The farmer feels this and so devotes his energy without stint."

To this we would add that the farmer is not only moved by the artist's desire to create, but he plants and cultivates with high hope that Providence will be kind and bless his labor with abundant harvests. He is spurred on to untiring effort by his faith in the season's bounty and with the hope that the market will properly recompense his efforts. His is not an assured wage, but to a degree it is the gambler's wage, with all the intoxication and spur of winning that is the enticement of that profession. He knows he is assured of a living, for he can produce his necessities, and so he stakes his labor against the seasons and the markets. Properly interpreted it is sublimated gambling grounded on the sound desire to create life and make things grow.

Turning from the discussion of the farmer, the Tribune speaks of necessity of knowing the costs of production that distribution may be properly controlled and directed after the farmer is assured of his proper wage. It then gives the following excellent statement of the city man's responsibi

"It is doubtful if any citizens have found th steps of readjustment more congenial thar farmer; for the first time his prices have somewhere near the proper relation to co production. Of course this has had its effect cities, where high prices have been universal sented. But we have been compelled to poir that persons may not live in the cities enjoyi the advantages of consuming without contrib a just proportion of their gains in return fc immunity they enjoy from the labor of produ We must not expect to enjoy comfortable and the luxury of palatable victuals deliver our doors without adequate compensation."

LET US BE MORE THAN TH AVERAGE

When a man speaks of the farmers of a st nation he speaks of a very wide diversity of Although all are engaged in tilling the soi from it raise the productions upon which th pend for revenue, yet the resemblance stops The men themselves are very dissimilar. We if any other class can show such a wide diffe in character, ability, intelligence, and the which comes to their hands. The great stimu purpose with every man, whether he is a fa merchant, or mechanic, should be to rise abo average of his class. The farmer, in parti should be filled with the ambition to show the that he is something more than an average fa He should strive to keep better cows, shee hogs than his neighbors; show a better syst farm management, better crops, etc.

Such a man will make larger profits an larger respect from all classes. Too many ha ambition to own a large number of acres, th that will bring them larger respect and which, however, is not true.

It is a splendid ambition, which leads a mar a fine, skillful farmer. One cannot help adi such ability when it is shown in the neat, we house and grounds, the spacious, well painted and outbuildings, good fences, well bred fan mals, and a thorough system of farm manag

Such men are true artists; they have the a sense and ability to construct a fine farm p Their neighbors can learn something from every day. There is an unconscious tuition goes out from their lives and example.

Such farmers are a blessing to their comm and their state. "May their tribe increase." much finer and larger in every sense is it young man to have the ambition to be such a er than to enter the over crowded professions towns are full of men who have been a s there. Many such a man has spoken to us b of the folly of his youth in leaving the farm. ern agriculture, with its machinery, improv stock, its books, experiment station reports, schools, colleges, and strong intellectual fo work on every problem, is a different thing that of 50 years ago.

A young man of education and ability ca on the modern farm, opportunity for all the power, all the skill and energy he can muste rewards in money, health, comfort, and tru pendence of character, as well as the resp his fellows, are greater here than in the to is a larger field, full of the fascinating myste animal and vegetable life.

Wise is the young man who says early i "I propose to make of myself a first class f I will take all the advantages that wide r and study can bring me. I will show my and my skill in the appearance and outcome farm. I will establish a neat, tasty farm hon will show the passerby that a man of taste telligence lives here. My farm shall be my p well as my profit."

Such a man will make a grand, good citi well as farmer.

Qualifications of a Cow Tester

What are the qualifications for a cow t Does he have to have special training in th of work? Where can he obtain such traini there much of a demand for cow testers, an pay do they usually receive? Tell me someth the nature of their work.

Pupico, Mo. SUBSCR

The cow tester has much to do with the su ful working of an association. He should b fitted temperamentally and should have had training for the work. Punctuality, regu and accuracy are of great importance, for he has these qualities the records may not be

ion of the value of the respective cows. The e should also have the ability to advise and he farmers, and for this reason it is neces- iat he be constituted temperamentally to vice in such a manner that it will be accept- followed. The position of cow testers offers nt opportunities for dairy students to gain al experience and is the best kind of school hem for responsible positions in connection iairy work.

ning for the position of a cow tester may be ed at the various state agricultural colleges o at some of the county agricultural schools. ntly a man who has had dairy experience ows how to figure correctly and to operate bcock test is enabled, through a little coach- the supervisor in charge of cow testing as- ons, to take a position as tester and give a ccount of himself.

tester is expected to accurately weigh and the milk of each cow and then make a test of it. He also keeps a record of the t of feed given to each cow and then makes record for the entire herd from this compu- He has his books to keep, in which all this ation is entered and the profit over cost of shown. He spends one day at each farm present at the time the milk is weighed, both g and evening. There is at present a very emand for testers and the salaries paid will from $50 to $75 a month, the tester re- his board and lodging while at each farm. he farmers may either transport the tester some cases, they allow him extra compensa- ien he provides his own conveyance.

her information as to the opportunities and ments for cow testers in Missouri may be l by writing A. C. Ragsdale, College of Agri-, Columbia, Missou.i.

g Feeds to Buy Bran and Oil Meal

ly balance me ration for milk cows of the ng feeds: I have on hand oats, barley, ear ood silage, clover hay, and good corn stover. always favored mixing in bran which I can se at $36 per ton and oil meal at $60. I ike to know which of the home-grown feeds sell to best advantage to get the bran and l as I have plenty of all home-grown feed on Oats are selling at slightly over 2 cents per barley at a trifle less than 2 cents, and corn ts.

tkinson, Wis. H. J. Y.

ay be said that oats is a little more valuable ed than bran, and corn a little more valu- an barley, but there is not enough difference feeding of these grains to be really measur- Whether it would pay you to sell the oats, is worth $40 a ton, and buy bran at $36 a a question which our inquirer must decide. se, it will cost something to grind the oats will cost something to exchange the oats for n. Just how much, can be determined by the of time required to bring a ton of oats to nd take back a ton of bran and the cost of g a ton of oats.

at 1¾c a pound is a little cheaper than bar- 2c a pound. This being true and there is a of these two feeds, it would undoubtedly be sell the barley and feed the corn, although l not be out of place to feed some of each.

ould suggest that each cow weighing 1,000 fed about 30 lbs. of silage daily. Some will tle more, others a little less. We would also ch one all the clover hay she would care to e. A very good mixture to supplement the nd the clover hay would be 200 lbs. ground 200 lbs. ground corn, 200 lbs. bran, 100 s, and 100 lbs. oil meal. This mixture pro- number of feeds and it is well to have sev- ds in a mixture. We would feed about 1 lb. mixture for each 3½ to 4 lbs. of average milk produced, that is, testing about 3.8%. not convenient to feed the mixture we have d, then it may be made of 400 lbs. of either barley or corn, 300 lbs. bran or oats, and of oil meal. As we stated, we like a variety in the mixture and would prefer the first if it is convenient to make it.

Naming Cattle

give me a system for naming cattle.
n, Ia. P. S.

ly to the above question we herewith pub- system of naming cattle as followed by W. t, a prominent and successful Wisconsin

gard to my system of naming cattle I have h aims to convey all the breeding possible with the shortest possible name. I will take two instances to illustrate; one Johanna and the other Colantha.

"We will suppose that these cows both have heifer calves, these calves would be named in the numerals, viz: Johanna 2nd and Colantha 2nd, and so on with all their heifers. If Johanna should drop a bull sired, say, by a son of Colantha, it would be named Sir Johanna Colantha or Duke or King, any short name as a prefix. On the contrary, if the sire and dam of a calf of this breeding were reversed the Johanna-Colantha would be reversed, always giving the name of the dam first, and the combination name second to indicate the blood of the sire.

"Now, then, we have, say, Johanna 2nd and Colantha 2nd and will suppose that Johanna 2nd drops a heifer calf from a Colantha bull; we would name that calf Johanna Colantha. On the other hand, if Colantha 2nd should drop a heifer sired by a Johanna bull we would call it Colantha Johanna. Now, either of these calves dropping heifers would be named in the numerals same as Johanna and Colantha originally. When we have a name either single or in combination without any numeral attached, we simply name the female offspring in the numerals, but animals named in the numerals and carrying a combination name like Johanna Colantha 2nd, etc., we drop the second combination name Colantha and supply a name that comes with the sire so long as we can, but if not, try to select a name beginning with the same letter so the animals will have but two names. For instance, the first daughter of Johanna Colantha 2nd was sired by Sir Fayne Concordia, hence the daughter coming from this cross was named Johanna Concordia. The second daughter by this same bull would have been named Johanna Fayne but having used this name in one of our other similar crosses we gave the second daughter the name of Johanna Colonia. I have dropped the plan of giving possessive case in my naming like Colantha 4th's Johanna as I like to indicate all I can in the naming and have it as short as possible.

"Our bull calves we give the same system when we can but frequently submit this to the purchaser who usually will want all the name he can get, like Johanna Colantha Champion, or Johanna DeColantha Champion, or Johanna DePauline 2nd Colantha Champion. I think I have made this plain and need say no more."

Recipe for Corned Beef

I wish to butcher a yearling steer and corn a part of the meat for future use. Can you help me to a recipe for corning beef?

Whitehall, Mont. C. M. H.

The following recipe for corning beef is taken from Farmers' Bulletin 183:

"The pieces commonly used for corning are the plate, rump, cross ribs, and brisket, or in other words the cheaper cuts of meat. The loin, ribs, and other fancy cuts are often used fresh, and since there is more or less waste of nutrients in corning, this is well. The pieces for corning should be cut into convenient sized joints, say, 5 or 6 inches square. It should be the aim to cut all about the same thickness so that they will make an even layer in the barrel.

"Meat from fat animals makes choicer corned beef than that from poor animals. When the meat is thoroughly cooled it should be corned as soon as possible, as any decay in the meat is likely to spoil the brine during the corning process. Under no circumstances should the meat be brined while it is frozen. Weigh out the meat and allow 8 pounds of salt to each 100 lbs.; sprinkle a layer of salt one-quarter of an inch in depth over the bottom of the barrel; pack in as closely as possible the cuts of meat, making a layer 5 or 6 inches in thickness; then put on a layer of salt, following that with another layer of meat; repeat until the meat and salt have all been packed into the barrel, care being used to reserve salt enough for a good layer over the top. After the package has stood over night add, for every 100 lbs. of meat, 4 lbs. of sugar, 2 ounces of baking soda, and 4 ounces of saltpeter dissolved in a gallon of tepid water. Three gallons more of water should be sufficient to cover this quantity. In case more or less than 100 lbs. of meat is to be corned, make the brine in the proportion given. A loose board cover, weighted down with a heavy stone or piece of iron, should be put on the meat to keep all of it under the brine. In case any should project, rust would start and the brine would spoil in a short time.

"It is not necessary to boil the brine except in warm weather. If the meat has been corned during the winter and must be kept into the summer season, it would be well to watch the brine closely during the spring, as it is more likely to spoil at that time than at any other season. If the brine appears to be ropy or does not drip freely from the finger when immersed and lifted, it should be turned off and new brine added, after carefully washing the meat. The sugar or molasses in the brine has a tendency to ferment, and, unless the brine is kept in a cool place, there is sometimes trouble from this source. The meat should be kept in the brine twenty-eight to forty days to secure thorough corning."

Paying for Milk at Condenseries

We have recently installed a condensing outfit in connection with our creamery and are anxious to get some information as to how the prices of milk are fixed; in other words, to get on a standard basis of buying our milk just as other condenseries in the West and East are doing. Can you give us this information so that we can get on the same basis that we are now working on in buying our butterfat?

Selma, Alabama. R. W. B.

There is no one standard that condenseries use in paying for milk, this being largely adjusted according to local conditions and the various competitive markets. In the West and along the Pacific Coast it is the general custom to pay for the milk according to its butterfat content, and in most cases making additional allowances for the value of the skimmilk. In the Middle West and in the East the condenseries are now paying the same price and upon the same basis as the market milk distributors are paying for their milk. Condenseries in the territory tributary to Chicago and beyond are paying the same price or a slightly lower price than is received by farmers delivering milk to the Chicago distributors.

At the present time this price is based upon the Pearson formula as interpreted by Judge Lamb. The price for December is $3.76 per hundred pounds for milk delivered at the country receiving plant. The required test is 3.5 per cent and allowances of four cents per point are paid for higher tests; that is, if milk tests four per cent the producer should receive $3.96 per hundred pounds.

In certain sections of Wisconsin condenseries are paying on the basis of four per cent test. One recent case has come to our attention where the condensery at Menomonie, Wisconsin, is paying $4.00 per hundred for four per cent milk during the current month. We are not advised as to what deduction or addition is made for lower or higher test, but assume it is based upon a three cent to six cent per point basis.

In the New York market milk section prices are fixed upon a three per cent fat basis, and three to six cents per point fat is allowed for higher tests.

We would also call attention to the reports of prices received for dairy products as given in the weekly reports from cow testing associations. The several methods now in vogue will be noted.

How to Feed Rutabagas

In one of your issues I notice what you had to say about feeding rutabagas to milk.. cows, and I will be glad to have you advise me if these are to be fed whole or run through a food chopper, and if they are chopped is it done freshly before each feeding, or can you chop at one time enough for a day's feed.

I would also like for you to advise me how often a cow giving around three gallons of milk a day should be fed, and what proportion of her daily feed should be given at each meal.

Greenville, S. C. J. A. S.

Rutabagas should be run through a feed chopper before feeding them. It is quite customary to cut them fresh every day and it is wholly feasible to cut enough at one time for the day's supply.

It is quite customary to feed cows three times a day. Some people feed five times a day. It does not matter so much how many times a day a cow is fed, provided she is fed regularly and given enough to eat of good, wholesome, palatable feeds. Grain and silage or roots are fed in the morning and at night. At noon an allowance of hay is given. It is the practice of some dairymen to give their cows some dry roughage after they have consumed the succulence and grain both at night and morning.

Value of Whey for Feed

Please inform me the value of whey for feed.

Iron Ridge, Wis. F. S.

Whey is worth about one-half as much for feeding live stock as skimmilk. One hundred pounds of skimmilk are worth about one-half bushel of corn. This would make 100 lbs. of whey equivalent to 1 peck of corn in feeding value.

MOLINE PLOWS

For Tractor or Horse Use

IF you need a walking, sulky, gang or tractor plow, buy a Moline and you will never regret it. They are backed by 54 years' plow building experience.

The Moline Best Ever Sulky and Gang have long been famous for good work, ease of handling and light draft.

W. V. Clark of Winterset, Ia., says: "My Best Ever Gang runs easily one horse lighter than my other gang." "My four horses handle my Best Ever Gang easier than they did the sulky plow I had," says W. C. Moore of Martel, Neb.

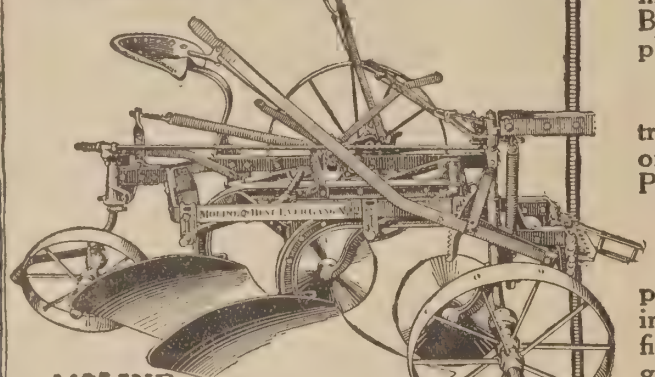
* * *

The Moline Power Lift Gang is the ideal tractor plow for work behind any size or style of tractor. A tractor owner with a Moline Power Lift Gang will never have occasion to find fault with the work of his outfit. It is equipped with a positive power lift. By simply pulling a cord you can raise the plows, full depth out of the ground, or any intermediate distance to vary the load in difficult conditions to prevent stalling of the engine. This is only one of several equally useful features you get with Moline Power Lift Gang.

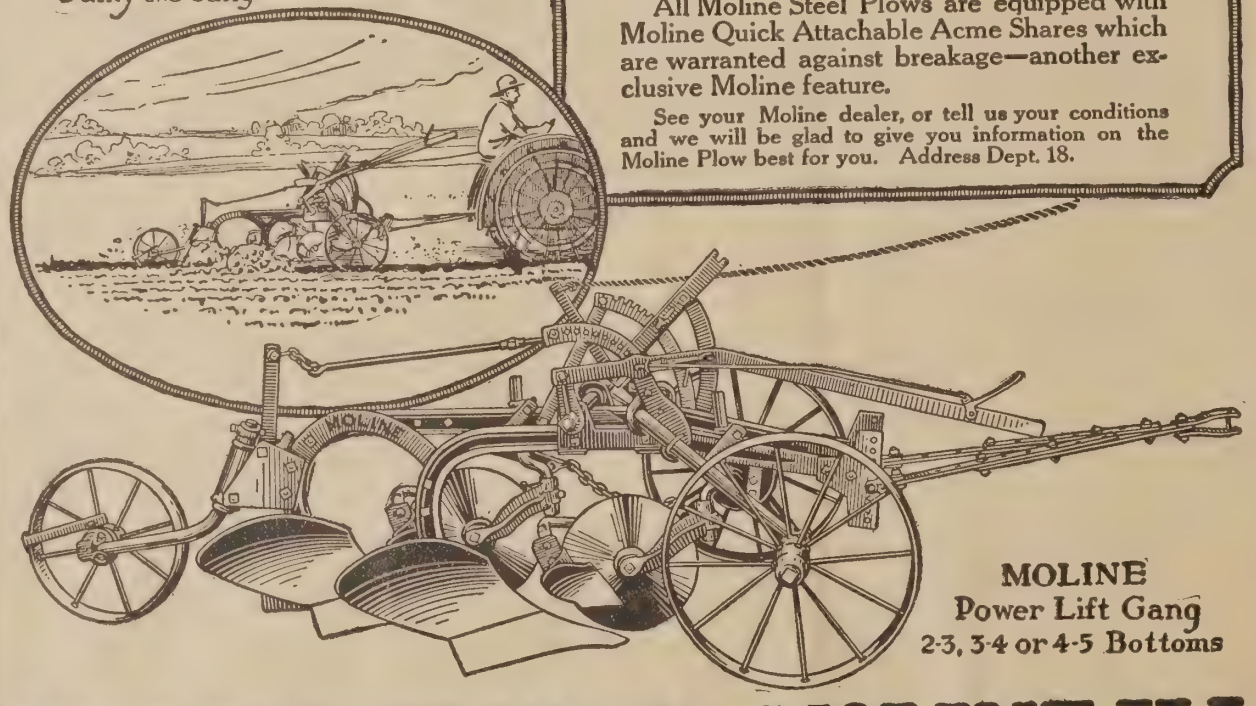
* * *

All Moline Steel Plows are equipped with Moline Quick Attachable Acme Shares which are warranted against breakage—another exclusive Moline feature.

See your Moline dealer, or tell us your conditions and we will be glad to give you information on the Moline Plow best for you. Address Dept. 18.



MOLINE
Best Ever
Sulky and Gang



MOLINE
Power Lift Gang
2-3, 3-4 or 4-5 Bottoms

MOLINE PLOW CO., MOLINE, ILL.

MANUFACTURERS OF QUALITY FARM IMPLEMENTS SINCE 1865

A Holstein Story

Holstein breeders will be interested in the following enthusiastic and humorous article prepared for his local paper by Mr. J. H. Lewis of Wisconsin:

"John W. Beran has been elected to membership in the National Holstein-Friesian Association, the headquarters of which are located at Brattleboro, Vermont. This in itself is nothing to get excited about; you cough up fifty bones, but before the Association accepts your spondulix, you have to qualify. And qualification here has a regular University course backed clear off the boards. After scanning the records we arrive at the just conclusion that Mr. Beran is a scientific stock raiser. There is first a record in which is kept a complete biography of Miss Holstein from the day she is born down to even date. She is christened of course and, as in the Beran case, you pick all the prettiest names first. If you suspect about now that a woman has had a hand in the business you have guessed correctly. And such names as Lucretia, Regina, Alice, and Gwendolyn appear on the register.

"The question arises when Beran applies for membership, is his particular bunch of pets, pure-bred? The expert at Brattleboro reads over the record, obtains at first hand comparative data backed by testimonials from several governors of states, a few United States senators and some poor and respectable breeders of blood royal Holsteins, such as the Morgans, Goulds, and Rockefellers, and decides that John W.'s herd is genuine blue bloods. His money is accepted and he is elected to membership.

"Talk about aristocracy—Ward's New York 400 are cheap cross bred mongrels compared to the spotless purity of these queens of the Holland ruling house.

"And a pure-bred Holstein as a butterfat producer, considering investment and return, is a closed corporation with the stockholders drawing down anywhere from 100 to 1,000 per cent dividends annually. As a side issue, the owner of the herd comes along now and then and cruelly separates Baby Holstein from Mamma Holstein at the rate of $100 per baby, and sometimes a whole lot more. The longer the record and the purer the strain, the deeper the Holstein lover digs into his wallet. The more lovers the baby has the more certain are the rivals for her heart and foot to bid up the ransom demanded.

"It's a great business, this of raising a Holstein family. Aside from the wealth begetting faculties involved are the enticing charms of cow and record. A clean, well kept, pure-bred Holstein is a doll and you can't help falling in love. Many cases are reported of love at first sight. We have been proud of our family records usually kept on the front page of the Bible, but for a Holstein record you must produce something vastly more comprehensive than names and dates. The measured proportions of Mr. and Mrs. Holstein occupy a whole page each drawn down to the most exacting fraction of the first unit of measurement and the markings are shown both sides, with unfailing accuracy."

Self Sucking Cows

On this subject G. C. D. of Wausa, Nebraska, writes: "I saw the inquiry of T. T. A., of Jacksonville, for a means of preventing a cow from sucking herself, so I thought I would tell you of a way my father used on one of his cows. A piece of wood or iron is bent into the form of a horse collar, so shaped as to bring the ends nearly together. This was placed over the cow's neck just in front of the shoulders, with the open side down. Half way down on either side of this collar the end of a short rod was attached, the other end being securely fastened to rings in her halter. When she attempts to turn her head to suck, these rods stop her."

A Massachusetts subscriber gives his method, as follows: "Put a head halter on cow, also a surcingle just back of front legs, not very tight, in fact mine is quite loose. Fasten a ordinary harness snap on one end of a stick about five feet long; a fork handle is about right size. When you turn the cow out, put stick between front legs and through surcingle snapping into ring in halter. She can eat, drink, and do anything necessary except to lick or suck herself. When she lies down, the stick prevents her from sucking herself. Take it off when she is in the barn."

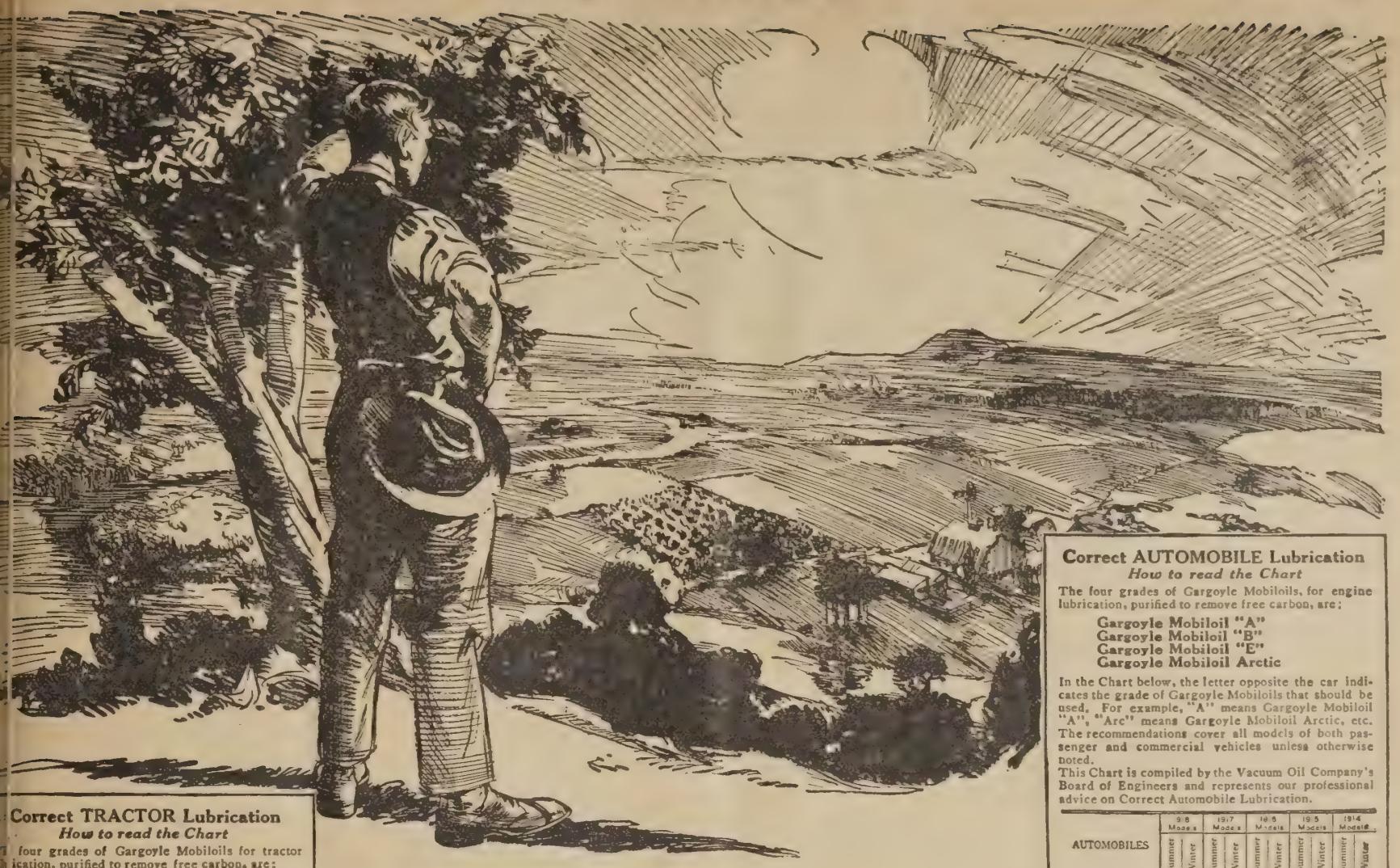
A. A. of Chardon, Ohio, writes: "My method of preventing a cow from sucking herself is to place a sack over her udder. It costs but very little and is the most satisfactory method. A surcingle is placed around her body just back of her forelegs, a strap runs from this to and around the tail, the whole being similar to the usual back pad, back strap, and crupper of a harness. Two half-inch straps are attached to the back strap just in front of the hips so as to cross diagonally, one end of each strap extending over the hips to the rear of the udder and the other straight down to the front quarter on the opposite side. A piece of canvas or grain sack is cut to proper size to cover the udder, each corner of which is attached to the ends of the half-inch straps by means of a ring and snap. The half-inch straps should have a buckle at the top, so they may be conveniently tightened up."

Leslie Myers of Kansas states his experience as follows: "If the reader will put a straight bit bridle on the cow it will not harm her, as my cow was able to eat and didn't seem to mind it. The bit prevents the cow from lapping her tongue around the teat. Usually one or two months will be sufficient to break her."

F. A. C. of Winfield, Kans., suggests the following for a self-sucking cow: "Fasten a common pointed bridle bit in her mouth by means of a halter headstall. Let her wear this continually. Adjust it so it will not make her mouth sore. Have tried it and it works."

Jersey Cattle Notes

For week ending December 27th: Number of animals registered: Bulls, 125; cows, 361; total, 4... Number of transfers recorded: Bulls, 139; cows, 371; total, 510.



The Years Ahead

OLD farm methods are being thrown aside. The tremendous margin between what the farmer *has* produced and *can* produce—what he *has* earned and what he *can* earn—becomes every day more evident.

He realizes at last the vital part he plays in the welfare of his nation—and the other workers of the country are looking to him with a new respect.

For war has shown the people the true importance of a man who produces Food.

The farmer who has formed the habit of looking ahead, plans every year for a marked increase in his crops. He realizes that the productive possibilities of his soil have not been touched.

A sixteen year old boy has recently raised 169 bushels of corn on one acre. Illinois, our best corn state, averages per acre 29 bushels.

Recent experiments in Indiana, by scientific cultivation and fertilization of wheat, brought an increase of over 40% over the average crop.

Cases like these are becoming more common every day.

The two chief factors in the increase of yield per acre are proper fertilization and proper farm machinery. The one type of farm machinery that is doing the most to increase production per acre is the tractor.

Think of it! Not many years from now millions of horses and mules now on the farms will be replaced by tractors.

Fewer men will cultivate more land. Arm labor, leg labor and back labor will be taken over more and more by machinery.

The farmer will be a business executive. He will work more with his mind and less with his body. He will have more time for recreation. His will be one of the most interesting, independent and worthwhile ways in which men earn their living.

* * *

TO the Vacuum Oil Company it is a matter of great satisfaction that, almost without exception, the leading tractor manufacturers consider Gargoyle Mobiloils first choice among the tractor lubricating oils.

Gargoyle Mobiloils are put up in 1- and 5-gallon sealed cans, in 15-, 30- and 55 gallon steel drums, and in wood half-barrels and barrels.

Write for "Correct Lubrication" booklet containing complete automobile and tractor chart, and other valuable data.

GARGOYLE

Mobiloils

A grade for each type of motor

In buying Gargoyle Mobiloils from your dealer, it is safer to purchase in original packages. Look for the red Gargoyle on the container

VACUUM OIL COMPANY, New York, U. S. A.

Specialists in the manufacture of high-grade lubricants for every class of machinery. Obtainable everywhere in the world

Domestic Branches: New York, Boston, Philadelphia, Pittsburgh, Detroit, Chicago, Minneapolis, Indianapolis, Kansas City, Kan., Des Moines

Correct TRACTOR Lubrication

How to read the Chart

The four grades of Gargoyle Mobiloils for tractor lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "BB"
Gargoyle Mobiloil Arctic

The Chart below, the letter opposite the tractor indicates the grade of Gargoyle Mobiloils that should be used.

TRACTORS	1918 Models		1917 Models		1916 Models		1915 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
gh-Dover (Square Turn)			BB	A	BB	A		
halmers	BB	A	BB	A	A	A	A	A
ork	B	A	B	A	B	A	A	A
ws			B	B	A	A		
on	BB	A	BB	A				
an-Taylor	B	A	B	A	A	A	A	A
" (18-36)	BB	A	BB	A	A	A		
	B	A	B	A	B	A	B	A
(5-10 H.P.)			A	A	A	Arc		
(Louisville)			BB	A	BB	A	BB	A
Steel Mule	B	A	B	A				
Track Pull	A	A	A	A				
	B	A	B	A	B	A	B	A
8-16)			A	A	A	A		
ill	B	A	B	A	B	A	A	A
City	B	A	B	A	B	A		
ye (Indiana)	BB	A	BB	A	BB	A		
(Indiana) (GiantBaby)			B	A	B	A		
(Ohio)			BB	A	B	A	B	A
			B	A	B	A	B	A
(9-18)	A	A	A	A				
10-20)	A	A	A	A	A	A		
12-25)	BB	A	BB	A	B	A	B	A
20-40)	BB	A	BB	A	B	A	B	A
	BB	A	BB	A	B	A	A	A
and	BB	A						
ion Sense	BB	A	BB	A	A	A	A	A
D	BB	A	BB	A	A	Arc	A	Arc
Belt	BB	A	BB	A	B	A	B	A
ing Grip	BB	A	BB	A	B	A	B	A
ion-Brantingham (EB)	A	A	A	A	A	Arc	A	Arc
" (E.B.9-16)	B	A						
" (Big Four)	A	A	A	A	A	Arc	A	Arc
" (Reeves)	B	A	B	A	A	A	A	A
Horse	B	A	B	A	B	A		
City	B	A	B	A	A	Arc	A	Arc
" (Heavy Duty)					B	A	B	A
way	B	A	BB	A				
ull (Rumley Co.)	B	A	B	A	B	A	B	A
Belt			BB	A				
	BB	A	BB	A	B	A	A	A
y Farmer								
" (Model B)	B	A	B	A				
Parr	B	A	B	A	B	A	B	A
r	BB	A	BB	A	B	A	A	A
Caterpillar	B	A	B	A	B	A	A	A
" (Model 45)	BB	A	BB	A	BB	A		
" (Model 18)			BB	A				
	BB	A	BB	A	B	A	B	A
rial Forty	B	A	B	A	B	A	B	A
o	A	A	A	A	A	A		
ell	BB	A	BB	A	BB	A		
Prairie Dog	BB	A	BB	A	B	A	A	A
ead			BB	A	B	A	A	A
	BB	A	BB	A	B	A	A	A
Chief	BB	A	BB	A	BB	A		
Giant	BB	A	BB	A	A	A	A	A
ag			BB	A	BB	A		
eapolis	B	A	B	A	B	A	B	A
n (I. H. Co.)	BB	A	BB	A	BB	A		
(8-16) (I. H. Co.)	A	A	A	A	A	A		
ne Universal	BB	A	BB	A	BB	A		
Age	BB	A						
ols & Shepard			BB	A	A	Arc	A	Arc
n	BB	A	BB	A	B	A	B	A
ull (Rumely Co.)	B	A	B	A	B	A	B	A
" (14-28, 10-20, 20-40)								
umely Co.)	BB	A						
tt	BB	A	BB	A	A	A	A	A
a			BB	A	A	A	A	A
ser	B	A	B	A	B	A	B	A
Boy			BB	A	BB	A		
Man	BB	A	BB	A	BB	A		
tac			B	A				
ely	B	A	B	A	A	A	A	A
(8-16)	BB	A	BB	A	BB	A	BB	A
ell	B	A	B	A	A	Arc	A	Arc
(Little Four)	BB	A	BB	A				
usky	BB	A	BB	A	A	A	A	A
dex	B	A	B	A	A	Arc	A	Arc
dard			BB	A	BB	A		
t	BB	A	BB	A	B	A	A	A
n (I. H. Co.)	BB	A	BB	A	BB	A		
Thumb (4 cyl.)			BB	A	A	A		
City	B	A	B	A	B	A	A	A
" (Model 15)					A	A	A	A
" (Model 16)	BB	A						
e Cub	B	BB	B	BB	A	Arc	A	Arc
" (Junior)	BB	A						
erloo Boy	A	A	A	A	B	A	B	A
	B	A	BB	A				
	BB	A	BB	A	A	A	A	A

Correct AUTOMOBILE Lubrication

How to read the Chart

The four grades of Gargoyle Mobiloils, for engine lubrication, purified to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "E"
Gargoyle Mobiloil Arctic

In the Chart below, the letter opposite the car indicates the grade of Gargoyle Mobiloils that should be used. For example, "A" means Gargoyle Mobiloil "A", "Arc" means Gargoyle Mobiloil Arctic, etc. The recommendations cover all models of both passenger and commercial vehicles unless otherwise noted.

This Chart is compiled by the Vacuum Oil Company's Board of Engineers and represents our professional advice on Correct Automobile Lubrication.

AUTOMOBILES	1918 Models		1917 Models		1916 Models		1915 Models		1914 Models	
	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
Abbott	Arc	Arc								
Abbott-Detroit			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A	A	A		
Allen	A	Arc	A	Arc	A	Arc	A	Arc	A	A
Apperson	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Auburn (4 cyl)					A	Arc	A	Arc	A	A
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (6-35, 6-39)			A	Arc	A	Arc				
" (6-39 Touring H	A	Arc								
" (6-39 Coupelet)	Arc	Arc								
Autocar (2 cyl)	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Briscoe	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Buick	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc
Cadillac	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Case	Arc	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Chalmers	A	A			Arc	Arc	Arc	Arc	A	A
" (6-40)					A	A				
" (6-50)			A	A	A	A				
Chandler Six	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Chevrolet	Arc	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	
" (5 cyl)	A	A	A	A						
" (F A)	A	Arc								
Cole					Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A	A	A		
Cunningham										
" (8 cyl)	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Dart	A	Arc	A	Arc	A	Arc	Arc	Arc	A	A
" (Mod C)			A	Arc	A	Arc	A	Arc	A	A
" (2 & 3½ ton)	A	A								
Detroiter	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	A
Dodge Brothers	A	Arc	A	Arc	A	Arc	E	E		
Dort	A	Arc	A	Arc	A	Arc	A	Arc		
Empire (4 cyl)	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc				
Federal	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod S-X)	A	A	A	A						
" (Special)	Arc	Arc								
Fiat	B	A	B	A	B	A	B	A	B	A
Ford	E	E	E	E	E	E	E	E	E	E
Franklin	A	A	A	A	A	A	A	A	A	A
Grant	A	Arc	A	Arc	A	Arc	Arc	Arc	Arc	Arc
Hal-Twelve			A	A	A	A				
Haynes	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
Hudson					Arc	Arc	Arc	Arc	Arc	Arc
" (Super Six)	A	Arc	A	Arc	A	A				
Hupmobile	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Kelly Springfield	A	A	A	A	A	A	A	A	A	A
King							A	A	A	A
" (8 cyl)	A	A	A	A	A	A	Arc	Arc		
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Kissel Kar	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (Mod 48)					A	A	A	A	A	A
" (12 cyl)	A	A	A	A						
Lexington	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
Lippard Stewart	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (Mod M)			A	Arc	A	Arc				
" (Mod MW)			A	Arc						
Locomobile	A	E	E	E	E	E	E	E	E	E
McFarlan	A	Arc	A	Arc	A	A	A	Arc	A	A
Madison	A	Arc	A	Arc	A	Arc	A	Arc		
" (8 cyl)			A	A	A	A				
Marmon	A	A	A	A	A	A				
Maxwell	Arc	Arc	Arc	Arc	Arc	Arc	A	Arc	A	Arc
Mercer	A	A	A	A	A	A	Arc	Arc	A	Arc
" (22-70)							Arc	Arc		
Mitchell	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
" (8 cyl)					A	A				
Moline-Knight	B	A	A	A	A	A	A	A	A	A
National	Arc	Arc	Arc	Arc	A	Arc	A	Arc	A	A
" (12 cyl)	A	A	A	A	A	A				
Oakland	A	A	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	A				
Oldsmobile	A	A			Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Overland	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Packard							A	Arc	A	Arc
" (12 cyl)	A	A	A	A	A	A				
" (Com'l)	A	A	A	A	A	A				
Paige (4 cyl)							A	Arc	Arc	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc		
" (6-36)					A	Arc	A	Arc		
" (6-38-39)			A	Arc						
" (6-40)	A	Arc								
Paterson	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Pathfinder			Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (12 cyl)			A	A	A	A				
Peerless	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)	A	A	A	A	A	A				
Pierce Arrow	A	A	A	A	A	A	Arc	Arc	Arc	Arc
" (Com'l)	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
Premier	A	A	A	A	A	A	Arc	Arc	Arc	Arc
Regal	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (8 cyl)					A	Arc	Arc			
Renault (French)					A	Arc	A	Arc	A	Arc
Reo	A	Arc	A	Arc	A	Arc	A	Arc	A	Arc
Riker	A	E	E	E						
Saxon	E	E	E	E	E	E	E	E	E	E
Selden	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (¼ ton)			A	Arc						
Simplex					A	A	Arc	Arc	Arc	Arc
Stearns-Knight	B	A	A	A	B	A	B	A	B	A
" (8 cyl)	B	A	A	A	B	A				
Studebaker	A	Arc	A	Arc	A	Arc	Arc	A	Arc	Arc
Stutz	A	A	A	A	A	A	A	A	A	A
Velie (4 cyl)							A	Arc	A	Arc
" (6 cyl)	Arc	Arc	Arc	Arc	Arc	Arc				
" (2 & 3½ ton)	Arc	Arc								
" (¾ ton)	A	Arc								
Westcott	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
White	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc
" (16 valve)	A	A	A	A						
Willys-Knight	B	A	A	A	B	A	B	A	A	A
Willys Sa	Arc	Arc	Arc	Arc						
Winton	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc	Arc



DELCO-LIGHT
Blazed the Way

Delco-Light has carried the conveniences and labor-saving efficiency of the city to the farm districts.

It has proved that electric light and power on the farm multiplies man-power and saves both time and labor.

Delco-Light is accomplishing these results today on more than 60,000 farms.

It is a good investment because it actually pays for itself.

Delco-Light is a Complete Electric Light and Power Plant;—

It furnishes power to operate the fanning mill, grind-stone or washing machine—to milk the cows, operate the cream separator or tumble the churn—to pump fresh running water to all parts of the house and barn.

It supplies bright, clean, safe electric light—makes it easy to do chore work after dark without the bother and danger of old-fashioned lamps and lanterns, thus reducing the fire hazard.

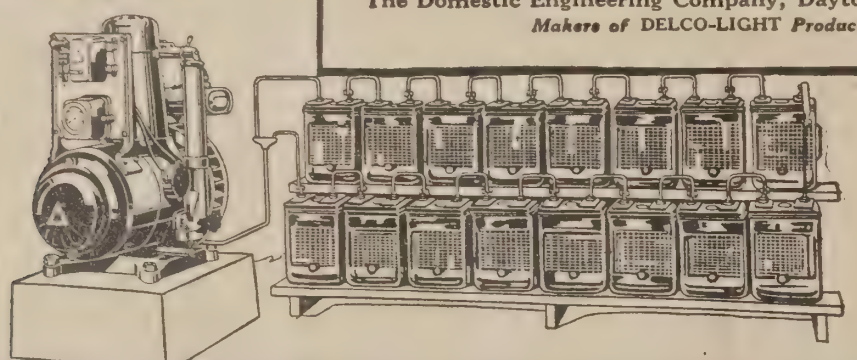
Delco-Light runs on *Kerosene*. The same coal oil or Kerosene formerly used in lamps and lanterns now furnishes both light and power.

Thousands of testimonial letters prove these things in actual experience of Delco-Light Users

The Domestic Engineering Company, Dayton, Ohio, U.S.A.
Makers of* DELCO-LIGHT *Products

A Complete Electric Light and Power Plant for Farms and Suburban Homes—Self-Cranking—Air Cooled—Ball-Bearings—No Belts—Thick Plate Long Lived Battery.

RUNS ON KEROSENE



More Light Than 20 Oil Lanterns

AT LAST—the light of lights! A lantern that lights with common matches just like the old style oil lantern, but makes and burns its own gas from common gasoline, giving a brilliant, steady, white light of 300 candle power.

Most Brilliant Light Made

Brighter than the brightest electric bulb. More light than 20 oil lanterns. Cheapest and best light made. Costs less than one-third of a cent per hour. Safer than the safest oil lantern. The

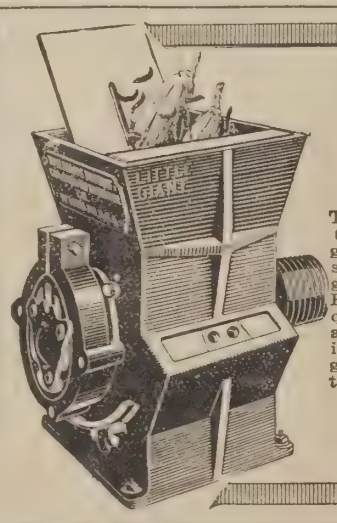


Coleman Quick-Lite

No wicks to trim—No globes to wash. No dirt or grease, no glare or flicker. Absolutely safe. Fuel can't spill—no danger if tipped over. Guaranteed Five Years—will last a lifetime.

If your dealer can't supply, address our nearest office for Catalog No. 9

The Coleman Lamp Co.
Wichita, Dallas, St. Paul, Chicago, Toledo.



Grind Your Feed
With the Wil'iams Patent LITTLE GIANT GRINDER

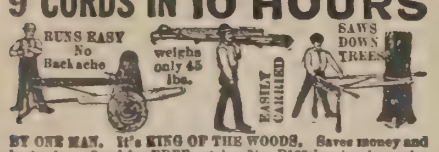
The Little Giant Grinder will grind your Ear Corn (husk, cob and all), your Oats, Wheat, or any other grain, into either a fine, medium or coarse meal as desired. It will not merely crack these grains but will grind them into a real meal.
Equipped with genuine SKF ball bearings power requirements are reduced to the minimum. Four sizes give a wide range of capacity. Hundreds of farmers are using this machine, therefore, if you are anxious to save grain and reduce feeding costs investigate and install this machine. Bulletin No. 699 explains in detail.

The Williams Patent Crusher and Pulverizer Co.
37 West Van Buren St., CHICAGO, ILL.
Factory: St. Louis, Mo.

FEEDS
Write me
Frank J. Allen

Bran, Middlings
Rye and Corn Feeds
Screenings, Mill Oats.
Milwaukee, Wis., 86 Michigan St.

9 CORDS IN 10 HOURS



BY ONE MAN. It's KING OF THE WOODS. Saves money and backache. Send for FREE catalog No. B125showing low price and latest improvements. First order gets agency.
Folding Sawing Machine Co., 161 West Harrison St., Chicago, Ill.

FROZEN FISH
The Best Come From Green Bay

Note these low prices. Large herring per pound 6c. Perch 6c. Carp dressed 7c. Pickerel 13c. Whiting 8c. 20-lb. bskt. smoked Bluefins $2.40. Write for complete list frozen, smoked, spiced and salt fish. Mail us your order.
Badger Fish Co., Dept. 1, Green Bay, Wis.

CANADIAN RANCH FOR SALE

One of the finest wheat and stock ranches in Alberta for sale. Contains 800 acres—250 in cultivation. Elaborately improved; good water. If you want a farm and home that will pay for itself in one year, see this. Priced for quick sale at $35 per acre. Terms—for photos and all information, write owner.
BOX 13, - BIG VALLEY, ALTA.

Control of Abortion Disease

[Continued from page 855]

in the death of the animal. Likewis breeding powders and similar prepa rations or concoctions administere by way of the mouth, injected into th genitals, or given in any other manne will not overcome the diseased condi tion of the genitals, which is largel responsible for the barrenness. I case of valuable animals, consult graduate veterinarian experience in this work. Let him make an exam ination and render an accurate diag nosis upon which intelligent treat ment may be based.

It should be understood that n hard and fast rule for handling abor tion disease can be laid down. Eac herd is a study in itself and treat ment must vary with the condition *A man who will not follow a definit plan of herd improvement need ex pect no help, for no help can be give* There is no easy way of getting ri of this disease. Its suppression is de pendent upon a realization on the par of the owner of the principles under lying disease, and the thoroughnes with which he carries out the detail of sanitation.—Circular 69, Kansa College of Agriculture.

The Creamful Cow

Kansas has reached the climax o her prosperity as a grower of porter house steaks. The manufacture of th porterhouse steak ensconced in th Hereford steer from now on will b a hazardous business. For it require a weather-worshipping, cloud-gazing large acreage farmer with a bi capital and lots of credit and exper sive experience to make it go. Tha kind of a farmer lives about four t a section, and a crop failure puts hi on the ragged edge.

The dairy farmer requires a sma farm, a big barn, and a silo, and h snaps his fingers at the clouds. A weather looks alike to him; no cro failure can affect his business; h needs little capital; for every day i the year is an income-bearing day he makes his capital as he goes. H township settles up; he can only far an eighty and he has lots of neigh bors. So the boys and girls stay on th farm and country schools fill up wit children. For manufacturing butte and cheese pays better than manu facturing porterhouse steaks. Th Hereford requires three acres fo grazing; the Holstein is a closer fee er.

In dairying communities bank de posits run up into high figures pe capita, and the deposits are farme depositors—lots of farmer depositor In the meat-growing business a fe farmers have the big deposits an many take the losses. Wheat growin doesn't pay at the present price o land and labor. And a town that help farmers get into the dairying bus ness creates a steady market fo high-grade merchandise. So Emporia in lending the energies of the Cham ber of Commerce to the dairyin interest, is trying to improve th economic status of all Lyon Count If the country grows rich the tow also will grow with the country. Th Chamber of Commerce is taking hol of the most practical manufacturin enterprise it ever promoted. For brings high-grade people to the com munity, who stay generation afte generation, and always are prospe ous.—W. A. WHITE, in Program o Kansas Dairy Tour.

Farmers should remember tha birds are friends of agriculture. A few crumbs thrown out when th heavy snows come may be bread cas upon the waters which will retur next summer in crops saved from in sect pests.







Used in the Best Dairies—on the Finest Pedigreed Cows

When many a country's best known dairies, whose owners keep the highest class and most valuable stock, thoroughly investigate the mechanical milker question and then put their O. K. on the Hinman by installing it, it means that the Hinman ***must be correct in principle, a profit to the owner and a comfort to the cows.***

A man with a herd of high priced cows wouldn't take a chance on a milker about which there was any question. The fact that the Hinman is used on so many fine, pedigreed and registered cows is a ***guide to you*** in the purchase of a milking machine. You are doing the ***safe*** and ***sure*** thing when you buy the milker that is the most favored of all by dairymen in general, as proved by the number of machines sold and in use.

HINMAN MILKER

Big and little dairies install the Hinman to save a lot of time and to solve the help problem. Later they find that there are many other advantages. For instance they find that cows that were hard milkers and others that were restless and nervous when milked by hand, were milked *more easily* and were *more contented* and *comfortable* after the use for a week or two of the Hinman!

They found that the help liked the Hinman method far better than the hand method. Naturally, it was a great deal easier—did away with all the drudgery. Help prefer to work in a dairy that is Hinman equipped!

They found in many cases that the milk flow *improved, increased* with the use of Hinman Milkers. And the milk was *cleaner—showed a better bacterial test.*

They found that their simple Hinman equipment paid in actual extra profits enough to cover its entire cost within a year!

You are offered all these advantages. The cost is *low* compared to all that you get. Merely to be relieved of that back-breaking work of hand milking is enough to justify installing the Hinman! Think of it—no more sitting on a hard stool, crowding up under a cow, perspiring, chasing away the flies!

The machine does all the milking for you—and does it better, more uniformly.

Don't be without Hinman Milkers. It isn't like tying up money for mere pleasure. *You get back all you spend in a very short time* and then it's that much extra profit right along!

New, Big Catalog Free

Send for the new Hinman Catalog. It covers the subject of milking machines thoroughly. It is *interesting* and *enlightening* and it is full of impressive illustrations. A postal will bring a copy to you free.

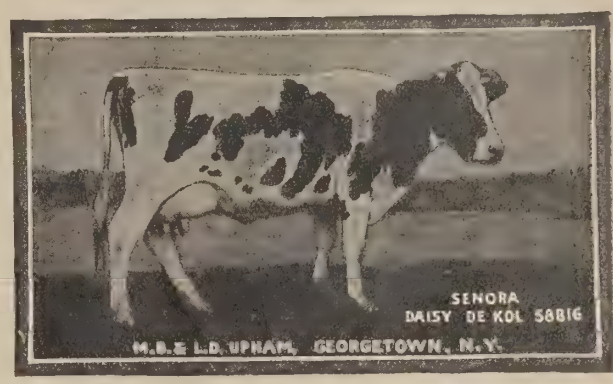
Lowest Cost

Because the Hinman is simple—has no stationary pump, vacuum tank, vacuum gauge, relief valve, pipe line, and pulsator—its cost is about half that of other milkers.

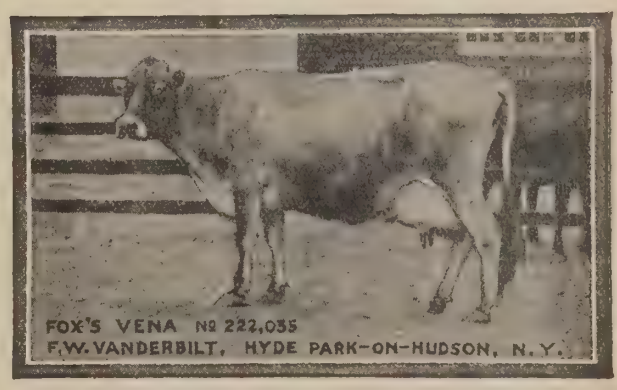
Hinman Milking Machine Co.

Oneida, New York.











Tri-County Holstein Breeders

2nd Annual Sale

Wednesday, Jan. 29, '19

Evansville, Wis.

(Two blocks from depot.)

85 Head of Registered Holsteins

A Quality Sale

30-lb. bulls—15 to 20 A. R. O. cows, most of which are in calf to a 35-lb. sire, are among the animals listed.

Look for particulars in following ads. 60-day retest guarantee to be given.

Auctioneers:—Mack, Haeger, Finnane.

F. B. Green, Secretary and Sale Manager

Evansville, Wisconsin.

IOWA DAIRY HERDS

Holsteins, Jerseys, Guernseys, Ayrshires, Brown Swiss, Milking Shorthorns

We have on file in our office the following information on practically all of the dairy herds of Iowa.

Owner's name, location, shipping facilities, blood families represented in herd, sires in use at this time, records of cows in herd, records of cows not in herd but with offspring in herd, number in herd with age and sex.

This information has been compiled for the use of buyer in order to conserve their time and expense, and to serve the dairy breeders of Iowa. It can be examined in our office or mail inquiries will be promptly answered.

There Is No Charge Whatever For This Service.

GREATER IOWA ASSOCIATION, Davenport, Iowa.

A 1919 Proposition

30-Lb. Ready for Service 30-Lb.

Dam: A 30.36-lb. 4-year-old daughter of Colantha Johanna Champion with his nice list of 30—35-lb. daughters.

Sire: A 35-son of Sir Pietertje Ormsby Mercedes with his great World's record producers.

He is about one-half white and when you see his pedigree you'll want to breed him on the best daughters of your old bull.

His pedigree is waiting for you. *"Home of the Johannas."*

W. J. GILLETT & SONS, - ROSENDALE, WISCONSIN.

HOLSTEINS

Holstein cows, heifers of all ages. If we haven't what you want will help locate. Three weeks old high grade Holstein heifer calves at $20 each. We are in a position to handle any limited sized order. We guarantee high grade satisfaction and safe arrival. Pure-bred bull calves by 30-lb. sires or better at $40.00. We also have a few service aged bulls, at $150 and up.

YOHN'S STOCK FARM, Watertown, Wis.

JERSEYS

FOR SALE

Six choice young bulls, nearly ready for service; eight yearling heifers and heifer calves. All from R. of M. dams.

Glenwood Farms, Mrs. Josiah Letchworth, Prop.
Address: Thos. Rose, Mgr., Essenore, Cayuga Co., N. Y.

Biblical Butter

Butter wherever it occurs in the Bible is chemah, signifying curdled milk. In Deut. XXXII, 15, we find, among the blessings which Jeshurum had enjoyed, milk of kine contrasted with milk of sheep. Butter was much in use among the Hebrews and was prepared as is done today by the Arabs and Syrians, but it was not used by the Greeks and Romans except for medicinal purposes.

The Arabs of Hejaz put milk in a large copper pan over a slow fire and a little sour milk or portion of the dried entrails of a lamb is thrown in. Milk then separates and is put in a goat skin bag, which is tied to one of the tent poles and constantly moved back and forth two hours. The buttery substance then coagulates, the water is pressed out, and the butter put into another skin. In two days the butter is again placed over the fire with the addition of a portion of burgoul (wheat boiled with leaves and dried in the sun) and allowed to boil for some time, during which it is carefully skimmed. It is then found that the bourgoul has precipitated all foreign substances and that the butter remains quite clear at the top. This is the process used by the Bedouins, and is also employed by the settled people of Syria and Arabia. The chief difference is that, in making butter and cheese, the townspeople employ the milk of cows and buffaloes, whereas the Bedouins, who do not keep these animals, use that of sheep and goats. The butter is generally white, of the color and consistency of lard, and is not much relished by English travelers. It is eaten with bread in large quantities by those who can afford it, being taken in a mass with a morsel of bread and not spread as with us.

The butter of the Hebrews might have been sometimes clarified and preserved in skins and jars as at the present day in Asia, and, when poured out, resembles rich oil (Job XX, 17). It acquires a rancid taste that is liked by the natives. All Arab food considered well prepared swims in butter and large quantities are eaten independently of other food.

Butter and honey were used together and were esteemed among the richest productions of the land (Isa. VII, 15) and Arabs use cream or new butter mixed with honey as a principal delicacy.

Strike in New York

HOARD'S DAIRYMAN:—On Tuesday, December 31st, it became necessary for the Dairymen's League to call off the milk from the dealers commencing the first day of January, as the New York Conference Board of Milk Dealers refuses to pay the price set by the League. The League asks $4.01 according to the Warren formula, and the dealers practically offer $3.60, both at 150 miles from the city. There is a surplus of milk now and the dealers are reported to be out for the finish of the League. There are a good many independent dealers who have contracts for some months ahead at League prices who will continue to take milk as agreed. Today there are many uncertainties, but it looks like a serious situation. It seems to be deliberate on the part of the dealers.

The milk investigation still goes on in the city. It is said that the League officers, while exempt under the state law, are supposed to violate the federal Sherman law, and arrests are possible if we may believe some of the city prosecuting officers. The dealers claim to have so maneuvered as to avoid arrest, and this may be possible. Many believe that the city officials are in collusion with the dealers, and they and the city press are almost certainly against dairymen, and likely against the League as an organization. We are told that the trouble of October, 1916, will soon be considered as a mere skirmish. All sorts of stories are, of course, afloat now on the eve of the trouble.

New York. H. H. LYON.

DAIRY MARKETS

CHICAGO, Jan. 2—Butter—Creamery, extras, 66½c; standards, 64c; dairy, firsts, 61½@66c; seconds, 58@60½c.

Eggs—Ordinary, 59@60c; firsts, 63½c.

Cheese—Twins, 35@35½c; Young Americas, 36@37c.

MILWAUKEE, Jan. 2—Butter—Creamery, tubs, 66½@67c; prints, 68@68½c; extra firsts, 64@65c; firsts, 61@63c; dairy, fancy, 45@50c; poor, 20@30c.

Eggs—Fresh firsts, 60@61c; cases, new, included, 61@62c; miscellaneous, 55@57c; dirties, 38@40c; checks, 34@35c; April recandled, 45@48c.

Cheese—Twins, 35@35½c; Daisies, 35½@36c; Longhorns, 36c; fancy Brick, 38c; Limburger, new, 1 lb., 29c; Limburger, new, 2 lbs., 29c; Young Americas, 36½@37c.

SHEBOYGAN, Dec. 31—Cheese—On the Wisconsin cheese exchange at Plymouth on Tuesday eighteen factories offered 1,600 boxes of cheese and all sold as follows: 25 Twins at 35c; 100 cases Young Americas at 36¼c; 100 Daisies at 36⅜c; 225 at 36¼c, 75 Double Daisies at 36½c, 170 at 36c, 555 cases Longhorns at 36c and 350 boxes square prints at 36c.

APPLETON, Wis. Dec. 31—Cheese—Five factories offered 149 boxes of cheese on call board on Tuesday. Of these eighty-eight Twins sold at 35½c; sixty-one Daisies at 36½c.

SPRING GREEN, Wis., Dec. 31—Cheese—Offerings of cheese on Spring Green dairy board of trade on Tuesday were 560 boxes Single Daisy cheese. All sold at 36¼c.

NEW YORK, Jan. 2—Cheese—Firm; state milk, common to specials, 20@37½c; skims, common to specials, 12@28½c.

Butter—Firm; receipts, 4,305 pkgs.; creamery extras, 69c; state dairy, tubs, 52@65c; imitation creamery, prints, 47@48c.

Eggs—Irregular; receipts, 10,258 cases; nearby white, fancy, 82@85c; nearby mixed, fancy, 63@68c; fresh firsts, 64@68c.

Have you talked with your neighbors about subscribing for Hoard's Dariyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

For Sale—Two Distinguished Guernsey Cows

Glen Gable Gold Leaf 52281 A. R., dropped February 15, 1914—A. R. record 10,985.8 pounds milk, 520.73 pounds fat, Class D—due to calve February 24, 1919, to May Rose bull, Madge's May King O. D. 42419.

As an individual this cow is remarkable; in pedigree, she is backed up by only high class ancestry for three generations.

Red Clover O. D. 43697 A. R. 4166, dropped August 29, 1912—A. R. record 8,817.5 pounds milk, 476.32 pounds fat, Class G—due to calve February 6, 1919, to May Rose bull, Golden Rose May King 35264.

This is a cow with size and ruggedness and she is a daughter of one of the greatest living May Rose bulls. *Call or write to the*

Animal Husbandry Department,
Delaware College, Newark, Delaware.



Contagious Abortion

Don't sell the aborters. Clean out the infection. Breeding animals are worth more than ever before. Control of Abortion is doubly necessary.

The Abortion infection causes Barrenness, Retention of Afterbirth and Calf Scours in addition to Abortion. Unless checked it is likely to run through your entire herd.

B-K is a powerful non-poisonous antiseptic—scientifically correct for this work. Used as a douche, it dissolves the slimy albuminous matter in the vagina and uterus, kills the germs, stops discharges and controls the infection. B-K is much more effective than lysol, carbolic acid, Lugol's solution, bichloride of mercury and coal tar disinfectants, all of which tend to coagulate or thicken the albumins.

Contagious Abortion is being successfully controlled in many herds by following our simple plan with B-K. Send for "evidence."

FREE BULLETINS: Send for our valuable bulletin No. 52 on "Contagious Abortion," also "145 Farm Uses" and our "Trial Offer." If your dealer does not have B-K send us his name.

GENERAL LABORATORIES

289 So. Dickinson St., Madison, Wis.

B-K · B-K · B-K · B-K · B-K · B-K · B-K · B-K

A Word from the Publishers of Hoard's Dairyman

FORT ATKINSON, WISCONSIN

We wish it might be possible to persuade every reader of our paper to "take us up" on the offer we are making. Not alone for the extra subscriptions it would bring us—welcome as they would be! But, because we feel that every one of our readers ought—this winter—to have a copy of Henry and Morrison's wonderful book "Feeds and Feeding".

How About You, Mr. Reader?

Your milk, butter, poultry, hogs, beef—everything you sell—is today bringing a good price. You are **taking in** more money than you ever did. But are you "getting ahead" any faster? Or are you paying it right out in feed bills?

Are you **sure** you are feeding your cows the very cheapest and best ration that will keep up their milk flow and keep them healthy and thrifty?

Are you **sure** you are feeding your other stock (hogs, horses, etc.) as economically as possible?

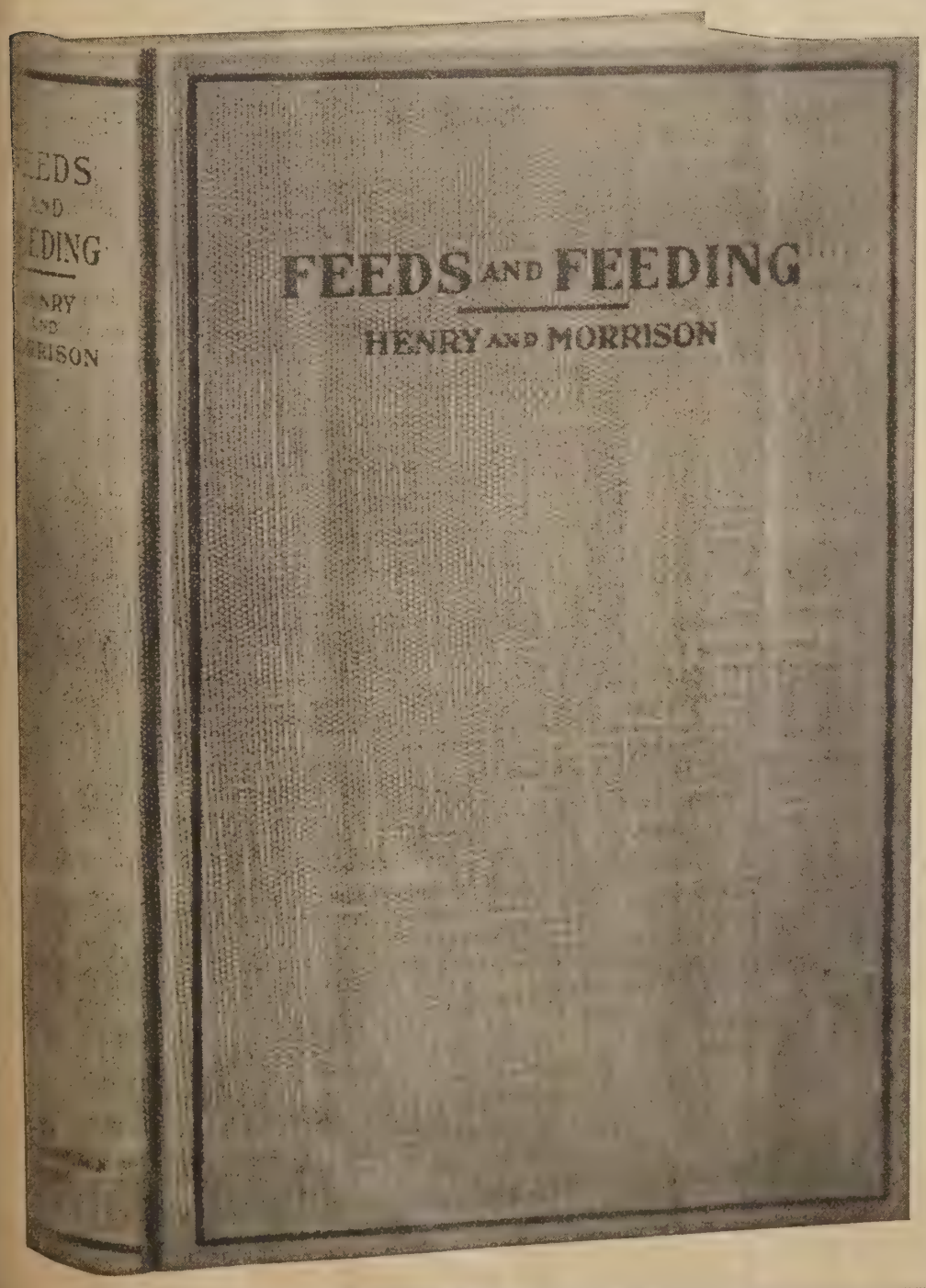
Don't guess! Not this winter!

If there ever was or ever will be a time when it would pay you in dollars and cents to look into the whys and wherefores of the feeding business—to find out what science and practical experience have discovered about the feeding of dairy cows, hogs, horses, etc.—that time is **now!**

"Feeds and Feeding" is a 691-page volume. It represents the life work of many men. It was first written and published by W. A. Henry, formerly Dean of the Wisconsin College of Agriculture. He devoted the best of his years to gathering, testing and putting into usable form all that men have ever learned about the feeds for, and the feeding of domestic animals. And the best of it all, is that the book is perfectly indexed. Within a few minutes time—and no trouble at all—you can find out **all** about any problem in feeding.

In times like these, the wealth of information this book contains, and the fact that anyone who reads the English language can understand and use that information, makes Henry and Morrison's "Feeds and Feeding" almost priceless.

Get a copy—**now**—of "Feeds and Feeding". Plan to spend a few minutes during each of these long winter evenings studying it. "Square up" **your** feeding practices with what you learn. And we'll promise you that the "high cost of feeds" will be less of a "bug-a-boo" to you than it is now!



OUR OFFER

The price of this book is $2.50. You can't **buy** a copy anywhere for less than that. But we will send you a copy—without any charge, and postage paid—if you will do us a little favor that will take very little of your time. **Send us just four yearly subscriptions to HOARD'S DAIRYMAN at $1.00 each.** They may be either new or renewal subscriptions—and your own renewal may be included in the club. But, your own renewal does not count unless accompanied by three others.

Here's a real chance to put this encyclopedia of feeding on your reading table—without cost—and at the same time to give a few of your neighbors a "lift" along the road to bigger dairy profits!

USE THIS COUPON

Or—if you don't like to cut up your copy of HOARD'S DAIRYMAN—write about the same thing in a letter—

HOARD'S DAIRYMAN,
Fort Atkinson, Wis.

Enclosed is remittance of $4.00. Send me a copy of the latest edition of "Feeds and Feeding".

.....
(Sign your name here)

P. O. .....

R. D. ..... State .....

Send HOARD'S DAIRYMAN one year to each of the following:

Mr. .....
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Mr. .....
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R. D. ..... State .....
Mr. .....
P. O. .....
R. D. ..... State .....
Mr. .....
P. O. .....
R. D. ..... State .....



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

Bob in the Calf Contest Club

"HELLO, Mr. Anderson! Hello, Joe! I am so glad you both came over. I've wanted you to see Betsy since the first day she was born."

"Well, Bob, I just happened to be driving past Mr. Peter's place and thought that I would stop in to see Joe's calf, and after that Joe suggested that we both come over to see your wonderful Betsey we are all hearing so much about. I'll tell you, Bob, Joe has a mighty fine calf, Mary Jane Spot, as he calls her."

"She's a prize winner, isn't she, Mr. Anderson?"

"I'm glad to hear that, Joe. It's going to make Betsey and me work just so much harder to beat you in this calf contest. If you fellows want to see the Blue Ribbon calf of our next contest just look into that pen. Come, Betsey, show these gentlemen that you are the queen that will carry the honors next fall."

Upon hearing her name, Betsey came sniffing her way among the other calves. When she caught sight of the strangers she stopped and stood staring at them. "Guess she's a little afraid of you, Mr. Anderson, but she'll soon get acquainted. You see she's a little shy around strangers, especially men. She doesn't see them very often because I take care of these calves. Dad just looks in here once in a while to see that everything is going all right. I often think that calves are like children,—afraid of strangers until they find they will not get hurt by them."

"See, Bob, she likes me."

"Oh, that is because you are a boy, Joe, and she has learned that boys are good to her. I never struck Betsey yet, Mr. Anderson; never even cuffed her ears when I was teaching her to drink out of a pail. You know some fellows just lose their patience with calves at those times and they abuse them. I'll admit that Betsey gave me a little trouble at first. But I just took plenty of time and was patient with her, and I finally won out. Oh, you needn't look at me that way, you rascal. You know that is so. Now she drinks so fast that it seems that it goes down in one swallow. Sometimes I think she'll ruin her digestion. If I ate as fast as that, Dad would send me away from the table."

"How long did you let her suck the cow, Bob?"

"Only once, Joe. I think that is the best way. They are harder to teach to drink out of a pail when they run with the cow very long. Then, too, some calves get too much milk at the start when they run with the cow and that might cause scouring. Scouring is quite common among young calves. It weakens them and sets them back a great deal. It may even cause death if it gets very bad. I don't mean white scours, Joe. That is a worse disease. Common scours is just ordinary diarrhoea and a common cause is overfeeding with milk. Betsey's mother is a heavy milker. Last year she gave 18,000 pounds of milk. I thought if Betsey ran with her she might get too much milk and I didn't want to take any chances."

"I let her get good and hungry before I started to teach her to drink. After I took her away from her mother she didn't get anything for about sixteen hours. You just bet she was hungry when I went into the pen with some of her mother's milk. Of course, she didn't know enough to put her head into the pail and drink. That's what I had to teach her."

"This is the way it was done. I moistened my fingers with some of the milk and then allowed her to suck them. Just when she was pumping good and hard I slowly lowered my hand into the pail. Gee, how she did blow that milk around! You see, she shoved her nose clear down into the pail. She got a few swallows though. Then I did the same thing over and first I knew she kept her head down to the milk alone. I let her get quite hungry for the first few days and I think that helped a good deal."

"I think my way is better, Bob."

"What's that, Joe?"

"I said I think my way is better."

"Well, how do you do it?"

"Oh, I just back them up into a corner and with the pail of milk held between my legs, I push their heads into the pail and hold them there. Of course some of them are pretty stubborn and don't get much milk the first few times. They kind a act as if they are choking."

"Shame on you, Joe! That's the trouble with your method. And you call them stubborn! The poor little things don't know how to drink; they just know what sucking is. Drinking is what you've got to teach them and I don't think scaring them half to death is a good plan. It isn't humane either. Patience and kindness work wonders with calves. They soon learn what you want them to do. Here, Betsey, you stop licking my coat. You are getting too saucy and I may have to punish you yet."

"How much milk are you feeding her each day, Bob?" I asked.

"Well, to begin with I'm going to tell you that I never overfeed these calves. If anything, I'd rather underfeed a little with milk. Overfeeding is very liable to cause indigestion and this brings on scours. My method is this: For about every eight pounds of live weight, I feed one pound of milk. Betsey gets about eleven pounds a day because she is a pretty husky calf. She weighed eighty-five pounds the day she was born. That little white cuss with the two black ears weighed only seventy pounds so she gets about nine pounds. Yep, I weigh out each feed on that spring balance hanging over there. Guess Betsey will soon want a little more than that, she is growing so fast now. Won't you, Betsey?"

"Well, if that rule is correct, Mary Jane Spot has been getting too much milk. I'm sure she isn't as heavy as Betsey, is she Mr. Anderson?"

"Maybe that's why she had the scours last week, Joe," I answered.

"You bet that is the reason," came from Bob. "It's useless, Joe, to feed more than she can digest, and besides it's not economical either. Gee whiz! Dad would give me fits if I didn't weigh out each feed. The price of milk is too high to waste it. Of course, if you are feeding three times a day instead of two, a little more milk can be fed, because you won't overload the stomach so much at any one time. You must remember, Joe, that the judges are going to take into consideration the cost of feeding these calves."

"Where did you get that rule, Bob?"

"Dad attended the Farmers' Course last year at our agricultural college and that's what the dairymen told him. Some even say to feed only two pounds at a meal for three meals a day. That's good, too, at least for the first couple of days."

"For the first three days I fed Betsey with her own mother's milk. It is best to do that because it starts the calf off right. You know it is called colostrum for the first few days, and how rich and yellow looking it is."

"Say, Bob, it's a wonder you aren't saying something about how clean you keep the lf pails," said Joe. At this remark Bob flared up a little.

"You can poke all the fun at me you want to, but the day is coming when you'll be cleaner with your pails, too. You said your calf had the scours last week. It might have been brought on by using dirty feeding pails."

"I think Bob's altogether too fussy, don't you, Mr. Anderson?"

"No, Joe, Bob is right this time. You see there are always a few drops left in the pails after each meal. This gets sour and it keeps collecting and first thing you know the calf pails are filthy. Before you are aware some of the calves have a bad case of scours. Can't afford to take any chances like that, Joe."

"Betsey and I have agreed to go after the stakes in that contest. She has agreed to win providing I give her a square deal and we are both going to stick to our agreement."

Betsey, who appeared to be listening, tossed her head and threw up her heels as much as to say: "Do you think a clean looking calf like me should drink out of a dirty pail?"

At this Mr. Anderson and the boys laughed outright.

"Yes," continued Bob, "I wash those pails every day with warm water, then I scald them with boiling water. That's the way I keep them free from harmful bacteria."

"Are you very particular, Bob, about having the milk warm when you feed it?"

"You better ask Betsey about that, Joe. Once I let the milk get a little cool before feeding and what a time I had. Why, I had to take it to the house and warm it up. Father says it's better to have the milk as warm as it comes from the cow,—that changing temperatures may cause indigestion in young calves. But Betsey will soon have to learn some new tricks about eating. She is two weeks old today and it is getting about time for her to begin to pick at a little fine hay and some grain."

"I like this idea, Bob, of giving the calves plenty of room and light. I guess you have them in about the lightest part of this stable, haven't you?"

"Yes, Dad let me make this pen. He helped a little now and then but I did most of the work. We weren't using this space a great deal anyway so I thought it would make a dandy place for the calves. When we had the old barn father always kept the calves tied up, and it generally happened to be in some dark corner. We've learned better since. I think good light, ventilation, and some room to exercise in are just about as necessary as good feed. You'd look fine, wouldn't you, Betsey, tied up in that dark corner of our old barn? Guess you'd soon break your part of the agreement we have."

"Yes, old bossies, I wish I had a bigger pen for you but I guess you'll have to get along on what we've got. I allowed you each twenty square feet of floor, so if you don't all want to play at the same time, you can get some exercise. Sometimes, when the cows are all turned out in the yard, I let the calves have the entire run of the stable. What a time they have! They come along, sniffing the floor and acting kind afraid, and when they see nothing will hurt them they go to it, up and down and round and round. That door on the other side of the pen leads into a yard I am making. I'll turn them into that when it gets warm-, but I don't hardly think I'll put them in the pasture in the summer. Flies worry them too much. Father says he thinks they do much better if kept in the barn especially during the worst fly time."

"That's a mighty good idea Bob has about exercise, Joe. All young, growing animals must have that if they are expected to keep in good health. Muscles grow strong with use, boys."

"I notice another thing, too, Mr. Anderson. Calves always seem more contented after they have had a chance to run about. I think it's right down cruel to tie them up with short ropes in some dark corner. Dad said he used to tie them up to keep them out

(Continued on page 874)

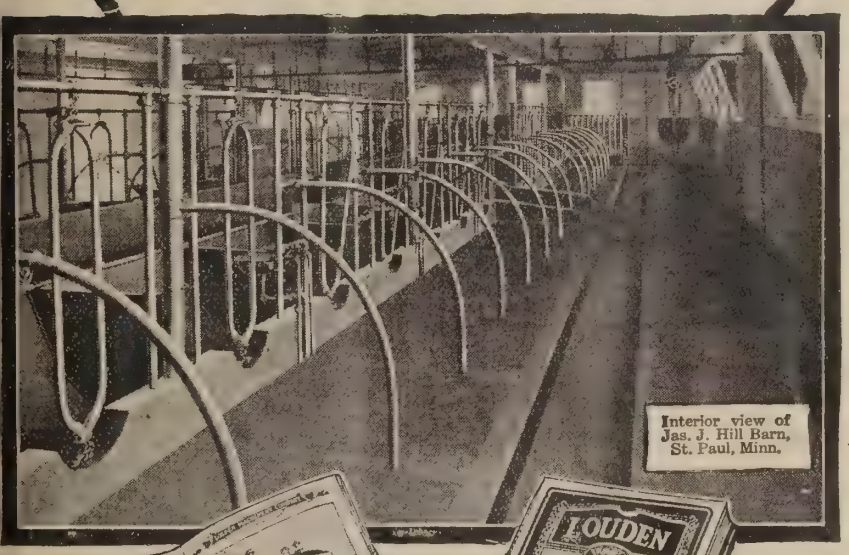


A PRIZE WINNING CLUB CALF, CHAMPION HOLSTEIN HEIFER, SHOWN BY ESTHER NEWBY, PORTAGE COUNTY, WISCONSIN, AT WISCONSIN STATE FAIR, SEPTEMBER, 1918

LOUDEN









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High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

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For Sale—Registered Holstein bull, four years. Sacrifice. Write for particulars and price. ALFRED PULS, Belvidere, Ill. 25-2

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Two choice yearling Holstein bulls from A. R. O. dams. B. C. HEMPHILL, Dexter, Iowa.

Registered Holstein bull 13 months old. Sire's dam 24¼ lbs. butter 7 days. King Segis breeding. W. R. GATES, Ft. Atkinson, Wis. 25-tf

For Sale—Entire herd of 32 head of dairy cattle. Seventeen fresh in February and March. ALLAN KELSEY, Lakeview, Mich.

High grade Holstein calves. I can sell you the finest heifer and bull calves from the best dairy farms in this county $15 to $17 each, f. o. b. Gilberts. EMIL ANDERSON, Calf Buyer, Gilberts, Ill. 25-4

Holstein bulls—30-lb. breeding. $125. LAWRENCE MURPHY, Hartford, Wis. 25-tf

First forty-dollar check takes registered Holstein bull calf. Highly bred, big, showy. Satisfaction guaranteed. J. W. BLACK, Silica, Ma.

Registered bull calves, 3 weeks to 11 months, having good production records on both dam's and sire's side. WALTER AHLERS, Grafton, Wis. 25-2

Dandy yearling registered Guernsey bull, clear nose, light fawn and white. His Imp. sire, a son of Governor of the Chene, 83 A. R. daughters and a prize winning cow. His dam, Imp. Delight of Sarnia, daughter of Brilliant of the Gree, 11 A. R. daughters up to 630 lbs. fat. Guarantee him free from disease. Only $90 f. o. b. Weyauwega, Wis. G. R. MILLER.

For Sale—Three Guernsey bull calves from A. R. dams with records as high as 622 lbs. of fat. ANTON O. BERGE, R. 1, Valders, Wisconsin. 18-8

Guernseys—If you want grades or purebreds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

For Sale—Four registered Guernsey bulls from 9 months to 18 months old. Sired by Langwater Frenchman or Dairymaid's Glenwood of Pinehurst 3rd. Two are from A. R. cows. Priced to sell. Send for sale list. DALE E. RUNDELL, Livingston, Wis. 23-3

STOCK FOR SALE

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

Registered and grade Guernsey calves. Either sex. Herd tested and culled six years. GLENAYRE FARM, Glenview, Ill. 21-spl

Vermont Guernsey Breeders' Association members have stock for sale. Send for list. JOHN P. RAMSEY, Secretary, Charlotte, Vt. 1-spl

Guernseys—Registered bulls 3 months to 1 year. Four heifers, Glenwood May Rose breeding. Tuberculin tested herd. Prices reasonable. M. M. HOLLINGSWORTH, Wasteland Farm, Landenberg, Pa. 22-4

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Will sell twenty high grade Guernsey heifers of our own raising. These are from high test cows and a nice lot. Also a few cows. GROVE FARM, Deerfield, Illinois. 23-4

Four pure blood Guernsey bull calves for sale, 13 months to 2 weeks. From Daisy Bob Bell's Rilma. Tuberculin tested. OTTO ROGNE, R. 1, Box 47, Cato, Wis. 25-4

$400.00 buys three registered Guernseys: Cow to freshen in April, heifers 6 months and extra choice bull 3 months old. W. H. PECK, R. 7, Kent, Ohio.

Four registered Guernsey bulls for sale—Two sired by Dairymaid's Glenwood of Pinehurst 3rd 26948 and from 529-lb. 3-year-old, 550-lb. daughter of Langwater Frenchman 19226. Four-month-old son sired by Imp. Clara's Sequel, dam will make 650 lbs. fat. One son sired by Langwater Frederick 22268. Sale list. HOMER F. RUNDELL, Livingston, Wis. 25-3

For Sale—Eight registered Guernsey bulls and bull calves, two ready for service. They trace from five to ten times to May Rose 2nd. Six are from A. R. dams or dams now on test. No dark noses, all good individuals. Herd has just passed a government tuberculin test. Prices $75 and up. M. T. PHILLIPS, Pomeroy, Pa. 25-4

Guernsey bulls. All ages. Dams proven producers. Accredited herd. RICHARD F. KLEMM, Baraboo, Wis. 25-4

Registered Jersey bull calf, born May 1, 1918, from Register of Merit cow. One 4 months old. L. M. KRIPPNER, Rice Lake, Wis. 25-4

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Wanted—50 or 60 head of pure-bred heifers that will freshen next fall, must be an even lot and not bred more than 30 days apart. W. J. O'BRIEN, Tonganoxie, Kans.

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Chester White gilts bred. Choice March and September boars. JOHN HORLAMUS & SON, West Bend, Wis. 25-3

Bargains in registered Chester Whites. ARTHUR ROBERTS, West Bend, Wis.

Berkshires, sows and gilts, bred to a grandson of the great Epochal, also good fall pigs. Write THEO. J. KURTZ, Cedarburg, Wis. 25-3

O. I. C. big type gilts, bred and open, boars and September pigs. S. J. HOWARD, Henderson, Ky. 25-5

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Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

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Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

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Percheron mare, sound, bred, imported, weight 1,800; yearling Jack; three bred Jennetts; registered Hampshire swine, bred. J. J. HAUBERT, Bala, Pa. 25-2

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Bred grade Shropshire ewes for sale. SAMUEL SIEWERT, Colgate, Wis.

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For Sale—We are closing out our line of milkers and offer at a bargain one new, double unit, Empire Milker. Write GREELEY CREAMERY CO., Greeley, Colo. 24-4

Sale or Exchange—Complete dairy outfit for bottling and delivering milk. FARNERHOLM DAIRY FARM, Colfax, Wis. 24-3

One twelve-bottle Babcock Tester, nearly new, with all glassware. One De Laval separator 900 lbs. capacity. LITTLE FARMS, Savedge, Va.

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For Sale—A Calf-Way milking machine used three weeks. EDWIN KNURR, Mukwonago, Wis.

For Sale—4-unit Hinman milking machine, one extra pail, new can tops, latest pattern, new rubbers, equipment in good condition. JOHN G. WETZEL, Sterling, Ill.

Wanted—Second-hand Cleveland or Fordson tractor. ADOLPH BEASTER, Route 2, Waukesha, Wis.

Three Hinman units complete with teat cups and pumps, never been used. First check for $100 takes them. R. F. JOHNSON, Assumption, Ill.

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Moline-Universal Tractor. 1918 Demonstrator. Slightly used. Looks like new. Good as new. FRED A. GENTEMAN, O'Fallon, Mo. 23-3

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Wisconsin grown Golden Glow and Wisconsin Number Eight Seed corn, a regular frost beater. VAN LOON, La Crosse, Wis. 25-4

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Have customers for 25 farms with stock. JOHNSON, 618 Hartford Bldg., Chicago, Ill. 22-4

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Attention Eastern Dairymen—Alsike and Red clover hay, nice quality. Some alfalfa. Also timothy and stock hay. Any delivery. Write or phone. WALTER L. MITCHELL, New Haven, Conn. 24-4

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Experienced farmer, dairy and hogs, would rent farm, cash or shares. J. A. RELING, Maywood, Ill.

Experienced farmer and dairyman wants to rent an equipped farm. Has children large enough to help. MANAGER LAKESIDE DAIRY, Sioux Falls, S. D. 25-2

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Free Maps of Mississippi, showing views and describing the famous black prairie alfalfa clover, corn, stock and dairy belt, located in Northeastern Mississippi, where Lincoln Harbold of Iowa, the largest hog feeder in the world, has located; 300 miles of hard pike roads; good well and artesian water; excellent climate; three creameries; lots of grass; best hog, cattle, sheep and mule raising section in the South. K. M. WISHART, Aberdeen, Mississippi. 22-4

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Farm for Sale—186 acres most modern improved farm in Stark county, Ohio. Buildings could not be replaced for price asked for farm on Lincoln Highway; brick road and traction line. J. F. MYERS, Massillon, Ohio.

For Sale—60,000 acres cutover land in northern Wisconsin. $20 up per acre, $10 down per forty and $10 per month or balance payments extended, provided you do required amount of work. We have a few eighties with buildings ready for use. To purchasers of these we will rent teams and tools on community basis and advance money for cow, pig and chickens when you can supply feed; also grubstake you during farming season providing you put entire time to developing your farm. TOMAHAWK LAND CO., Box L, Tomahawk, Wis. 7-tf

For Sale—280-acre improved farm, 4 miles from Dyersville. Price $75 per acre. Big bargain. JAMES BRUNKAN, Dyersville, Iowa. 25-2

$15.00 to $20.00 buys $30.00 land out of our new tract of fine, gently sloping, silt loam, cut-over land; good roads; close to railroad, good neighborhood; good water; good wages while improving land; price good only to March 1st. Write for details. THE E. L. C. CO., E-M, Dept. 31, Merrill, Wis. 23-tf

A great opportunity to secure a splendid, large farm, located in the suburbs of a prosperous and growing city. Upon the farm a thoroughly up-to-date equipped dairy, stocked with Guernsey cows, and unlimited demand for milk at good prices. Modern farm utensils, and good farm buildings. Will be sold or leased. For particulars address P. O. BOX 565, Norfolk, Va. 23-4

If you wish a farm in the best grass section of the south where alfalfa and all the clovers, including Red White, Alsike, Sweet, Burr, Crimson and Japan grow to perfection, also soy beans, cowpeas, peanuts, velvet beans, corn, oats, wheat, rye, and barley, where we have a creamery making fine butter and paying Elgin for butterfat, and where there is no bovine tuberculosis nor cattle ticks; in a community of northern farmers, write to H. F. GURLER, Macon, Miss. 25-tf

Farms in the Mississippi Prairie Belt, alfalfa and clovers. Corn, hay and live stock proposition. Ideal climate, good neighbors, schools, churches, good roads. Main line of railroad. Close to large markets. Write now. H. H. HANSEN, Macon, Miss. 11-tf

For Sale—Fruit and dairy farm, 90 acres, two miles from county seat. Price right and terms easy. Write for details to BOX 676, Washburn, Wis. 23-4

Big Franklin County Bargain—240 acres, 4 miles town; good improvements; splendid water; 75 acres wheat; ½ mile school. Only $60 per acre. Owner changing business. Ask for full description and free descriptive booklet. Choice farms for sale. Write today. MANSFIELD LAND & LOAN COMPANY, Ottawa, Kansas. 24-2

Only $1,500 cash will handle rich 120 only 2½ miles station, with 60 acres level field. In good Ubet region, Polk County, Wis., 60 miles Twin Cities. 8-room house, fair log barn, other buildings. Splendid pasture with flowing spring, considerable hardwood timber. No better soil anywhere. Big bargain at $8,500; $1,500 down, balance 7 years. 5½ per cent. BAKER B-76, St. Croix Falls, Wis. 24-2

186-acre dairy farm for rent, modern equipment; will rent on shares; 4 miles to town of 20,000 population; brick road and traction line. J. F. MYERS, Massillon, Ohio.

Cheap Farm Homes for everybody in Minnesota. Write for free map and book. FRED D. SHERMAN, State Immigration Commissioner, Room 200, State Capitol, St. Paul, Minnesota.

If you want to sell or exchange your property, write me. JOHN J. BLACK, 90 Str., Chippewa Falls, Wis. 25-spl

Your chance is in Douglas County, Wisconsin, between the Twin Cities and the Twin Ports. We have built and aided in building many miles of good roads and offer good lands at low prices and on easy terms near the best markets and with schools, telephones, etc. Why not locate near big cities and good markets rather than far away. Send for map. FARMERS' LAND & CATTLE COMPANY, Globe Building, St. Paul, Minn.

Don't wait! Make your decision now. Buy the farm right away. If you don't you'll pay a much higher price. The whole world looks to America for food. Our Aitkin County lands, yet cheap, will feel this stimulus, great advance in prices the coming year. Investigate. Write for literature. ARNOLD, Land Agent, Rock Island Railway, 154 Wolvin Bldg., Duluth, Minn.

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Landology, a magazine giving the facts in regard to the land situation. Three months' subscription free. If for a home or as an investment you are thinking of buying good farm lands, simply write me a letter and say, "Mail me Landology and all particulars free." Address EDITOR, Landology, Skidmore Land Co., 47 Skidmore Bldg., Marinette, Wis. 24-13

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Honey of superior quality. Also Green Coun... Famous Brick cheese. Write for prices. ... B. ROSA, Monroe, Wis. 22-tf

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Raise Guinea Pigs for us. We supply stock. ...boratories need thousands. Big money and ...y and inexpensive to raise. Particulars and ...k ten cents. DR. J. A. ROBERTS' LAB...ATORIES, Oconomowoc, Wis. 19-tf

Yes Sir, we have a special opportunity for ... during spare time, an opportunity to do ...ne good work in your neighborhood, for ...e betterment of dairy farming, that will pay ... in cash for the effort you put forth. Write ... our "Special Opportunity Getting To...ther" folder. Address HOARD'S DAIRY...AN, Fort Atkinson, Wis. 2-tf

Farm and household accounts easily kept. ...rite for particulars and special offer. OTIS ...CCOUNT BOOK CO., 1822 Chadbourne Ave., ...dison, Wis. 23-6

Leaf tobacco, Kentucky's Best, 2 years old, ...ewing or smoking, 3 lbs. $1.50; 7 lbs. $3.00, ...epaid. Special prices on large quantities. ROSENBLATT, Hawesville, Ky. 23-4

Scotch, green or white peas for sale, also hay ...d straw. FROSCH & SONS, Grimms, Wis. 24-2



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Wanted at Once—Good first class dairyman ...th practical experience. Have Holstein ...rd. Steady job to right party. State wages ...nted in first letter. Must be single or wife ...lling to help with work in house. A boozer ...ed not apply. C. H. HICKS, Marshalltown, ...wa.

Wanted—Good, reliable farm hand, married, ... work with owner on 160 acres. References. ...CHARD TON, Tinley Park, Ill. 22-4

Reliable single man, to work in dairy barn. ...gistered Jerseys, modern barn and equip...ent. Must be clean, industrious and good ...y hand milker. Farm located on traction ...e near city. FINCH FARM, Dayton, Ohio. 22-tf

Wanted—Single herdsman for 50 pure-bred ...ernseys. A. R. and test association. Mod...n equipment. Board and room furnished. ...ate wages wanted and qualifications. FOLLY ...ARM, Libertyville, Ill. 22-tf

Wanted—Good milker, (with one in family to ...lp milk) to milk and care for small Jersey ...rd. We milk about nineteen cows using the ...st of the cows as wet nurses. Live within ...0 yards of depot and ship cream. Good prop...ition for right party. WATSON FARM, ...rong, Miss. 24-2

Wanted—Single man on Holstein dairy farm, ...re-breds and grain; competent and experi...ced; good habits; in good home; state wa...s; come visit farm. L. A. KIMBALL, Lake ...eneva, Wis. 23-4

Wanted—Man with dairy experience to care ...d milk with Sharples machine 30 Guernsey ...ws; to put entire time with the herd. Must ... capable to take entire charge and assume ...sponsibility. Board and room furnished. ...ate experience, reference and salary. ...RTHUR A. COOPER, Elizabeth, Ill. 23-4

Wanted—Man and wife to work on farm. ...ife to run small boarding house; man to do ...neral work. Good wages paid reliable and ...dustrious people. Enclose references and ad...ess BOX 358, care Hoard's Dairyman. 23-tf

Wanted—Man with special experience and ...aining with pure-bred Holstein cattle, to pur...ase one-half interest in herd and farming ...uipment (not including farm), and to take ...tire charge of the enterprise. We to share ...-50. Fully equipped, modern, dairy farm, ...rthern Illinois. Prefer young married man. ... March 1st. Address BOX 368, care Hoard's ...airyman. 24-tf

Wanted—An experienced herdsman to take ...harge of eighty head of milch cows, on cer...ied dairy. Milking machines are used. Ad...ess BOX 367, care Hoard's Dairyman. 24-2

Wanted—Competent married man as super...tendent on medium sized modern general ...rm located in Chicago suburb. Pure-bred ...olsteins and Durocs. This is a good opening ...r an up-to-date and practical man who wants ... improve his position and opportunities. ...od wages to the right man. Best of living ...nditions. In answering state age, nation...ity, and late experience. Address BOX 373, ...re Hoard's Dairyman. 24-tf

Wanted—Farm superintendent. One who ...derstands bookkeeping preferred. Address ...cKEEFREY FARMS, Leetonia, Ohio. 24-2

Wanted—Good dry hand milkers. Good home, ...0 per month and board. No farm work. ...NGLESIDE FARM, Mt. Clemens, Mich. 24-3

Wanted—Herdsman on dairy farm. Will ...ay $75 to $90 per month, depending on ex...erience. House and garden space furnished. ...arried man preferred. Apply DAIRY DE...ARTMENT, University of Arizona, Tucson, ...rizona. 24-2

Wanted—A herdsman, young man, un...arried, good habits, experienced to care for a ...-lb. cow dairy, with modern conveniences. ...ive references. JAMES D. Mc INTYRE, ...ewman, Ill. 25-2

Wanted—Man to milk and take charge of ...uernsey and grade Guernsey herd. Prefer ...at wife or some one in his family should ...sist in milking and washing utensils. Must ... neat, good milkers. Give references, age, ...nd size of family in first letter. Address ...AGNOLIA STOCK FARM, Annapolis Junc...on, Md.

HELP WANTED

Wanted—Reliable single man to work as second man at general farm and dairy work. Must not use tobacco or profanity. Address M. J. FREIDLINE, Chaddock Boys' School Dairy Farm, Quincy, Ill.

Wanted—Married herdsman for 75 head of registered Guernseys. Must have good habits, able to handle help to best advantage, efficient feeder and willing to co-operate with owner in best advancement of herd. Good proposition, steady employment for right party. Give reference and full particulars regarding ability in first letter. Address BOX 387, care Hoard's Dairyman. 25-2

Wanted—Married man experienced in grain and stock raising, central Wisconsin. E. C. ARTHUR, Westminster Bldg., Chicago.

Wanted—Two single, dry hand milkers; not over 12 cows apiece. Modern equipment. Records and winnings prove herd best in state. Chance for advancement. Good board and room. No boozers or uncontrollable tempers. Good wages. Address BOX 386, care Hoard's Dairyman. 25-2

Wanted—Single man on grain and dairy farm; good habits; in good home; state wages. BEYNARD WAY, Freeport, Pa.

Wanted—Married man to work by year. Must be good with cows and horses. General farm work. CHAS. W. O'NEILL, Bridgeport, Wis. 25-2

POSITIONS WANTED

General manager is open for position. Lifetime experience. Have thorough knowledge of pure-bred stock, also buying and selling. A. R. O. work, feeding and developing young stock, and can handle help to best advantage. Married, two children, no bad habits. Address BOX 341, care Hoard's Dairyman. 22-tf

Situation wanted by married man on stock and grain farm. Experienced in handling all kinds machinery and tractor work. WM. E. FREEMAN, Grays Lake, Ill. 24-2

Thoroughly experienced farm manager. Crop rotation, machinery, A. R. O. fitting and testing. Good executive, college graduate, age 29, married. Eastern states only. Address BOX 374, care Hoard's Dairyman. 24-3

Wanted—By man of ability and experience as well as good training a position as superintendent of large stock farm or estate. Am thoroughly experienced. Only those of best reputation considered. Address BOX 366, care Hoard's Dairyman. 23-spl

Position as farm superintendent wanted in a good dairy state by experienced and college trained dairyman, who understands his business thoroughly. Willing to invest $4,000-$5,000 in stock. No extreme north or south state considered. Address particulars to BOX 380, care Hoard's Dairyman. 25-3

Position wanted by up-to-date dairyman and farmer with 2 grown boys and a hustling wife. Will be open for the coming season. Prefer to hire by the year. Will work reasonable but must have good equipment. Central West preferred. Address BOX 379, care Hoard's Dairyman.

Position wanted by married man as farm superintendent or manager on large dairy farm. Holsteins preferred. University of Wisconsin graduate. County agent and farm managing experience. Lifelong experience in farming. At present managing modern, pure-bred Holstein farm. Thorough knowledge of pure-bred cattle and A. R. O. work. Capable of handling men with maximum results. Believe farm can and should be made to pay. Address BOX 381, care Hoard's Dairyman. 25-2

Am looking for position as manager up-to-date farm or estate. At present managing 800 acres. Nothing less than $1,800 considered. R. MacMURCHIE, Rolling Prairie, Ind.

Single man, agricultural college graduate with life experience on farm, open for position as manager of modern dairy or general farm. Best of references as to energy, character, and ability to handle men. Address BOX 385, care Hoard's Dairyman.

A practical farm manager, thoroughly experienced, would like first class farm or dairy proposition, either on salary or share basis, where all stock is found. American, married, with family, oldest child 12 years. A-1 reference. Prefer place in Pennsylvania, New Jersey or the southern states. Address BOX 384, care Hoard's Dairyman.

Expert dairyman and dairy farm manager open for position. Wide experience and education. Want permanent place. Terms reasonable. No proposition too big. Married. Address BOX 383, care Hoard's Dairyman. 25-2

Dairyman—Married, no children, seeks position for care of large herd or entire farm. Some university training. Experienced in all kinds of dairying and farm work. Excellent references from herds I have handled. No booze or tobacco. Address R. W., 323 East Section St., Effingham, Illinois.

Can deliver the goods. Farm manager of ample experience in up-to-date dairy and estate work, can take over any proposition in its entirety. A-1 farmer, dairyman of Advanced Registry and Registry of Merit successes. A hustling, efficient manager getting most from men, stock and farm. First principles of veterinary; construction, simple landscaping, neatest upkeep, accounts. Hogs, orcharding, poultry (eggs three times feed in December). Former employer says can handle anything. Must be convenient to high school. $1,500 first year with opportunity advancement. Will make my own future. Address BOX 382, care Hoard's Dairyman.

Farm manager desires position where energy and ability are needed. Reliable, single. Dairying, stock raising, accounting, soil improvement. First rate builder and mechanic. Specialist in field crops. Agricultural graduate. Satisfaction given anywhere. Reference. Address BOX 389, care Hoard's Dairyman.

Young man wants herdsman job in the West. No small job considered. Prefer Holsteins or Guernseys. Single, American. Can make a change Feb. 1, 1919. State wages and all details first letter. Address BOX 390, care Hoard's Dairyman, Fort Atkinson, Wis.

Married man, 35, wants position as herdsman or farm manager March 1. Guernseys preferred. No children. Life experience. References. State wages and particulars in first letter. HERBERT CRAFT, Route 5, Monticello, Wis.

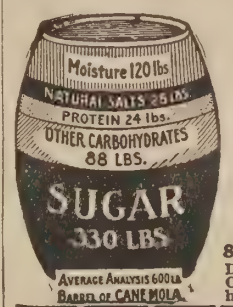


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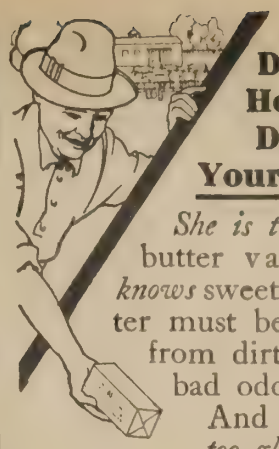
adds palatability to whatever roughage you have on hand. Eliminates all feed waste. Everything cleaned up in double quick time. Successful dairymen and farmers are continually re-ordering in ever-increasing quantities. Live stock gain weight rapidly. Cows give more milk. Cane Mola is all digestible. Government Experiment Stations endorse it.



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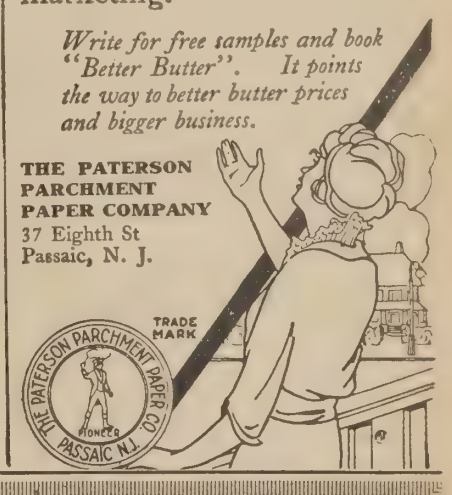
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All selected stuff and representing the leading blood lines and herds of the world all in one sale. A place to buy some of the best stuff in the country at your own price. Write to secretary at once for catalog.

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Perfect Tire Filler Takes Place of Air.

The entire automobile industry has received with considerable satisfaction, the announcement that the answer to the pneumatic tire problem has been found, and the most interesting feature of this announcement is the fact that the statement is not based on theory, but on actual fact, in as much as the new tire filler which will replace air has been put to practical test covering a period of over 5 years and is already in use by over 50,000 automobile owners. This resilient filler is not a liquid, and no inner tubes are used. The material possesses great resiliency, rides like air yet is not effected by punctures; will not blow out and doubles the life of tires. No spare tires or spare rims are needed. It differs from other so-called tire fillers in that it will not flatten or harden and is not effected by either heat or cold.

Tests made by the Ford Owner's Club, Widney Resiliometer, Technical Universities and over 50,000 users prove that this remarkable tire filler rides like air over the roughest roads and every indication points to its acceptance and adoption by the automobile industry as a successor to air in automobile tires.

The material is called Essenkay and is manufactured by The Essenkay Products Co., 93-220 W. Superior St., Chicago, Ill. Mr. J. A. Jonson, Sales Mgr., is offering a free trial to car owners of this wonderful material with a view of having car owners test it at the manufacturer's risk and then tell others of its wonderful merits. Auto owners should write Mr. Jonson at the address above for details of his free trial offer.

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Ed never could see any chew but a big hunk of oversweet tobacco. "You take this plug of Real Gravely," says Hank. "Take a small chew—two or three squares. See how long it holds its pure, rich taste. If you don't admit that Gravely gives you tobacco satisfaction without extra cost, I'll buy your plug for a month." Hanged if Ed didn't walk in next day, grab off a plug of Gravely and throw down his money just like a little man!

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It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

PEYTON BRAND

Real Gravely Chewing Plug

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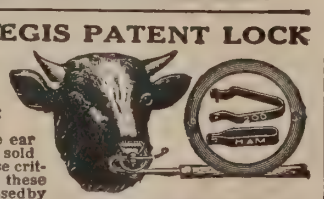


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FOR DAIRY COWS

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Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

War Days on the Farm

(Continued from first page.)

and silos. We sold quite a bit o 150 bushels of potatoes, half of th at $1.25 a bushel and half at $1. I put a sign out in front of the ho and sold quantities with no expe of drawing to market. As for t beets—we have ordered a supervi of tests for November but as th men are very scarce owing to the cent draft, we may not secure o In which event, the beets will be c sidered too good for every day c diet and they will be advertised a probably sold at $1 a bushel to th more fortunate in getting teste Corn was not up to scratch this y and the 14 acres failed to fill our t large silos.

I forgot to say that during the l week in August, 12 head from o herd went to the county fair wh they took a goodly share of hono advertised themselves satisfactori and brought home $85 in cash. T took four days and the time of bo men. As the fair was held only fi miles away, one man came ho nights to attend to chores.

As on probably every farm this w year, many things with us were l undone which ought to have be done. Two men simply could n harrow and prepare the ground thoroughly as should be done to sure maximum crops—especially no fall plowing was accomplish The corn showed the lack of sufficie cultivation, for instance. But there one thing certain—if you work eve minute—just as fast as you can a work scientifically, efficiently, a still can't keep up—surely one h done his "darndest", as the the c miner said, and "angels couldn't no more". I imagine that such h been the case with many farmers t year who are trying to do doub work with half the help. One m not quibble over how the results we obtained—but get results someho

We are ready for winter, or least more so than a month ago. T men are hurrying to finish a calf ba which was started early in the f by a local carpenter. There were no a ples to pick because our orchards he abouts winterkilled. But the dai has to be milked and chored and ke in condition—for we are putting our faith and all our hopes into and hanging on and fighting a working for it in our youth so th in our old age, that dairy will care f us! We have only been in the pur bred business three years and li the hero in "Woodman, Spare Th Tree", we are being very good to t herd and pray for financial protecti later on from it.

My husband and I are both und 30 years of age. We own no car care little for the fleshpots of life b much for the wherewithal to keep t war away from our doorstep and t wolf from the door. Therefore, though far from debtless, we ha bought a few Liberty Bonds, a fe more War Stamps, and Hooveri very correctly and willingly.

We have worked harder this ye than we would care to continue to forever, but this is an exception time and nothing is too much to u dertake.

The farm is an Oliver Twist—a ways asking and demanding mo work. We learn that our good help is to leave us November first to wo in a knitting mill at big wages. T same old story. If he never return that will leave my husband and m self to cope with work alone anoth year. But perhaps we will be in Be lin by that time.

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Here's the Way to Stop Cream Waste

ABOUT 8 out of 10 farmers with dairy herds are wasting cream every day. **They are actually feeding cream to pigs**—simply because they are using inferior cream separation machines.

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Sweden's farmers won't tolerate the slightest cream waste, Their economy has perfected the most economical, fastest greatest labor-saving cream separator—the **Viking.**

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There is no cream waste with the **Viking Cream Separator**—Sweden's most popular separator. It will pay you to investigate. Write your name and address on the coupon below and mail it to us. See a **Viking** work. You can do that by looking up the **Viking** dealer the next time you are in town. He will be glad to demonstrate it to you.



You Save Money Right At the Start—You Make More Profits All the Time

conomical production and the largest cream separator factory in the orld enable us to sell the **Viking** at a price that means a money-saving you. **The Viking has a greater capacity than any other separator f equal rating.** Experts' investigations prove that the **Viking** has approximately 100 pounds of milk **per hour** greater capacity than many eparators for which much higher prices are asked.

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ests show that the use of a **Viking** on dairy farm herds of 10 cows saved over 107.00 worth of cream that **before** had been actually fed to the hogs. The iking will both **save and make money for you.** See your nearest Viking dealer.

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These books are not merely advertisements for the **Viking.** They serve a larger purpose. One of them—"Making The Dairy Cow Pay"—is packed with profit-making ideas, methods, systems for the dairy farmer. Even though you don't believe you will buy a **Viking** this year, write for these two books. We would be glad to feel that they had been some help to you, even though you never buy a **Viking.** Write for them **right now!**



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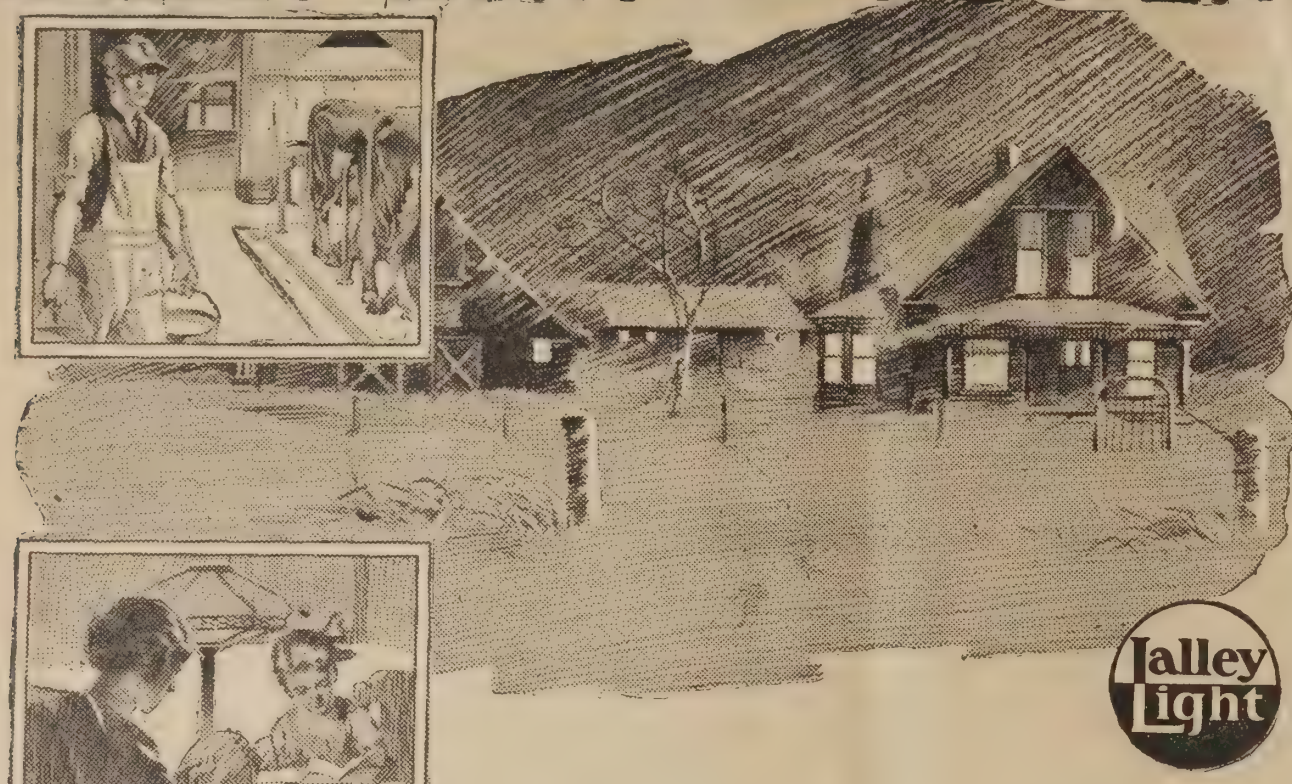
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All with a certainty of low cost and reliability, assured by more than eight years of every-day use on every-day farms.

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LALLEY-LIGHT

THE ELECTRIC LIGHT AND POWER FOR EVERY FARM

Cropping System With Alfalfa

Mr. Rufus A. Morrison of Indiana writes: "In the article of D. H. Otis, 'Feeding Legumes in a Systematic Rotation', he writes that Mr. Michels is putting his herd in the Registry of Merit on alfalfa hay and corn silage, with very little grain. Would it not be well to tell the story somewhat in detail?"

"I am trying to get settled on a systematic rotation. I have two farms with 80 acres of land in each. We keep all the cattle that the land will support. Is there any better rotation than 20 acres of alfalfa, three years; 20 acres of corn for silage; 20 acres of wheat or barley; and 20 acres of grass, clover, alfalfa, timothy for pasture? The alfalfa in the above rotation remains during one rotation of the other three fields when it goes into corn and one of the other fields goes into alfalfa. Is a three-year rotation too short? We must have 20 acres of corn and prefer it on sod. I wish to start a system that will give us a definite plan for the future."

In regard to feeding dairy cattle on alfalfa and corn silage, I will say that there is considerable difference of opinion in regard to the advisability of such a course. Mr. Michels has made a success of his proposition. Fortunately he has located on land that produces a first class quality of alfalfa, and he can be reasonably sure of a crop. He aims to cure it in the best possible condition. Under these conditions he has a feed that his cattle relish and which possesses a large amount of nutrient. The analysis of a good alfalfa hay shows it to be approximately on a par with wheat bran. There is no question but that the grain bill can be very greatly reduced where a good quality of alfalfa hay is available. We do not recommend that a dairyman leave off feeding the grain abruptly, but it would be possible to gradually reduce the grain allowance, watch the milk sheet, and likewise the condition of the animals, and then decide at what point he is getting the most economical returns for his feed, and at the same time maintaining his breeding herd in good condition. Many a dairyman has been able to reduce his grain ration at least one-half. Mr. Michels has gone a few steps farther, and has practically eliminated grain under his conditions. It must be remembered that Mr. Michels feeds all the alfalfa his cows will consume and does not expect them to eat the coarser parts. To a large degree the cows consume the leaves and fine stems, the coarser stems that are left being fed to the horses.

Relative to the rotation suggested by Mr. Morrison, will say that if his land is suitable for the production of alfalfa and he is reasonably certain of his crop, it would be perfectly proper for him to set aside 20 acres for alfalfa. If his land is not adapted, or if it is an uncertain crop, it would be better to begin with a much smaller acreage and gradually increase this as fast as he demonstrates that it can be grown successfully.

Assuming that he can grow 20 acres of alfalfa satisfactorily the remaining cultivated land he has divided into three fields of 20 acres each, and expects to devote one field to clover, alfalfa, and timothy for pasture. If he has in mind seeding his clover, alfalfa, and timothy with his wheat or barley, and then pasture it the following year, it is possible that his plan will work. Ordinarily, we figure on the seeding to remain at least two years. The first year when the legumes predominate it is usually devoted to h and the second year when timo comes in more abundantly, it is dev ed to pasture. This plan has the vantage of distributing the risks o hay crop, as the sole reliance is then made upon the alfalfa field. F thermore, the clover and timo meadow will furnish hay that is pecially good for horses. We wo suggest that if this correspondent sires to have pasture in rotation t he divide his land into about six fie as nearly equal as possible. Dev one to alfalfa, and with the remaini five follow a five-year rotation, c sisting of clover and timothy meado followed by pasture, this followed two years of corn, followed by a se ing down to grass while producing crop of wheat or barley. This rangement will provide for a lit more hay, but divided between alfa and clover and timothy. It also c down somewhat the pasture acrea This, however, is not serious, as t pasture can be supplemented eith with silage or soiling crops. If t suggestion provides for more co than is needed, part of the corn ar could be devoted to any other annu crop desired and still fit into the r tation scheme.

If this correspondent is not in p sition to eliminate the pasture entir ly, he could then follow the plan suggests of dividing his land into 2 acre fields. If this is done we wou advise the seeding of clover witho timothy and plowing under the seco crop the following year.

The suggestion of this correspo dent that the alfalfa field be allow to remain for three years and th plowed up and put in corn and see ing another field to alfalfa, is a go one.

D. H. OTIS.

Wisconsin College of Agriculture.

Grain to Supplement Corn Stove Timothy and Red Top Hay and Straw

Please tell me what grains wou make a balanced ration for Guernse cows just freshened. We have quant ties of ground oats and corn silag and for roughage we have corn stove timothy and red top hay mixed, an oat straw.

Mechanicsville, N. Y. C. W. F.

We would let each cow have abo 30 lbs. of corn silage daily and a libe al allowance of the timothy and re top hay and some of the corn stov to pick over. We would not for cows to eat the coarser part of th corn stover, nor would we feed an straw unless there was not enoug corn stover or hay to supplement th silage during the winter.

A mixture consisting of 200 lb ground oats, 200 lbs. ground corn o barley, and 300 lbs. gluten feed or di tillers grains, and 100 lbs. of cotto seed meal or oil meal will make a ver desirable mixture to supplement th roughage. It will require about pound of this mixture for each 3 t 3½ lbs. of milk produced; that is, cow giving 24 lbs. of milk will requir 7 to 8 lbs. of grain, and if she gives 2 lbs., it will be 8 or 9.

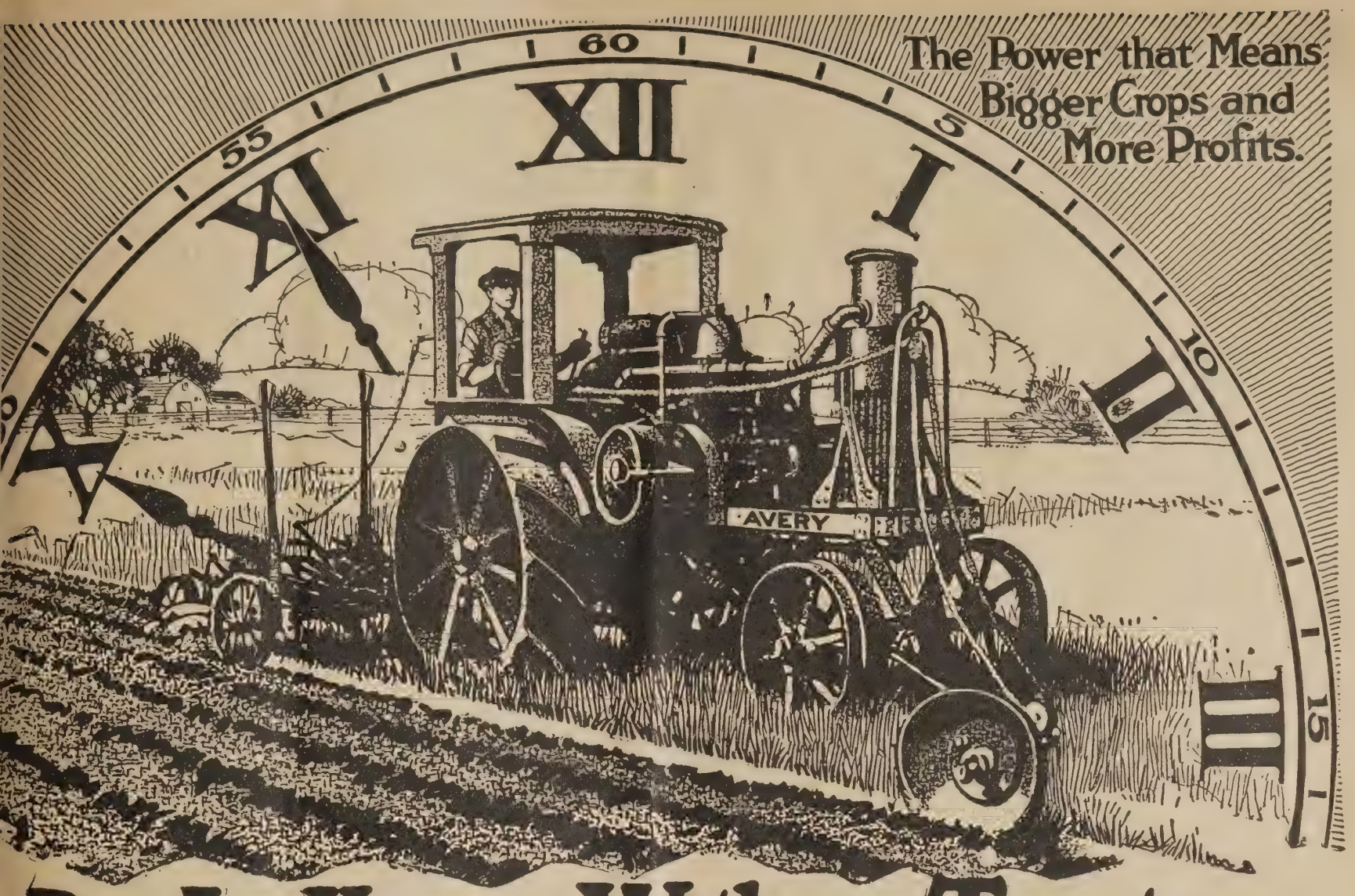
Finances of National Dairy Union

Receipts

Balance on hand Nov. 1, 1918	$3804.0
Total receipts	59.9
	$3863.9
Total disbursements	459.9
Balance on hand Dec. 1, 1918	$3404.0

This is to certify, I have today au dited the books for S. B. Shilling treasurer of the National Dairy Un ion, and find the receipts from Nov 1, 1918 to Nov. 30, 1918 to be $59.97 and the amount paid out for which he holds vouchers, the sum of $459.97 leaving a balance on hand Dec. 1 1918, of $3,404.02.

F. P. COLLYER, Auditor.



Do In Hours With a Tractor Work That Takes Days With Horses

PLAN your time this year in hours of tractor work instead of days of horse work. Start this year's work with a tractor and get your plowing done at exactly the right time and raise bigger crops. Do your work with less hired help, or farm more acres with the same help. Let an Avery tractor make you as much money in a few hours this year as you made in a day before, with horses.

What You Get In An Avery Tractor

You get a tractor with a "Draft-Horse" Tractor Motor built in our own motor factory *especially* for tractor work and *only* for Avery tractors.

You get a tractor with a "Direct-Drive" Transmission that is the simplest tractor transmission system built and which delivers more of the power of the motor to the belt wheel and drawbar.

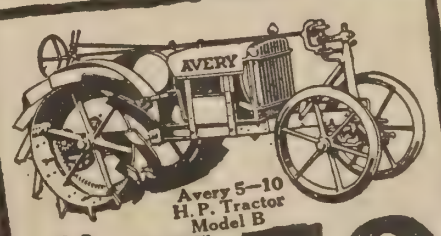
You get a tractor with these Avery exclusive and protected features—renewable inner cylinder walls, adjustable crankshaft boxes, duplex kerosene and distillate gasifiers, double carburetor, practically unbreakable crank shafts, round radiator, sliding frame transmission, universal self-cleaning, non-slipping lugs, etc.

You get a tractor that is built complete in the three large Avery factories which insures one high standard of quality; a tractor that is backed by national tractor service through our branches, distributors and dealers which insures prompt and permanent service; and a tractor that is successfully used by farmers in every state of the Union and in 61 Foreign Countries.

Write Now for the New 1919 Avery Motor Farming, Threshing, and Road-Building Machinery Catalog

Get all the facts about the complete line of Avery Tractors, built in sizes for every size farm, with the smallest size tractor selling at only $550.00, f. o. b. Peoria—the Avery Motor Cultivator with which you can cultivate corn, cotton, etc., with motor power—and the complete line of Avery Grain Saving Threshers and Plows for every size tractor.

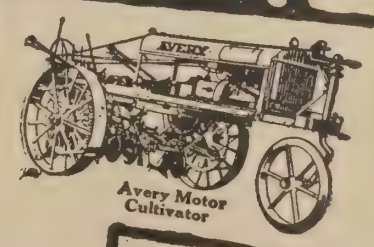
Ask for the new 1919 Complete Avery Catalog, also for the FREE Avery Tractor Correspondence Course and 100 Questions and Answers to Tractor Troubles. ALL FREE. See sample machine at the nearest Avery Dealer.



Avery 5—10 H. P. Tractor Model B

$550

F. O. B. PEORIA



Avery Motor Cultivator

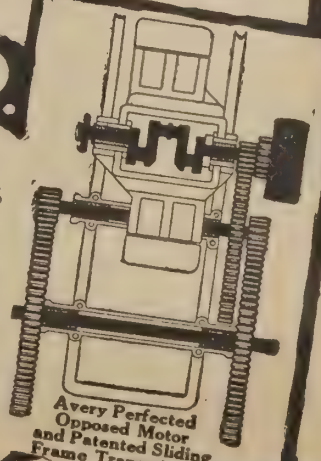
AVERY COMPANY, 6122 Iowa St., PEORIA, ILL.

AVERY

Motor Farming, Threshing and Road Building Machinery

There's a Size Avery Tractor for Every Size Farm

Five Sizes—the Same Design Standardized



Avery Perfected Opposed Motor and Patented Sliding Frame Transmission

TROPICAL

There is no class of citizens in America which realize the imperative necessity for conservation at this time as do the dairy farmers. One of the best ways in which you can conserve is by prolonging the life and increasing the serviceability of your buildings and of your home.

TROPICAL ELASTIKOTE

Superior For Barns and Out-Buildings

Shortage of labor has caused wages to increase fabulously. Two-thirds of the cost of every painting job goes for labor, so you cannot afford to use poor paint. TROPICAL ELASTIKOTE outwears the ordinary paint many times over, and is undoubtedly the most economical on the market. No matter what the variations of surface or weather conditions, TROPICAL ELASTIKOTE, which is now supplied in sixteen different shades, will fill your needs.

ERIE HOUSE PAINT or TROPICAL FINEST HOUSE PAINT—For Your House

Better and more economical than hand mixed paint. Manipulated, ground and mixed by the best and most economical equipment obtainable. The "cost per year test" proves them best.

B & P Special Enamel For Interiors

is the favorite paint with dairy farmers for inside walls and ceilings. Non-absorbent, it completely seals all the pores in the surface. Can be flushed spotlessly clean with a hose. Supplied in beautiful shades of cream, gray, blood red, slate, yellow, and white.

Tropical Paint & Oil Co.

Cleveland, Ohio

Tropical Paint & Oil Co., Cleveland, Ohio.
Gentlemen:- Send us complete details about:
(1) Tropical Elastikote. Surface to be covered ____ sq. ft.
(2) Tropical B & P Special Enamel. Surface to be covered ____ sq. ft.
(3) Erie House or Tropical Finest. Surface to be covered ____ sq. ft.
Name ____
Address ____
Inquirer ____



Easy Milking

Is largely a result of a healthy udder and teats. Any condition that makes a cow restless interferes with the milk flow and makes milking hard.

To keep the udder and teats always in the pink of condition use BAG BALM, the great healing ointment. A sure, quick remedy for Caked Bag through its soothing and penetrating effect on the tissues. Great for any external hurt, chapping, cuts or inflammation.

A 60c package is a good investment. Druggists and feed dealers sell it.

DAIRY ASSOCIATION CO., Lyndonville, Vt.

BAG BALM

MADE BY THE KOW-KURE PEOPLE

Water in the Stable a Nceessity

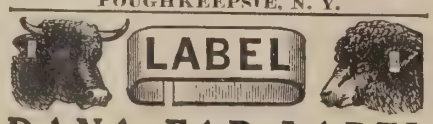


THE "BUCKLEY" DEVICE

Is the leader. Why not use the best? Write to the manufacturers for a descriptive circular.

Poughkeepsie Foundry & Machine Co.,

POUGHKEEPSIE, N. Y.



DANA EAR LABEL

Stamped with owner's name or address and serial numbers. Send for free samples.

C. H. DANA, 55 Main St., West Lebanon, N. H



The "STAY THERE" Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tag, catalog and prices mailed free. Ask for them. Address Wilcox & Harvey Mfg. Co., 568 W. Randolph St., Chicago, Ill.

Send for Catalog



FARM WAGONS

High or low wheels—steel or wood—wide or narrow tires. Wagon parts of all kinds. Wheels to fit any running gear. Catalog illustrated in colors free.

Electric Wheel Co., 31Elm St., Quincy, Ill.



Reg. U. S. Pat. Off.

Quality has been kept up on Brown's Beach Jacket

the wonderful cold-weather garment for men. War conditions have reduced our production but we are keeping up the quality. Our guarantees are strong as ever. Ask your dealer.

Brown's Beach Jacket Co.

Worcester, Massachusetts.

Have you talked with your neighbors about subscribing for Hoard's Dairyman? Why not do it now? Make up as large a club of subscribers as you can and send them in.

Bob in the Calf Contest Club

[Continued from pgae 866]

of the way. It keeps them out of t way all right and so much so th they don't get good care."

"Do you have any trouble wi them, Bob, sucking each other's ea after feeding?"

"Not any more, Joe. I put up th row of stanchions to stop them fro doing that. When I feed them, ea is locked in his place and I keep the there for about a half hour aft feeding. By that time they have fo gotten all about it. It's easier to fe them, too, and when they are rea to eat some grain, each can get h share."

"By golly, I'm going to make son stanchions tomorrow," replied Joe. had never thought of that idea b fore."

"I don't like them to get that suc ing habit, Joe. They may never g over it. We used to have a cow th sucked the others. I guess sh learned it when she was a calf an she never forgot it."

"Do you always keep as muc straw in their pen as you have the now, Bob?"

"Sure! Cement floors are prett cold. I clean the pen at least once week. These calves mustn't la down on cold, wet straw. It's fun t see the way they have of thanking m every time I give them fresh bedding They have a great time rompin about in it. Why that's half the fu of keeping the pen clean."

"Well, Joe, don't you think we ha better be going? It's four-thirty an you know Mary Jane Spot will b looking for you. I think we hav spent a pretty good afternoon, Bob That's a fine way for you club boy to do. Visit each other and talk ove what you are doing. It helps all of u to get new ideas."

"Good-bye, Mr. Anderson! So long Joe! Come again, both of you."

Turning to Betsey again, Bob said "You are a beauty, young miss, bu you've got to keep on your best be havior or Joe's bossie will beat yo when that contest is pulled off."

Intensive Farming by the American Red Cross in England

(Continued from page 845)

a model of its kind. He is an authority on Guernsey and Jersey cattle, and son. of the finest specimens of these cows have recently been donated through him, to stock the dairy farm at the American hospital at Sarisbury near Southampton, England, where accommodations are being prepared for 3,000 American soldiers, sick and wounded.]

Farmers' Week in Connecticut

Arrangements are under way for a great Farmers' Week at Hartford, Conn., beginning January 20th. In the past each division has held a very successful program during the winter and already not less than eight of these organizations are co-operating with the State Council of Defense and the Agricultural College upon this big event. Nothing will be spared to make it the biggest event of this kind in this part of the country. The meetings will be held in the State Armory.

As you know this state has strong dairy interests. While its problems are largely connected with the whole milk and ice cream business, there is a growing interest on the farm for butter and cheese equipment. Anything that pertains to keeping the cow under more comfortable and healthy conditions is of practical interest as are also all matters pertaining to the production and distribution of a clean, wholesome product.—G. C. WHITE.

Fertilizer Feeds the Crops That Feed the World



TWO HUNDRED MILLION people eat foods grown largely by the aid of commercial fertilizer. In the United States alone nearly seven million tons of fertilizer are used annually.

The Fertilizer Industry performs a most valuable service in searching the four corners of the earth, gathering sulphur from Spain, nitrogen from Chili, phosphate from Florida and Tennessee, and potash from the West; in recovering waste materials from slaughter houses, factories and cities; in reaching up into the air and down into the bowels of the earth for newer and cheaper forms of raw materials; and then manufacturing the whole into a product, definite in composition and convenient in form, which can be transformed into essential life-giving foods.

The machinery, buildings and equipment necessary to perform this great service represent an investment running high into the millions of dollars.

Without fertilizer, agriculture would deteriorate. With *more* fertilizer, agriculture will improve. The use of fertilizer is rapidly becoming universal, and the *best* use for the *greatest* profit should interest every farmer wherever located.

Have You Investigated the Possibilities?

Old theories are being discarded. New fields for profitable use of fertilizer are rapidly developing. Have you thought of fertilizing that weedy, run-down pasture? Do you know that fertilizer can help you to avoid soft corn? escape the Hessian Fly? overcome drouth? save farm labor? get higher prices? Study fertilizer. Let fertilizer make bigger profits for *you*.

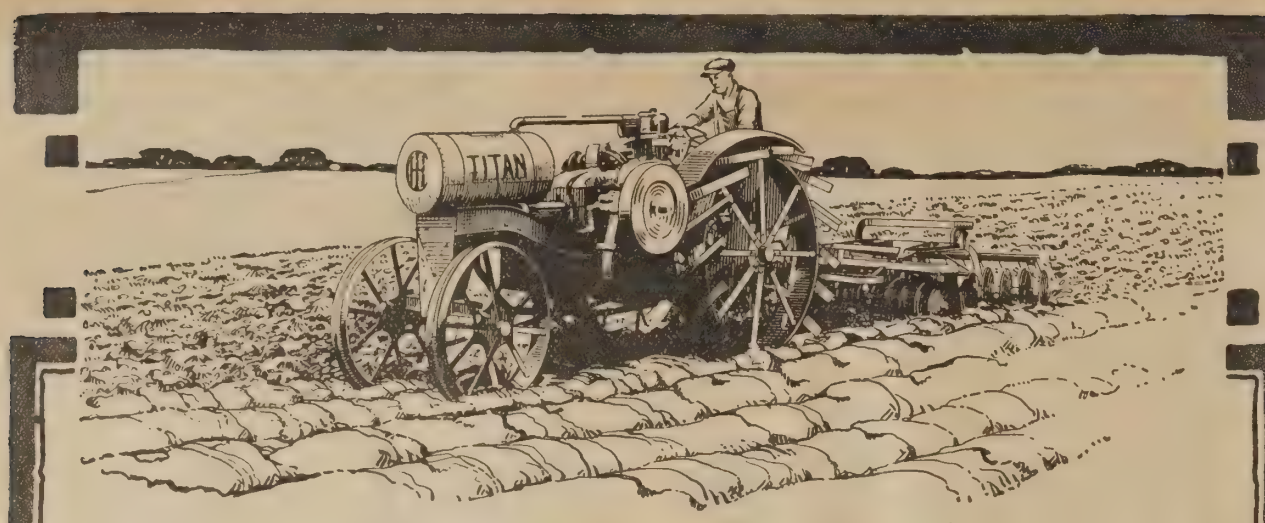
Write for our interesting bulletins on fertilizer usage

Soil Improvement Committee
of the National Fertilizer Association

1423 The Munsey Bldg.
Baltimore

923 Postal Telegraph Bldg.
Chicago





The Tractor to Buy

ARE you one of the many farmers who need more power to handle the farm work properly? Do you have to work with less help than you need?

If so, you need an International kerosene tractor. The size that gives you power for your heaviest load will handle all the work. Internationals use only as much fuel as the load requires. They are made to work with farm machines—the kind you are now using—and special hitches are provided for all kinds of field and road work. Their belt pulleys are large enough to prevent slippage, run at correct speed, and are set high enough to keep the belt off the ground. They all use kerosene or other low-grade fuels which means a big saving in operating expense.

The Company to Buy From

You know that we have supplied farmers with high-grade machines for nearly 88 years. You know that our tractors have furnished satisfactory farm power for more than 12 years. We have far too much at stake to market machines of any but the highest standards of quality. We expect to come back some day and sell you some other machines in the long list you see in this advertisement. In every sale we try to build for the future.

Tractor Service Whenever Needed

In line with this policy, we have developed a service organization which now consists of 89 branch houses and many thousands of loyal local dealers, wide awake and attentive to the needs of their customers. Service is a very essential part of any tractor sale. When you buy an International kerosene tractor you buy with it the assistance of an organization that brings a well stocked branch house or a live, local dealer within telephone call, fully equipped to keep your tractor working steadily.

International Tractor Sizes

International tractors, all using kerosene for fuel, are made in 8-16, 10-20, and 15-30 H. P. sizes. A line to the address below will bring you full information about all our tractors and about any other machines you mention in the list shown in this advertisement.

The Full Line of International Harvester Quality Machines

Grain Harvesting Machines
Binders, Push Binders, Headers, Rice Binders, Harvester-Threshers, Reapers, Shockers, Threshers

Tillage Implements
Disk Harrows, Cultivators, Tractor Harrows, Spring-Tooth Harrows, Peg-Tooth Harrows, Orchard Harrows

Planting & Seeding Machines
Corn Planters, Corn Drills, Grain Drills, Broadcast Seeders, Alfalfa & Grass Seed Drills, Fertilizer & Lime Sowers

Haying Machines
Mowers, Tedders, Side Delivery Rakes, Loaders (All Types), Rakes, Combination Side Rakes and Tedders, Sweep Rakes, Stackers, Combination Sweep Rakes and Stackers, Baling Presses, Bunchers

Belt Machines
Ensilage Cutters, Huskers and Shredders, Corn Shellers, Threshers, Hay Presses, Stone Burr Mills

Belt Machines—Cont.
Cream Separators, Feed Grinders

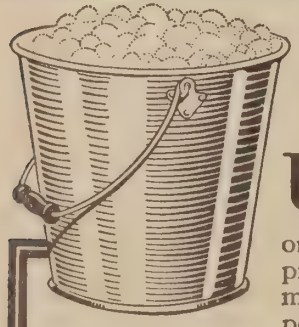
Power Machines
Kerosene Engines, Gasoline Engines, Kerosene Tractors, Motor Trucks, Motor Cultivators

Corn Machines
Planters, Drills, Cultivators, Motor Cultivators, Binders, Pickers, Ensilage Cutters, Shellers, Huskers and Shredders

Dairy Equipment
Cream Separators (Hand), Cream Separators (Belted), Kerosene Engines, Gasoline Engines, Motor Trucks

Other Farm Equipment
Manure Spreaders, Straw Spreading Attach., Farm Wagons, Farm Trucks, Stalk Cutters, Knife Grinders, Tractor Hitches, Binder Twine

International Harvester Company of America
(Incorporated)
CHICAGO U S A



Highest *Natural* Milk Flow

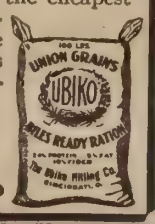
UNION GRAINS brings cows to their highest natural milk flow, keeping them there without danger to health or utmost usefulness. It does this because protein, carbohydrates, fats and mineral matter are present in exactly the right proportion. Its perfect composition is proved by the 15 years of continuously excellent results it has given.

UNION GRAINS

The Perfectly Balanced Ration for Milk Production

It is always the same scientifically mixed ration, containing nothing but the purest of grains. No fillers. It bulks well. It digests. It is palatable. Considering the amount and richness of milk production it is the cheapest dairy feed procurable. Any dairyman will convince himself of this by trying Union Grains and keeping a record on the form which we will gladly send. Any dealer can get Union Grains for you *now*. Don't wait to order—there is a 3 million-ton shortage of dairy feeds and traffic conditions are likely to again be bad

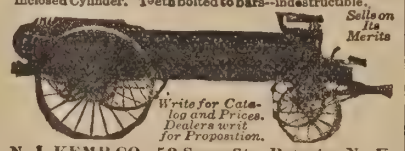
Keep a record of feeding results. Send for a Union Grains Record Sheet.



THE UBIKO MILLING CO., Dept. H., Cincinnati, Ohio

KEMP-CLIMAX SPREADER

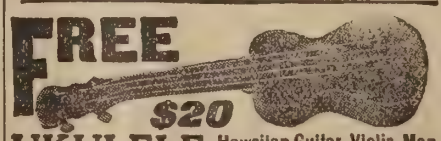
Durable, simple, light draft, (2 horses), spreads quickly, evenly shreds in wide strips—no bunching or clogging. The only spreader with the special-graded, self-sharpening flat teeth. Inclosed Cylinder. Teeth bolted to bars—indestructible.



Write for Catalog and Prices. Dealers writ for Proposition.

N. J. KEMP CO., 52 Swan St., Batavia, N. Y.

FREE



$20 UKULELE Hawaiian Guitar, Violin, Mandolin, Guitar, Cornet or Banjo

Wonderful new system of teaching note music by mail. To first pupils in each locality, we'll give a $20 superb Violin, Mandolin, Ukulele, Guitar, Hawaiian Guitar, Cornet or Banjo absolutely free. Very small charge for lessons only expense. We guarantee success or no charge. Complete outfit free. Write at once—no obligation.

SLINGERLAND SCHOOL OF MUSIC, Dept. 496, CHICAGO, ILL.

KING SEGIS PATENT LOCK

Ear Tags, Bull Staff and Rings. Description and prices sent on application. 300,000 of these ear tags have been sold without adverse criticism. 500 of these BullStaffs are used by the best breeders in the business.



H. A. Moyer, Syracuse, N. Y.

Pure-bred Cattle in Connecticut

HOARD'S DAIRYMAN:—Within a decade great interest has developed in western Connecticut in the breeding of pure-bred stock and cattle especially. This has been particularly noticeable in the counties of New Haven, Fairfield, and Litchfield. The Holstein-Friesians are the greatest favorites; and there are more breeders of these cattle than of any other largely because nearly all of the creameries, which used to be numerous here, have been driven out by the demand for market milk to supply the nearby cities of Bridgeport, New Haven, Waterbury, Danbury, and New Britain. Several years ago the Western Connecticut Holstein Breeders Association was formed. Now this organization has been merged with the Connecticut Holstein Breeders' Association.

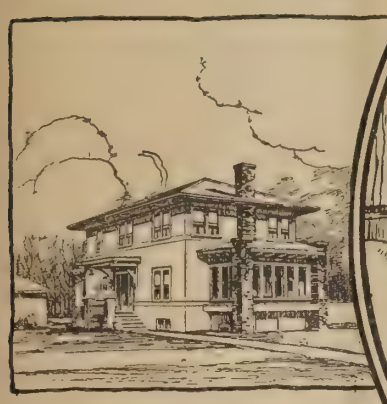
But our good and wealthy town of Woodbury has for some reason held back from the keeping of large herds of pure-breds. The use of pure-bred sires in many cases has been recognized as profitable, however, and large numbers of choice grade cows have been raised. But now the leaven has begun to work in earnest, due perhaps to the good prices received for milk (now $4.08 per forty quart can), and with the increased interest in milk making comes inquiry for the best cattle. Nearly all of the milk is shipped to Waterbury by trolley and no city has in the past year requested producers to keep back so little surplus.

War conditions having made the price of grain high, our New England farmers have learned that they can raise corn, oats, and wheat to advantage, and the past two years have witnessed a wonderful growth of these cereals, greater perhaps than have been produced in any two years within 150 years. Our dairymen have consulted together and decided that they may do better even than they have yet done. This has resulted in the request for extension service from the Storrs Agricultural College and Experiment Station. We shall have a four days' program in January and from present interest there will be a full attendance. During the past week a preliminary meeting was called, addresses being made by Hon. C. E. Hough, a pure-bred breeder of Washington, and by a neighbor in the same town, Mr. Paul Farrand, also a breeder of pedigreed stock. Mr. Hough advocated the ownership in Waterbury of a plant to receive all the milk this and adjoining towns make, the same to be carefully retailed on a co-operative basis, stating that 2 cents per quart could be saved in its distribution and still pay the producers a higher price than at present. He said: "If the United States government carried the mails and delivered letters as milk is delivered all over the land, a single postage stamp would cost 15 cents."

Connecticut. HOLLISTER SAGE.

Help Wild Birds This Winter

Winter is the adverse season for most of our birds. If severe, scarcity of food is sure to occur, and the birds soon weakened, fall victims to the cold. Birds, in general, are of great value in destroying injurious insects, and their numbers should be kept up to the standard necessary for their most effective work. Help them, therefore, by feeding them in winter, especially in the northern states when there is heavy snow. Bulletins containing directions for the winter feeding of birds, and posters calling public attention to the desirability of winter feeding, may be obtained from the Bureau of Biological Survey, United States Department of Agriculture.







Order from your own lumber dealer

Your lumber dealer is an authority because he has at his fingers' ends the sources from which to secure the best available information on homebuilding. So through him you have at your command our half-century's knowledge of interior designing and the benefits of all the things we have learned.

Your lumber dealer takes care of the material. He shelters it from weather, accident, and loss. He does not deliver it to the building site until the moment it is needed.

CURTIS Woodwork comes to you put together but uncolored. You select your own decorative schemes; you have your own choice of verandas, doors, colonnades, windows and stairways—built-in sideboards, buffets, breakfast nooks and other distinctive furniture — modern, cheerful labor-saving kitchen equipment and many kinds of other beautiful and useful things that are grouped under the trade term "woodwork."

We have Manufacturing and Distributing Plants at:

Oklahoma City, Okla.
Minneapolis, Minn.
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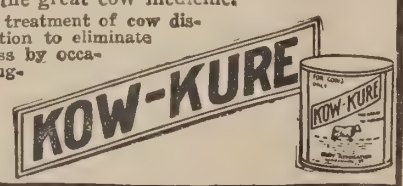
A Letter from Bossy



If a cow could speak she would talk about her health as people do—because cows suffer from ailments, little and big, the same as human beings. When a cow is sick, she needs medicine as much as a sick person does.

Mere rationing will not eliminate disease; medicinal treatment is necessary. The most common cow ailments, such as Abortion, Retained Afterbirth, Lost Appetite, Bunches, Scours, etc., result from a diseased condition of the digestive or genital organs. Any of these diseases and many others can be successfully treated or prevented by using Kow-Kure, the great cow medicine.

Kow-Kure is scientifically prepared for the treatment of cow diseases only. It puts the vital organs in condition to eliminate disease and function regularly. Prevent sickness by occasionally using Kow-Kure. Feed dealers and druggists sell it—60c. and $1.20 packages.



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"The Laboratory That Knows How"

Supplies of Cottonseed and Oil Meal

(Continued from page 847)

dairy interests should not overlook the possibility of the government relinquishing its hold on the prices for linseed and cottonseed cake and meal.

Missouri. SANDERS SOSLAND.

Stocked Legs

We have a three-year-old colt that stocks in the hind legs. She gets plenty of exercise. Kindly let us know if there is any remedy.

Houghton, Mich. M. C.

Allow the filly a roomy box stall when in the stable, or turn her loose in a shed. Each time she comes in rub her legs dry and then bandage with flannel from feet to hock joints. Feed her well on whole oats, wheat bran, carrots, or a little sound silage and good, mixed clover hay. If worms are found in the feces, mix in the feed twice daily for a week a level tablespoonful of a mixture of two parts of table salt and one part each of sulphur and powdered copperas. Then stop for ten days and then repeat the treatment. Omit copperas if she is in foal and increase salt and sulphur.

Congested Udder

1. What do you consider the proper way to handle a fresh cow that is a heavy milker when the udder is badly caked?

2. What precautions can one take to prevent milk fever?

Wisconsin. R. E. W.

1. Congestion of the udder will be much less likely to occur if a cow is "dried off" for 6 weeks before calving and during that time is made to take exercise every day and is lightly fed and in such a way that bowels will be kept active. Avoid heavy feeding or protein-rich rations. Chill of the udder from exposure or lying upon cold ground or a cement floor also causes many cases of congested udder. Treat by giving a physic, massaging several times a day, stripping away some of the serum or milk before calving if the case is severe and giving two teaspoonfuls each of powdered saltpeter and poke root once or twice daily after the physic has acted if the condition persists.

2. Follow above advice as to feeding and exercise during pregnancy and when the calf comes either allow it to suck for a few days or refrain from milking the udder dry for a few days. If the cow is fat and costive give a physic when it is seen that she is about to calve. Keep the stables clean and cool. Hot, stuffy stables help to induce milk fever.

Congested Udder

There is a heifer among our herd that is going to get her first calf. About three weeks ago she started to make up her bag and she still did not calve yet. Her bag is hard in places and specially round and above the teats. When I tried to milk her out some days ago I noticed she had lots of dark brown matter in the udder, which, however, does not seem to be sore. After doing this for a few days the matter got thinner and more normal looking. Then I ceased milking her out until two days ago when I noticed her bag getting hard again. I started stripping again and she produced the same kind of matter. Please advise me. Shall I keep on stripping or shall I do something else? What causes this?

Mount Vernon, Wash. G. C. W.

It is not unusual to find serum, or even blood, in a congested udder just before calving and as a rule only enough of it should be removed to relieve congestion when acute. Reduce rich feed, open the bowels, and give daily exercise in such cases. Also, massage the udder well three times daily and rub the milk veins and swelling on the belly in the direction of the heart. In severe cases, two drams of powdered saltpeter and poke root given once daily in water, or a little soft feed, usually helps. If the udder becomes hot and sore, foment with hot water three times daily, strip clean, and then rub in a mixture of equal quantities of carbolized oil, camphorated oil, and druggists' soap liniment.

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From Your Herd

IT CAN BE DONE BY THE PERSISTENT USE OF

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Hundreds of breeders have sav valuable cows and their calves by g ing the Abortion Remedy promptly a freely on the first sign of abortion.

This Remedy strengthens the we parts and helps hold the foetus. success has been remarkable.

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Bulletins of the Week

ontrol of House Flies by the Mag- Trap, by E. N. Cory, Maryland periment Station, College Park, Md.
ests of an "All Crops Soil" Intum, by Paul Emerson. Bulletin , Maryland Experiment Station, lege Park, Md.
hysiological Basis for the Prepaon of Potatoes for Seed, by C. O. pleman. Bulletin 212, Maryland periment Station, College Park, Md.
ecent Experimental Work on Poing Cotton-Boll Weevils, by B. R. id. Bulletin 731, U. S. Dept. of r., Washington, D. C.
eed and Soil Treatment for the ntrol of Potato Scab, by H. C. Lint. clar 95, New Jersey Experiment tion, New Brunswick, N. J.

PHIE'S TORMENTOR JERSEYS

"Production" Our Watchword

ULL CALF FOR SALE

ur No. 252, dropped April 29, 1918; solid den fawn with black tongue and switch; l grown for his age and an excellent indiual in every respect.
E—Lou's Torono 106614, whose first four ghters on test averaged 602.71 lbs. 85% ter, from 9,450.9 lbs. milk, at 1 yr. 11 mos. age; all four finished in Class AA, having ried calf an average of 183 days.
M—Van's Warden Lady 336390, an excel- individual of extremely good dairy type. ite for particulars.

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EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over
700 Pounds of Butter in One Year
These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of
1132 Pounds of Butter in One Year
If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.
ROYCROFT FARM, SIDNAW

Golden Sunset JERSEYS

Ve have a few elegant young bulls nearly dy for service at $100.00 each. The famous ue Belle-Golden Rosebays.
e Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.
00 Head - - 100 Head
A few for sale.
C. YOUNG, 33 and O Sts., Lincoln, Neb.

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High class bulls for sale—all ages.
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Island bred and ready for service. Dropped April 26th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 652,768 lbs. butter. Write for particulars or come and see him.
OAK GROVE JERSEY FARM,
W. M. KNIGHT, EAGLE, WISCONSIN.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address
ROLLIE VANDERVORT, Tomah, Wis.

FOR SALE

Straight Island Bred 5-yr.-old granddaughter of Eminent and Noble of Oaklands. A show cow and producer. Bred to Mable's Noble King 146295, to freshen in January.
G. D. Gilbert, Ceylon Court Farm, Lake Geneva, Wisconsin.

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Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

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Three Young Island Bred Cows

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We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order.
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A yearling son of Torono's Jacoba Lad, he a grandson of Hood Farm Torono and by a grandson of Jacoba Irene. Dam made 435 lbs. butterfat in 1 year and has never been defeated at the fairs. This is an excellent individual and guaranteed right. Write Ed. A. McGilvea R. 2, Box 99, Baraboo, Wisconsin.

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At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm.* Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.
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Breeders' names and Spillman's "Inheritance of the Poll Character in Cattle" mailed free.
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Rich in blood of Raleighs, Eminents, Golden Lads, Flying Fox, Mohican and Noble Oaklands.
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World's Record Price Ayrshire Bull



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Sired by a son of WILLOWMOOR ROBIN HOOD, out of a daughter of HOLEHOUSE WHITE KING.

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Extraordinary Bull Calf out of Imp. Torr's Tropicohn.
A. R. record 3-year-old, 13055 lbs. milk, 520 lbs. fat. A. R. record 5-yr.-old, 15584 lbs. milk. 606 lbs. fat. Now on test should make big record. She is full sister to Lessnessock Buntie, 2-year-old, 14678 lbs. milk, 3-year-old, 15794 lbs. milk, mature, 17612 lbs. milk. Write for pedigree, picture and particulars.
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Then write us for description and prices of several extra fine bull calves out of Register of Merit dams and strong in the blood of Rochette's Noble, Gamboge's Knight and Sybil's Gamboge.

Rochette's Golden Princess has just finished her year's test and qualified for R. of M. with following record: Milk, 15,286.5; fat, 752.6.

With just 22 cows in milk, we have already made four records in excess of 700 lbs. fat in 1918.

Does this mean anything to you?

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High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.
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Special offer until November 1st. Bulls from six weeks to one year for $75.00 to $400.00.
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619 POUNDS FAT

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FALCON'S DON

carries this kind of blood. Dropped Aug. 6, 1918; sire's dam made 655 pounds fat; dam made 488 pounds and dropped two calves within year. Five nearest dams average 505 pounds fat A. R. Calf is a medium fawn and white, well grown, straight in every way, clear nose. He will do the herd into which he goes a lot of good. Price $175. Full particulars and pedigree from

Falcon's Flight Farms, Litchfield, Conn.
N. B.—No contagious abortion in over five years; no tuberculosis.

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Offers several exceptionally choice

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Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

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Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

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We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.
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Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.
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Headed by

Don Diavolo of Linda Vista the Great $10,000 Bull

Choicest young bulls and several heifers for sale at reasonable prices.
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Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.
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The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.
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Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

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Guernsey Bulls With A. R. Backing

No. 31. Dropped April 22, 1918. Sire:—Allenwood King Regent 23641—3 A. R. daughters. Governor Chene breeding. Price $300.
No. 42. Dropped Aug. 20, 1918. Sire:—Golden Noble of Craigamoor 29215. Sold for $1,500 at auction. May Rose blood. Price $250.
No. 46. Dropped Sept. 29, 1918. Sire:—Victor of Pencoyd 18901, a son of Imp. Golden Secret. Price $200.
All from dams in A. R. or now on test. For description and pedigree, write.
FOLLY FARM, LIBERTYVILLE, ILL.

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. **Sass Bros., Streator, Ill.**

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.
Dam:—Florinda of Piedmont 39418, A. R. 3844. Record: 9,910.8 lbs. of milk and 458.9 lbs. of fat in class F. Now beginning retest in Class A.
This bull was born Aug. 1, 1917. He is large, bright and attractive, an excellent individual.
Write us for further information.
Mountain Bros., R. 5, Des Moines, Iowa.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.
Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

A Bargain in Guernseys

I am offering for sale several excellent young bulls up to 9 months old, sons of Hilda's Pride of Riverside, he an A. R. son of Lord Waukesha. All of these youngsters are from A. R. dams. They are well grown and good straight individuals. I am also offering 4 heifers by the same sire; 3 are 15 months old, one 4 months old. My herd is accredited. These animals are priced to sell. Write at once for pedigrees and prices. **Maple Heights Guernsey Farm, Frank E. Swan, Wauwatosa, Wisconsin.**

MOUND CITY FARM GUERNSEYS

FOR SALE—An outstanding good individual bull calf, born Feb. 7th, 1918. Sired by Imp. Clara's Sequel. Dam, Alma Ethel 495 lbs. butterfat at 2 years, 621 lbs. fat at 5 years in Double A. A. class, 7th in this class.
Another good bull calf born July 7th, 1918. Sire: Dairymaid's Glenwood of Pinehurst III. Dam: "Imp. Clara of Mound City" a daughter of "Imp. Clara Sequel" and has an A. R. record of 580 lbs. fat at 2½ years. Send for sale list of these and other bulls.
CHAS. A. WILKINS, - PLATTEVILLE, WIS.

KOSHKONONG PLACE GUERNSEYS

Herd Bull: Jury of Koshkonong Place
Sire: Jewel of Koshkonong Place A. R.
Dam: Blossom of Koshkonong Place 714 lbs. fat.

Seven Bulls six to fifteen months old. Satisfaction guaranteed with every sale.
A. R. HOARD, Fort Atkinson, Wis.

TILDEN FARMS GUERNSEYS

For Sale:—Several yearling sons of Invincible of Walter Maple 36398, whose sire was a half brother to the World's Champion May Rilma and whose dam has an A. R. Record of 684 pounds of butterfat. These bulls out of some of our best cows. We are also offering some very choice yearling and two-year-old heifers both pure-bred and grade. Herd tuberculin tested and free from disease.
Tilden Farms, James H Murphy, Mgr., Delavan, Wisconsin.

GUERNSEY - BULLS - CALVES

PRICES THAT WILL INTEREST YOU.

"McLERAN OF MINN. WRENSHALL"

GUERNSEYS

Absolute Dispersion

of W. B. Quarton's Registered Guernseys at Algona, Iowa.

January 15th, 1919

26 YEKSA BRED GUERNSEYS 26

Including our four foundation cows and 16 of their female progeny. We were very careful to select for the foundation of our herd, 4 Yeksa bred females with both individuality and production and today that herd represents ten years of the most careful line breeding.

Six young bulls from 6 to 18 months old are included in the sale.

This is your opportunity to buy the best at your own price.

Write today for catalog.

W. B. Quarton, Owner, Algona, Ia.

Geo. V. Spiegel, Sale Manager.

Sale commences promptly at 2:00 P. M.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis.

We Are Offering 2 Registered Guernsey Cows

one to freshen in December. Also one choice registered heifer seven months old, and eight young bulls sired by "Pencoyd's Golden May Secret" (39626) a son of Nella Jay 4th.
W. G. Jamison & Sons, R. 2, Appleton, Wis.

GUERNSEY BULLS FOR SALE

I am offering for sale 2 excellent young sons of Langwater Frederick (22268); one of them 10 months old from a 740-lb. daughter of Glenwood Champion. Another, 10 months old, from a 510-lb. 2-year-old daughter of Langwater Frenchman. Also a 9 months old bull by Dairy Maid's Glenwood of Pinehurst 3rd and from a cow with a 529-lb. 3-year-old record. I also have a few excellent young sons of Imp. Clara's Sequel for sale. Write today for full information.
HOMER RUNDELL, LIVINGSTON, WISCONSIN.

PARK FARM

May Rose Bulls For Sale

Guernsey bulls from 1 month to 1 year old, from A. R. dams with records up to 661 lbs. fat. Sired by Lura's King of Maple Hill No. 35525 whose half sister sold at Public Sale for $5,025 and whose sire sold at Public Sale for $2,100. Write for Pedigrees.
John H. Williams, Park Farm, Waukesha, Wisconsin.

Tratt Guernsey Herd

Herd headed by Bob Rilma's Monogram whose dam and grandam have A. R. record averaging 887.5 lbs. fat.
Bull calves for sale by him out of cows with good A. R. records.
Write for pedigrees and prices.
RALPH TRATT, WHITEWATER, WIS

BIRCHWOOD GUERNSEYS

Young bulls for sale sired by May King's Vrangue of Ingleside No. 15430 who has ten A. R. daughters that have A. R. records that average about 600 lbs. fat and all but one of these were 2 and 3 year olds when the records were made. The dams of these bulls are officially tested. Herd on the state accredited list. Send for sale list. **M. L. WELLES, Rosendale, Wis.**

He's Ready For Heavy Service

For Sale: A two-year-old son of Kedge Anchor of the Glen from a granddaughter of Imp. Raymond of the Preel VI. The dam was first and junior champion at the 1915 Wisconsin State Fair and a real dairy cow. The bull himself is a splendid individual, very well grown. He is a brother to Polly's Beauty, 774 lbs. fat at 4 yrs. (class leader) and to Kedge Anchor Queen of Sunny Side, 505.88 lbs. fat.
Write us for full information.
Maple Hill Farm, Fruit Bros., Waukesha, Wis.

GUERNSEYS

ND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

completed records, all ages, average 516.09 lbs. fat.

of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

ll Calves of this breeding for sale, out ws of correct type and proven produc- Correspondence solicited. Inspection ed. Address

ND A. N. HATHWAY, Herdsman, Floodwood, Minn. MINN.

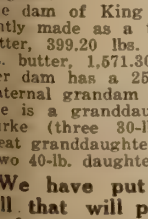
EET SPRINGS GUERNSEYS

erd Bull—Jacqueminot of Linda Vista.
re—Langwater May King.
am—Langwater Rosie. 72423 lbs. fat.

number of bull calves six weeks to one old, sired by this fine bull for sale at onable prices; also a few cows and heif- ach year.

erd Regularly Tested For Tuberculosis.

VEET SPRINGS FARM
TROY, OHIO.



Choice Young BULLS

Backed by Production at reasonable prices.
Raemelton Farm, Mansfield, Ohio.

)GEMOOR FARM

Santee, San Diego Co., Calif.
ffers at moderate prices choicely bred

y Rose, Gov. of Chene
. Glenwood Bull Calves

few heifers bred to Edgemoor Herd Bulls. guaranteed sound.

ehurst Guernseys Produce

irm care. 70 A. R. records average *465 lbs. fat.* rmer home of *Glenwood Boy of Haddon. 4605, 26 of his daughters* were bred, whose *A. R.* rec- verage *554 lbs. fat.* His daughter *Dairymaid of* irst made *860* and *910 lbs. fat.* Present herd bulls, ored *Glenwood,* and *a line bred May Rose.*

Strawbridge, Moorestown, Burl. Co. New Jersey.

HOLSTEINS

/interthur Farms
FFER FOR SALE
ng Sadie Vale Urma 235352

Born March 30, 1918

re are the records of his nearest dams:

M (two-year-old)	*20.04 lbs.*
E GRANDAM	*38.46 lbs.*
E OTHER GRANDAM	*25.50 lbs.*
E GREAT GRANDAM	*41.06 lbs.*
OTHER GREAT GRANDAM	*41.06 lbs.*
five average	*33.22 lbs.*
7 nearest Dams average	*31.27 lbs.*

e his sire, he is dark in color, long, aight and deep-bodied.

e sire, King of the Sadie Vales, is out a 38.46-lb. cow. His dam's dam is also sire's dam, namely: Sadie Vale Con- dia 4th (41.06 lbs. butter). His dam l grandam have the highest 30-day av- ges in the World, 157.71 lbs. butter. No er bull in the World can equal his three nine nearest dams for 30-day butter oduction. The sire of King of the Sadie les is the only bull in the World with a lb. dam, a 40-lb. sister and a 40-lb. ughter.

e dam of King Sadie Vale Urma re- ntly made as a two-year-old: 20.04 lbs. tter, 399.20 lbs. milk (7 days); 73.26 . butter, 1,571.30 lbs. milk (30 days). r dam has a 25.50-lb. record, and her ternal grandam has a 26.38-lb. record. e is a granddaughter of Sir Urmagel rke (three 30-lb. daughters), and a eat granddaughter of Pontiac Korndyke wo 40-lb. daughters).

We have put the price on this ll that will put him well within ach of the small breeder. For fur- er particulars, write, wire or come

VINTERTHUR FARMS
WINTERTHUR, DELAWARE



Holstein Veal

No Kind or Quality of Veal is so much in demand as that of the Holstein-Friesian breed. It is an important source of revenue to Holstein dairymen, adding an important item to the credit side of the dairy farmer's account. Holstein calves weigh 100 to 135 lbs. at birth.

If interested in HOLSTEIN CATTLE Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at Brattleboro, Vermont, the First Tuesday and Wednesday of every other month, Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918. *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

Registered Holstein Bull Calves

We have a number of bull calves up to eight months of age. They represent the very best of breeding and individuality. We will exchange them for heifer calves of good breeding. Write for pedigrees and any further information.
RED CLIFF DAIRY, - Blackville, S. C.

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

$300.00

Buys a Son of the Great Sir Veeman Hengerveld

Bull calf born Oct. 20, 1918, a large growthy fellow, and a fine individual.

Sire:—Sir Veeman Hengerveld, the latest century sire, and the only living sire with sixteen 30-lb. daughters. His daughters average the highest for butter and third highest for milk of any sire having 60 or more A. R. O. daughters.

Dam—Blanche DeKol Segis, a granddaughter of King Segis, and has the following A. R. O. record: Butter, 7 days, 28.48; 30 days, 109.86. Milk, 7 days, 617.9; 30 days, 2,604.

This young bull is offered at less than half his value, on account of his being dark in color.
W. D. ROBENS, POLAND, NEW YORK.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. E. A. POWELL,
904 W. Genesee St., Syracuse, New York.

HOLSTEIN BULLS

GRANDSONS OF THE

World's Champion Milk Cow

Out of dams milking over 20,000 pounds of milk per year. $250.00 each delivered your station.
ANTRIM FARMS, SYRACUSE, N. Y.

M. & P. Holstein Bull Calves

Sired by a bull whose 10 nearest dams average 29.20 lbs. of butter in 7 days. Price $50.00 and up. Send for pedigree today.
MARKHAM & PUFFER, - AVON, N. Y.

At Laurel, Mississippi

40—HEAD—40

of high class grades and pure-bred registered Holstein cattle, all ages, males and females; some are fresh, some to freshen soon. Priced for quick sale. For further information and prices write H. H. Wickwire at Laurel, Miss. or write him at Hubbardsville, N. Y.

ABSOLUTE DISPERSION

of the Groveland Holstein Herd At Woodstock, Ill.

Tuesday, January 28th, 1919

60 Registered Holsteins To Be Sold.

All but two females of milking age with A. R. O. records and practically all young stock from A. R. O. dams.

FRANK WHITE & SON, WOODSTOCK, ILL.
Watch for next week's announcement.

Pure-bred Holstein Cows and Heifers

Good young A. R. O. cows, to freshen in January and heifer calves of superb breeding and individuality for sale at prices that will move them quickly. Herd bull also for sale. THOS. STEWART, BIGGSVILLE, ILLINOIS.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.
River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.
J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.
Henry Stevens and Son, - Lacona, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON, Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.
Susquehanna Farms, Hartwick Seminary, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. G. G. BURLINGAME, Cazenovia, N. Y.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. C. I. Reamer, North Liberty, Indiana.

Lisle Farms Co.

Offer High Class

Holstein Bulls

Every dam with an A. R. O. or C. T. A. record. Herd tuberculin tested. Prices right.

Send Today for Bull Sale List.

H. C. Barker, Herd Mgr., Lisle, Illinois.
Farm 25 miles West Chicago, on C. B. & Q. R. R.

Whitehurst Farm

Offer Two Bulls Just Ready For Service

Both have Semi-Official dams. They are sired by M. M. Mercedes Mechthilde Homestead who carries the blood of Jessie Fobes Bessie Homestead and is closely related to Duchess Skylark Ormsby. No. 1 Dam has a record of 710 lbs. butter in 365 days at five years old. No. 2 Dam has record of 527 lbs. butter in 365 days at 2 years of age. These calves are fine individuals and are good enough to head any herd. Write for prices and pedigrees.
WHITEHURST FARM, Canton, Ill. A. F. Randolph, Prop.

Buffalo Creek Farm

HOLSTEINS

We have a number of well bred bulls nearly ready for service, from dams with yearly records. Write for pedigree and price.
H. L. BINGHAM, Arlington Heights, Ill.

YOU

Will be interested in our free price list of 100 head of choice, pure-bred

Holstein Cows and Heifers

or if interested in a bull calf send for our bull calf list. Woodlawn Farm, Sterling, Illinois.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.
RAY MEEKER, MUNCIE, INDIANA.
P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.
WM. N. OSBORNE, WANATAH, IND.

FOR SALE—A YEARLING BULL

of 5% breeding, whose dam's 3-yr.-old record with two of her three nearest dams and his sire's three nearest dams, average 29.62 lbs. butter in 7 days. His sire from a daughter of Hengerveld De Kol, and sired by a son of K.P. Pontiac Lass. His dam by a 27-lb. son of Colantha Johanna Lad. Also, bull calves sired by a son of King Segis Pontiac, and whose dam is a daughter of Pontiac Korndyke. Priced for quick sale. For further information write, GLENN WILSON, Wanatah, Ind.

Uneeda King Alcartra Pontiac

Born January 3rd, 1918

A Real Winner For Some Small Breeder or Beginner...

IT WOULD BE HARD to find a better individual than this young bull. He is marked about three-fourths black.

HIS DAM HAS MADE 21 lbs. butter in 7 days as a two-year-old. In 30 days she produced 78.86 lbs. butter from 1,755.2 lbs. milk.

SHE IS FROM Marion Korndyke DeKol, a cow with a record of 28.23 lbs. in 7 days from 648.60 lbs. milk. As a junior four-year-old she made 27.86 lbs. butter from 565.90 lbs. milk.

THE DAM'S SIRE is Korndyke Pontiac Aaggie, a son of Aaggie Alban Shadeland, 30.52 lbs. in 7 days from 616 lbs. milk.

HE IS SIRED BY Korndyke Pontiac Pet, a son of Pontiac Korndyke, who has 147 A. R. O. daughters, two of them above 40 lbs. and 19 above 30 lbs.

THE SIRE OF Korndyke Pontiac Pet is Pontiac Pet, 37.68 lbs., a former world's champion and daughter of Pontiac Korndyke.

NOW, COMING BACK to the sire of Uneeda King Alcartra Pontiac is the famous young sire, Uneeda King Alcartra, a full brother to King Joh.

HE IS FROM Uneeda Korndyke Abigail, the 33-lb. daughter of Johanna McKinley Segis, the only 40-lb. son of the famous King Segis. His dam is Johanna DeKol Van Beers, 40.07 lbs. in 7 days.

UNEEDA KING ALCARTRA is sired by the $50,000 bull, King Segis Pontiac Alcartra. He is from a world's record daughter of King of the Pontiacs and sired by King Segis Pontiac.

A SON OF KING SEGIS and the world's champion producer, Pontiac Clothilde DeKol 2d, 37 lbs. in 7 days and 1,271 lbs. in a year.

TRACING, AS HE DOES, four times to Pontiac Korndyke, through two 37-lb. daughters, through King of the Pontiacs, his greatest son, and Korndyke Pontiac Pet, a 37-lb. son, Uneeda King Alcartra Pontiac has every reason to be a great sire.

$600 BUYS HIM DELIVERED to any point in the U. S. If he does not suit you as an individual, send him back at our expense.

FEDERAL TUBERCULIN TESTED and guaranteed sound in every way.

The E. C. Schroeder Farms, Moorhead, Minn.

The Winship Farm Bulls

Are From Persistent Milking Dams

The 18 cows milking in my herd during April averaged 960 lbs. milk per day and 52 lbs. butterfat, each, for the month. This included heifers milking since last September, October and November. These dams represent the best blood lines of the Creamelle, Johanna, Beets, and Ormsby families.

Sired by Aaggie Burke Cornucopia De Kol

A 29-lb. bull, who traces back directly to the two greatest foundation cows of the breed, Spring Brook Burke and Aaggie Cornucopia Pauline. He is also closely related to the two champion 31,000-lb. milk cows.

If You Want Milky Bulls

Write at once

Winship Stock Farm, Owatonna, Minn.

A Grandson of

Sir Pietertje Ormsby Mercedes

FOR SALE

He is dark in color like his famous Grandsire. A choice individual. 2 years old. Dam, an A. R. O. daughter of a bull who was *Grand Champion* of a *National Dairy Show.* A rare bargain. **V. S. Culver, Stillwater, Minn.**

GRANDSONS OF KING SEGIS

Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.

We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.

Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.

We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.

E. H. Kuchenbecker, R. 1, Owatonna, Minn.

3 BULLS — HOLSTEINS — 3 BULLS

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.23 lbs.	No. 1 born Feb. 17 almost white, his dam has A.R.O. rcd. of 20 lbs. at 3 yrs.	No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.
	All by a 23.3-lb. SIRE	

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.

For pedigrees and prices, write

O. J. GROVER, - GLYNDON, MINN.

Lashbrook Holsteins

Sixty head, high class A. R. O. cattle. On the Minnesota and Federal Accredited List, free from tuberculosis. Herd headed by a son of BEAUTY BEETS WALKER SEGIS. WORLD'S CHAMPION senior two-year-old heifer, yearly division, 25,343 lbs. milk, 1,040 lbs. butter in 365 days. Bull calves for sale.

U. L. Lashbrook & Sons, Northfield, Minn.

HE IS SIRED BY A SON OF

Sir Pietertje Ormsby Mercedes

that is out of a 30-lb. sister of Pietertje Maid Ormsby. His dam is a 17-lb. three-year-old daughter of a 28-lb. grandson of Sir Ormsby Hengerveld DeKol. He is mighty good to look at. Dropped last August. $300. We have some for more; a few for less.

POPLAR HOLLOW STOCK FARM,
Bertram D. Scott, Prop. P. O. Station F. Minneapolis.

Here's Your Chance to Get a

Choice Bull

From a sire whose 4 nearest dams averaged 29 lbs.

❖ Born November 1916 Black and white ❖ Born February 1917 Black and White ❖
❖ Born May 1917 Black and White ❖
3 Choice Bargains

L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.

GEO. H. ELWELL, Minneapolis, Minn.

HEAD YOUR HERD WITH

A Young Bull of Ormsby Quality

One that has been bred for both production and individuality. A son of

Sir Ormsby Banostine Champion

will exactly fill the requirements. We have a few excellent youngsters by th royally bred sire. Write today for full information.

JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, Min

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World, Duchess Skylark Ormsb
Sons of Sir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Orms Skylark fast enough to take care of the inquiries which we are receiving.

MAXWELL FARMS, WATERLOO, IOWA



A White One Ready for Service

His dam has a 26-lb. 7-day record, and as a 2-yr.-old made S. O. year record of 644 lbs. butter, 13,860 lbs. milk. He is a son of King Korndyke Sad Vale 24th and was born November, 1918—individually as great as his si Mail a card for photo and pedigree.

W. B. BARNEY & SONS, CHAPIN, IOWA.

WRITE FOR CATALOG SERVICE BULLS

Bulls by 2400-lb. proven sires from large yearly and seven day record dams. One from world's record dam in yearly division. Breeding, size, individuality and price that will me your requirements. Also offer a few A. R. O. cows. Visit Rival Stock Farm or write.

L. E. FERGUSON, LAURENS, POCAHONTAS COUNTY, IOWA.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Bargains in Bulls Just Ready for Service.

We offer fine individuals closely related to King Segis Pontiac Count and Colantha Johanna Lad from dams of splendid breeding.

CERRO GORDO FARMS, Mason City, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr

Prize Winning Yearling Bull For Sale.

Sire, Sir Korndyke Wren, who is sired by Sir Korndyke Hengerveld De Kol 36th, and from a high producing and Grand Champion daughter of Sir Pietertje Ormsby Mercedes. Dam, just made 27.16 pounds butter from 588 pounds milk and we are expecting wonders from her on semi-work. A bargain at $400. His value will have doubled when dam finishes year's work. We also have 5 young bull calves whose 2 nearest dams average from 29 to 31 pounds butter with milk records running as high as 706 pounds milk in 7 days. We breed for type, size, health, and production. Our herd must be seen to be appreciated. Herd on State Accredited List.

STEIDL BROS., - WHEATON, MINNESOTA.

4 Dandy Holstein Bull Calves For Sale

Born Jan. 4, Jan. 16, Jan. 22, Feb. 11, 1918. Sired by 32-28-25-19-lb. bulls, and from tested cows. Ask for price and description.

G. A. Uitdenbogerd, one half mile west of Rosemount, Minn.

CHOICE HOLSTEIN BULLS

A Few Ready for Light Service

We have a few choice young bulls for sale. They are nearly ready for service, are from A. R. O. dams and by one of Minnesota's good Holstein sires. We are short of room and so are pricing them to sell rapidly.

Write today for further information. They won't stay here long.

Fleck's Registered Holstein Farm,
Ed. Fleckenstein, Mgr. Faribault, Minn.

Do You Need a Bull?

I am offering a splendid yearling for sale. He is growthy, well marked, and as straight as a line. His dam is a 24-lb. 4-year-old daughter of Sir Veeman Hengerveld and his sire a 28-lb. son of King of the Black and Whites. His 11 nearest dams average 28.34 lbs. in 7 days. Several younger bulls for sale.

E. J. BROSIOUS, STILLWATER, MINN.

Lake Shore Holsteins

Health accredited by state and federal government. Stock of both sexes and all ages for sale at reasonable prices. **E. J. Oppliger, Box 20, Forest Lake, Minn.**

Bully Bull — Good Holstein — Bargains Bulls

Come and See. Call or Write.

F. H. Sohre & Son, - Good Thunder, Minn.

Here's An Opportunity to Bu a Yearly Record Bull

Our entire herd has been bred for year production and a fairly high fat test—4% better. Get a bull that is individually righ bred right, and backed by yearly records. W have a few good ones for sale.

Hargrove & Arnold Holstein Co., Norwalk,

FOR SALE

Heifer Calves

Registered Holstein-Friesians, also a few choic bull calves all sired by my Senior 30-lb. bu and Junior sire from 21½-lb. 2-yr.-old. The calves are of the best Pontiac and Korndyk breeding, nicely marked, good individual from dams with A. R. O. records and milkir as high as 90 lbs. per day on dairy rations.

WM. WICKERSHAM, Embreeville, P.

"NO HORNS"

Naturally Polled Holstein-Friesian bull calve sired by a son of the **World's Record** senior 4-yr.-o 1294.7 lbs. butter in 365 days. at $100 and up. Descriptiv catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit, P

LIBERTY BONDS

Will Buy Holsteins at

BLACKBURN'S 4TH ANNUAL SALE

Feb. 25th, 1919

100 - Head to Sell - 100

Dr. A. D. Blackburn, - Cuba, Ohio.

For An Auctioneer

and one that knows values of both

Pure-bred and Ordinary Live Stock

Write me for dates as I have 95 per cent of a sales in this section of country. Also sell Re Estate at Auction.

F. H. HEMBROOK, - Chetek, Wisconsin



FRANK DRUMMOND

Reliable Live Stock And General Auctioneer.

Now booking Winter and Spring sale Square dealing and satisfaction a sured. Reference, State Bank of Hone Creek, Wis. Terms and dates on appl cation. Good ring man furnished whe wanted. Let me conduct your ne sale. Telephone connections. Hone Creek, Wis.

Holstein Pedigrees

To Holstein breeders who appreciate prompt ness and accuracy in pedigree work, the *Wis consin Live Stock Advertising Co.* will rende a genuine service.

We make a specialty of *sale catalogs.* Ou price is $2.50 a page including pedigree for lot of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis

Pocket Herd Register loose leaf

Fits the pocket—very complete—durable. Five-ring leather cover and 100 sheets. Order today. $4

Live Stock Printing Company, La Grange, Illinois.

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly ite, as straight as a line, and very well grown.
His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a re number of younger ones coming on that will be retained in our herd. His sire ne of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 butter and 2,651.60 lbs. milk in 30 days. (World's record when made).
The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie mestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.
This is an excellent combination of breeding, the sire of this youngster and his n's sire both being from daughters of Homestead Jr. DeKol, both with records ve 30 lbs. butter and 600 lbs. milk.
The calf is priced within reach of any small breeder. Write us today for complete ormation about him.

ILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

STEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, r immediate shipment. Several bulls ready for service.

RNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

RON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

C JERSEYS Anything you want in Duroc Jersey Swine.
sold on a 60-day retest guarantee. Write us at once before the best ones go.

EWATER STOCK FARM, Fort Atkinson, Wis.

Bull Born March 11th, 1918

by King Superba No. 176125, whose dam produced 26,433 pounds of milk in a year and 0 pounds of butter as a four-year-old. She also made the world's record by producing nds of butter 9 months after calving.
dam of this young bull is one of the good daughters of King Segis 11th who is a son of is and Blanche Lyons Netherland, the wonderful cow who has a 34-pound record, a 34- ughter, and 3 other daughters above 27 pounds. Price $300.
ANN & SONS, WAUKESHA COUNTY, WAUKESHA, WISCONSIN.



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.
JOHN PULS, • HARTFORD, WISCONSIN

A Bull That Will Suit You

red by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna he made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is short and long time records. Individually he's a dandy, nearly half white, just the kind you've been Other young bulls by the same sire and from A. R. O. dams for sale. Write
E STOCK FARMS, A. L. Williams, Est., O. A. Williams, Exec. Fond du Lac, Wisconsin.

T SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to rs old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 nd 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot l grown and nicely marked. This stock is priced to sell in single or car lots. Also offer stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, us for just what you want in Holsteins or Polands. We can please you. Farm located City Limits.
J. D. McDONALD, WEST SALEM, WISCONSIN.

R. O. Holstein Cows and Heifers

to make room in our barns we a number of cows and heifers backed by large official milk r records. They are bred to SIN STAR STOCK FARMS,

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to
ED. M. SCHULTZ, Hartford, Wis.

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ulls—Bulls ALL AGES

anna and Ormsby Breeding.

y of individuality. Unusual s. Satisfaction guaranteed oney refunded. Send for rees and details.

EHURST DAIRY
Sheboygan Falls, Wis.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje*, produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)
JOHN HETTS, FORT ATKINSON, WIS.

Holstein Bull Calves

One 27-lb. dam at 3 years 4 mos. King of the Pontiacs, Hengerveld De Kol and Johanna breeding. 19 years breeding and selecting a producing herd. Write or better come and see. M. F. Peck & Sons, Marshall, Wis.

CREATOR

Pabst's New Herd Bull

Sire: Sir Pietertje Ormsby Mercedes, the greatest sire of Association and Show Ring prize winners of the breed. He has three daughters with yearly records from 1,140 lbs. to 1,389.45 lbs. butter and eight with 7-day records from 30.66 lbs. to 42.31 lbs. butter.

Dam: Spring Brook Bess Burke 2d, the greatest living cow of the breed in many respects. She possesses a combination of size, individuality, short, and long distance records that cannot be equalled by any cow, past or present. She is a superb individual, weighs 2,225 lbs., has three 7-day records above 35 lbs., and three yearly records above 1,000 lbs. butter.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.



Yearly Record Bull Calf

Born August 8th, 1918

Sire—Iowana Sir Ollie, 2 A. R. O. daughters including state record jr. 2-yr.-old for 7 and 30 days. He is a son of the famous 31-lb. cow, Ollie Watson Prima Donna, and sired by a son of Jessie Fobes Bessie Homestead, 34.96 in 7 days and 932.73 in a year.

Dam—Groveland Inka Netherland. Butter, 1 yr., 832.75; milk, 19,640.4 lbs. Butter, 7 days, 24.87; milk, 556.20. Her sire is the old time show bull, Groveland Inka Hijlaard, and her dam a granddaughter of DeKol 2d's Butter Boy 3d. Calf is ¾ white and an outstanding individual. Write now for price, pedigree and photo.

WALCOWIS FARMS,
Lake Geneva, Wis. N. Dickinson & Son.

Carnation Stock Farms

OFFER:

Production and Type Combined

In these sons of

Beauty Pietertje Prince (56435)

BEAUTY PIETERTJE PRINCE 25TH, (240001) born, Mar. 22nd, 1918, out of a 19.90-lb. Jr. 2-yr.-old; 2nd dam a 26-lb. daughter of Johanna McKinley Segis.

BEAUTY PIETERTJE PRINCE 21ST, (239997) born, Mar. 4th, 1918, out of a 24.70-lb. cow.

This is the kind you want to increase production and raise test.

On Oconomowoc Farm,
Oconomowoc, Wis. Seattle, Wash.

TWO DANDY ORMSBY BULLS
No. 1 born Feb. 25, 1918. Dam a 16.85-lb. 2-yr.-old daughter of a 35.43-lb. sire. Second dam 21.80 lbs. butter. Bull marked about ⅝ white. Extra good individual. Price $200, delivered. No. 2 born Mar. 2, 1918. Dam has a 4-yr.-old record of 21.80 lbs. butter, one of the best yearly producers in the herd. Bull is about evenly marked, a good individual. Price $150, delivered. Both of these bulls are sired by my 29-lb. Ormsby bull. For further particulars address. A. M. Anderson, Whitewater, Wis.

Six Bulls 10 to 13 Months Old

Sired by bull whose dam is full sister to Pietertje Maid Ormsby out of A. R. O. dams. Also 15 females from 1 year to 8 years old. Write your wants. Satisfaction guaranteed. FAIRVIEW STOCK FARM,
W.G. Marshall, Proprietor, Whitewater, Wis.

Wanted To Buy
Registered Holstein Cows

three to five years old, to freshen in March or April. In answering give detailed information. A. R. O. cows preferred.
F. O. BIBLE, - Chippewa Falls, Wis.

FOR SALE—REGISTERED HOLSTEIN BULL
We still have one dark colored bull about eleven months old, well grown and a splendid individual, show ring type. His two nearest dams average 25 lbs. of butter for seven days, and 700 lbs. for the year, one of them as a two-yr.-old who gave 16,000, lbs. of milk in a year. They will be tested again at their next freshening and we feel very sure that both dams will make at least 30 lbs. He is sired by a grandson of the great King of the Black And Whites. Will make a great bull for somebody. Price $250.00—decidedly reasonable quality, breeding and records considered. Address:
Elm Leaf Stock Farm, Bear Creek, Wisconsin.
James McKone, Proprietor, William Lucia, Mgr.

$25 Holsteins $25

We have thousands of satisfied customers and we want you as one. Buy the best. Five weeks old, 15-16 pure, $25 crated. Express paid. C. O. D. Write us for anything in cattle.
Dr. J. A. Roberts Stock Farms, Oconomowoc, Wisconsin.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.
Highland View Place, • Whitewater, Wis.

Grade Holstein Calves

From the Dairy Center of the World selling at $25 express prepaid. On account high price whole milk. *Order now.* Also pure-breds.
R. B. Hellen, Sec'y Milk Producers Assn., Jefferson, Wis.

OLD DEERFIELD HERD

FOR SALE—Young Holstein Bulls, 2 to 4 mo. old. Sired by King Piebe Korndyke Johanna No. 210876. Price $45 to $50 Registered, transferred F. O. B. cars my station. Herd tuberculin tested.
CARL FOLL, R. F. D. DEERFIELD, WIS.

Dispersal of A. R. O. Herd of Holstein-Friesian Cattle

Free From Tuberculosis. Under Supervision Bureau of Animal Industry.

Peaceland Elzevere No. 217291: 6 years old. 25.58 lbs. butter at 3 years 11 months.
Peaceland Pietertje No. 218039: 6 years old. 19.237 lbs. butter at 4 years.
Peaceland Calamity No. 218038: 6 years old. 10.99 lbs. butter at 2 years.
Peaceland Segis No. 243872: 5 years old. 17.73 lbs. butter at 3 years.
Peaceland Queen No. 243871: 5 years old. 16.57 lbs. butter at 3 years.
Peaceland Bonheur No. 238271: 5 years old. 18.38 lbs. butter at 2 years, 9 months.
Peaceland Pride No. 243873: 4 years old. 19.78 lbs. butter at 2 years, 9 months.
Peaceland Korndyke Pietertje No. 273955: 4 years old. 14.28 lbs. butter at 2 years.
Peaceland Korndyke Calamity No. 273956: 4 years old. 11.69 lbs. butter at 2 years.
Peaceland Korndyke Elzevere No. 273957: 4 years old. 14.84 lbs. butter at 2 years.

Three heifers, 2 to 3 years of age; 4 yearling heifers; 5 heifer calves.

All records given above are A. R. O. for 7 days. All cows in excellent condition and fresh since October save one, due this winter.

Herd located at Fabius Station near Three Rivers, Michigan. For breeding and prices, write.

C. L. BRODY, Port Huron, Michigan.

Bull Calf Born November 22nd, 1917

Sire, Sir Ormsby Banostine Champion No. 166276. A son of the World's Champion Dairy Cow over all ages and breeds, Duchess Skylark Ormsby No. 124514 who has a record of over 1500 lbs. butter and 27761.07 lbs. milk at 5 years. Dam, Emblagaard Pontiac Dot, No. 279877—7 day record as a 2-year-old—butter 21.38 lbs., milk 451.50 lbs. Dam's Dam, Junior De Kol Dot No. 107665, 7 days at 9 yrs., butter 36.54 lbs. milk 633.50 lbs. butter for 365 days 874.53 lbs., milk 19463.10 lbs. This calf is a good individual, little more black than white, weight 850 lbs. at 1 year. Send for detailed pedigree.
Emblagaard Dairy, • Marquette, Michigan.

THE TRAVERSE HERD

We have what you want in

BULL CALVES

the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dams' records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.
Traverse City State Hospital, - Traverse City, Michigan.

The Pontiac Herd

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pontiac Korndyke, Hengerveld DeKol, Pontiac Dutchland, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL, Pontiac, Mich.



Increase your Herd

HUMANITY calls upon you, the dairymen of America, to keep more cows. Millions of milch cows have been killed since 1914. Milk famine is near. Milk has never been so high priced or so scarce as now.

We have heard so much about wheat that we have almost lost sight of the fact that after all milk is the most necessary of human foods. Many dairymen want to keep more cows but have not done so on account of labor problems. To thousands of such men, the Perfection Milker has come and has opened the door wide to larger herds and bigger profits.

Bettinelli Brothers of Petaluma, California, report that two men with two Perfection Double Unit Milkers are now milking 82 cows in less than two hours. Geo. W. Sisson, Jr., of Potsdam, New York, tells us that with his Perfection Milkers one man and a helper are milking 50 cows, taking the place of 5 hand milkers. Think of the time and labor these dairymen are saving. Were it not for their Perfection Milkers, the labor shortage would have forced them to reduce their herds.

The Safe, Natural Milker

The Perfection Milker is safe because it milks like the calf with a gentle suction, downward squeeze and a period of complete release. Cows like it because it milks Nature's Way. It can be adjusted to give the exact action best for each cow. Its safe, natural method of milking has made it the choice of careful dairymen everywhere.

Simple and Durable

The Perfection Milker is so simple and easy to operate that boys and girls everywhere are handling them and take enjoyment in the work. Every part of the Perfection is the best that specialists using the highest grade materials and machinery can produce. We back every Perfection with our ironclad guarantee.

"What The Dairyman Wants to Know"—Free

Every question you want to ask about milking machines is answered in our great book, "What The Dairyman Wants to Know." Get it and study it. Write today for your free copy, together with names of Perfection owners near you. Write now.

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PERFECTION MILKER

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W. J. FRASER
20 JUL 19
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URBANA ILL

HOARD'S DAIRYMAN

A WEEKLY JOURNAL DEVOTED TO DAIRY FARMING

Volume LVI FORT ATKINSON, WIS., JANUARY 17, 1919. Number 26

terstate Milk Producers' Association

Its Work Reviewed by President F. P. Willits

E market situation last January ınd February, as a result of condi- s largely national and therefore ɔnd our control, was such that it necessary for all the interests in ladelphia to co-operate to handle temporary surplus that accumu- d within the Philadelphia terri- '. The details of the trouble can- be given today for lack of time, I want to give full credit to the ıufacturers, dealers, and particu- y to the Pennsyl- ia Food Adminis- ion for the part it ed. Condenseries e helped to procure plies so that they ld handle extra . The association loyed Miss Ellen S. nton who was at- ıed to the Food Ad- istration and was active speaker in campaign which has vinced Philadelphia sumers of the food ıe and relative apness of milk as ıpared with other mal foods. The ladelphia dealers tributed generously advertising expen- Printed leaflets e distributed broad- t through the ools and at food servation meetings booths. As a re- , Philadelphia has eased its consump- ı in the face of the e increases which e been the inevita- result of war-time ditions.

hose in charge of duction interests e done much to im- ve conditions both in Pennsylvania in Washington. Never before e the problems of the American ner so well appreciated nor has e been such a promising effort to e them. I say this advisedly, wing full well that many re- ns we have in mind do not n to be near solution. But have in the National Board of m Advisors, of which Mr. C. J. on, Adams County, is a member, ehicle through which we make our ds known. The policy of carefully ecting the dealers' books and inating unsound business prac- s has enabled the dealers to sell for 14c per quart as compared with 17c in New York and Baltimore, though as you know our price has averaged on a par. It is hard to estimate the great advantage to the Philadelphia producers of this low retail price. As an example of the improved conditions, I might add that the Philadelphia dealers have voluntarily agreed to so concentrate their routes that one man and one horse serve as much milk as was commonly delivered by two men and two horses ten years ago in this city or even now in many neighboring cities.



DAIRY BARN AND TWIN BRICK SILOS ON FARM OF E. H. TURNER, WISCONSIN

Cost of Production Discussion

Through economic pressure the number of dealers in Philadelphia is steadily decreasing and the association is endeavoring to protect its members from financial loss through the failure of the less competent or energetic to survive. We are refusing to deal with a number of buyers whose financial standing or business practices are not such as satisfy the executive committee.

Throughout the past year Philadelphia price has been fixed through a discussion of its market value. At the price conferences the questions discussed have been those of market outlets, surplus, and manufacturing prospects with a never failing care to keep closely within the year to average production costs as estimated by Pearson, Warren, our own Professor Rasmussen, and other recognized authorities. A chief effort has been to protect the market so that the old law of supply and demand may not fail to operate freely and naturally. We are much interested in the efforts elsewhere to fix the price from month to month according to one or another formula covering the various items which represent the cost of production. Until we are assured that we can have governmental guarantees beyond those which are possible at the present time, the directors do not consider it wise that one of these methods be applied in Philadelphia district. As to the results elsewhere it is too early to get an opinion from those who have agreed to try it out. However, it would seem to us that it is far easier to discuss the value of milk than to haggle over the items of corn, feed, hay, and labor, knowing all the time that, after all, you are particularly concerned with the price of milk. Then, too, our association fears that in times of surplus it may be difficult, temporarily, to get even production costs and, vice versa, the formula could readily tie us down below the market value of our product when the market was improved again.

Organization and the National Association

Your association has last year joined the National Federation of Milk Producers and your officers have found it extremely helpful to attend its meetings both at Chicago and Washington, there to compare notes with those from all over the United States and to share in its efforts to improve the national situation, especially in regard to exports and to government purchases. Its president, Mr. Campbell, has been tireless in his efforts to promote our interests and Mr. Charles A. Lyman, secretary of National Board of Farm Organizations, has recently accepted the position of assistant secretary, giving part of his time so that the federation may always have a representative in Washington. When the organization idea was started it was the expectation that farmers in each section would organize comparatively independent groups which could be able to secure results independently of each other and of that large body of unorganized producers. Experience has shown, first, that it was necessary to combine in groups which represented roughly each of the primary markets in the country. Next we found that we were being hampered in our efforts because our manufacturers were selling their product in competition with others who bought it throughout large sections of the middle west at a price which was far below our cost of production.

The recognition of this fact has forced the National Federation to renewed effort to stir up a desire for organization in every dairy section of the land. There is no more important question to bring to your attention today and I want every man here to go home and get his neighbors

(Continued on page 900)

Hoard's Dairyman

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All foreign countries in the Postal Union $2.50 a year; not in the Postal Union $2.56, including postage.

Correspondents must not expect us to acknowledge the receipt of letters containing remittance for subscription. The receipt of the Dairyman is sufficient notification that money has been received. The label on the paper will show date to which subscription is paid. In case of renewals, if date on label is not changed within two weeks after remittance is sent, inform us at once.

We solicit advertisements of meritorious articles needed by the farmer. We try to keep our advertising columns clean and wholesome, that they may merit the patronage and confidence of our readers. Unwholesome immoral and quack advertising are excluded. A sincere effort is made to exclude frauds, irresponsible and unscrupulous firms. We will always take it as a favor to be notified whenever any advertiser's dealings with a subscriber are in bad faith or evidence a lack of business honor. Advertisers generally recognize the readers of Hoard's Dairyman as an up-to-date class of farmers, who farm with business-like methods, and we hold our columns for the patronage of only those with whom our readers can deal with profit and satisfaction.

ADVERTISING COPY must be received eight days previous to the date of publication. Advertising to be classified or changes in advertising must reach us twelve days previous to date of publication.

Entered at Fort Atkinson, Wis., as second class matter.



THE DAIRY OPTIMIST

W. LIVINGSTON LARNED

The One Big Wish

The making of the shot and shell
Has ceased, and that it should, is well.
No more the booming of the gun
Is heard abroad, from sun to sun.

Mad scrambles, that the war be won,
Is gladly passed—and through—and done.
The camp and cantonment now will fade
Into a place where plows are made.

But, one thing war gave us, we hope
Will linger, broaden in its scope.
Please let us have—for seasons yet,
The blithesome, charming farmerette.

The Fable of the Indifferent Man

Once upon a time there was a tiller of the soil who believed in the line of least resistance. "What's the use of worrying over things?" was one of his pet mottoes. And that led him to neglect his machinery—no matter what it happened to be—from a harrow to a tractor, he was apt to leave it exposed to the weather. "Rust will get into 'em," warned a friend. "I'll cover 'em up tomorrow," was the inevitable answer. But tomorrow never came with this man. When spring came, rust had eaten him out of house and home. For the machinery was ruined. Moral: "A Shed in Time Saves Nine".

The Fable of the False Economist

Once upon a time there was a dairy farmer who would not be convinced that buying the best was economy. Money came hard with him and he didn't like to part with it in chunks. If he purchased a cream separator, it was the cheapest; if he bought cattle, it was cheap cattle; if he bought farm machinery, it was the cheapest he could locate. He ran this system straight through his establishment from his barns to his house. He even stinted his land when it came to fertilizer. And after five years in business, he made no money for the very simple reason that you can get the best only out of the best. His product was cheap and he got cheap prices for it. Moral: "Success never has been built on medium good."

The Fable of the Jolly Smile

Once upon a time there was a dairyman and his neighbors called him "Smiling Jim". No matter what happened, he'd grin. The day two of his finest Holsteins got out and were run over by a train, he just smiled and reckoned that he'd patch up his fences. But the neighbors, while they liked the smile, were forever saying: "He doesn't take the dairy business seriously enough. He won't make a go of it. He even smiles at his herd."

It so transpired, however, that the smile began to work. It made him liked about his own place and with his own help. It won with the wholesaler and the retailer. The folks at the bank in town liked him because he smiled. And he's the richest man in his county today. Moral: "Say what you will, honey catches 'em when vinegar won't."

The Fable of the Stay-at-homes

Once upon a time there was a dairy farmer with five fine sons. As fast as those youngsters grew to be old enough to tell the difference between a whiffle-tree and a tractor, he would give them responsibilities. At ten, one boy had a pair of calves that he fed and housed and watched to maturity. The next boy drove over to town twice a day with dairy products and was blessed with a little bank account of his own, and the third had a herd of four Jerseys. So it went, all up and down the boy line. They were kept so busy that they never thought of running off to the big city to seek another kind of employment. Moral: "You can do anything with a boy if you let him feel that he amounts to something around the place."

The Fable of the Labor Question

Once upon a time there was a farm, in the midst of many other farms, and this place seemed to have no trouble in securing help. The men would go there and stick. It was considerable of a mystery, for every other farm suffered from the comings and goings of workers. A shrewd farmer down the road a bit stopped one of the dairy hands on the turn-pike one afternoon and said: "What makes you like that place so much? How is it that Smith keeps his help? His farm isn't as good as mine and his herd isn't half the size. Explain it." "Simple," was the response, "never since I was born did I get such good cooking. The lady up there makes wonderful pies." Moral: "A man will make any sort of sacrifice, if he's fed well."

The Fable of the Business System

Once upon a time a dairy farmer had all the county guessing as to how he happened to make such a wonderful business success. "He gets better prices," said one. "His herd is all prize-winning cattle," suggested another. "He has modern equipment," hinted a third. "He was left money and banks every cent," was another comment.

But the old man shook his head when they rounded him up at a cattle breeders' convention and put the question to him squarely. If I'm successful," said he, "it's because I keep books. I know what things cost and what I get fer 'em." Moral: "Plain arithmetic is as important as cattle and equipment."



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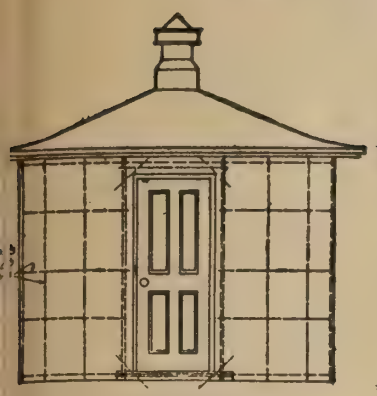
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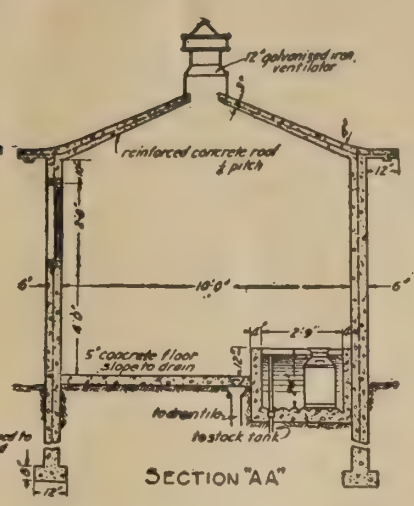
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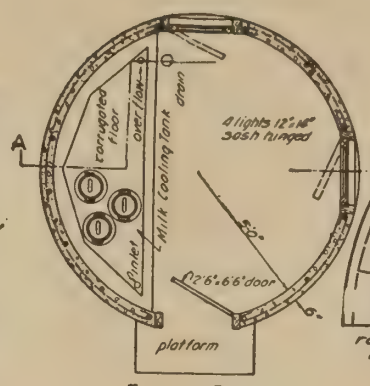
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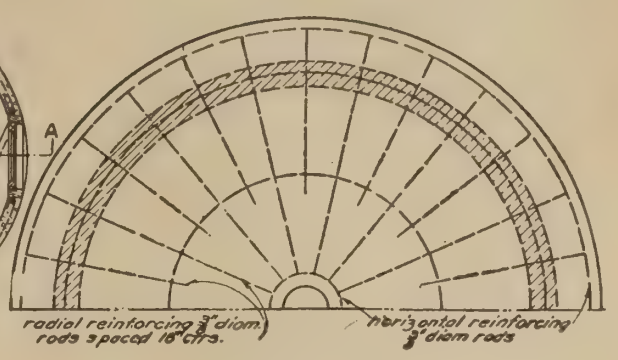
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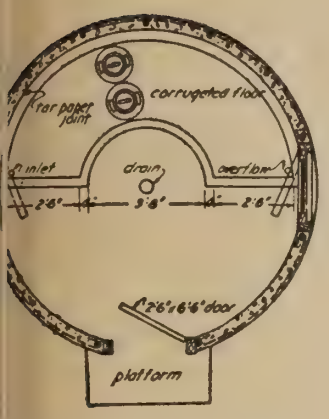
CONCRETE MILK HOUSES



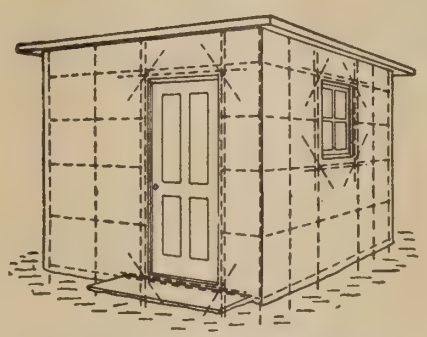




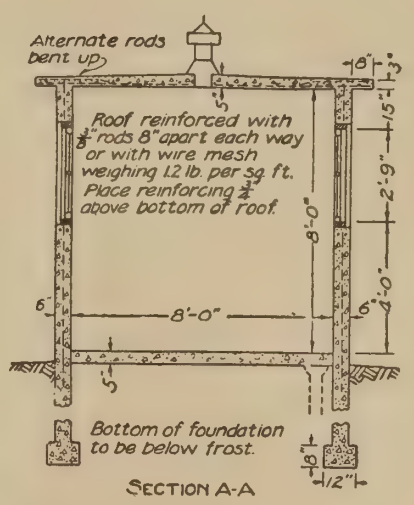


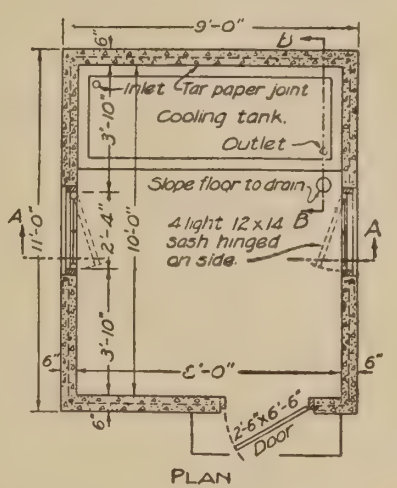


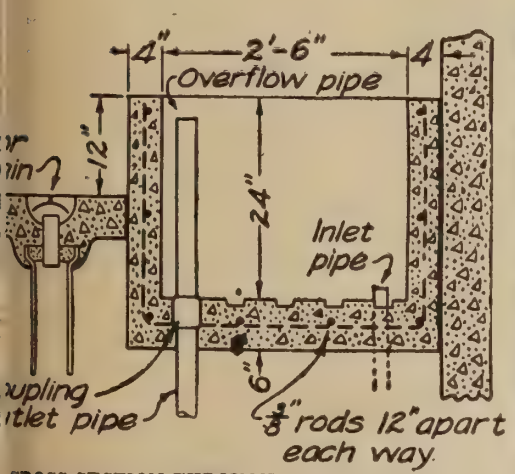
ALTERNATE FLOOR PLAN CIRCULAR MILK HOUSE



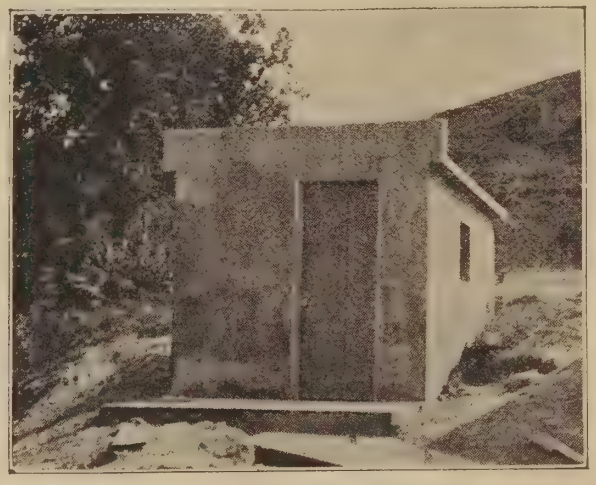
Wall reinforced with ⅜" round rods as shown. Rods doubled around openings and continuous around corners. Diagonal rods 2'-6" long at corners of openings.



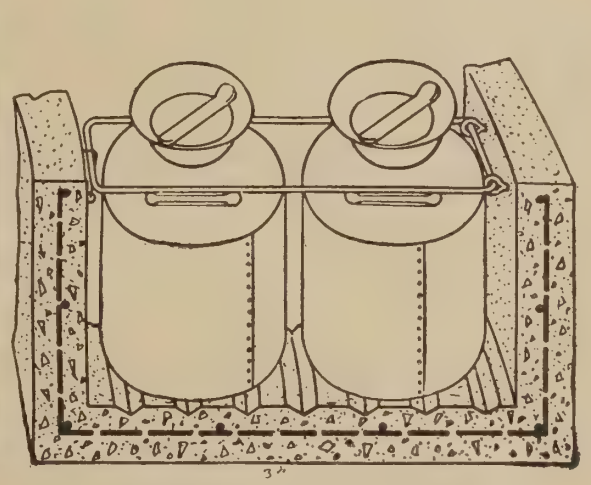




CROSS SECTION THROUGH COOLING TANK SHOWING METHOD OF CONSTRUCTION



THE COMPLETED MILK HOUSE



DEVICE TO HOLD CANS IN WATER

plans reproduced above illustrate the building of a monolithic concrete lk house, the circular form that is now coming into favor being shown also the well established rectangular form. While these houses are pri- designed to meet the needs of the farmer producing milk for sale as milk, they may readily be adapted to suit the necessity of those produc- eam. They are large enough to permit the placing of a separator and necessary equipment, but it would perhaps be desirable to reduce the f the cooling tank that more frequent change of water may be secured, ally where reliance is placed on pumping water. Where a gasoline en- s used for power it will be desirable to add a small room to accommodate his can most conveniently be done in the case of the rectangular form, g this room with a separate entrance and with no opening into the milk proper except for the shaft or belt that is to transmit power to the sep- .

se houses are purposely designed to enclose a small area, both to reduce se and also in order not to leave spare room sufficient to encourage the g of farm implements or other odds and ends that would soon litter up ace and prevent it from being kept clean and sanitary.

cooling tank is the important feature of a milk house and it should be due consideration. It often happens that the tank is too large or too to cool the milk produced on the particular farm. Because the quantity k produced varies from year to year and from time to time, it is desira- many cases, to divide the tank into two parts, the larger having about the capacity of the smaller. The United States Dairy Division recom- that a cooling tank shall have a capacity of four gallons of water for gallon of milk.

height of the cans will govern the depth of the tank and also the length overflow pipe. The water should come well up on the neck of the milk order to properly cool its contents. A regular supply of ice will be found desirable where milk is to be hauled or shipped long distances, but this does not seem practical running spring water or water pumped a well will serve fairly well, but this water should be piped well under- d to keep it cool. Provision should be made that the water enters at the n of the tank and leaves at the top in order to secure its maximum cool- ing effect. The overflow pipe or outlet should be at least twice as large as the inlet, as the water enters under pressure and the tank will overflow if such provision is not made.

A number of grooves are formed in the bottom of the cooling tank so water can circulate under the cans. These grooves are made by placing wooden strips into the concrete of the floor before it has hardened; afterward the strips are removed. To lighten the labor of setting cans in and removing them from the tank, it is built partly below floor level. For the same reason the width of the tank is limited to the diameter of two cans, or to arm's length.

A device for holding cans down in the water when they are not heavy enough to settle under their own weight and rest on the tank floor, is shown in the detailed sketch. Dairymen who have had cans of milk and cream over- turned, allowing the milk to spill out or the water to run in, will appreciate this convenience. Where the cooling tank is already built, this same arrange- ment may be used. The rectangular device may preferably be made out of half inch galvanized pipe which is stronger and better than a solid iron rod bent into this form. The eyebolts to hold the device should be placed about 21 inches from the bottom of the tank, depending on the style of can used.

Provision should be made for a drain which will carry off the wash water from the milk house floor as it will not only aid in keeping the house clean but will also make the work much easier. Also the cooling tank should have an outlet at the bottom in order to make the cleaning of the tank convenient. In the detailed sketch this is provided for by unscrewing the overflow pipe from the coupling shown at the bottom of the tank.

The circular milk house may readily be built by using tank or silo forms. For the one shown above the following materials are required: 15¼ barrels cement, 5½ cubic yards sand, 8 cubic yards pebbles or broken stone, and 805 lineal feet of three-eighths inch diameter round steel reinforcing rods. The mixture for the walls and foundation of this type of milk house should be 1:2½:4, with a 1:2:3 mixture for the roof, floor, and tank.

For the rectangular milk house, it will require 15½ barrels of cement, 5⅔ cubic yards sand, 9 cubic yards of pebbles or broken stone, and 975 lineal feet of three-eighths inch diameter round steel reinforcing rods. The mixture for foundation should be 1:3:5; for walls above ground, 1:2½:4; and for roof, tank, and floor, 1:2:3.

SHARE LEASES FOR DAIRY FARMS

JOHN D. BLACK, Minnesota College of Agriculture

ON dairy farms in the north central states, two types of leases are in common use, namely, the half-and-half dairy lease, and the landlord's cattle dairy lease. With the half-and-half dairy lease, the landlord and the tenant each own half of the productive live stock, the tenant furnishes the machinery and the horses, and the receipts and increase in live stock are divided half and half. With the landlord's cattle dairy lease, the landlord furnishes the productive live stock—young stock being included with parent stock in many cases—and the tenant furnishes machinery and horses, and the receipts and increase are divided half and half as above. The landlord's cattle dairy lease is used under three circumstances, as follows:

1. Where the land is not very valuable and tenants are scarce or unable to furnish half of the dairy herd.
2. On family farms where the father turns over the farm herd to his son or son-in-law.
3. Where the landlord has a pure-bred or high-producing herd which he does not wish broken up at the end of each lease.

The first of these conditions occurs in the upper two-thirds of Wisconsin, Minnesota, and Michigan, and it is here that most of the landlord's cattle dairy leases are found. South of this region, the half-and-half dairy leases are by far the most common.

What Constitutes a Lease

The accompanying is a carefully drawn half-and-half dairy lease of the sort that is used on the ordinary dairy farms in Southern Wisconsin and Northern Illinois, but there are several important details which are not in accordance with high-quality dairy farming.

The first thing to note about the lease is that it is a genuine "lease", not an "agreement to work land", which is the form most lawyers use at the present time. An agreement to work land does not use the terms "landlord" and "tenant", or does it use the words "does hereby lease". Instead, it speaks of the parties of the first and second part. The party of the second part agrees to furnish machinery, horses, and part of the cattle, and pay certain expenses, and when he has performed all these things, the party of the first part pays him as wages half the proceeds and increase. The crops and increase belong to the owner of the farm until they are divided. The lawyers have devised this sort of an agreement in the hope that it would take the place of a crop lien. A lease such as the above is in most respects a partnership agreement. The legal part of a farm lease, however, is ordinarily a matter of only slight concern. The important thing is to have a clear understanding between the two parties as to all the terms of the agreement. Only by putting everything down in writing can the two parties be sure that they do understand each other.

This particular lease specifies a certain amount of labor which the tenant is to furnish. This is to provide for those tenants who sometimes try to get along with less help than is needed if the crops and the live stock are to be properly cared for. Other landlords handle this matter by paying part of the wages of an additional man, or by hiring an extra man during the busiest part of the season, or perhaps by going out to the farm themselves for a few days now and then. The landlords find that it pays them to do such things. Tenant often can not afford to hire extra

FORM OF LEASE

THIS AGREEMENT, made the first day of December, 1918, between———— of the County of————State of————, hereinafter called the landlord, and ———— of ———— Township of the same county and state, hereinafter called the tenant, WITNESSETH: That the said landlord does hereby lease to said tenant his farm of 160 acres, known as the McGowan farm, located in ———— Township of the county and state above named, together with all buildings and improvements upon it.

TO HOLD the same for a term of one year from March 1st, 1919, and thereafter for four more years unless notice is given by either party in writing to the contrary before December 1st preceding, and thereafter from year to year unless notice be given as above described, upon the following terms and conditions:

Sec. 1. Said landlord agrees:

1. To furnish to said tenant the above described farm and premises, put all buildings in repair at the beginning of the lease, and thereafter keep same in repair, except as hereinafter provided.
2. To furnish all material for building and repairing fences and pay for all the labor of building all permanent line and field fences.
3. To pay for man labor expended in ditching and in clearing land of brush, trees, stumps, and stone, except as mentioned in Section II.
4. To build during the summer of 1918 a new hen house large enough to keep 100 hens.

Sec. II. Said tenant agrees:

1. To farm said farm in a creditable and workmanlike manner, properly caring for all crops and all live stock upon it.
2. To furnish the labor for the above, the same to consist of not less than the continuous labor of two men from the beginning of the field work to the close of corn harvest, and such other labor as is needed.
3. To furnish all necessary horses, machinery, and tools.
4. To haul all produce to market.
5. To haul all feed and fertilizer and fence and building material.
6. To keep the manure hauled out, cleaning up the premises in the spring and fall of the year.
7. To make all ordinary repairs on buildings, especially to doors and windows, said landlord supplying all materials therefor except window glass.
8. To keep all fences in repair and build all temporary fences.
9. To cut and destroy all noxious weeds in time to prevent their going to seed, handle quack grass in such a manner as not to spread it, and take all reasonable care to keep the fields from gullying.

Sec. III. It is further agreed that:

1. Said landlord and said tenant shall each furnish on March 1st, 1919, an equal number of milch cows, heifers, brood sows, and chickens, and these together with the herd bull, which shall be a registered ———, shall be owned in common and in equal and undivided shares. It is agreed that said herd shall contain not less than twenty-four milch cows.
2. Each party shall pay one-half of the bills (except labor) for threshing, silage cutting, shredding, feed grinding, twine, feed, and fertilizer, and veterinary services (except for horses).
3. Each party shall furnish half the seed grain and grass and clover seed, except that on the last year that said tenant works said farm, the landlord shall pay for all grass and clover seed.
4. Said tenant shall have undivided feed for his horses, but he shall keep not to exceed five horses, raise no colts without the consent of said landlord, pay all horse shoeing and horse veterinary bills, make no charge to said landlord for horse labor, and if it is decided to raise colts, the tenant shall furnish the mare, said landlord shall pay the stallion fees, and the colt shall be owned jointly.
5. Said landlord shall pay all taxes on property jointly owned, but the tenant shall work or pay the road taxes assessed to the farm.
6. Said tenant shall lease no additional land without the consent of said landlord, but if it is agreed to lease such land, said landlord shall pay all the rent for crop land and half the rent for pasture land.
7. Said tenant shall build fences for said landlord, ditch, clear land, dig or otherwise destroy Canada thistles, if he has time to spare from the regular work of the farm, at such times as said landlord shall request, and shall receive pay for the same at the regular daily wages.
8. Said tenant shall board all workmen hired by said landlord at four dollars a week.

Sec. IV. It is further agreed that:

1. In general the fields shall be worked on a four-year rotation, consisting of corn, small grain, clover and timothy, and pasture. Clover and timothy shall be sown with all small grain, but this plan may be changed at any time by agreement between the two parties if possible, or if such agreement is not possible, at the direction of the landlord.
2. Said tenant shall neither buy nor sell property owned or to be jointly owned without the consent of the landlord.
3. Said tenant shall not breed any heifers till they are twenty months old, shall be responsible for all injury to animals due to their getting out through gates or unrepaired fences, and shall keep all cattle off the pasture and field while the ground is soft, especially in the spring.

Sec. V. The proceeds of said farm shall be divided as follows:

1. All crops and live stock products and the increase of all live stock shall belong half to each party, and said tenant shall pay one-half the proceeds from the sale of same to said landlord immediately upon the receipt of same, except that—
2. After deducting a charge for hauling, if there be such a charge, the buyer of the milk or cream of said farm shall make out equal checks to said landlord and tenant.
3. Said tenant shall first have not to exceed three quarts of milk for

Special Dairy Provisions

Even such a lease as the accompanying is hardly adequate to cover many circumstances that arise in dairy farming. The biggest difficulty is with making up the herd. The dairy lease provides that each party to furnish half of the cows. Often times the two halves of the herd are of a very different quality. It is unfair to match high producers with pure-breds against low producers or scrubs. It is value and not number that should be equal. Following are two provisions such as are sometimes found in dairy leases:

"A board of three appraisers, one chosen by the landlord, another by the tenant, and the third by the first two chosen, shall appraise the parts of the dairy herd furnished by the landlord and tenant, and the party whose share of the herd is less valuable shall pay the other party one-half of the difference between the values of the two parts of the herd; and thereafter the herd shall be owned jointly and in common." Or:

"Said landlord and tenant shall agree upon the value of the herd furnished by each, and whichever party has the less valuable herd shall pay the other party one-half of the difference or buy sufficient cattle at a price agreed upon by both landlord and tenant to make the shares equal and thereafter the herd shall be owned jointly and in common."

But the difficulties are by no means all overcome by the equalizing of the two herds. One of the questionable landlords in the dairy sections are forever asking is, "How can I build up a good herd if I have to provide it with every tenant who lives on my farm." Some of these landlords want to keep pure-bred cattle on their farms. Others are interested only in developing high-producing herds. Each tenant who comes to the farm ordinarily brings a fresh team of grades and scrubs, and when he leaves, according to the usual terms of these leases, he takes his share not only of the progeny of the landlord's stock animals, but also of the better animals themselves. Also the continual mixing of the herd by this procedure is one of the things that spreads tuberculosis and abortion. Share tenants change about every three or four years on an average in the north central states.

Provisions Where Herd is Pur-b

Following are a few plans that are being tried now and then to overcome the foregoing difficulties, under the half-and-half dairy lease in Wisconsin, in Illinois, and in Minnesota:

First plan: The herd is owned in common and divided in the usual manner at the end of the lease, but the landlord carefully selects a tenant who has a herd which he thinks will combine with his to no disadvantage. The difficulty with this plan is of course that a landlord who has a pure-bred herd finds it hard to procure a tenant who can match it. But if the farm herd of the ordinary sort there will be no difficulty of this nature in the better dairy sections.

Second plan: The landlord sells a half share in his herd to the tenant and thereafter the herd is owned in common. In some cases the lease allows the landlord to buy back the tenant's share of the herd at the end of the lease at a price determined by appraisal. However, few tenants accept such an arrangement. The chance to build up a good herd on the foundation of the landlord's herd is one

ings that makes them accept the of the usual share contract, and this chance away and many of will not be share tenants. In cases the herd is divided in the way at the end of the lease. means that the tenant gets part landlord's original herd as well t of the young stock. From the oint of the landlord, it is equiv- to selling off half his herd, qual- well as quantity, every three or years. It takes a long time to up a herd at this rate.

rd plan: Landlord and tenant heir herds separately, and the al stock, or so much of it as is ft, is retained by each party at f the lease. This makes it possi- r the landlord to have pure-bred h grade cattle, although the ten- oes not. In some cases the dif- e in the value between the two is adjusted and the increase of stock is divided half and half in sual way. Under such an ar- ment, the two parties share on terms, and the tenant gets his or the extra care required by oreds in the extra value of his f the increase. In other cases, fference in value is not adjust- t the landlord has first choice of lf of the increase of pure-bred s at a certain age. Receipts of of bull calves are divided equal- nder still another arrangement ndlord agrees to buy all the in- of young stock of the tenant rtain age, or at time of division herd, at a price agreed upon in ce, the price being enough more he price for grades to repay the for all extra care required. ences in the value of the herds r may not be equalized at the the price of the young stock be- justed to fit either arrange-

rth plan: Where the landlord only a few pure-bred cattle, he s separate title to these, pays lf their feed, and receives half milk receipts from them and f the heifers at a certain age. choice may be provided if de- The rest of the herd is handled usual way.

plans providing for separate ship of cattle are open to the ion that if accident or sickness as to one of the landlord's cows, ion is apt to arise that the ten- is not given it proper care, or t fed it properly, and this sus- is as bad for the landlord as it the tenant. For this reason, te ownership has given place to ship in common. Nevertheless, f the foregoing plans may well rth a trial.

other plan is to have all stock t auction at the termination of ase, the proceeds being divided y. This gives both landlord and the opportunity of buying just ttle they each want, or selling side parties. The objection is utside buyers will not be at- l unless it is a bona fide sale.— t.)

roducing Milk for the City

n the farm business includes a ilk route or supplies milk to stributors, certain extra expen- s are necessary in the matter of ent and labor, and the tenant stly be asked to stand only one- f these. Following are clauses eases covering these points:

re are now on said farm one e engine for pumping water, ilk separator and engine for it, one milk cooler, and a ty of bottles and cans, and said d and tenant shall own these and in common, said tenant said landlord ———— dollars half interest in the same, one- f the purchase price of any of ne if replaced new, and selling

daily family use, but no butter.

4. Said tenant shall have eggs for family use, but no poultry.

5. Said tenant shall have the produce of the orchard and the garden on said farm.

6. Potatoes grown outside of said garden shall be divided half and half, and said tenant shall deliver the share belonging to said landlord at his house in ————.

7. Said tenant shall have sufficient firewood for family use from down and dead timber, and if there is not sufficient dead and down timber, he may cut live timber where said landlord shall direct.

Sec. VI. At the end of the lease the joint property shall be divided as follows:

1. Said tenant shall divide each class of live stock, as cows, yearlings, calves, hogs, chickens, etc., into two groups of each. In case the two groups cannot be made equal in value, as for example, where there is an odd number of animals, the difference in value shall be agreed upon before the choice is made.

2. All hay, grain, and fodder shall be divided by measurement and one-half left on the farm.

3. Said tenant shall leave all straw on the farm without compensation.

4. Said tenant shall leave twenty feet of silage in the small silo.

Sec. VII. If said lease be terminated on March 1st of any year by three months' notice as hereinbefore provided, said landlord shall reimburse said tenant for all grass and clover seed sown the preceding fall; also for all plowing done in the fall at the rate of two dollars per acre.

Sec. VIII. If said tenant shall fail to carry out any provisions of this lease, it shall be the right of the said landlord to enter upon and take possession of said premises and all the property jointly owned, and care for same till settlement can be made, which shall be done as nearly as possible according to the terms of this lease.

Sec. IX. If dispute shall arise over any of the settlements provided for in this lease, the matter shall be left to a board of three arbiters, one chosen by the landlord, another by the tenant, and the third by the two first chosen, and the decision of this board shall be binding on both landlord and tenant.

Sec. X. Said landlord hereby reserves the right of entrance upon said premises at all reasonable hours in order to work and make improvements as he shall deem expedient. Said tenant agrees to quit said farm peaceably at the end of the lease.

Witnesses ———— Signatures of Contracting Parties.

———— ————

———— ————

his interest to said landlord at the end of the lease at such a price as shall be agreed upon."

"Said tenant agrees to employ two hired men, one for eight months and one for twelve months, at regular prevailing wages which shall not be less than thirty-five dollars per month for the year, and forty dollars per month for the season, and said landlord agrees to pay twenty-five dollars per month toward the wages of the year hand, said twenty-five dollars being understood as one-half of the cash wage plus the value of the board furnished by the tenant. It is understood that the extra labor due to the operation of the milk route is approximately equal to the labor of one man."

Care of the Herd

Following are a number of provisions with respect to the care of the dairy herd. Such provisions are becoming increasingly common:

1. No heifer calf shall be sold for veal unless for good and sufficient reasons and with the consent of said landlord, and no heifer shall be bred till she is twenty-one months old.

2. All cows in milk shall be fed not less than one pound of grain for each four pounds of milk produced.

3. Not less than ten tons of bran or other boughten concentrates shall be fed to the cows in milk.

4. Said tenant shall weigh and record all milk from pure-bred cows.

5. Registry fees for all jointly owned live stock shall be borne half and half.

6. Provision may be made for the expenses of Advanced Registry, tuberculin test, and membership in cow testing associations. The tenant should expect to pay half of these whenever they concern animals in which he has joint ownership or when he owns half the cows tested.

Other Provisions

Share leases have usually provided that the tenant shall haul all the milk and cream to market, but nowadays when many of the creameries or condenseries and other buying agencies are doing the hauling and deducting their pay from the milk or cream checks, the tenants are frequently paying only half of the expenses of hauling, the charges for it being deducted before the check is divided between the landlord and tenant. The justification usually given is that after all it is only part compensation to the tenant for the constantly increasing labor connected with modern dairying.

Some of the newer leases include a provision covering commercial fertilizers, such as the following:

"Said landlord and tenant shall share equally the cost of any commercial fertilizer which they shall agree to buy, and said tenant shall haul and apply the same to the crops. If said tenant leaves said farm any time within four years after the application of ground rock phosphate or ground limestone, he shall be compensated therefor at the rate of one-fifth of his share of the original cost for every year less than the five that he remains on said farm."

Providing for unexhausted commercial fertilizer, however, is of less practical significance than providing compensation for unexhausted fertilizer bought in the form of commercial feed and concentrates. On dairy farms especially, most fertilizer is bought in the form of feed. In most parts of the Northwest, ten farmers buy feed to every one who buys fertilizer; but almost always the tenant is required to pay one-half of the cost of the feed, haul it from town, feed it, and receive in return one-half of the extra yield in milk, the fertilizer value of it going upon the landlord's land and to the next tenant. English leases allow this form of compensation. Several practical farmers have suggested three years as the proper period for which to allow this form of compensation under American conditions.

Landlord's Cattle Dairy Leases

One of the circumstances under which the landlord's cattle dairy lease is frequently used is where the landlord has a good herd of cattle which he does not wish to be broken up at the end of each lease. There are several different arrangements under which this may be done, as follows:

1. The landlord furnishes the parent stock only, and at the end of the lease the tenant returns the identical animals in the same condition, or as near as possible the same condition, as he received them. The new-born stock is divided half and half.

2. The landlord furnishes parent stock and young stock and tenant returns the same identical animals at end of lease. New-born stock is divided half and half.

3. The landlord furnishes parent stock, or both parent stock and young stock, and the tenant at the end of lease replaces out of the herd an undivided increase an equal number of animals of the same age, weight, and quality.

4. In a few cases the tenant replaces the stock sold out of his half of the half increase, the landlord's herd being thus kept at a constant number.

Obviously only the first two of these are suited to a pure-bred herd. The landlord with a pure-bred herd wants his identical animals returned. But in such cases he must stand the depreciation on his parent stock. When young stock are also furnished, however, there is considerable appreciation to offset the depreciation. The two latter plans make the tenant share in the depreciation.

A Problem in Crop Rotation

Mr. John Marshall of Illinois writes: "There are two important questions with which I am confronted: 1. Is it possible for me to work cut a crop rotation on 153-acre farm of which 120 is under cultivation? 2. Is a rotation consisting of clover and timothy pasture followed by three years of corn, followed by rye seeded to clover and timothy injurious or beneficial to the land? In addition to the above fields I have 12 acres of alfalfa and 10 additional acres which may be put in oats or other annual crop."

The rotation outlined by this correspondent is a good one, and there appears to be no reason why he should not be able to follow it successfully. It will be noted that this correspondent has corn in the same field three years in succession. While this is not desirable, it is probably the best that it is possible to do, and furnish the amount of corn needed by the farm. If the field is manured following the first year of corn, the land can doubtless be kept in a fair state of fertility. Doubtless the correspondent buys more or less concentrates for feeding his herd. This will add to the fertility. In order to maintain or increase the nitrogen content it will be desirable to plow under, now and then, a crop of clover, and if the soil is deficient in phosphorus, which it is apt to be even in dairy farming, this can be supplied by adding rock phosphate or fertilizers containing phosphorus.

This correspondent has outlined a very complete and satisfactory system of rotation, and if he will make an analysis of his soil he will be in position to know the deficiencies that exist at the present time, and be able to adjust his cropping and fertilizing operations so as to remedy any weakness.

It will be desirable for our correspondent to make an acidity test to see if his soil needs lime, and by supplying this can correct the acidity. He can retest once in three to five years.

We wish to commend the thorough and careful manner in which this correspondent has figured out his cropping system.

D. H. Otis.

Wisconsin College of Agriculture.

Women as Agriculturists

G. L. McKAY, ILLINOIS

A TRADITION has grown up in America, to quite a large extent, that if any woman does any work outside of the house on a farm, the same is degrading. It is difficult to comprehend why such a feeling should exist. The sections of Europe that have made the greatest success in dairying are those where the women have taken a very active part in assisting to care for the dairy herds and have almost exclusively cared for the dairy products. Possibly one of the best demonstrations as to what women can do as agriculturists was given in England during the past two years, where over 300,000 women were working on



PLOWING THE SOD

farms. England, whose bull-dog courage and tenacity are one of the wonders of the world, is being fed by women. Their able bodied men went to war long ago, but the women have taken their places and England has raised more food this year, we are told, than they ever did in the history of the country.

Here, in Illinois, a training farm for women was established at Libertyville, largely through the influence of one brave little woman, Mrs. Tiffany Blake. This was made possible through the generosity of Mr. W. V. B Ames, who gave the women the use of a 200-acre farm for the period of the war. In addition to this he furnished farm machinery, 200 chickens, and 18 cows. The equipment for the dairy building was furnished by the Creamery Package Company and the A. H. Barber Creamery Supply Company of Chicago. W. W. Marsh of Waterloo, Iowa, furnished the gasoline engine, the De Laval Company of Chicago the separator, and the James Company of Fort Atkinson, Wisconsin, furnished stanchions free for equipping the barns.

Twelve hundred applications were received from women for farm work. Of this number 85 applicants were accepted; 48 girls stayed during the summer season and were trained in diversified farming. The students receiving instruction were of three classes: girls who took up the work as war service, women who owned small properties and wished to better equip themselves to operate them, and city women who were not satisfied with confinement of office work and city life and wished to equip themselves for self-support in some open air employment. Seventy-five per cent of the students were college women, fifteen per cent stenographers and bookkeepers, and ten per cent were women of the leisure class or homemakers. Many have accepted positions on farms.

The writer was agreeably surprised, when visiting the farm at Libertyville, to find that everything was kept in such an excellent manner. The girls were dressed in overalls, heavy boots, sleeves rolled up, and equipped for doing most any kind of farm work. They were healthy, possessing a ruddy complexion and a sparkle in the eye that denoted health and vigor. They had a habit, however, of imitating the boy or man by keeping their hands in their pockets when they were not engaged in some line of work. They seemed well versed in the technical part of farming. I was particularly interested in the dairy herd, some of the cows being very inferior animals. The young women kept a detailed record of the pounds of milk given and the fat produced by each cow. One young lady said to me that she thought it was a waste of time milking cows that gave two or three pounds of milk as against others that would give twenty. She urged me to try and get some of the breeders to put in a few good cows as this would have a tendency to encourage the girls to greater efforts along dairy lines. The writer took this matter up with



RETURNING HOME FROM CUTTING HAY

some of the breeders and am pleased to note that some of them have responded by sending in some excellent cows as representatives of their particular breeds. Through the efforts of Mr. Munn of St. Paul, good representative cows of the Jersey breed were sent to the farm. Mr. Meeker sent some excellent types of Holsteins.

These young women have learned to manage machinery and to run tractors. They have plowed between 70 and 80 acres with tractors. They have also plowed with walking plows. They have learned to manage horses. Since the first of May they have taken care of from 10 to 14 cows, milking them each day. They have taken care of poultry, killed, dressed, and dry picked them for market. They have learned to make cottage, Devonshire, and French cheeses, South Michigan and Kensington cheeses, and to make butter. They have harvested vegetables and put up about 3,000 cans in addition to drying great quantities. They set out 2,000 tomato plants and 5,000 cabbage plants. They have taken care of the crops. They had 70 acres of hay, 3 acres of alfalfa, 22 acres of corn, 11 acres of oats, 7 acres of barley, 2 acres of wheat, 3 acres of sweet corn, and 4 acres of potatoes. The girls have taken care of harvesting, silo filling, and during threshing time made an exchange of help between the different farmers and the training farm. They also harvested the crop for a neighboring farmer who was short of help and had sickness in the family.

The farm includes a 10-roomed house equipped for 45 students, contains a hot air furnace, hot and cold running water in the kitchen, bath room, shower baths, and cellar. There is now a new cement cow barn which is furnished with 36 James stanchions, calf pens, and bull pens. These stanchions were loaned, by the James Co., as long as it was used as a training farm.

A very competent young lady is in charge of the dairy work in the dairy building—a young woman who had received her training in Scotland and England.

Now that the war is over, the question naturally arises, should the farm be continued as a training farm for women? The writer is of the opinion that it should be and that it should be put under the management of the Illinois University, possibly the Extension Department. A farm separate as this is, from the University, would have a tendency to attract more women to that line of work than it would if it were connected directly with the University, as this would avoid any prejudice that might exist in a school against women pursuing this line of work. The writer well remembers, not so very many years ago, when students taking the agricultural course at colleges were looked down upon by others in the school as being rather inferior. It is possibly the most popular course that can be taken by young men at this time. A great many of our city boys go to the state schools and take up four years of agricultural work. Therefore, I believe that it would be a good thing in every state to establish a farm something similar to the one at Libertyville. It would tend to overcome the prejudice that exists against women helping out on the farm, especially with dairy work or other light work that is suitable for them to do.

The home is not made by fine buildings, but rather by co-operation and a love for the surroundings. As a poet aptly said, "Home is where the heart is". A satisfied wife is one of the greatest helps that a man can get in any line of business. There are a great many of our city women who would prefer rural homes to city life. Therefore, a farm such as is described furnishes an ideal training for women who prefer to equip themselves for this line of work. The fact that a large per cent of the girls taking this work are college women will have in itself a tendency to overcome the

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ıdice that farmers' daughters have in helping out on the farm ork that they can accomplish as if not better, than men. I am fied that if our farmers' daugh- or farmers' wives took entire ge of the dairy utensils and car- or milk and cream on the farm, ould tend more to improve and the quality of our dairy products anything else that could occur. s been demonstrated in the old l, in the countries where the en take an active part, especially iry work, that those are the coun- that have prospered the most ave become noted for the quali- the goods they produce.

w that women have equal suf- in many states, they are going ke their places in many lines of beside the men, and the demon- ion that has been made at the is Training Farm and in Eng- and some other countries should ince the men that they have got efficient work or step aside for women of the future. Not only e farm have the women demon- ed their ability to take men's s, but they have done the same in the shops, ammunition fac- s, banks, railroad offices, and places too numerous to men-

ope to see these demonstration s for women established in many ur agricultural states. In addi- to practical training, lectures the following courses could be : Poultry, agronomy, agricul- chemistry, animal husbandry, husbandry, bee keeping, farm anics, horticulture, silos, shop , home economics, sanitation, ag- ural economics, and pedagogy of ulture.

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hy Do They Hide Away?

ARD'S DAIRYMAN:—My son had eam hitched up to start for the ield. The days were getting and there was not time to do a deal of work after the chores done. I asked him if there was ing I could do to help out, and swered:

hy, father, old Red Wing did not down last night. I think she is due to bring in her calf. If you ime to go up into the pasture and f you could find her, it would I would not wonder if she would ng by the gulf somewhere."

I set out up the hillside hunting Red Wing, looking first where e indicated, by the side of the But she is not there and I push gher. How still it is up here! across the valley the sound of voices come to me, as they call eir horses tugging away at the work. But aside from these s, all is silence. Not even the flutter this way to break the of the still fall afternoon. Now hen, tired with my climbing, for assing of the years has left me "short of breath", I stop to ack at the beautiful scene below, rm houses, the creek lying like a f silver, the cattle nipping the here and there, and above all ue sky without a fleck of a cloud ht.

I wonder why it is that cows me like this, when nature is hav- way with them, are determined le away out of sight? It is so. hem a chance, and even if night ing on and the weather chill as y be, they will walk sometimes iles, hunting all along for the hat seems to them most favor- nd least likely to be discovered e eye of the master, and there will lie down to pass through avail of pain that has marked ming into the world of a new be- er since the beginning of time.

Only at one other time of life is this instinct so apparent, and we so-called civilized folks have, in great part, outgrown that. But even yet, there are Indian tribes which take their loved ones, after they have passed on to the spirit world, and journey away back out of sight behind the hills, and there in some quiet nook lay away all that is left of the beloved dust. In their first great happiness, as in their last mighty sorrow, these children of the wild seek to steal out of sight till the crisis is done.

But away up near the woods in a little hollow I find the cow with her calf lying snugged up by her side. Red Wing seems to see in me a friend and shows no sign of resentment that I have traced her to her hiding place; but the eyes of the calf are big with wonder as they look on this, the strange visitant of the new world into which it has come. For a little while I stand there and watch them. Then I rouse Red Wing, lift the calf to its feet, and we start on the long trip homeward. It is wellnigh a mile to the stable and the legs of the little fellow begin to wobble long before we reach the barn. But at last we reach the comfortable haven. I feed the cow and give her a drink of water, which she takes greedily. Then I put the calf around in front of her where she can see it and go away leaving them alone. But why did Red Wing hide away and make us so much trouble?

It is sometimes impossible to know just when the cow will bear her young. We may keep a record as accurately as we can, and watch as closely as we may. We will make a mistake. So it is our rule to keep the cow that is due to bear offspring in a stall or at least in a yard near the barn, even if this must be done a day or two; for there is some danger in allowing her to do as Red Wing did, and hide away if she is permitted to go out with the other cows. More than one good cow has gone away in this manner and never come back alive. If everything goes along as it should the danger is lessened. But the calf may not properly present itself. The cow may labor and struggle until she is tired out and die all alone. Or a storm may come up and the cow and calf be chilled, bringing on sickness that will be difficult to cure. We never have lost a cow that way, although I say it in no boasting way, and we are thankful for it. It may be this is because we have been luckier than some have been, for we have had a number of cows hide away to bear their young.

Saying nothing about the money loss when we lose a cow in this way, there is something about it that seems inhuman and calculated to make the farmer ashamed of himself that he has not taken better care of his cows. There are usually some signs that very fairly indicate the on-coming birth of the calf. Among these are the filling out of the udder and teats, as if nature were anticipating the needs of the little one, and often, perhaps I may say, usually, we may note a sinking in of the parts just at and by the side of the roots of the tail.

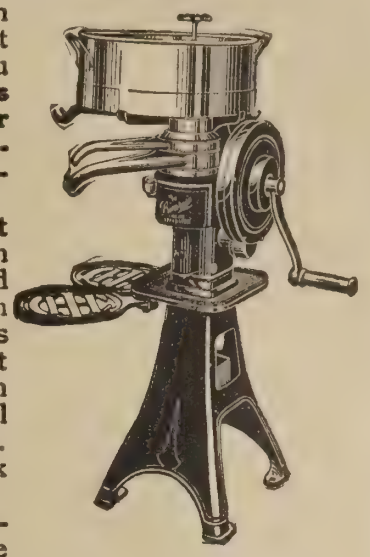
Then, too, many cows express in their eyes a sense of foreboding. A wild, anxious look may be observed there. Some cows seem to want human sympathy. They will turn to the master and call to him gently. I had one cow that never failed to let me know in such ways as these that she was approaching maternity. I knew when she called to me that way, and had that look in her eyes, that it was time to get her out of the stanchions and into the box stall.

If we watch and give attention to our cows, we will learn to read their feelings. Well for us if we act upon what we see and hear in our friends of the fur and the big heart.

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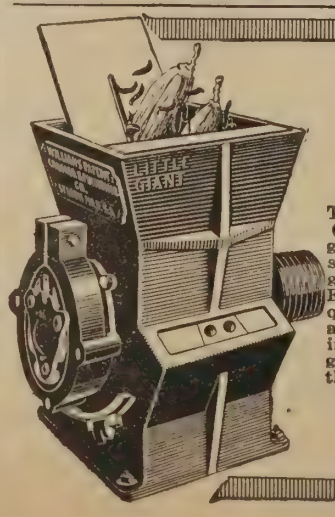




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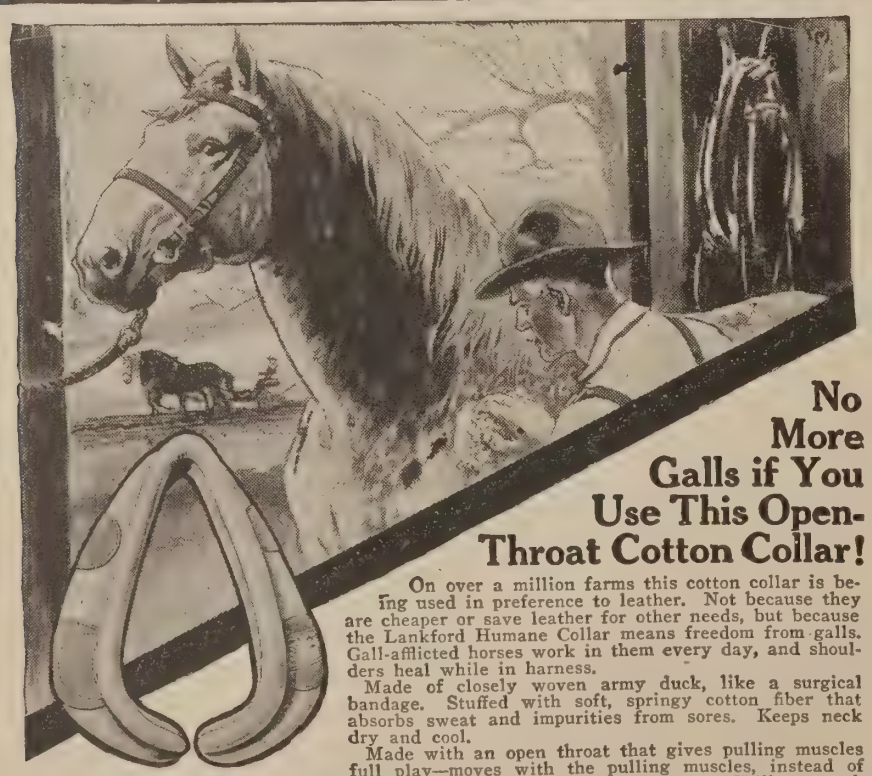
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The Dairy Farm Lease

AS a further contribution to Professor Black's discussion of farm leases we give below a copy of a lease, which, with a few changes, has been in satisfactory operation on a dairy farm for nearly twenty years.

Neither the accompanying lease nor the one suggested by Professor Black will meet every local condition, and it is doubtful whether either one should be followed in detail in any individual case. They are intended rather as a guide than as a "hard and fast" form. The best method of procedure is to understand clearly what is wanted by both parties to the lease, what peculiar local or personal conditions may prevail, what the law of the state may require, and what the custom of the community may demand as to the form of lease and the division of the responsibility and profit. After these have been determined, then have the lease drawn up by a competent person of the locality who is accustomed to the drawing of leases, in order that the desires of both parties may be put in proper legal form.

The value of a written lease lies in the fact that it will help to obviate misunderstanding should any discussion arise as to the requirements put upon either party. Should anything of this nature arise, then the lease may be consulted rather than the memory or understanding of either party to the lease. The best kind of a lease will not be satisfactory if either the tenant or the landlord is dishonest, lazy, or incompetent.

On farms where milk production is the major operation, such as in the Elgin dairy district, the first party frequently supplies all the productive live stock (or at least the cows) and still shares half and half with the tenant. In some cases instead of paying for one-half of all seed purchased and one-half of the threshing and silo filling expenses, the first party may furnish all the grass and clover or alfalfa seed he may wish to have used, while the tenant bears the entire expense of threshing and silo filling.

The provision in the following lease as to the use of fertilizers is somewhat unusual but we believe it is wise to incorporate this or at least make it provisional upon an agreement between both parties. Occasionally the first party agrees to pay all expenses for fertilizers and the tenant agrees to haul and apply the same, being allowed a certain compensation for unexhausted improvements.

Although general opinion has been to the contrary, it has been the experience of investigators that a lease for one year and providing for its continuance will prove more satisfactory than a lease for a definite long term. They have found that leases of the former character seem to give greater satisfaction, and tenants, in fact, occupy farms for a longer period under this form than under the other.

Without further comment the following lease is submitted:

Lease

Memorandum of Agreement between ———— of, ————, ————, lessor, party of the first part, and ———— of ————, ————, lessee, party of the second part:

The party of the first part leases to the party of the second part for the term of one year from and including the 1st day of ————, ——, the premises known as "————", situated in the town of ————, ———— and consisting of approximately —— acres. The first party also leases therewith his personal property as shall be determined by invoice and appraisal made and attached hereto on ——, ————.

It is mutually agreed that the general type of farming shall be dairy and that each party shall furnish one-half of all the productive live stock to be kept on the farm, which stock shall be held in common, jointly, undivided, and share and share alike except the necessary teams for work which are to be furnished by the tenant but are to be fed out of the undivided feed either produced on the farm or purchased.

It is also agreed to keep a pure-bred bull of the ———— breed at the head of the herd to be purchased and owned jointly, said bull to be mutually satisfactory to both parties; that the heifer calves from the best cows are to be raised each year so as to maintain or increase the size of the herd and improve its quality; that membership in a cow testing association shall be maintained, if one exists in the vicinity, the membership fees and pay of tester to be borne by first party, board and conveyance of tester to be furnished by second party.

It is also agreed that each party is to bear one-half the expense for binder twine, for machine hire, and fuel for threshing and silo filling, and one-half the expense for all seed, including grass seed, purchased.

Buying and selling of materials, live stock, and other farm products shall be left largely with second party but all sales or purchases of more than five dollars ($5.00) shall be made only with the knowledge and consent of first party.

No colts or other animals shall be raised except such as may be mutually agreed upon by both parties or more horses kept than necessary as agreed to by first party.

First party is to receive as rent and compensation one-half of the products raised on the above described property, (except fodder not grain fed to stock) one-half the increase in number and growth of live stock, one-half of the receipts for stock sold, one-half of the return from creamery or otherwise for milk and cream, one-half of the increase and products from poultry, and in general one-half of all gross products of the farm, or their sale value whether specifically mentioned herein or omitted.

First party agrees to pay the annual state, county, town, and school taxes; to furnish what new material may be required for building and repairing fences and exterior of buildings; to keep well and pump in repair; to keep barns and house in repair but does not bind himself to paint, decorate, or make other than absolutely necessary repairs; to purchase one-half of such fertilizer as may be mutually agreed with second party; to purchase one-half of such fertilizer as may be mutually agreed with second party; to purchase one-half of all the feed which it may be necessary or expedient to purchase for stock in addition to that grown on the farm; to pay stallion service charge for all colts raised on farm; to keep properly insured the dwelling house, barns, and other valuable buildings; and

The party of the second part takes and leases the said farm and personal property in accordance with the foregoing provisions and undertakes and agrees to make his occupation and use of the same as profitable to the owner as may be, and especially to take the best care of stock and other personal property and return same to lessor in as good condition as when received by him, ordinary aging and use and

by fire, floods, winds, or light-
g excepted; to carefully use, house,
care for all machinery, tools, im-
nents, and other personal proper-
owned by first party; to furnish all
hinery, implements, dairy appa-
us, labor, and team work neces-
y to carry on the farm in proper
ner; to work out or pay all high-
r taxes that may be assessed
inst the real or personal property,
to keep the roadsides free from
ds; to account for any pay for or
lace all hay and grain that may be
he farm when he takes possession;
that all fences are kept in reason-
e repair, and furnish labor for
h repair and to build new fences
necessary; leave all buildings in as
d condition as when surrendered
im, natural wear and damage by
elements excepted; not to dispose
ny straw, other forage, or manure
removal or sale without lessor's
sent; haul out and spread all ma-
e daily or as frequently as weath-
nd ordinary farm conditions will
mit; and carefully in all things
guard and promote the interests
he lessor as well as his own, with-
regard as to whether the particu-
items or matters are herein set
h or omitted.

he party of the second part furth-
grees that the lessor may at any
all times enter to view the prem-
and all parts thereof; that he will
respectful attention to the ad-
and suggestions of the lessor as
he management of the farm and
k; that as much land shall be left
ved when this lease shall terminate
was plowed when it commenced,
likewise as to amount of land in
er and alfalfa; that he will leave
farm and premises generally in
good or better condition than he
nd them; that he will deliver to
ket all stock and produce sold,
ver milk or cream to cheese fac-
, creamery, or otherwise as may
nutually agreed upon, and do such
ling of feed, fertilizer, building
erial, etc., as may be used on the
n; that he will cut down, and
cut so they will not mature seed
become a pest, all noxious weeds
ut the farm and in the fence rows;
he will fill and keep filled all
hes and clean ditches on the
n; that he will, on or before
ch 1st of each year, and as occa-
may render necessary, consult
the first party as to the crops to
rown, fields to be plowed, and the
eral rotation to be followed.

he second party shall have the
ilege of taking such reasonable
unts of milk, eggs, poultry, fruit,
toes, and other vegetables pro-
d on the farm as he may need for
ily use, but if there is any sur-
of the above products he shall de-
r one-half to the first party, or in
of sale the proceeds are to be
lly divided between both parties;
pt that no butter or cheese shall
made. In case any animals are
hered, the hides, meat, and other
ions shall be divided equally be-
n both parties, or such other ar-
gement made as may be mutually
eable. The second party may
for his use any dead and down
er on the place and such other
er as may be specially allowed
year by first party.

arty of the second part shall ap-
ground raw rock phosphate or
phosphate to approximately one-
of the cultivated land each year,
party bearing one-half the cost
he material used. He shall also
y ground limestone (or other
) to fields of acid soil that are to
eeded to alfalfa or clover, the ap-
tion to be made in such amounts
he condition of the soil may re-
e, each party bearing one-half the
of the material. For the purpose
his lease, it is estimated that the beneficial effects of the phosphate and lime will continue for five years, and the first party hereby agrees to reimburse second party one-fifth of his expense for purchased phosphate and lime for each year he has received no benefit owing to the termination of his occupancy of the farm.

The first party agrees to recompense second party for any unexhausted improvements which he may make during the term of this lease with the consent and approval of the first party. In case both parties fail to come to agreement as to the amount of recompense, then arbitrators shall be chosen in the manner hereinafter provided and their decision shall be final.

It is the intention of this lease to record the important points upon which the parties have agreed, but if anything has been omitted, upon which the parties cannot agree, or if there be any controversy as to the interpretation of the conditions and terms herein written, then such matters shall be submitted to a board of three arbitrators to be chosen, one by each party to the lease and the third by the two so chosen; both parties mutually agree to accept as final and abide by the decision of said board of arbitrators.

At the expiration of this lease (unless it shall be renewed) or if it be sooner terminated, the parties agree that all jointly owned property shall be disposed of to the best possible mutual advantage or divided in such manner as may be voluntarily agreed upon or as determined by a board of arbitrators as provided above.

This lease may be continued from year to year at the pleasure of the parties hereto, but may be terminated at the expiration of any year by either party giving to the other three months' notice in writing of his wish to have same end.

In witness thereof the parties have hereunto subscribed their names and affxed their seals this — day of ——— ———, ——.

——————————— (Seal)
——————————— (Seal)

In presence of

———————————
———————————

Dairy Manufacturers' Course

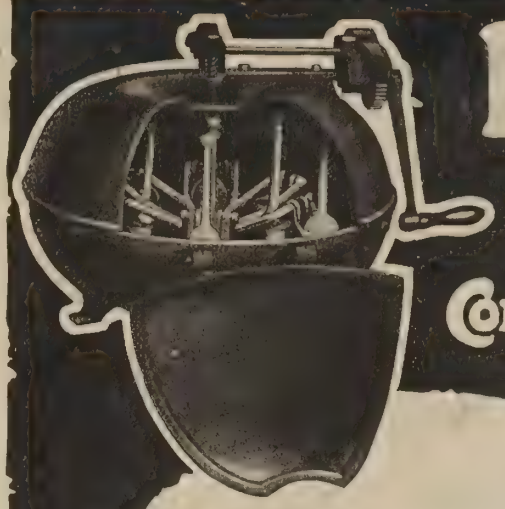
A dairy manufacturers' course will be offered at Ohio College of Agriculture at Columbus from February 3 to 28. This is to include a study of cream testing, city milk supply, dairy mechanics, and the production and manufacture of butter, cheese, ice cream, and special attention to dairy by-products.

A careful study will be made of milk, milk products, bacteriology, and the Babcock test. Practical work is to be afforded in the laboratories in making bacterial counts and propagating starter for the various milk products. Much attention will be given to the classification of milk and the methods of handling.

In the buttermaking classes the ripening of cream, the use of natural and artificial starter, testing, printing, packing, sale, and the handling of creamery accounts are to be treated.

Various factors entering into the manufacture of ice cream made according to different formulas will be studied both in the laboratories and the lecture room.

John Lengacher, a native of Switzerland and the proprietor of a Swiss cheese factory at Dundee, has been employed as special instructor for the cheese making course. Mr. Lengacher won gold medals at the National Dairy Show for the past two years and is vice-president of the Ohio Swiss Cheese Association.—Ohio College of Agriculture.



Babcock Milk Tester Complete $12.00

Any Cow Owner Can Make Accurate Milk Tests With the Efficient and Simple Crepaco Babcock Milk Tester

There is nothing intricate about it—operated by hand. There is a size for every dairy, from the 2 bottle tester to the large size with 24 bottle capacity.

This tester is noiseless in operation, the high speed being attained without unnecessary friction, by means of a spur and worm gear with cut teeth. The full instructions which are supplied with each machine tell you how to make accurate milk tests.

Crepaco Babcock Tester complete with glassware as illustrated above—six bottle capacity costs only $12.00.

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Our big Dairy Catalog describes fully, all size Milk Testers and other appliances of value to the dairyman. Write for it TODAY.

THE CREAMERY PACKAGE MANUFACTURING CO.
68 W. Kinzie Street, Chicago, Illinois

OUR GREATEST FOOD WASTE

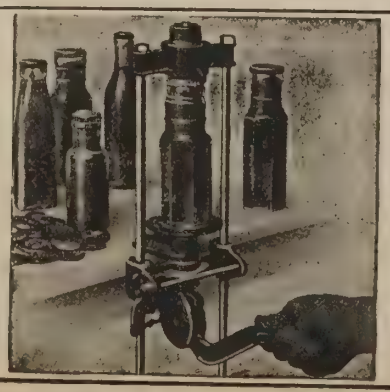
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Conserve needed food and increase your dairy profits by working up your "skim" and surplus milk. Market them as cottage cheese and buttermilk in the neat, appetizing KLEEN KUP—"The Package of Quality for Foods of Quality". Use Kleen Kup packages, too, for marketing fancy butter, cream, etc. They are attractive, non-breakable and inexpensive. Used by over 4,000 dairymen.

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Write for full particulars.

THE CROWN CORK AND SEAL COMPANY
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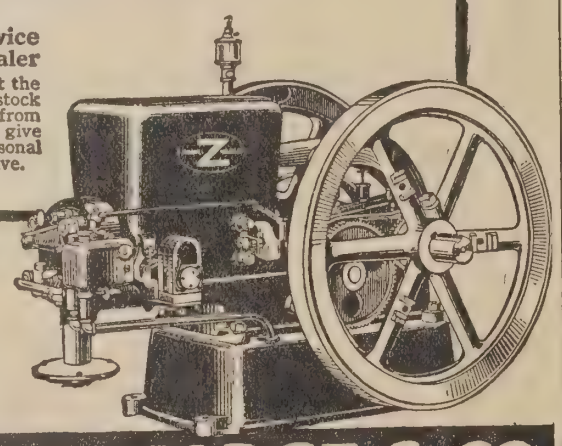
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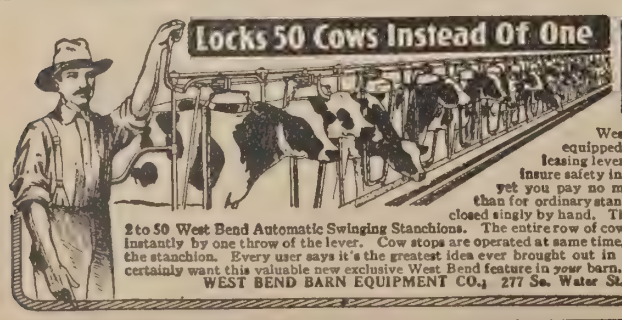
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embodies the best features of the best milkers, Human and Machines, without their faults. You know that it is natural for every maufacturer to claim that his machine is the best in the world, and with everybody claiming to make the best machine, it becomes a ticklish job to pick the right one. We are not making any claim we cannot back up. If we or our dealer cannot prove that the New Victory is the best suited to your needs, we cannot expect you to buy it. Our idea, therefore, was to build not only the best milker, with the most advantageous requirements, such as simplicity, durability, sanitation, low up-keep, easy installation, etc., but to so make and embody in it qualifications that will fill the requirements of the greatest number. We let the machine speak for itself. Let us send you our catalog.

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West Bend Automatic Stanchions equipped with our wonderful locking-releasing lever save you time and labor—and insure safety in locking up or releasing the cows, yet you pay no more for West Bend equipment than for ordinary stanchions that must be opened and closed singly by hand. The West Bend lever controls from 2 to 50 West Bend Automatic Swinging Stanchions. The entire row of cows can be locked up or released instantly by one throw of the lever. Cow stops are operated at same time, and when set guide cow into the stanchion. Every user says it's the greatest idea ever brought out in modern barn equipment. You certainly want this valuable new exclusive West Bend feature in *your* barn. Write today for catalog.
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Bran Sky-rockets in Price

SANDERS SOSLAND, MISSOURI

NEVER before in the annals of American agricultural markets has there been so sharp an advance in a few hours as recently was witnessed in that period in the bran and shorts trade. Prices rose $25 to $30 a ton, and the space of time required for this remarkable advance may be figured in hours, if not minutes or seconds. No less remarkable is the fact that the supply, which before the advance offered only discouragement to the producer of dairy products, changed into an almost normal status following the spurt in prices. Veteran students of feed markets, men who have given their entire business life to the feed industry, live stock producers, and leaders in allied industries wondered at the remarkable change in the bran and shorts trade from an almost hopeless position to practically a normal state. Some even refused to accept the news as true, actually closing their doors, until having in their hands complete and correct information of developments.

In Kansas City, the flour milling center of the Southwest, bran is selling at $45 to $47.50 a ton, sacked, mixed feed $50, and shorts $55 to $60 a ton. These prices compare with the former government maximum fair price of $26 for bran, $27.50 for mixed feed, and $28 for shorts. The highest level ever scored on mill offals, recorded shortly before the United States Food Administration fixed prices in December, 1917, was $42 a ton on bran and $50 a ton on shorts. In Minneapolis, prevailing levels for bran are $44 to $45 a ton, sacked, compared with $28.40 a ton under the government schedule of prices. Shorts are selling at $50 to $59 at the northwestern market, against $29 to $30, the maximum price. Markets in other portions of the country report bran and shorts on a parity with the prices prevailing in Kansas City and Minneapolis.

Whether the dairy industry was blessed or injured is a question open to debate. Some dairymen call it victory, others look at the changed conditions from a gloomy viewpoint, while still others, possibly in the majority, maintain silence as to the ultimate effect of the peace-time development in the bran and shorts market on the dairy industry of America.

Suddenly, like a cloudburst or a tornado, utterly unexpected, news reached the milling and feedstuffs industry of the country and now is slowly leaking to the dairy interests and hog producers, of the action of the United States Food Administration at Washington, repealing all restrictions on the manufacture of flour and feed, rescinding all regulations as regards distribution, and most important of all, throwing off the yoke on the price restrictions. This, in a few words, summarizes sudden action by government food officials almost revolutionary in scope, which caused the violent price and supply changes in the bran and shorts trade.

The rescinding of regulations affecting the price and manufacture of flour and feed was as little expected by even the best informed members of the milling and feedstuffs industries as dairymen today are anticipating, reversely, action by the Hoover Food Administration demanding that producers of dairy food sell their milk at not less than 25 cents a quart, a price which, compared with the level of other food commodities, is not abnormal. The mill feed trade was immediately thrown into turmoil, chaos of a remarkable character prevailing, not having yet entirely subsided.

"Any bran for sale?" inquired a discouraged feed dealer of a Kans miller just before the startling ne became public. And a conversatio typical of any discussion of the su ject heard in the past year, followe

"Well," replied the miller, "if you take three-fourths of a car of flo I'll throw in a fourth of a car of bra give you the bran at $26.50 a to sacked. But don't expect this tre ment too often."

The dealer was delighted at the o fer of the miller and asked for an o tion of three hours before completi the transaction, which the miller l luctantly gave.

About an hour later the dealer r turned to the miller's office and co firmed the sale, beginning to gi shipping directions.

"Fifty dollars for bran, the m ket's gone up!" This was the inf mation conveyed by the miller to t feed buyer. The feed dealer d played surprise. "Fifty-dollar-br when the maximum price is twen six in straight cars—it's impossibl thought the dealer. But he was formed of the action by Washingt food officials. No, he did not rej the bran at the advanced price, l gave shipping directions immediate apparently fearing more sky-rock ing in the market.

The same is true of dairymen a hog producers, both classes are in e market, being almost as eager buy at the advanced price as at the for maximum fair price schedule. But e feeder of live stock, who purcha bran and shorts only because an tificially low price had been set on commodity, began to shun the f dealer and has returned to the fe used in normal periods. Of cou the advanced price of bran and sh makes the dairyman and hog fatte more conservative in the use of mill offals. Economy must be p ticed with the market at the pres level. These developments h brought about the greater avail supply on the markets of the cou and more even distribution in all tions.

Of course, some time must el before available supplies will be e to the demand, or at least until n mal conditions are again resto Numerous influences present th selves in forecasting the future de opments in the bran and shorts m kets, all of which seem to point, e at the advanced levels, to a shor of mill offals.

Flour Industry Outlook

The outlook for the flour mi industry of the country is far b bright today; in fact, it is doubtf members of the business ever be saw in the immediate future as pleasant a trade outlook as in present crop year. Numerous p scattered over the country have b down temporarily, many others a operating on half and one-third m schedules, while still others see a pect for only a short period of o tions ahead, and then, unless cha are soon forthcoming, inevitable down. Of course, with many plants in the country forced to pend operations, the supply of and shorts will naturally decrea volume.

A dull demand prevails for flo domestic markets. In the larger suming centers of the United St it is estimated that a supply of o equal to the needs of consumer sixty to ninety days is now held. would indicate little improveme the buying power of domestic kets for at least two months. flour milling industry has expand a stage where no great effort

ired to supply the domestic require-
er+; for the product of the bread
ain. What is needed by American
illers and what is vital to their wel-
re, as well as to the dairy interests
10 look to the miller for bran, is an
en export market for flour.

Flour Exported

Until a few weeks ago, the Food
lministration Grain Corporation,
e export flour buying department of
e United States government, made
avy purchases of flour from Ameri-
n plants for export consumption. It
estimated that approximately 8,-
0,000 barrels of flour were pur-
ased in about two months for ship-
nt to Europe, but in the past few
eks, no flour whatever has been
ken. Whether the absence of de-
nd for export flour will be perma-
nt is uncertain, for the activities of
s Grain Corporation are little
own to the industry. Since the
vement of 1918 wheat began to
w into terminal markets, the gov-
nment has been following a policy
inly of exporting wheat in the raw
rm, rather than as flour. There is a
ssibility that flour exports will be
sumed as soon as the alleged con-
stion at seaboard points is cleared.
The Northwestern spring wheat ter-
ory of the United States is far
re fortunately situated than the
nter wheat belt of the Southwest.
hile the winter wheat harvest was
bountiful as in the Northwest, or
re so, there is an acute shortage of
e bread grain in the winter wheat
rritory. In order to uphold its
aranteed price to the wheat farm-
, the Food Administration Grain
rporation was forced to buy huge
antities of wheat at the minimum
ice. With the golden grain rushing
market as never before, the gov-
nment wheat buyers soon accumu-
ed a huge stock, the greatest on
cord. Mills were hesitant in pur-
asing above their current needs,
ving a maximum price on flour
sed on the minimum price of wheat.
expense of two cents to two and
e-half cents a bushel accumulates
nthly on stored wheat, this includ-
g the carrying charges of one cent
bushel a month, in addition to the
erest, shrinkage, deterioration, and
ne factors which add to the ex-
nse of storage.

Mill Shortage

Flour millers permitted the Grain
rporation to take all the wheat re-
ived at terminal markets above
eir current purchases. Only in
ttered instances did mills make at-
npts to store wheat, flour manufac-
rers operating on the theory that
en their supplies became short, the
ain Corporation would gladly turn
er part of its huge stocks. But mill-
s have been sadly disappointed; the
ain Corporation has refused to re-
tribute to domestic consumers even
bushel of wheat and has announced
at it will not do so. Only a very
all quantity of wheat remains in
mers' hands in the Southwest, con-
quently the period for active milling
erations is short. Unless the gov-
ment reconsiders its position in the
eat trade, it is estimated by market
dents that 50 per cent of the mills
the Southwest will shut down
rch 1, with the remaining 50 per
t following in close succession.

At the moment, millers are clamor-
for hard and red winter wheat.
. 2 grade of the latter, with a guar-
eed minimum of $2.15 a bushel in
nsas City is selling at as high as
45, a premium of 30 cents a bush-
This is the highest price paid on
crop, notwithstanding a dull de-
nd for flour. Apparently it is the
limited price at which bran and
rts may sell that makes the miller
rry for his wheat supply.

The spring wheat country of the
rthwest, which begins to market its golden grain several months after the Southwest, has been able to witness developments in the winter wheat territory, and thereby safeguard its milling industry from any shortage. The Northwest is losing little time in accumulating a huge stock of wheat for its needs, making purchases from the standpoint of future trade requirements and giving no consideration to carrying charges. Wheat in the Northwest is practically at the government minimum, making it a simple matter for flour mills of that territory to sharply undersell southwestern plants.

There is hope that the Grain Corporation will soon redistribute its wheat, but millers have nothing upon which to base their optimism on this score, except possibly the fact that the government officials find it advantageous to the food interests of the world to change their opinions occasionally. Dairy cows, however, cannot subsist on hopes; in order to produce milk there must be bran, and the amount the northwestern millers can produce even with an export outlet for flour, which today is not forthcoming, is not great in the aggregate.

Aside from the fact that more bran and shorts are available since the repeal of the Food Administration restrictions on the manufacture and price of flour and feed, dairy interests can feel happy over the fact that changed conditions will result in the production of mill feeds with a much higher feeding value. At the time world wheat supplies were acutely short, food officials at Washington demanded of American millers that they clean their wheat better than previous to the war. This meant that fewer flour particles were allowed to remain in the bran, thereby reducing its feeding value. However, since the removal of restrictions, mills, in order to capture permanent trade, are improving the feeding quality of their offal feeds. Low grade flour, which has a very narrow outlet among the consuming trade today, is being thrown into the bran and shorts, which process is remunerative as long as the mill feeds maintain their present heights.

In returning to the manufacture of flour under the old regime, more bran and shorts are produced from each bushel of wheat. Under the federal restrictions, millers were required to operate on a 74 per cent extraction basis, which permitted the production of 68 pounds of bran and shorts per barrel of flour. Without the government supervision, mills will reduce the extraction basis, using upwards of 274 pounds of wheat per barrel of 196 pounds of flour. The addition of an average of eight pounds of offal per barrel of flour means a great increase in the supply when considered in the total production of the United States.

Uncertainty attaches to the flour situation, and a majority of millers of the country will continue on a 100 per cent standard flour basis until more of the future is known. Whether the government will resume its export flour trade, whether it will take the so-called "clear" and low grade flour which is produced along with the fancy patent grades, the outlet for which is limited principally to export, and whether government wheat is forthcoming, are among the questions yet to be answered before patent flour milling becomes general.

In announcing its sweeping changes to the trade, food officials made it plain that it would continue a "watchful eye" as regards profits of both millers and dealers. The fixed maximum profit schedules of dealers still are maintained, while millers' profits will not be allowed to become exorbitant through the monthly reports on transactions they are required to prepare for the Food Administration.

(Continued on page 898)



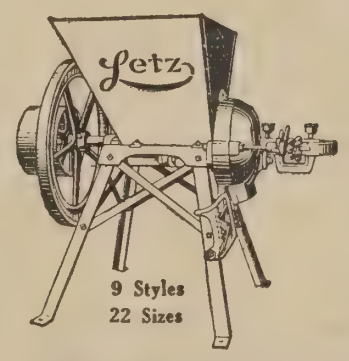
IMPROVE YOUR STOCK

Cut Your Feed Cost 20%

THOUSANDS of feeders are doing it. They're milling their off-grade grains, grinding 'em into a nutritious, valuable feed and are marketing their No. 1 grains. They're sending fatter stock to market—cutting feed costs *one-fifth*—doing the grinding the ONE cheap, quick and *easy* way—with a

LETZ

America's Leading Feed Mill



The 848 Keen Cutting Edges of the Letz patented Self-sharpening grinding plates beat all other processes in speed! fine cutting! durability! capacity!

Handle everything, wet or dry. Can't clog. Grind ***fine as powder*** anything fed into them—do it in ***one operation***! Guaranteed to average 2000 bushels per set. ***Think*** of it!

Machine is durable, simple, easy to operate. An astonishing time, labor, and fuel saver. Thousands to prove its unequaled efficiency. Fully guaranteed.

Write Today for Valuable Free Books

One book describes this wonderful Mill, gives its scores of advantages, quotes prices; the other tells how to feed farm animals with ***best results*** at ***lowest cost***. Write for books.

LETZ MFG. CO., 219 East Road, Crown Point, Ind.

24 Centrally located Branches insure quick service everywhere.



The A B C's of Dairying

The farsighted dairyman sees more than the milk in the pail—he sees the money in the milk. More milk means more money. But for him to get the full benefit of maximum milk production he must keep feed costs at a minimum.

He can best do this by replacing an entire grain ration with a mixture of his home grown grains and

INTERNATIONAL
Special Dairy Feed
Guaranteed to Make More Milk



Such a ration will cost less than a whole grain feed and will make more milk and keep the cows in better condition. Or if desired, International Special Dairy Feed can, itself, be fed as a whole grain ration, with better results and less cost than ever before.

Special tests and ordinary every day use by thousands of dairymen have proved that International Special Dairy Feed is a big milk producer—and feed bill reducer.

Try a ton of International Special Dairy Feed. Its ingredients are the best, its analysis just right, its results unequaled, it is guaranteed. Go to your dealer and order a ton today. If he cannot supply you, write direct to the mill.

International Sugar Feed Co.

Minneapolis, Minn. Mills at Minneapolis and Memphis

Also Manufacturers of International Ready Ration—a Guaranteed Dairy Feed That Requires No Mixing



CORN IS MONEY-SAVE IT!

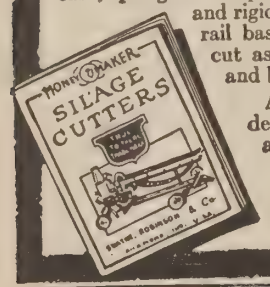
SAVE CORN by making silage without delay when the crop is just right—before loss from drought, frost or aging. Refill your silo after the first silage has settled and increase its capacity 25 per cent.

Get fat on the cattle and money in the bank by using the maker of clean-cut, mold-proof silage, the

TRADE MONEY MAKER MARK REG.U.S. PAT.OFF

SAFE SILAGE CUTTERS

The standard cutter whose *four* big patented features have made it the choice of thousands of farmers and doubled the output last year—Automatic Safety Yoke protecting operator; Cushion-Drive protecting machine in its steel-plate case; Springless Compression Force Feed with auxiliary roll to take whole bundles and rigid aligned knife adjustment with three bearings and steel-rail base. Solid, safe disk, straight, easily-sharpened knives cut as fast as you can feed corn into the hopper, fans throw and blow to the top of the tallest silo, saving power.



A size for your power and work; a distributor and local dealer to care for you, a company established in 1842 behind a standard, strongly warranted machine.

Write for the "Money Maker" catalog. It will interest you.

SWAYNE, ROBINSON & CO.

362 Main Street Richmond, Indiana

This Mill Lasts A Lifetime



Has no buhrs or other parts to wear out. Every part strong and well made. Big capacity—requires small power. Does not heat the feed. Guaranteed to get the wild oats.

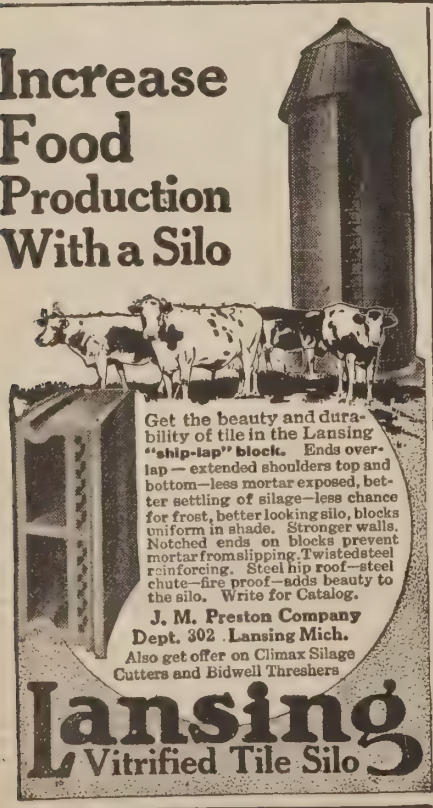
HOWELL *Roller Feed Mills*

are the modern, scientific machines for grinding feed and rye or graham flour. Have corrugated steel rolls, same as used in the large flour mills. Add to your profits by grinding feed for your neighbors. *12 sizes—any capacity—a size for any engine.*

FREE—Our complete catalog and the Famous Roller Mill Puzzle. Write for them today.

R.R.HOWELL & CO., 4 Malcolm Ave S.E., Minneapolis, Minn.

Increase Food Production With a Silo



Get the beauty and durability of tile in the Lansing "ship-lap" block. Ends overlap—extended shoulders top and bottom—less mortar exposed, better settling of silage—less chance for frost, better looking silo, blocks uniform in shade. Stronger walls. Notched ends on blocks prevent mortar from slipping. Twisted steel reinforcing. Steel hip roof—steel chute—fire proof—adds beauty to the silo. Write for Catalog.

J. M. Preston Company
Dept. 302 Lansing Mich.

Also get offer on Climax Silage Cutters and Bidwell Threshers

Lansing Vitrified Tile Silo

Mill Book FREE!



Shows how to grind the most digestible stock feed, table cornmeal, Graham, whole-wheat, rye or buckwheat flour—all with one N. & M. guaranteed genuine

FRENCH BUHR MILL



Any power. Lasts a lifetime. Boy can handle and keep in order. Make money grinding for neighbors, too. **Free Trial Offer** and book of mills sent free. Write today.

NORDYKE & MARMON CO.
1440 Morris St., Indianapolis, Ind.

TIGHT AS A DRUM
A PERMANENT SILO

Every Economy Silo is equipped with the Storm Proof anchoring system that makes it absolutely permanent. Ensilage is always fresh and sweet—it can't spoil in an Economy Silo. Perfect fitting doors make the Silo perfectly air-tight. Hoops form easy ladder. Built of long leaf Yellow Pine or Oregon Fir. You can't buy a better silo. Also all sizes Water Tanks. Our motto is quality through and through. Factories at Frederick, Md. and Roanoke, Va. Write for catalog.

ECONOMY SILO & MFG. CO., Dept. N, Frederick, Md.



ECONOMY SILOS



ALFALFA DRILL BLIND PLOWING ATTACH

"THE SHERWIN WAY" is the coming way. Our Surestand Alfalfa and Clover Press Drills insure perfect stand, save 40% seed. Our 3 newly patented Corn Tools, viz: Blind Plowing planter attachment; Revolving Tooth Corn Harrow, (60 acres per day); Little Joker weeder and Packer, increase Corn profits 25%. Sold Factory to Farmer. Postal brings Big Catalog. Dept. 7.

Sherwin Mfg. Co., Brookings, S. D.

ALFALFA CORN

GET-A-WITTE
Kerosene Engine



Buy on your own terms. Save $15 to $200. Catalog FREE.

WITTE ENGINE WORKS
1640 Oakland Ave., Kansas City, Mo.
1640 Empire Bldg., Pittsburgh, Pa.

DON'T PUT OFF

Seeing your friends and having them join in for a club of subscribers.

Contract For Cows on Shares

In response to requests from many of our readers we give below a copy of a contract suitable to form the basis of an agreement to keep pure-bred cows on shares. It is to be remembered that this contract can be varied to suit special or local conditions, and that the terms of the contract can be modified or the contract terminated at any time by the mutual consent of both parties. It is desirable to have the contract extend over a period of at least three years and preferably five. It may also under certain conditions be desirable to incorporate in the second paragraph the names and registration numbers of the animals furnished by the owner, particularly if there has been no prior agreement and it is desired to specify the animals.

In the contract the owner of the cattle is termed the "party of the first part", and the person in whose charge they are placed is termed the "party of the second part". The form of contract suggested is as follows:

This agreement made and concluded this —— day of ———— 19— by and between ————, of the town of ————, county of ————, state of ————, party of the first part, and ———— of the town of ————, county of ————, state of ————, party of the second part.

WITNESSETH: 1. The party of the first part agrees to furnish and deliver at ———— within ——— days from the date hereof and hereby leases to the party of the second part for the term of ——— years from the date of their delivery to him not less than ——— cows of mutually agreed breeding and appearance that have been duly recorded and registered in the Herd Book of the ————.

2. The party of the first part further agrees to pay all the taxes assessed and levied upon said cows and in addition one-half of the taxes assessed and levied upon their progeny and other animals added to the herd from proceeds of sales or exchanges of progeny.

3. The party of the second part agrees to receive said cows when delivered to him and thereafter care for, feed, and breed them and their progeny in a legitimate business manner and to use at all times a registered sire of same breed whose dam has an approved official or semi-official record; to have every animal in the herd over six months old duly tested for tuberculosis at least once in each year; and to avoid the introduction of contagious abortion will not permit the herd sire to serve grade cows from other herds.

And it is mutually agreed by and between the parties hereto:

1. That the title and ownership of all the animals furnished by the party of the first part and their progeny and other animals that may be acquired by sales of progeny shall be and remain in the party of the first part.

2. That all male calves shall be sold by the party of the second part to the best advantage, age, and condition of market considered, and the proceeds, less expense of selling, advertising, transferring, etc., shall be invested in heifers of approximately same age as the males sold.

3. In case any of the original animals or their female offspring prove to be undesirable, they may, by mutual consent of the parties, be sold and the net proceeds arising from sales invested in other females.

4. The expense of registration shall be borne equally by the parties hereto.

5. In case of official testing the total expense, except board and lodging of the tester, in connection with the original animals furnished by him

Milk Money

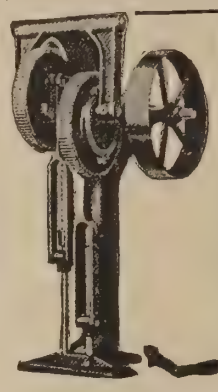
comes faster if your dairy cows have free access to clear, cold running water. A

BETHALTO WATER SYSTEM

furnishes this, fresh from the bottom of well or spring, on tap in your Yards, Stables, Pastures, Dairy House or Garden, all the year round. No freezing troubles. Doesn't get out of order. Lasts a lifetime.

Write for free estimate of cost to you.

Southern Auto & Machinery Co.
116 Robert Ave., St. Louis, Mo.



More Water

Chippewa Stead Stream Pump

Will Produce Mor Water with less Pow than any other Pum For Farms, Ranche Pressure Systems ar all other purposes.

Write for informatio

CHIPPEWA FOUNDR MACHINERY CO.
Chippewa Falls, Wis.

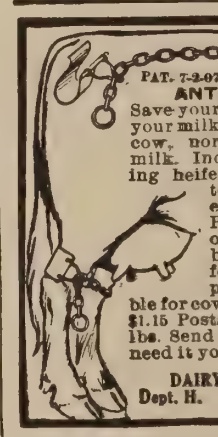
Water in the Stable a Nceessi



THE "BUCKLEY" DEVICE

Is the leader. Why use the best? Write to manufacturers for a scriptive circular.

Poughkeepsie Foundry & Machine C
POUGHKEEPSIE, N. Y.

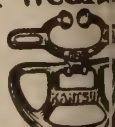


PAT. 7-2-07
ANTI-COW-KICKER

Save your temper, your cows your milk. Does not excite th cow, nor disturb the flow o milk. Indispensible for break ing heifers, cows with sor teats, or vicious kick ers. Cannot wear out Put on or off in 15 sec onds. Guaranteed t be an absolutely per feet anti-kicker, o put on loosely as hot ble for cow, horse or mule. Pric $1.15 Postage extra. Weight lbs. Send for it **today**, when yo need it you won't have time.

DAIRY EQUIPMENT CO.,
Dept. H. Topeka, Kansas.

"Kant-Suk" Calf Weane



LIGHT—strong—humane! Cannot possibly injure cow or calf. Being made with a hinge-joint, it swings out of the way when calf eats or drinks, but **absolutely prevents sucking.** Extremely easy to put in place. Endorsed by dairymen everywhere.



At dealers.
Sent Prepaid: Calf size 45c; Cow size

Wagner Specialty Co.,
Dept. F. Burlington, Wis.





LABEL

DANA EAR LAB

Stamped with owner's name or address and al numbers. Send for free samples.
C. H. DANA, 55 Main St., West Lebanon,



Get This Silo Book FREE!

Just drop us a postal or letter and we will send you a copy free and postpaid. Tells why **wood silos** make best silage; also why they keep silage from spoiling or freezing better than any other kind.



TABER LINED SILO

made of clear, long leaf yellow pine boiled in creosote. Every one **acid-proof lined** to keep air out and moisture and juices of corn away from staves. Painted outside and double anchored. Won't shrink, swell, rot nor blow down. Finest circle doors and frame. Write today.

TABER LUMBER CO., 1204 Main, Keokuk, Ia.

r one-half the total expense, except
:d and lodging of tester, for all
ir animals shall be paid by the
:y of the first part; but the party
he second part shall furnish board
r lodging for the tester and pay the
aining half of the expens. for
ing the animals not originally fur-
ied by the party of the first part.
. The party of the second part for
services and expense in caring for,
ling, and breeding the afore-men-
ed animals shall have all the milk
luced by them and one-half of the
l increase of the herd at final set-
nent.
. The half of this increase shall
letermined and arrived at by per-
ting the party of the second part
livide the animals into two lots or
ups of approximately equal value
his judgment and the party of the
t part may then choose and elect
eceive for his part either one of
e groups and then by proper pa-
s to be executed by him and at his
ense assign and transfer the sev-
l animals in the other group to
party of the second part.
. In the event that in testing for
erculosis any animal should re-
to the test, the party of the sec-
part shall immediately separate
keep such animal from the rest
the herd. If such animal is es-
ially valuable it may be retained
breeding purposes at the election
the party of the second part and
progeny raised according to the
alled Bang system. Otherwise,
especially if a retest shows reac-
, the reacting animals shall be dis-
ed of as provided by law.
. The party of the second part
ll not be held accountable for any
nage to or death of any of the orig-
l animals not the direct result of
own acts or negligence and shall
ver at his farm, on demand at the
iration of this agreement, to the
ty of the first part the original
mals or such of them as may sur-
e and those in the group selected
the party of the first part.
n witness whereof the parties have
eunto set their hands and seals the
and year first above written.
n presence of

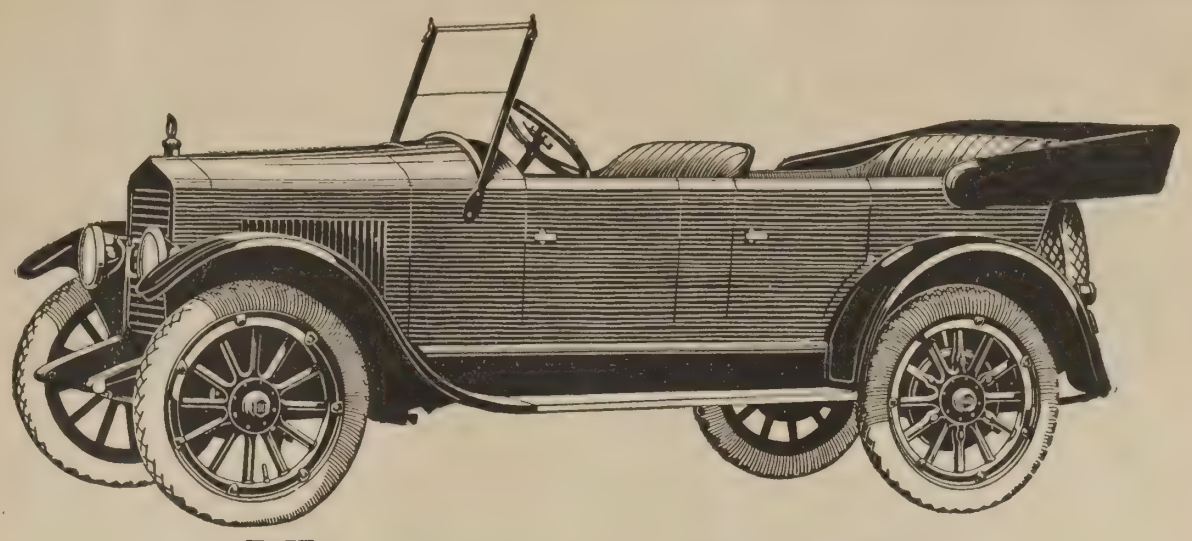
_____ _____ (Seal)
_____ _____ (Seal)

How Pigs Were Fed

OARD'S DAIRYMAN:—Have seen
eral articles in Hoard's Dairyman
tive to feeding hogs. The past
on had some pigs born April 11,
8; fed them a swill of about two
rts wheat middlings to about 12
rts of water three times a day, all
they would clean up. To each
lbs. of shorts was added 10 lbs.
oil meal and occasionally gave
n a handful of salt in the swill.
in about three acres of sweet
and when this was in roasting
began feeding it, stalk and all,
hat they would clean up. When
fodder began to get dry and they
sed to eat the fodder, fed the
ed sweet corn; when the sweet
was gone, fed field corn. They
e never off feed. We killed them
'17, 1918, being 8 months, 6 days
and they dressed 225 to 253 lbs.
. I never had a bunch of pigs do
er than these.
ekoosa, Wis. J. B.

rnsey Meeting in New York

he 1919 annual meeting of the
erican Guernsey Cattle Club will
eld in New York City May 14.
date was set at a recent meeting
he executive committee of the
.
L. Ames, W. W. Marsh, and C. L.
were appointed as a committee to
nge for a sale of Guernsey cattle
e held in connection with the
ting.



The Essex—$1395

Light weight, Durable, Rich in Appointment, Low in Cost, Economical and a Tremendous Performer

Is Now Ready

You are to advertise the Essex.

Instead of our praising it, we wish you to do that. And what you will say is what we want everyone else to think.

Every praise that can be suggested has already been applied to some other car and, as you know, all cars do not come up to the claims made for them.

So the Essex must speak for itself.

It is endorsed and will be sold by the leading automobile dealers in every section of the world.

Dealers of their type do not take on cars about which they have the least doubt. They do not make selling contracts with new and untried organizations.

The Essex Will Endure

A real car must have stability. It must remain rigid and free from squeaks and rattles.

You will see why this is so with the Essex. Hard service cannot loosen the body joints nor twist the radiator.

Be sure this is emphasized by driving over cobblestone pavements or rough roads. Take any speed you like. You will find it a comfortable ride and will marvel that over such a road and at such a speed you are not pitched or bounced about.

Has Economy of the Light Car, Comfort and Endurance of the Costliest

The Essex's motor would inspire a whole season's advertising campaign. A slogan might be written about its beauty.

Its economy of fuel, lubrication and tires appeals to others.

It awakens the pride of ownership. It has dignity that comes from power and poise.

It will retain its smoothness and flexibility and quietness throughout long hard service.

The Essex is light in weight and cost. It is rich in detail and refinement.

Everyone says nice things about the Essex.

We Are Not Asking You To Buy Now. Just Ride in the Essex.

ESSEX MOTORS DETROIT USA

Only a few cars are available for each territory. The first ones are being distributed so as to reveal their qualities to the greatest number of people. When you see by the newspaper that your dealer is ready with his Essex, go look at it and tell your impressions to your friends.

WING'S Vegetable SEEDS

Stand for big yields. We offer the best that can be grown and can supply you with all the standard varieties.

Readers of this paper need no introduction to Wing's Alfalfa seed, Corn, or other field seeds. Try some of our specialties in vegetable seeds, and we will show you that they are equally good.

Wing's Red Sunrise Tomato

has given splendid satisfaction both to market gardeners and home growers wherever grown; ripens its first fruits the same day as Earliana, 30% more prolific, 30% more smooth fruits. Its main picking comes a week sooner than Earliana. Fruit is thick fleshed, with few seed cells, and with a firm skin. Pkt. 10c.

Wing's New Just-in-Head Lettuce

The earliest variety in our trial grounds, heavy yielding, lasts longer than any other sort we grow, and is the sweetest flavored, a truly wonderful head lettuce that actually does make solid heads to almost every plant on any good soil. Pkt., 10c.

New Catalog FREE

Describes the very best and most reliable sorts of vegetable, flower and field seeds, bulbs and some new and rare specialties which we believe can not be obtained through any other American seedsman. This Seed Guide gives cultural directions and tells how to plant for profit.

Wing Seed Co., Box 121, Mechanicsburg, Ohio
(The House of Quality and Moderate Prices)

GOOD SEEDS



GOOD AS CAN BE GROWN
Prices Below All Others

I will give a lot of new sorts free with every order I fill. Buy and test. Return if not O. K.—money refunded.

Big Catalog FREE

Over 700 illustrations of vegetables and flowers. Send yours and your neighbors' addresses.

R. H. SHUMWAY, Rockford, Ill.

CLOVER AT WHOLESALE

We save you money. Buy now before advance. Crop short. We expect higher prices. Don't buy Field Seeds of any kind until you see our samples and prices. We specialize on Guaranteed Quality, Tested Clover, Timothy, Alfalfa, Sweet Clover and Alsike; sold subject to your approval and government test. Write today for samples, special prices and big Profit-Sharing Seed Guide.

American Mutual Seed Co., Dept. 119 Chicago, Illinois

EVERGREENS HILL'S 38 Hardy, Tested Varieties

Fine for windbreaks, hedges and lawn planting. All hardy, vigorous and well rooted. We ship everywhere. Write for free Evergreen book, illustrated in colors.

D. HILL NURSERY CO., Box S 252 Dundee, Ill.



OSHKOSH FARM AND GARDEN SEED

—assured clean, hardy, fertile by the drastic provision of Wisconsin's Seed Laws. Are Best For You Because Grown In Wisconsin.

Always Better Than 99% Pure
Send a Postal Today for our large illustrated Field and Garden Seed Catalog.

OSHKOSH SEED COMPANY
Dept. K. Oshkosh, Wis.

CANADIAN RANCH FOR SALE

One of the finest wheat and stock ranches in Alberta for sale. Contains 800 acres—250 in cultivation. Elaborately improved; good water. If you want a farm and home that will pay for itself in one year, see this. Priced for quick sale at $35 per acre. Terms—for photos and all information, write owner,

BOX 13, - - BIG VALLEY, ALTA.



What Are They Singing?

Gulbransen Trade Mark

K-K-K-KATY"? "Smiles"? "That's the Kind of a Baby for Me"? "The Tickle Toe"? Well, what would your crowd sing at a lively party?

You can sing all these—and thousands more—with a Gulbransen to play them.

No trouble to read a song roll. Each word appears as big as THIS right on the paper at the moment it should be sung.

Is Your Home Dull?

Do people seldom "drop in"? Do your parties "drag"? Cheer Things up with music folks can sing. Nobody ever tires of music.

Mother songs—the rowdy chorus boys let out at stags—good old church hymns—love songs.

Yes, and the waltz the girls could "just die dancing to"—and today's jazz fox-trot with the words everybody wants to know.

Do You Know These Pieces?

These 21 pieces are the most popular right now. Several kinds of music are represented. Which would you play on your Gulbransen if you owned one?

Smiles
Oh! How I Wish I Could Sleep Until My Daddy Comes Home
'Till We Meet Again
Oh! Frenchy
Oh! How I Hate to Get Up in the Morning
My Belgian Rose
I'm Always Chasing Rainbows
K-K-K-Katy
There's a Long, Long Trail
Beautiful Ohio
Oui, Oui, Marie
If I'm Not at the Roll Call
Everything is Peaches Down in Georgia
Indianola
When You Come Back
A Little Birch Canoe
Sweet Hawaiian Moonlight
I'm Sorry I Made You Cry
For Your Boy and My Boy
Blue Danube
National Emblem

It's So Easy to Play —this Gulbransen

Its pedals work so easily a baby can play the Gulbransen. In fact, a certain baby did play the Gulbransen; that's where we got the idea for the trade mark.

You can be breathless from dancing—or exhausted by a hard day's work—yet play your Gulbransen enjoyably, delightfully.

Musical Possibilities

If you appreciate the finer music—of master composers—the Gulbransen is your instrument of instruments.

Muratore—world-famous tenor—plays a Gulbransen at home. Harold Henry—America's distinguished pianist—uses one in his studio.

You must put preconceived ideas behind when you consider the Gulbransen. It has taken the drudgery out of piano playing. But left in it—yes, put into it for most of us—the opportunity to play with expression.

The Leading Player—and Nationally Priced

For two years, more Gulbransens have been sold than players of any other make. Two things made this possible. The sheer quality of the instrument—its sweet singing tone—is delightfully easy operation. And the Nationally Priced plan—each model has but one price to everybody, everywhere in the U. S.—burned into the back of each instrument.

National prices, war tax paid:

White House Model $600 Town House Model $485
Country Seat Model 535 Suburban Model 450

There is a Gulbransen dealer near you. Look for trade mark—the Baby at the Pedals—in his window, or ask us for his name and address. We will gladly send you our catalog.

GULBRANSEN-DICKINSON CO.
823 No. Sawyer Ave., Chicago.

(Pronounced Gul-BRAN-sen)

GULBRANSEN Player-Piano

FARMERS HANDY WAGON



Low steel wheels, wide tires, make loading and handling easier. We furnish Steel Wheels to fit any axle, to carry any load. Plain or grooved tire. Catalogue sent free.
EMPIRE MFG. CO., Box 348, Quincy, Ill.

Ear Tags FOR STOCK



Tag your stock—best and cheapest means of identification for Hogs, Sheep and Cattle. Name, address and number stamped on tags. Catalog mailed free on request.
F. S. Burch & Co., 136 W. Huron St. Chicago

ALFALFA HAY
FOR DAIRY COWS
CURTIS COMMISSION COMPANY,
713 Live Stock Exchange, Kansas City, Mo.

Learn Auctioneering
at World's Original and Greatest School and become independent with no capital invested. Every branch of the business taught. Write today for free catalog.
Jones Nat'l School of Auctioneering, 38 N. Sacramento Blvd., Chicago, Ill. Carey M. Jones, Pres

Paint Without Oil

Remarkable Discovery That Cuts Down the Cost of Paint Seventy-Five Per Cent.

A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof, sanitary and durable for outside or inside painting. It is the cement principle applied to paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 143 North Street, Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save good many dollars. Write today.

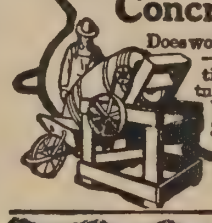
SWEET CLOVER SEED
Hulled, Unhulled and Scarified Seed. Prices and circular on Sweet Clover sent on request.
E. EVERETT BARTON, - FALMOUTH, KY.

Get Our Book — Do Your Own Concrete Work

FREE! Book on MIXERS Postal Gets It

You can make your own concrete feeding floors, water tanks, troughs, and fence posts with idle hands on muddy days and save a lot of money with a

SHELDON Concrete Mixer



Does work equal to $300 mixers—yet costs only a fraction. All modern features. Fully guaranteed. Write for catalog now.
Sheldon Mfg. Co.
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Write G. H. Pounder, Sta. 27, Fort Atkinson, Wis.

When Writing to Advertisers, Mention Hoard's Dairyman

Bran Sky-rockets in Price

[Continued from page 895]

"Supervisional control to preven profiteering," is how one official a Washington described the future po icy of Hoover's department.

With the millers' position so ur settled, dairymen almost automatica ly are thrown into a sea of uncertain ty. Some dairy interests may fe that the present price of bran an shorts is only temporary, that afte trade is readjusted to new condition prices will recede. This may be th correct view, though not the probabl one, and its correctness is depender on the government buying clear flou taking larger quantities of othe grades for export and redistributin its wheat to the domestic trade. Bu there is as much a question as to recession in prices of bran and short should this action be taken, as there in the possibility of the Food Admi istration taking the action. If the go ernment maintains firmness in i present stand, then a shortage of o fals will ensue with prices mountin to heights which we might now co sider impossible. With an acute shor age and possibility of still further a vances, it is apparent that to follo the safe and correct route is for th dairyman to purchase heavily of th precious feeds on present market If nothing else, the milk producer w assure himself bran and shorts.

Making Sausage and Head Cheese

HOARD'S DAIRYMAN:—On our far we have good success in making sau age, head cheese, etc., by the followin named methods. My wife was go enough to help me prepare these re cipes for publication.

To make head cheese, cook hea ears, etc., until good and tender al the meat will almost fall off the bon Pick out bones when cool enough put hands in. While warm grind th through the meat grinder. Season mixing with the hands and using sa and pepper (red and black), or se son half of the meat in this way al in the other half use ground onio pepper, salt, allspice, and cloves. this is already cooked it can be se soned to taste without frying an Place in shallow jars or bowls al put a plate over it to press it. It ca also be put away in cloth bags dippe in paraffin wax. To serve, slice cold dip in batter and fry.

In making sausage grind equ parts of lean and fat meat. Seasono taste with salt, pepper, and powdered sage. For each pound of meat use te teaspoonful of salt, one-half teaspo ful of pepper, and one and one-ha teaspoonfuls of sage. Mix the ingr dients and then stir them thoroughly into the meat. The sausage can be pu away by pressing it firmly into cotto bags and then dipping the bags in paraffin wax. Another way is to stuff it into corn husks, tie it up, and hang in rows in the smokehouse. Still an other way is to let the mixture stan over night, then fry it down in cake place these evenly in a jar and pou hot grease over them.

Use the liquor that is left fro making head cheese to make scrapp To do this place liquor over the fi until it reaches the boiling poi Sprinkle in salt, pepper, and sag then dust in corn meal until a spo will stand alone in the middle of th kettle. Pour out in a pan and wh cool it will become set. Let stand ov night and in the morning slice an fry brown on both sides in hot fa

To make sour souse take two le one front and one hind leg, and ab half of top of head from eyes dow boil together until every bone drop out and scarcely any water remain Pick bones all out and rinse meat o

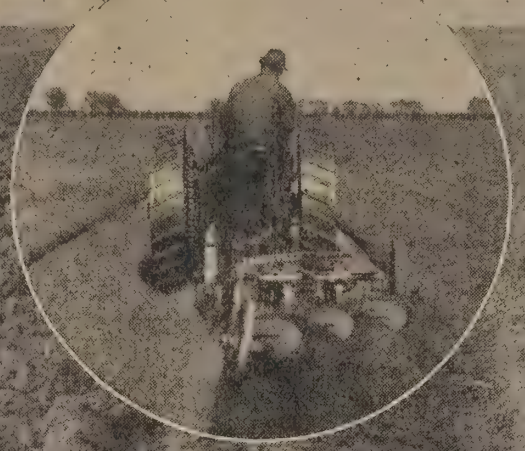
be least possible amount of water.
er meat is cut up coarse season
pepper and salt and add vinegar
ake as sour as wanted. Pour into
ep bowl and set away to cool. This
ld be made in real cold water.
t morning scrape off grease on
Take out what is wanted for a
l. It should be solid and shrivelry.
make plain souse (pressed) boil
head and feet (and to those who
fond of liver I would say add some
hat) until the bones all fall out.
the water all boil away until the
se fries good and brown but is not
it scorched. Pick out all bones.
d the meat fine, add the brown
se, using salt and pepper to taste.
in bowls and set away to get
. It can be fried or eaten cold.
can also have a flavoring of sage,
es, onions, etc., if desired.
prepare pickled pig's feet boil
feet, then put them down in vin-
. They may also be put down in
e before cooking and when ready
se freshened with buttermilk and
ed. Another good way to serve
feet is to boil them, season to
with spices, and dip in batter
fry in hot fat. Pot liquor left after
ing pig's feet is appetizing sliced
dropped in vinegar.
nitlings are used and relished by
people. To prepare, empty the
tines and wash thoroughly. Soak
alty water and change the water
three nights successively, scraping
each time. Then boil them, cut up
mall chunks, and fry in batter.
led tongue is liked by most peo-
Boil the tongues until tender,
peel them and pour vinegar over
. To make liver sausage boil the
, heart, and lungs until done.
take from the soup and chop
Season to taste with salt and
er, also onions or parsley if de-
l. Shape in small flat cakes, dip
ggs and crumbs, and fry brown
oth sides in hot fat. Another way
se the hashlets is in liver gravy
ash. Boil and remove from the
e, then chop medium fine. Place
in soup, season to taste, and
thicken with flour. Before thick-
g it may be canned and preserved
future use if any abundance is
and. When emptied from the can
ould be placed over the fire and
ened when it comes to a boil. To
good use of the back bones boil
until the meat is cooked thor-
ly, then season to taste with salt
pepper, and several sliced boiled
gs. This may be kept in good con-
n for some time if packed in jars
heavy paper placed over the top
the paper covered with paraffin.
inois. A. O. CHOATE.

"Challenge"

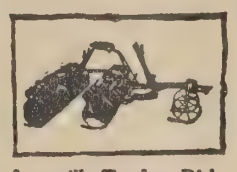
OARD'S DAIRYMAN:—The Los
les County Farm Dairy milked
hundred cows for the month of
mber and produced an average
rty and twenty-five hundredths
ds butterfat per cow for the en-
milking herd. Of this number
ten per cent were pure-bred, the
ce being high grade Holsteins.
t twenty per cent of the herd
heifers with first calves, while a
number have been milked for
al months.
is report is drawn from the
s of the cow testing department
he Los Angeles County Farm
au, which vouch for its correct-
To prove whether there be a
its equal or better, this challenge
it out: To any herd in the Unit-
tates to produce, under similar
tions, a better average record
that given above for a compara-
like number and for a similar
d.
10 will be the first?
F. H. SCRIBNER,
Assistant Farm Advisor.

It Takes A JANESVILLE Two-Three-Bottom Tractor Plow To Do A Job Like This

Manufacturers of Farm Implements



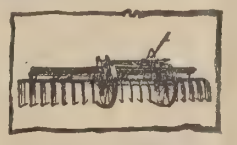
Just as the Camera Saw It



Janesville Tandem Disk
Backbone rigid as concrete arch. Trailer always holds place. Made in heavier model for tractor use.



Budlong Disk Harrow
Cannot bind in the disk boxes. Bearings set flat against the shaft. Wear on spool is even—less load on team.



Hallock Riding Weeder
Pays for itself in a single season. Use in any field. Breaks crust three rows at a time. 40 acres a day. Broad, cast force-feed seeding attachment. Sows any small grain.

YOU will see the difference between Janesville and ordinary tractor plowing *in the first round* with this plow. It is due to the shape of the moldboard—the shape that built the Janesville reputation—the shape with long, low, easy turn that lays the soil evenly and uniformly. It is in the Janesville flexibility in the furrow, which allows the plow to adapt itself to the soft places, hard places, and the difficult scouring places. It is in the extra heavy, flexible frame. This flexible construction takes the "pinch" off the points and cutting edge of shares. It takes less gas.

14-inch bottoms are furnished. Can be set to cut 12 or 13-inch furrows merely by bringing the bottoms closer together by a simple adjustment. Rear bottom may be taken off or put on, making a two or three bottom plow at will.

Send for Janesville Book

Illustrations from photographs make clear to you why *every* Janesville tool is as much better than the ordinary as the Janesville Tractor Plow. Each machine is a *specialty*.

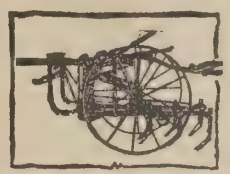
We would rather make a limited number of high grade *special* tools than a large number of common ones.

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With the Janesville Auger Twist Moldboard of our walking, sulky, gang or tractor plows you lay the even, uniform furrow which meets your idea of good plowing. With the Janesville Harrow you grip and pulverize *any* soil. Janesville Cultivators take the hard work out of cultivation. Floating arches make it easy to guide the shovels. Our line includes tractor plows, horse plows, disk and lever harrows, corn and cotton planters, listers, shovel and disk cultivators, hallock weeders, seeders.

Send for the Book—mention the tools you are interested in

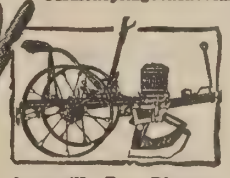
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28 Center Street Janesville, Wis.



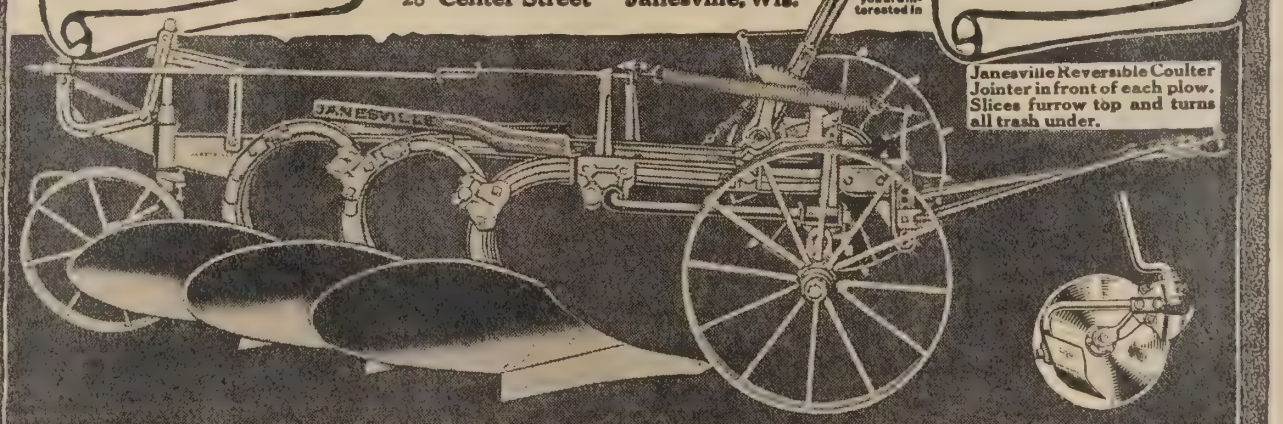
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Our newest machine—the first cultivator to use the weight of rider to help guide the shovels. Easier riding—does better work.



Two-Row Cultivator
Guide with foot levers which pivot wheels in any direction. Cushion springs on shovels.



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Janesville Reversible Coulter Jointer in front of each plow. Slices furrow top and turns all trash under.

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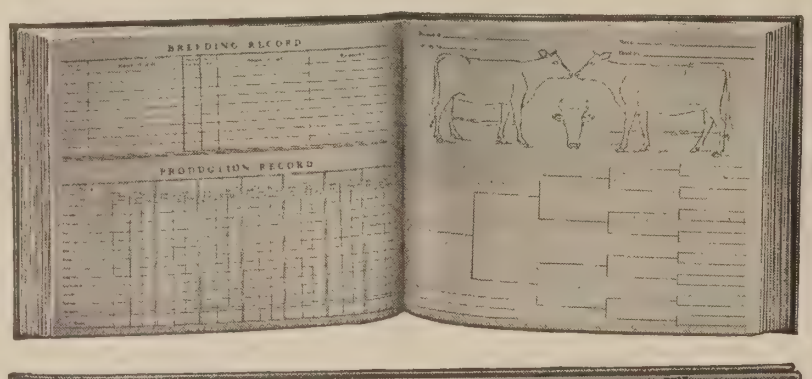
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1015 W.O.W. Bldg., Omaha, Nebr.

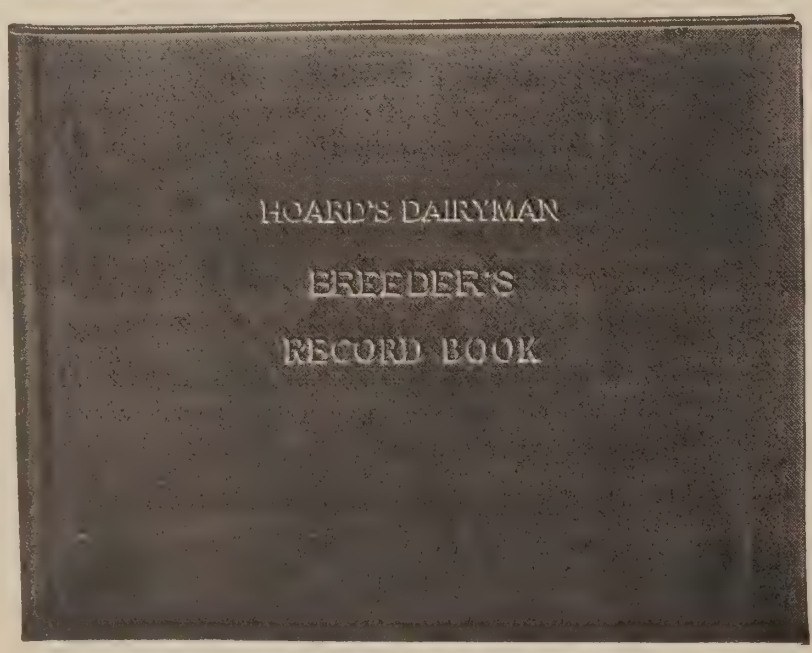
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Hoard's Dairyman,

Fort Atkinson, Wis.

Interstate Milk Producers' Association

(Continued from first page.)

into line. We have blanketed our territory now but in some places the covering is too thin. We must no longer take the risk of allowing ourselves to be caught with an incomplete membership in any part. In the past, we have found ourselves hampered in a number of cases where we had local troubles because we had not a sufficient number of patrons signed up to a particular dealer. It is not necessary to go into details for all of you know of one or more such circumstances. The most serious feature is the reaction on the whole situation. A chain is no stronger than its weakest link—likewise a farmers' organization. At the National Federation meeting the one outstanding appeal was for organization and that it be perfected *at once* before it is too late to be in shape to meet conditions after the war. Your officers have found it necessary to visit many of our local markets during the past year in connection with the campaign to place all such places within the Philadelphia milk shed on the basis of "Philadelphia price less freight". Most of these conferences have been held in connection with the Pennsylvania Food Administration and it is hoped that the results will be permanent so that hereafter local price will change automatically with the price in Philadelphia.

Finances

Commissions are now coming in regularly through the majority of distributors and manufacturers; a large number of farmers send in individually but from some the association fails to get any financial support. We are hoping that such will remit in the future for the activities of the association are limited by the financial backing of our members. During the past year expenses have been naturally larger both by reason of new lines of work and also on account of increasing traveling and maintenance expenses, and at present there are a number of propositions waiting for the association to undertake.

The accomplishments of the association during the past year have been chiefly in the line of meeting the conditions as I have outlined them. Some more or less independent achievements have been (1) the matter of relief from loading milk on trains by independent shippers, (2) securing improved transportation facilities and rates where conditions were not satisfactory, (3) the collection of many bad bills and some back pay, (4) acting as agents in the purchase of dairy feeds though in this we are very seriously hampered by the antagonistic attitude and activities of the dairy feed interests of the country, (5) the establishment of a shipping station at Huntingdon, Pa., which will furnish a market for a county, the farmers of which a year ago were compelled to take 6c for their milk delivered in town or make it into butter for which they received perhaps 50c a pound, (6) the settlement of innumerable disputes between producers and dealers and the re-establishment of some shipping stations which have been closed for one reason or another.

Butter the Safety Valve

Three important matters have been driven home to the executive committee by events during the past year and I feel I must speak of them again today. *First,* that the increased use of oleomargarine will vitally effect the market for all milk when conditions become normal for butter has always been the safety-valve. As dairymen we must use all dairy products on our own tables and every effort must be made to encourage co sumers to go back to butter which more digestible and more palatat even if it can never be made cheaply as the substitutes. *Secon* we want to compliment the membe of the association on the fidelity wi which they have kept the policy the association regarding changi dealer without sufficient reas Though some few exceptions ha come to our notice, the number dc not begin to compare with form years and very, very few have be members of the association. *Thi* we have in our territory no partic lar legislative requirements regardi care in handling our milk. This plac upon us a responsibility as well as opportunity to keep our standard without interference and if our me bers prove that this can be done will not be likely to have drast unreasonable, municipal regulatio which have been a torment to pi ducers for some other cities. The sociation has used its influence to i prove the quality in a number cases where we had complaints. Th is always some reason when milk rives in market unsalable. The tr ble may lie with the *producer,* or t *dealer,* or the *railroad,* or partly w *all three.* Whatever care we exerc is in the long run reflected in an i proved market and we cannot expt to get top prices unless we furnish first class product.

Future Plans

Of plans for the future I can on say that we have secured the co-op ation of the other producers' orga zations of the state in a legislat program to be introduced at Har burg the coming winter. We planning for an educational exhibit Harrisburg in connection with January meeting of the Pennsylva Live Stock Breeders' and Dairymes Association meeting. It is hoj through this to bring home to prod ers of the state the importance of ke ing up the quality of their prod particularly in cleanliness, and show them how relatively simple it to produce milk that will be satisf tory in the market to which it is se The association is still furnishing erature approved by the Food ministration for distribution throu out our territory and has 50,000 these on hand at the present time distribution. We expect to continu co-operate with the Food Administ tion as long as it exists and alread number of plans have been sugges to make permanent the good situat which has come about during the p year.

Throughout the year your direct have sought to keep constantly bef them the ideals of justice and co-op ation and have tried to make their cisions in the light of these princips We have certainly made many mistakes but we have endeavored at times to profit by them. We have tr neither to shirk responsibility nor assume more than that which is gi by the by-laws under which you h directed us to carry on the busines of the corporation. On behalf of Board, I wish to thank you for y unswerving loyalty and active s port. The new Board which you h just elected will serve during a riod which will be fraught with momentous economic dangers and w will require the very best which i us all, in order to steer a course that your business may weather storms. I know I need not ask today to give the new Board the s measure of support, but I do ask you carry this message home so t those who gather here one year he may be able to say that every m ber of the association did his pa making the association bigger better than it is today.



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Note these low prices. Large herring per pound 6c. Perch 6c. Carp dressed 7c. Pickerel 8c. Whiting 8c. 20-lb. bskt. smoked Bluefins $2.40. Write for complete list frozen, smoked, spiced and salt fish. Mail us your order.

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Silver Herring	$ 6.40	Perch	$ 6.40
Bluefins, dressed	7.40	Bayfish, large	8.40
Pickerel	13.40	Tullibee White	14.40
Steak Cod	14.40	Sablefish	15.40
Pike	17.40	Flounders	12.40
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Ask about Ro-San Washstand—Hot and Cold Running Water Without Plumbing.

Dairy Regulations Recommended

The Dairy and Food Commissioner of Wisconsin, Hon. Geo. J. Weigle, has made the following recommendations to the legislature of that state:

1. That provision be made for adding harmless coloring matter to unsanitary milk so as to prevent its being offered for sale at other places.
2. That cream buying stations be licensed in same manner as creameries and cheese factories.
3. That where milk or cream is bought by test that the person doing the testing be required to take out a license in order that the state may more closely supervise the work.
4. That fines be levied against the corporation or firm selling unsanitary milk as well as against individuals or officers of corporations.
5. Section 4607c of the statutes permits the manufacture of skimmilk cheese, provided it is ten inches in diameter and nine inches high. While this law permits the manufacture of skimmilk cheese, it does so only if it is of certain dimensions and would exclude all soft cheese, such as Cottage, Edam, Camembert, and numerous others. It seems quite likely that when this law was passed, it was the intention of the legislature to prohibit the manufacture of skimmilk cheese made in imitation of American cheese. It seems advisable that our law should be amended making it lawful to manufacture such cheese as Cottage, Edam, Camembert, and numerous others of similar type. Care should be taken, however, in amending this law, not to permit cheese to be manufactured in imitation of American, Brick, Swiss, or Limburger cheese and also that all skimmilk cheese be properly labeled.
6. During the 1917 session of the legislature, an amendment was passed limiting the moisture in American or Cheddar cheese to 40 per cent. It now seems advisable that the moisture in Brick cheese be limited and I would therefore recommend that this addition be made to the laws.
7. Under the present law the dairy and food commissioner's term is for a period of two years. The laws to be inforced by the dairy and food commissioner are so numerous and of such varied nature and his responsibilities are so many that to me it seems more efficient work could be accomplished if the term were extended to a period of about five years. As a matter of fact a man unfamiliar with the work of this department finds that considerable time is necessary to familiarize himself thoroughly with the laws and their application. This extension would be in harmony with the term of office of many of the other commissioners in the capitol.

The Dairy Cow

The dairy cow's a thing of charm; she lifts the mortgage from the farm and makes the farmer's life more sweet and sets him down in Easy Street. Where'er the dairy cow is queen, a country prosperous is seen, and dairymen, in joyful ranks, are packing bullion to the banks. Why plug along, the old sad way, producing nutmegs, prunes, and hay, and puting up a bankrupt wail if one year's crop should chance to fail? There is a better method now—the method of the dairy cow; this critter always earns her keep, and piles up riches while you sleep, and pays the taxes and the rents; and here in Lyon County, gents, we have the climate and the feed, and all conditions dairies need. So let us boost the Holstein cow, which beats the old breech-loading plow; the Guernsey and the Jersey, too, as smooth as any cows in view. Let's take up dairies, milk and cream, the safest money-making scheme.—WALT MASON.

Build Once
Build Right

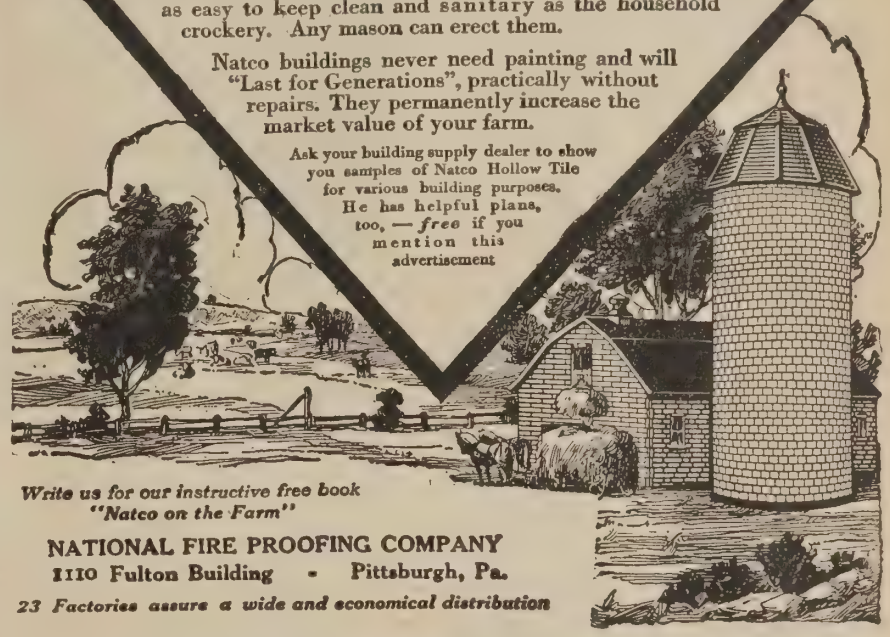
It is given to but few farmers to erect more than one set of buildings. It pays to build right the first time. You should therefore consider the advantages of Natco Hollow Tile. An ever-increasing army of farmers are finding it a fire-safe, permanent, economical and sanitary building material.

Natco Hollow Tile

walls are insulated by dead-air spaces. They keep out the frost of winter and the heat of summer. These walls are as easy to keep clean and sanitary as the household crockery. Any mason can erect them.

Natco buildings never need painting and will "Last for Generations", practically without repairs. They permanently increase the market value of your farm.

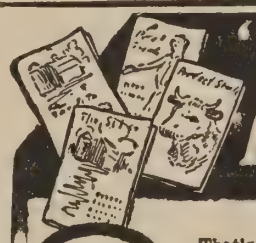
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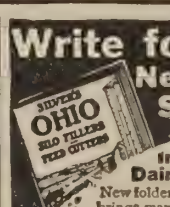
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Coming Events

Massachusetts Dairymen's Association meets in Horticultural Hall, Boston, Mass., Feb. 10, 1919. Acting Secretary, O. A. Jamison, Amherst, Mass.

Western Dairy Products' Show and Annual Meeting of Western Dairy Instructors' Association will be held at Boise, Idaho, Feb. 10, 11, 12, 1919.

Minnesota State Dairymen's Association hold annual convention at Waseca, January 21-23, 1919. Chris Heen, Secretary, Osakis, Minn.

Illinois State Dairymen's Association at Bloomington, January 21, 22, 23, 1919. George Caven, Secretary, 136 W. Lake St., Chicago.

Wisconsin Buttermakers' Association hold annual convention at Eau Claire, February 4-6th, 1919. Prof. G. H. Benkendorf, Secretary, Madison.

Kentucky Dairy Cattle Club meeting and Dairy Show, Jan. 30, 1919, at State University, Lexington. Secretary, J. J. Hooper, Lexington.

Moore Sale Cancelled

The dispersion sale of M. E. Moore and Company's Holstein herd which was to have been held at Cameron, Mo., Jan. 31, has been cancelled. Instead, the herd will be sold at the Kansas Breeders' Sale in February.

Dairymen's League Meeting

About one thousand members of the New York Dairymen's League met in Utica last week. Many stirring addresses were made regarding the present milk situation and it was unanimously voted to stand by the organization. Delegates were selected to appear before Governor Smith and set forth their side of the milk price controversy. There seems to be little prospect, as we write, for a speedy adjustment between the dealers and producers. The farmers are loyal and determined to win their fight.

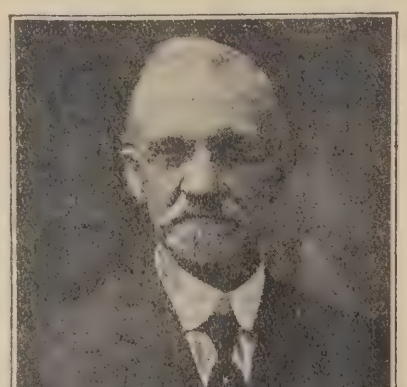
We are advised by telegraph that Governor Smith has appointed a commission of six to adjust the price controversy.

Sale Announcements

Jan. 28, 1919—Holsteins. Dispersion of Frank White & Son's herd of Registered Holsteins, Woodstock, Ill.
Jan. 29—Holsteins. Tri-County Holstein Breeders' Ass'n. Second Semi-annual Sale at Evansville, Wis. F. B. Green, Sec.
Jan. 30—Holsteins. Albert Braymer, Granville, N. Y.
Feb. 4—Poland-China Swine. Grant County Poland-China Breeders' Ass'n., Lancaster, Wis. F. A. Morehouse, Sec'y.
Feb. 4-5, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
Feb. 5-6-7—Holsteins. Sanders—Bradshaw Sale. Phoenix, Arizona. Frank Reed Sanders, Sales Manager, Mesa, Arizona.
Feb. 6—Holsteins. Central Michigan Holstein Breeders at Michigan Agricultural College, East Lansing, Mich.
Feb. 6, 1919—Holsteins. Central Michigan Holstein Breeders' Second Annual Sale at Michigan Agricultural College Live Stock Pavilion, E. Lansing, Mich. A. E. Jenkins, Mgr., Lansing Mich., R. 5.
Feb. 11—Holsteins. Nebraska Holstein Breeders' Consignment Sale at Omaha, Neb. Dwight Williams, Mgr.
Feb. 25—Holsteins. Dr. A. D. Blackburn, Cuba, Ohio.
March 4, '19—Holsteins. H. J. Goelzer, Plymouth, Wis.
March 14.—Holsteins. G. V. Buelke, Plymouth, Wis.
March 12-13 '19—Holsteins. Wisconsin State Holstein Breeders' Association Sale at Fond du Lac, Wis. F. H. Everson, Lake Mills, Wis., Mgr.
April 1-2, '19—Holsteins. Pure-bred Live Stock Sales Co., Brattleboro, Vt.
May 9-10, 1919—Holsteins. Waukesha Co. Holstein Breeders' Ass'n. Semi-annual Consignment Sale, Waukesha, Wis. W. L. Baird, Sec.
May 14 and 15—Holsteins. The Holstein Breeders' Sale Co., Semi-annual Consignment Sale at Fond du Lac. S. H. Bird, So. Byron, Wis., Mgr.

A. A. Cortelyou of New Jersey, owner of the Bloomingdale herd of Holsteins and director of the Holstein-Friesian Association of America, died December 22. For a quarter of a century Mr. Cortelyou has served on the Association's Board of Directors, holding the office of president for a period. Few men have done as much in the interest of the black and white breed in America.

Mr. Cortelyou's herd is one of the oldest and best founded in the country. He maintained breeding animals of such merit that many famous individuals were developed. Johanna Rue 3d's Lad, Hengerveld DeKol, and King Fayne Segis were all used as



A. A. CORTELYOU

herd sires. Mr Cortelyou bred the two highest short period record cows in the world.

In the master of Bloomingdale herd were represented the highest qualities of friendliness, integrity, and constructive vision. His work as a leader and counsellor among dairy cattle breeders makes his death a loss to the entire body of dairy farmers in America.

New York Milk Situation

Members of the Dairymen's League ask $4.01 per hundred for three per cent milk for the month of January and the large milk dealers of New York City refuse to buy milk at this price. Dealers in other cities have willingly bought milk at the farmers' price and deliveries are being made to consumers as usual. New York City is receiving about 50 per cent of her normal milk supply and this is coming from sections outside the territory of the members of the League.

Mr. R. D. Cooper, president of the Dairymen's League, has made the following statements concerning the present acute situation between the producers and dealers:

"Consumers of New York City are being deceived about the facts in the present milk situation. A few of the larger milk dealers in a combine known as the New York Conference Board are spending thousands of dollars circulating clever but untruthful statements about the farmers in the Dairymen's League. We will welcome any fair investigation that will bring out the facts in the case. Many investigations of the milk situation which have already been held, have shown without exception that the average farmer was not only not making a profit out of milk, but much of the time was obliged to produce milk at less than cost. The same investigations, on the other hand, have shown that the dealers were profiting at the expense of both the farmers and the consumers.

In 1916 a joint committee of the legislature was appointed by the governor to investigate the whole dairy situation. This committee travelled all over the dairy sections of New York during the fall and winter of 1916, held a large number of hearings, and then came to New York City and made a thorough investigation of the distribution system.

Here are a few extracts from the committee's report on dairy conditions:

"That the state was and is threatened with the possible decay of the dairy industry is apparent. No problem of equal importance confronts the people of this state and the problem is a more vital one to the inhabitants of our large cities than to the agricultural communities.* * * Sheep husbandry has already departed and the art, if it has not already disappeared, is rapidly disappearing. Our farmers who wish to engage in that industry must even now seek skilled help from without the state. Shall the dairy industry be allowed to follow that of sheep raising? It must always be borne in mind also that such industries when once decayed or lost are not easily restored. * * *

"The committee is of the opinion and accordingly reports that during a period of several years the dairy farmer, laboring industriously and thriftily as he might, was not able to procure such reasonable price from the sale of dairy products in this state as to earn a fair labor and invested capital return. * * * The consumer can only be assured of an abundant supply of these necessary products, and the state can only retain this important industry within its borders, ensuring present food and future fertility of our soil, by endeavoring to bring about such conditions as will provide to the producer a fair and reasonable return for his labor and invested capital. That the dairy farmer was unable to earn a fair and adequate return in the industry during several years past was conclusively established, in the judgment of this committee, by abundant evidence in practically every farming community in this state."

So much for the producer. Now let us quote from page 576 of the same report on distribution conditions as the legislative committee found them in New York City:

"It is customary in referring to unnecessary expenses in milk distribution to refer to the fact that four or six or ten milk wagons and milk drivers visit the same block which one might well supply, but this ignores the really greater expense of the silent army of retainers that accompanies and follows the milk wagon in its daily round. This army is marshalled by each company and sets out daily to capture the other man's customers. Not only do we find in a single block six wagons and horses and drivers where one might well do the work, but on the same day we find operating in the same block six solicitors, six route superintendents having general charge and direction of their activites, six staffs of clerks and bookkeepers who will devote part of their time and attention to that block for that day, and each and every part of perhaps twenty other companies devoting [illegible] the certain block a portion of the time and the consumer's money in the struggle to ascertain which company shall survive in rendering its inhabitants a single service. It may safely be said that no person of understanding has ever studied this question without reaching the conclusion that the distribution of milk is a public service, which, to be put upon an economic basis, requires public regulation to the end that all unnecessary services even of a competitive kind may be eliminated."

The above facts show just where the trouble is in the present acute situation. The farmers know and have known for a long time that the consumers were being robbed by the milk dealers of New York City and the sooner the consumers realize this and take steps for closer co-operation between the farmer and the consumer the sooner the farmers will get the just costs of production, and the consumers their food at proper prices.

Impressions of the New York Milk Strike

HOARD'S DAIRYMAN:—World [illegible] has ceased, but the milk-war is [illegible] once more and New York dairy soldiers are rallying to the bugle-call of their organization, the Dairymen's League, which on New Year's day sent out the word to strike and keep home our milk, as the dealers, under the direction and approval of Mayor Hylan, New York City, had refused the price set by the League for January. Here, in the dairy county of Chenango, we are solidly massed and will never give in to the big city which unnaturally refuses to recognize our rights to costs and a small profit which we demand, but instead chooses to listen to the anti-dairy propaganda which seeks once more to crush the producer and then betray the consumer as it has done so many times before.

The press of New York is bitter and skeptical towards us. They appear to be doing everything in the power to inflame the consumer against us and to keep the trouble waters stirred up. We have few friends to stand for us; few will care to take the pains to find out we are really baby-starvers and profiteers, as the gang glibly insists; and our New York representatives are being heckled and accused at every turn and our testimony and proofs are distorted and changed.

It is a bit discouraging and black this situation in which we find ourselves precipitated.

In my own town of North Norwich Otto Gruhn, who owns our shipping station, gave in to the League after two days of striking. Mr. Gruhn operates several factories and the milk is shipped to Brooklyn for distribution. But in Norwich, which is blessed or cursed with a Borden plant, the League members are still waiting grimly and tenaciously for this most heartless and richest concern to come to terms—but will they?

The attitude of the New York consumer is what worries me more than anything else at this time. I can help but believe that if we had entered their camps immediately following the strike of several years ago and had followed up that victory with elaborate proof and explanation the ones who seek our overthrow now would bray to deaf ears and this second fight would not have come on. But many people have taken the stand that time and tide will do much for the dairyman's cause any aggressive action on his part, and that there was no need of any parti-

(Continued on page 906)

'illy Alcartra—World's Greatest Food Factory

California Holstein Again in Limelight With World's Best Milk Production

FRANK T. PRICE, NEW YORK

EREAFTER there will be a new standard for judging dairy cows Tilly Alcartra of California is to ve anything to say about it. For lly, the perennial producer of the olstein-Friesian breed, is setting a e work standard for the other big oducers in the dairy world to shoot

This cow which has just broken all cords for milk production over a arly period has a unique record production extending over a six-ar period that is unapproachable om most every angle. Her latest oduction which has just been an-unced as a world's record for one ar in milk production is 33,424.8 . milk containing 1,058.39 lbs. fat. We have become accustomed to dge Holsteins by two standards and e introduction by Tilly of a third ens up a new field of endeavor for olstein breeders. The breed's repu-ion and popularity 's built upon e Holstein's ability to produce in ort time test. Later, and becoming ry rapidly more popular, particu-ly in the West and Middle West, e yearly test has been accepted as accurate standard for judging the olstein's value as a dairy cow. And w Tilly comes to the front with a for lifetime honors. She has es-olished by her yearly and large ort time records a correction be-een two methods of judging pro-ction and made a new classification well. Needless to say, her owners ll humor Tilly's latest ambition and an to keep her hard at work until e is called to the bovine happy nting grounds to browse forever in curious alfalfa pastures, nibble suc-lent beets, and be served with the iry world's choicest grains.

Tilly's record for a lifetime of use-lness is based upon the following oduction figures, authenticated by r owners, the A. W. Morris & Sons rporation of California:

Age	Lbs. fat in year	Lbs. milk in year	Lbs. fat in 7 days
rs. 6 mos.	445.0	14,837.2	13.91
rs. 5 mos.	673.0	21,421.3	18.52
rs. 1 mo.	951.2	30,451.4	23.42
rs. 5 mos.	952.4	29,826.6	25.78
rs. 7 mos.	833.7	26,814.8	(not tested)
rs. 3 mos.	1,058.39	33,424.8	
al, 6 yrs.	4,913.6	156,776.1	

Think of it, dairymen, over 4,900 s. of fat in six years and a milk oduction of over 156,000 lbs! Put ur pencils on this production at av-age prices and find out what Tilly's ners have actually realized in iry products during the remarkable reer of this wonderful cow whose efulness is not yet ended by any ans. Study the economy of her eding which is shown by this latest ar's record and which is given in ll elsewhere in this story and learn rough a single actual example a les-n that the dairy press has preached r years—the true economy of high oduction.

The limitations of time and space ll permit no more than a brief etch of the achievements of Tilly cartra since she first began pursu-g the elusive wraith called Fame, t the fact that her pursuit has been irly successful may be deduced from e statement that perhaps no other w is better known among pure-bred ttle than she. Her record breaking rformances have been chronicled in re space than the performance of y other single animal and that, in ese days of high powered advertis-g campaigns, means something to her ners. It adds somewhat materially her value as a money-making asset.

This latest record which Tilly uses to press agent herself into the presence of thoughtful dairymen of America is remarkable. It exceeds by over 2,000 pounds the work of any other cow in the world for milk production over the yearly route. It beats the best the Guernsey has been able to produce by over 9,000 lbs. and the Jersey champion is over 13,000 lbs. in the ruck. It requires an average daily production of 91 lbs. to reach this total and since her highest day's milk production for the period was less than 120 pounds it will be seen that Tilly's is, to say the least, a wonderfully consistent performance. Had the over 33,000 lbs. of milk she produced been retailed at 15 cents per quart it would have netted her owners $2,600. At the price for which it sold, $2.75 per hundred pounds, it actually did bring them $920.

When economy is to be considered the latest record of Tilly Alcartra exceeds by all margins every mark ever heard of. Her feed bill, based on conservative estimates, was less than $300. Her average grain consumption was but 16 pounds and consisted entirely of grains that are readily available to the average dairyman. They can be and are successfully grown on the average farm. Here is the summary of her feed consumption during her test: 1,525 lbs. ground barley, 1,325 lbs. ground oats, 1,325 lbs. bran, 1,165 lbs. soya bean meal, 532 lbs. cottonseed meal, 200 lbs. linseed meal, 21,000 lbs. beets, 2,550 lbs. beet pulp, 3,000 lbs. silage, 5,000 lbs. alfalfa hay; pasture 4 hours daily for 9 months. It is worthy of note that Tilly consumed over 100 lbs. less concentrates during this test than did the new champion of the Jersey breed, Sophie's Agnes, who has recently completed her record of just over 1,000 lbs. fat and 16,212 lbs. milk.

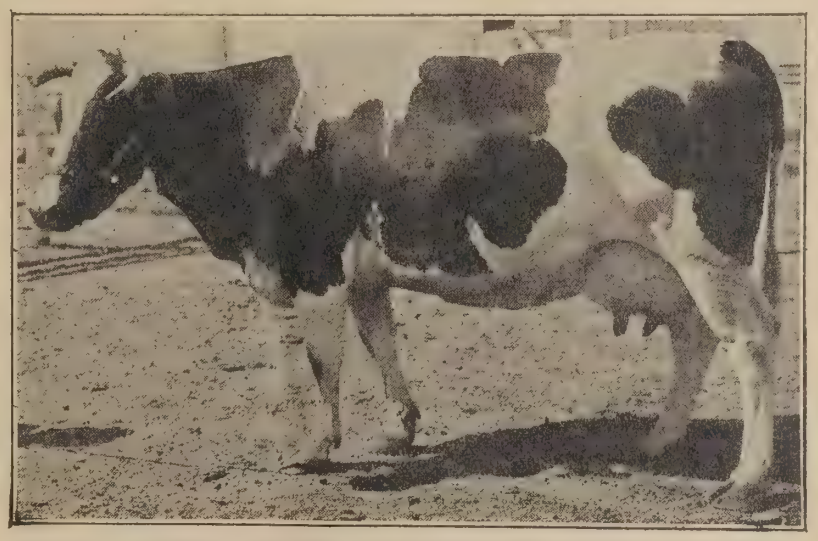
Can any other cow in the world show such an efficient record of production with such economy of raw material? Can any food factory regardless of its kind show such a record? Records such as these prove the importance of the dairy cow in the scheme of food production and dairy organizations everywhere can preach a remarkable sermon from the text that Tilly sets.

Holstein men will be largely interested in the claims which Tilly Alcartra sets up. She has proven that she is beyond a doubt a better long-time producer than the Jersey champion, Sophie 19th, for which has been claimed the title of champion long distance cow of the world. Tilly produced in six years over 4,900 lbs. of fat, Sophie produced about 4,885. Tilly produced over 156,000 pounds of milk—Sophie a little more than half as much. While Sophie has a seventh year to her credit the total of her seven years is but 367.8 lbs. over Tilly's six years in fat production and it falls short a mere 65,000 lbs. of Tilly's milk production with seven years totaled against six for the latter cow. Tilly will freshen again in less than three months and has every prospect of going right ahead in the same old record-smashing way.

Tilly Alcartra thus stands as the only cow with a 7-day fat credit equivalent to more than 40 lbs. of 80 per cent butter to amass such a record in long time production. She is the only cow to have produced over 30,000 lbs. of milk in two different years. No other cow has produced above 29,000 lbs. of milk in three different years and, further than this, Tilly is the only cow to average 30,000 lbs. milk for four years. She is the only cow of any breed that has produced over 950 lbs. of fat on three different years and also the only cow to make over 800 lbs. of fat on four consecutive years. Sophie 19th has four 800-lb. fat records but they were not consecutive.

This old champion with the new records was bred in Iowa by McKay Brothers. Her sire was Alcartra Polkadot Corrector and his dam was a former world's champion and one of the breed's greatest foundation cows through both sons and daughters. Tilly went to California as a yearling and it is in the Morris herd that her wonderful records have been made. Tilly, best of all, transmits her remarkable characteristics, for her oldest son has a long string of two-year-old daughters with records that reach up to figures that surpass the two-year-old records of Tilly herself. She is a product of careful selection and breeding, proper handling in development, and a credit to the dairy world through the results of these two circumstances. Her work, as we have suggested before, might well be taken as an example of the wonderful possibilities of the dairy cow as a producer of food.

Thus Tilly Alcartra has established the new classification for judging the merits of the dairy cow. Thus has she proven that even the short time record still has a place in judging the ability of a dairy cow. Thus has she proven, and most important of all, that the dairy cow is the most efficient food factory that man has ever known, furnishing as she does the greatest food and at the least cost. Tilly Alcartra, by this, rises above the breed, above mere competition. She becomes the embodiment of all that is sought by those who strive to put the dairy industry on the extremely high plane its paramount importance deserves in man's plan for existence.



TILLY ALCARTRA, HOLSTEIN, WORLD'S CHAMPION MILK PRODUCER.
She has recently completed a record of 33,424.8 lbs. milk containing 1,058.39 lbs. fat. In six consecutive lactation periods she has produced a total of 156,776.1 lbs. milk containing 4,913.6 lbs. fat. Tilly Alcartra is owned by the A. W. Morris and Sons Corporation of California.

Jersey Cattle Notes

For week ending Jan. 3, 1919:

Number of animals registered: Bulls, 112; cows, 293; total. 405. Number of transfers recorded: Bulls, 165; cows, 590; total, 755.

Does Not Winterkill

Genuine Grimm is most profitable because of its hardiness, large yields and high feeding value. Less seed required to get a stand. Booklet, testimonials and seed sample free.

A. B. LYMAN, *Grimm Alfalfa Introducer*
Alfalfadale Farm, Excelsior, Minn.

Low Crown Protects The Plant Against Frost Drought and Rodents

Lyman's Genuine Grimm Alfalfa

Seed Corn 5,000 Bushels Extra selected, sure to grow. 20 Leading varieties. Highest yielders. Best show corn. Also seed oats, barley, alfalfa, Spring wheat. 1200 acres. Sample on request; write today for catalog. W. N. SCARFF & SONS, New Carlisle, Ohio.

Milk Record Sheets Free

Year's supply without charge. Ask about it and we will send Free Book on Cow and Calf Diseases, invaluable to every Dairyman or Breeder.

CURA-BOS SCOUR and CHOLERA Remedy. Guaranteed to cure and prevent. $1 and $2 sizes. Prepaid. Act now before too late.

Troy Chemical Co., 328 State Street, Binghamton, New York
Mfrs. of Cura-Bos, Save-the-Horse and other Famous Veterinary Remedies.

Don't Waste Wool

Old methods of shearing leave too much wool on the sheep. Shear the modern way with a good machine. The Stewart No. 9 Ball Bearing Shearing Machine works wonders with flocks up to 300 head. Saves time and money—shears 15% more wool. Does away with second cuts. Soon pays for itself. You can get it by sending $2.00—balance on arrival. Or write for catalog. CHICAGO FLEXIBLE SHAFT CO.
Dept. 156, 12th St. and Central Avenue, Chicago, Ill.

STOP Waste and Loss

Cools and aerates milk at one operation—removes odors—halts germ growth. Save time and money.

The IMPROVED CHAMPION MILK COOLER-AERATOR

Saves its cost in one week. Folder free.
Champion Milk Cooler Co., Dep. D, Cortland, N.Y.

WE PAY A VERY HIGH PRICE FOR RENNETS

CALF RENNETS FROM MILK-FED CALVES
THE MARSCHALL DAIRY LABORATORY
Madison, Wis.

THE "PERFECTION" KERO-GAS STOCK TANK HEATER BURNS ordinary cheap kerosene, and produces a steady blue flame of an intense heat. Simply fill the oil can, light the burner, and your service begins. No fires to kindle, and tend to during the day, no ashes to remove, *no sparks* to fly to burn your buildings, you can place the heater right inside your barn. *No soot* inside of heater, water starts circulating instantly the same as placing a tea kettle on a hot stove. Here is a heater of quality, costs a little more but is worth more, received highest awards at four state shows, and receives highest endorsement wherever shown. More square inch heating surface than other makes, 26" high by 36" long. Price $25.00. Write at once for special introductory price on first heater in localities.
Mfg. by The Kero-Gas Products Company, Albert Lea, Minnesota.

Jacques Golden Glow Seed Corn—Germination Test 98.

My Golden Glow is two weeks earlier than the ordinary run of that variety of corn. I have bred it in Northern Wisconsin for many years. It is suitable for use in Michigan or New York or any part of the Northern limits of the corn belt and substantially as early as any flint corn suitable either for grain or for silage. This year my crop averaged 60 bus. shelled corn per acre on all fields planted. Price 10c a lb. F. O. B. Neillsville, Wis. Money refunded if corn does not test as represented. Include with order 75c for each grain sack used and furnished by me or mail sacks to me and save this charge. If you want any of this corn it should be ordered immediately as my stock has never lasted until the end of the season. Wm. H. Jacques, Neillsville, Wis.

EDITORIAL COMMENT

LET RAILROADS LOAD MILK

The tariff on market milk of some if not all of the railroads east of Chicago requires the shipper to load his milk on the car. This may be the requirement for other kinds of freight or express but, if so, we are not advised. It is enough for the shippers of most products to bring their wares to the freight depot or the express office where they are received by the agents of the transportation companies and at this point the shippers' duties should end. It seems to us an imposition to require the milk shippers to load their own milk.

Much time is wasted by milk shippers, especially at large shipping points, waiting for trains in order to load their milk. We have been informed that shippers take turns in loading one another's milk or they employ a man through their association to do this work. No matter what system of loading milk is followed by the milk shippers, it is an expense to them. It is the duty of the shippers to deliver their milk to the railroad receiving stations, but it is the duty of the transportation companies to load the milk on the car. Milk shippers should insist that this service be rendered them, as it would be asking no more service than is extended to shippers of other products.

SURPLUS MARKET MILK

The Milwaukee Milk Producers' Association is making its surplus milk into cheese. It is largely through the efforts of its competent secretary, Mr. G. R. Rice, that this step was taken. The surplus now runs from none to 20,000 lbs. of milk a day. Of late, the milk supply has been on the increase, but this will work no great hardship upon the association for the present price of cheese will bring nearly as large a return as selling the milk for direct consumption.

Cheddar cheese is selling for 37 to 39 cents a pound. One hundred pounds of milk testing 3.8% will make 10 lbs. of cheese. This would bring a gross return of about $3.70 per hundred. The cost of making will vary, because of the varying supply of surplus milk. But even under these conditions 30 to 40 cents per hundred pounds milk should bear the cost of making the cheese.

Disposing of the surplus milk has been the difficult problem of many milk producers' associations, but the producers in the district of Milwaukee have solved it by making it into cheese. Other associations may find it more advantageous to make butter and cottage cheese or some other kind of cheese from skimmilk. There are various types of skimmilk cheeses which have a good demand. This field should claim the attention of every secretary who has the problem of caring for surplus market milk.

"SPEAK SOFTLY BUT CARRY A BIG STICK"

The New York milk strike has brought forth a companion piece to the famous "Public be Damned" statement that has since been much regretted by its author, a certain former railroad autocrat. Mr. Loton Horton, president of one of New York's largest milk distributing companies, is reported to have said: "We will decide what we will pay the producers for milk and what we will charge the consumers."

Possibly Mr. Horton has the producers and consumers hog-tied and at the mercy of his benevolent dictation; but even so, we can hardly credit him with so great a lack of intelligence as to publicly declare their shame and slavery. In a matter of so great concern and to so many people we scarce want a wilful group of men to "decide", particularly when they are the middlemen who profit by the decision. They may feel that the business is their own to do with as may well please them, and that they will play the tune while producers and consumers pay the piper, but it is another thing to have them tell us so.

We crossed an ocean to the famous "three thousand miles away", to fight the battle of democracy against a political and inhuman autocracy. That fight is won; shall we now continue to suffer an autocracy of middlemen to have its own sweet will at home? We have faith to believe the New York Dairymen's League will have strength to win this particular battle for industrial democracy, after which may they take as their own slogan "Speak softly, but carry a big stick", the maxim of that goodly fighter for democracy and the people's man, Roosevelt, the news of whose death comes as this is written.

This slogan is offered advisedly, for no matter what the decision the fight will still go on. The city consumer, befuddled, befosseled, and betrayed by the New York daily press, is angry and hails the producer as a consciousless profiteer who would sacrifice their helpless babies upon the altar of the God of Mammon. The angelic dealers and the self sacrificing daily press draw their robes of white about them and, placing the halo of sanctity on their own heads, tell them they will do their best to insure milk to babies while the proud producers gamble with human life that they may feather their own nests. It's absurd to think that people will believe such nonsense, and, if they do, that there is not an exodus to the country to try the 4 o'clock rising and the eight o'clock bedtime; that is, if the chores are all done and one of the cows is not sick. Yes, to meet this the producers must speak softly, but carry a big stick.

COMPETENT PRODUCERS' ASSOCIATION

On page 885 of this issue we publish the annual address of President F. P. Willits of the Interstate Milk Producers' Association. President Willits has clearly outlined what his association has done in the past year and also states the duties of a well managed milk producers' association. We most heartily commend this article to our readers.

In commenting upon feed formulas for arriving at a price for milk, Mr. Willits well states: "However, it would seem to me that it is far easier to discuss the value of milk than to haggle over the items of corn, feed, hay, and labor, knowing all the time that, after all, you are particularly concerned with the price of milk. Then, too, our Association fears that in times of surplus it may be difficult, temporarily, to get even production costs and, vice versa, the formula could readily tie us down below the market value of our product when the market was improved again."

Mr. Willits sees the danger of farmers tying themselves up to feed formulas and selling their products upon a basis of cost of production plus a profit. He recognizes that there are certain fundamental laws governing trade which the farmers must follow, the same as all other industries. In this matter we heartily concur with his views, for if the price of milk is to be fixed upon the cost of production plus a profit, then the prices of everything the dairyman buys and uses will likewise be marketed in the same way. This would lead to endless confusion and dissatisfaction. What we as dairymen must ever prevent is combinations interfering with the law of supply and demand.

The feed formulas in time of war were helpful in securing for the producer a fair price for his milk, and they will be useful in times of peace to determine whether the producer shall continue to produce milk at the price he can get for it upon the market. The consumer cares nothing as to what a thing costs. He measures all his articles from a selfish standpoint—what are they worth to him. It is our duty to educate the consumer regarding the food value of milk and its products, and when he thoroughly appreciates their cheapness compared with other animal foods, he will be ready to pay a fair price.

BRAN SKY-ROCKETS IN PRICE

Elsewhere in this issue we publish an article entitled "Bran Sky-rockets in Price". Mr. Sosland discusses this subject to some length, and we are sure it will be interesting to those desiring bran to read his account of conditions and circumstances that caused the rapid rise in its price.

Mr. Sosland says that dairy cows must have bran in order to produce milk. In this he is mistaken, for thousands of cows have never tasted or seen bran. Cows in the West grow up on alfalfa hay and produce their milk on this feed alone. Without question, bran is a good feed. It is moderately rich in protein and contains a high percentage of mineral matter which is highly desirable for growing animals and milking cows. It is a splendid feed for lightening the meal portion of a cow's ration or for cows at the time of calving or when they are otherwise indisposed.

But cows can and do get along very nicely without bran. Its present price does not warrant its use, except for calves and cows that are not doing very well. Oats will take the place of bran and at 70 cents a bushel is a much cheaper feed. Further, alfalfa can be purchased at $38 per ton in the northern states and cheaper in the West and Southwest, making it a far cheaper feed than br at $50 to $60 per ton. Barley at $1.00 a bushel a much cheaper feed than bran.

The farmer who has been wise enough to provi himself with alfalfa or clover hay or any hay ri in protein need not concern himself about the hi prices of bran. His herd will get along very nice without it. Those who need more protein for b ancing their home grown feeds will find it cheap to buy gluten feed, cottonseed meal, oil meal, d tillers grains, or velvet bean meal, etc., than bra

THE FUTURE FEEDER

"What can I do?" said a secretary of a milk pr ducers' association, "to inform the members of o association regarding the proper methods of fee ing their herds? Most of them do not understa how to make a balanced ration for their cov They buy cheap feeds and feeds low in prote when they need high protein feeds to suppleme their home grown feeds."

Here is a situation that is hard to reach becau such men are not students of their business a they do not read to a purpose. There is no desi on their part for information. They are conte with themselves and the results they are getti from their herds. Little can be done for such me

Our hope is through their children. If th could be taught in school some of the simp truths of making rations, enough to crea a desire for more information pertaining to fee ing, we would have made a start toward solvi this perplexing question. School house clubs cou be organized and at the meetings of these clu the subject of feeding could be discussed. T children of the farm pave the way for obtaini knowledge of the proper rations to feed dai cows. It is necessary to create a desire for know edge before it is possible to acquire it. The bo and girls' clubs that are being formed in ma counties will pry open the minds of these you folks and make them hungry for knowledge. It through these young heads that agriculture w make her greatest progress.

THE COUNTY AGENT

The leading farmers everywhere appreciate t necessity and value of the right kind of organi tion. The days of individual effort on the farm a passed, and if agriculture is to make the progre necessary to keep in step with other industries, must be organized.

The county agent has been given a thorou trial, especially during the last year or two. I has made good. The work has progressed f enough to indicate clearly his duties and the se vice he can render his county. In the beginni the county agent's work was confined largely educating the farmer and rendering him an in vidual service, but it is realized the county agen field is larger than this and those who have be engaged in this work for a considerable number years appreciate the importance of occupying t larger field.

Mr. E. B. Heaton recently asked these pertine questions at a meeting of the National Associati of County Agents held in Chicago: "Is the coun agricultural agent to be simply the agent of an e ucational branch of our government, with the id in view of going out and educating the farme or is he to be largely responsible to the executi committee in charge of the local county assoc tion? Is it not a fact that we have been trying educate the farmer too much? Has not the ti about arrived when we should change our plans a methods of work in our various agricultural ins tutions and our governmental departments of ag culture? I wonder if the best type of county age is not that of a man who corresponds to the co mercial club secretary, so far as general conditio are concerned. This man must look after the ge eral interests of the county for which he work must study the changing phases of agriculture, market conditions, of organization methods a various other general propositions."

We believe Mr. Heaton has the true concepti of the duties of an agricultural agent. It would unfortunate if the educational part of the farm were neglected. We can never have too mu knowledge; on the other hand, it is possible to gi too much attention to the problems of the dai the soil, and the crops and disregard the relatic ship which the farmer bears to other branches industry.

We like the word "agent". It carries in meaning the duties of a county leader, a sup visor, as he is sometimes termed. Agent means o who exerts power, or has the power to act; one w

for or in place of another by authority from
one trusted with the business of another.
has been stated by Mr. C. B. Smith, in charge
xtension work in the North and West, that "the
ity agent as the joint representative of the ag-
ltural college and the U. S. Departme..t of Ag-
lture carries on his work according to plans
oved by these institutions. The active and in-
gent participation of farmers with the repre-
atives of the agricultural college and the U. S.
artment of Agriculture in formulating plans
res that the program agreed upon will be prac-
and workable as well as educationally sound."
e have long held the conception regarding the
of a county agent as expressed in the several
tions asked by Mr. Heaton. When every coun-
gent conceives and understands these princi-
, his work will be broader and more effective in
advancement of agriculture.

Breeding Sire to Daughter

have a herd of grade Jersey cows with a grand-
of Noble of Oaklands at the head of the herd.
it bring good results if I breed his daughters
im? If not, if I get another grandson of Noble
)aklands, half brother to the one I have, will
be all right? I have been informed that it is
good policy to change the strain of blood. Any
rmation you may be able to give in the matter
be greatly appreciated as I am young in the
se and do not want to make too many mistakes.
uncan, Ariz. A. D. C.

he method of breeding suggested would be
er inbreeding or line breeding. Inbreeding is a
mon practice among skillful breeders. It is
ugh its practice that desirable characteristics
nimals have been established and some of the
best animals developed. There is nothing
it inbreeding itself that breeders need to fear.
danger lies in mating animals having common
knesses. This, as can readily be seen, intensi-
the weaknesses as well as the desirable charac-
stics of the two animals.
breeding of pure-bred animals should be prac-
l only by men who have a thorough under-
ding of their animals, and know whether the
nals being bred have a common weakness. A
on who is a keen student of animal life can
tice inbreeding of pure-bred animals to splen-
advantage. But even such persons sometimes
re poor results.
is our opinion that there is very little danger
breeding a sire back to his grade offspring.
re are not likely to be any bad results from this
hod of breeding, and the chances are that it
intensify the blood of the sire, and this is de-
ble if the quality of the sire is good and the
nsification of his quality desirable. There are
petent breeders who do not advocate this prac-
of breeding a sire to his grade offspring, but it
practice that we believe on the whole gives bet-
results and that more good comes from it than
ring another bull. We would not hesitate to
the half-brother of the sire on either the pure-
l or grade heifers of this bull unless they have
e noticeable weaknesses in common that it
ld be undesirable to intensify.
here is also to be considered the small breeder
is not in a position to exchange his bull or is
financially able to purchase a new one of good
ity. In such a case it would be much more de-
ble to retain the bull of known quality than to
hase a sire of poor ability of nondescript
ding.
oncerning this practice, Professor Eckles of the
souri Station wrote us some time ago:
am aware that it is not always possible for the
er of a small herd to retain and use the old bull
if it is known that his offspring are high pro-
rs. I do not in general favor inbreeding to
great extent. However, if I had a bull known
e a sire of high merit I would not hesitate to
d him to his own daughters rather than to get
her, the merit of which I did not know. It is
known that inbreeding intensifies the charac-
tics of the animals mated. If they are defi-
t in any respect this is likely to appear even
nger than in the parents. If the animals are
g and vigorous and have the dairy character-
s wanted, the offspring are all the more cer-
to have the same if the parents are related.
Where the herd is large enough to make it prac-
, the thing to do in many cases is to keep two
or at least retain the bull after he is used un-
is possible to see how his daughters milk. Of
se, it costs money to feed an extra bull but the
hters may be enough better to pay the extra
nse many times over.
should say that the question of using a son
present herd bull would not be at all objec-
able provided his dam comes from a good
n of breeding and is herself a good individual and a heavy milker. In case the daughters of the old bull are also satisfactory, showing he is a prepotent sire, this would be a good plan to follow.

"Inbreeding is generally applied to the mating of animals within the first degree of relationship, such as parent and offspring, or brother and sisters. Line breeding is mating animals having the same ancestors but not so closely related; for example, the same grandparents.

Value of Skimmilk

Please tell me how to determine the market value of skimmilk, the price of butterfat and grain being known. The price of whole milk is not known. Just now the price of butterfat is 56c in the community.

Urbana, Ill. W. H.

There is no way of arriving at the value of skimmilk through butter prices or the prices of grain fed to the cows. Experiments in actual feeding have shown that 100 lbs. of skimmilk when fed at the rate of 1 pound of corn meal to 3 lbs. of skimmilk is worth one-half bushel of corn. If corn is selling at $1 a bushel, this will make 100 pounds of skimmilk worth 50c.

When fed to calves, skimmilk is worth more than this. We calculate that when grade dairy calves are selling at the age of six months for $25 that the skimmilk fed them returns us from 50 to 60c per hundred.

Marking Cattle

Kindly advise me what in your experience is the best system for marking a herd of pure-bred cattle so as to keep your records straight.

Jacksonville, Ill. A. L. F.

The tattoo method of marking has met with good success. Instead of using a numbered tag, the number is tattooed on the inside of the animal's ear. The method of tattooing is as follows:

The inside of the ear where the number is to be marked should be cleaned thoroughly. After this is done cover the spot with tattoo oil, using a small brush, and then cover the type with some of the same oil and make an imprint of the number desired. After this is done, draw the finger gently over the place to rub the oil in, but be careful not to rub too much or too hard, as this will start the blood. For making this number we have a pair of pinchers made with a slot in one end of the jaws into which we set type to make the desired number. The numbers are made of needle points and prick the ear when the pinchers are pressed together. Do not wash the ear after making the impression, but leave it alone for several days, when you will see the desired number very plainly.

After making one impression with any type, be sure that the type is cleaned before tattooing another calf to avoid carrying any infection.

Rate of Growth of Pigs

Will you please inform us about what you consider the proper weight for a pig between ten and eleven months old?

Detroit, Mich. A. C. M.

The pig does not make very rapid progress in live weight during the first 2 months. During the third month's growth, weight increases somewhat more rapidly and during the fourth month, there is a considerable increase. During the fifth, sixth, and seventh months, there should be increases of approximately 50 lbs. each month. Following the seventh month it takes 2 months to add 50 lbs. and the next 50 lbs. is put on in three months' time. As maturity is approached, it takes the pig 6 months' time to put on the last 50 lbs. in live wieght. Under usual conditions we would expect a pig to reach 200 to 250 lbs. at eight to nine months of age.

In discussing the breeds of swine, Farmers' Bulletin No. 765 says, "Poland-China pigs fed for market may be made to weigh 200 pounds or over at 6 months. At one year old males should weigh about 300 pounds, and sows 250 to 275 pounds. In breeding condition at maturity males should weigh about 500 pounds, and sows 400 pounds. Berkshire pigs at one year old should readily weigh 300 pounds. In breeding condition mature males should weigh about 500 pounds and sows 400 pounds. Duroc-Jerseys are similar to the Poland-China in size and conformation. However, at maturity, a boar should weigh about 600 pounds and a sow 500 pounds."

In discussing the size of breeding stock, particular reference being made to judging swine, an authority on this subject says:

"A mature sow should weigh about 400 pounds, and the male about 500 pounds. Gilts (young sows) should be well grown before breeding. As a result of breeding undersized young sows we can expect smaller pigs that probably will be lacking in constitutional vigor. As a guide or suggestion as to what pigs at various ages should weigh, the following is given:

"Pigs 10 to 12 weeks of age should weigh 35 to 45 pounds.

"Pigs 5 to 6 months of age should weigh 100 to 125 pounds.

"Pigs 8 to 9 months of age should weigh 205 to 240 pounds.

"Pigs 12 months of age should weigh 300 pounds or more."

Age of Bull for Service—Garget Remedy

How much can a well grown yearling bull be used in his first year of service without injury if he is well fed?

Do you think that a mixture of green buckwheat and millet would be better to put in a silo with green clover than clear millet and clover for August and September feeding to fresh cows?

I have found a remedy for garget that I have never seen discussed in your paper and it has helped me out of trouble several times. It is clear kerosene. I do not rub it in but apply lightly to the affected part. It never has failed for me.

Stamford, N. Y. E. B. F.

A well matured yearling bull may be allowed to serve at first one cow per week, service being increased, according to conditions, to two and in some cases three cows per week at two years of age. Professor Eckles advises that most bulls are sufficiently mature for light service at ten to eleven months of age, but it is not advisable to breed a bull to over five or six cows before he is a year old. From 12 to 15 months old he should not serve more than one or two cows per week. A well matured, well fed bull of over two years may serve 200 cows per year, but it is not only a question of the number of cows in a year, but also of distributing these cows throughout the year or reducing their number. As the cows in most herds are usually bred within a relatively short time of one another, one bull is not expected to serve for more than a herd of fifty cows. Feeding is often neglected during the breeding season, and this is particularly disastrous with the young bulls. Provide plenty of protein feed, plenty of exercise, and plenty of fresh air when the bull is doing heavy service.

We see no advantage in the incorporation of buckwheat with millet and clover silage unless thereby a larger yield of silage per acre will be secured. The difficulty of combining the three crops would be in having them all mature at the same time so as to permit of the ensiling of the combined material when each has its largest feeding value.

We have never used kerosene for the treatment of garget, except that years ago we used it (or axle grease) when the udders of the cows were caked. We thought at that time it was of some value, although it had a tendency to cause blisters to form on the udder.

Potatoes for Cows.—Pea Straw vs. Timothy for Horses

I have pea hay of unthreshed peas, (which would have made one ton per acre) timothy, and alfalfa. What proportion must I feed these to make a balanced ration? Must I feed grain with them? This is for milch cows.

What is the feeding value of potatoes for cows, either cooked or raw? How does pea straw compare with timothy for horses?

Mt. Vernon, Wash. B. W.

If there is sufficient alfalfa hay for the cows, we would not advise feeding them any of the pea straw or timothy hay. Cows do exceptionally well when fed no other feed than alfalfa. We believe that under ordinary conditions it is advisable to feed some grain in order that the cow may be properly nourished and that her milk flow be sustained and that adequate nutrients be provided for the growing of her fetus, but there are times when the prices of mill feeds are so high that it is more profitable not to use them.

Potatoes have a very low feeding value for cows. It is estimated that in normal times when silage is worth $2.50 to $4.00 a ton, potatoes are worth 15c a bushel. We would not use more than 20 lbs. a day if they are used at all. When potatoes are fed in large amounts, the butter is of poor quality; in other words, we would not look upon potatoes as being a very valuable feed for cows. They may be fed either cooked or raw.

Pea straw is, perhaps, as valuable a feed for horses as timothy hay. We have very little data to form an opinion upon this. If timothy hay is cut when it is in bloom, we look upon it as more valuable than pea straw, but if it is cut late when the seeds are beginning to form and ripen, then we believe pea straw is superior to timothy hay for the feeding of horses.

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Impressions of the New York Milk Strike

[Continued from page 902]

ular hurry in advertising our own expenses and troubles to the consumer.

If we do win this strike in its entirety, it seems to me that even the most conservative must be persuaded that something must be immediately done to counteract the powerful forces arrayed against us, or we may as well go under first as last, as we can't stand these sudden onslaughts forever. It seems to me as if the present situation proved that a fortune at last must be spent in educating the public that, to produce milk, the producer had got to be paid a living wage and enough besides to finance himself. This the public is unwilling to do—preferring to believe that we are all black in demanding excess profits as the dealers and their underlings would paint us.

The New York consumer considers us his enemy, notwithstanding the fact that every four out of ten of its millions came from a farm and know in their hearts that we never even began to dream of profiteering and never will. If they would let sane reason guide them instead of listening to the dealers and middlemen who deceive them and live fatly off their credulity, they would see that those hill-farms all over America must finally demand their share of the milk-dollar, and must band and organize and stand together—or never dairy again.

I wonder if, in any other great industry, the receivers and distributors lie awake nights to plot against the producers themselves and can always be counted upon to array themselves against those to whom they owe inflated stocks and enormous and powerful interests. Such a situation must be impossible and unparalleled in the business world. Can we allow it to go on forever?

The Bordens and kindred companies are shipping milk in to the city from western states and are promising "quick relief" to their misused patrons!

Everyone knows that there is a shortage of milk since Europe has put in her bid for each ounce of our surplus, so I am not greatly worried that the West will care to cater forever to the fickle Bordens and the city which has billions for luxury and lust, but not one cent above starvation price for the dairymen who have served so long and faithfully without decent recompense.

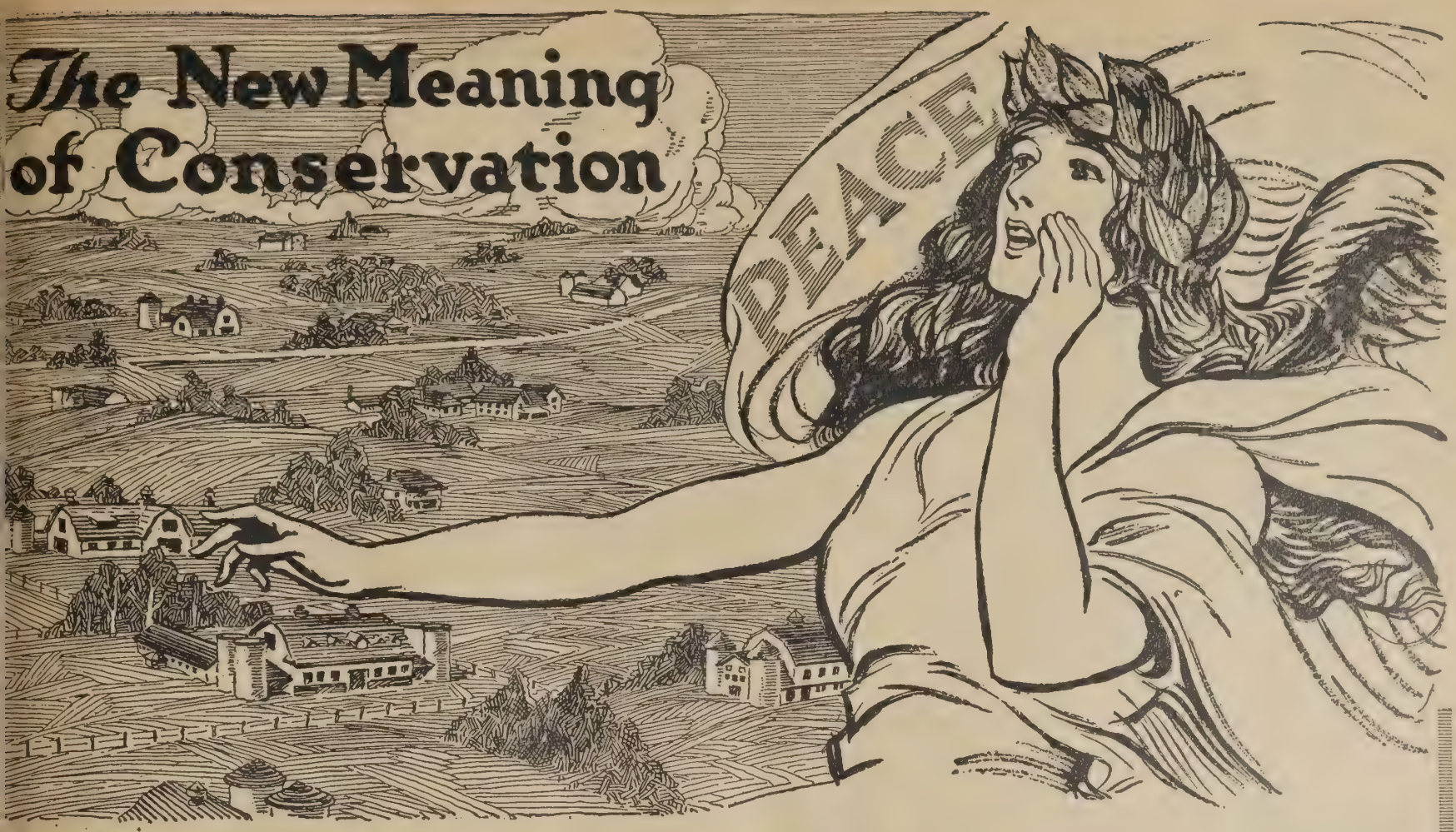
We have got to take steps in earnest now to protect ourselves, and the surest, quickest, but most expensive way would be to free ourselves once for all from the tyranny of the dealer and the politician. If we can't see our way clear to taking such a radical step too suddenly, we had better take steps to perfect the proposed national organization and put our industry on a plane where it can't be tampered with by every Tom, Dick, and Harry.

It is certain that we can't stand these strikes forever as their only fruit is a temporary victory which leaves a bad taste in the consumer's mouth.

As long as we are practically friendless in New York, and will be until we make the long green talk as it has never talked for us before, we may as well make up our minds to wars and trouble and hatred and suspicion on the part of our legitimate market.

It seems the irony of fate that we have taken losses so consistently and uncomplainingly, yet like the man in the immortal story, we are in a go-

(Continued on page 910)



The Greatest Hour of the Dairy Farmer

NOW that the war is over, the farmer's responsibility and opportunity is greater than ever—for the American farmer and dairyman must literally feed the world. It means greater production and getting the ***most*** out of that production. Waste is as unpatriotic now as it was during the war. But there is many a farmer who would not think of planting a hundred rows of corn and only harvesting 95 rows, who is now using a fixed feed separator and wasting a good part of his butterfat through turning under speed. Even tho the proper separating speed is marked on the handle, tests show that 95 per cent of ***all*** separators are turned below speed. If you turn a Sharples Suction-feed Separator below speed, you skim clean just the same—due to the patented suction feed. No other separator has this principle.

SHARPLES SUCTION-FEED CREAM SEPARATOR

"Skims Clean at Any Speed"

Sharples is the pioneer American Separator—invented, perfected and preferred in America. It is the product of the greatest factory of its kind in the United States—and all American owned. Write for the interesting, profitable Sharples story. Address nearest office, Dept. 10.

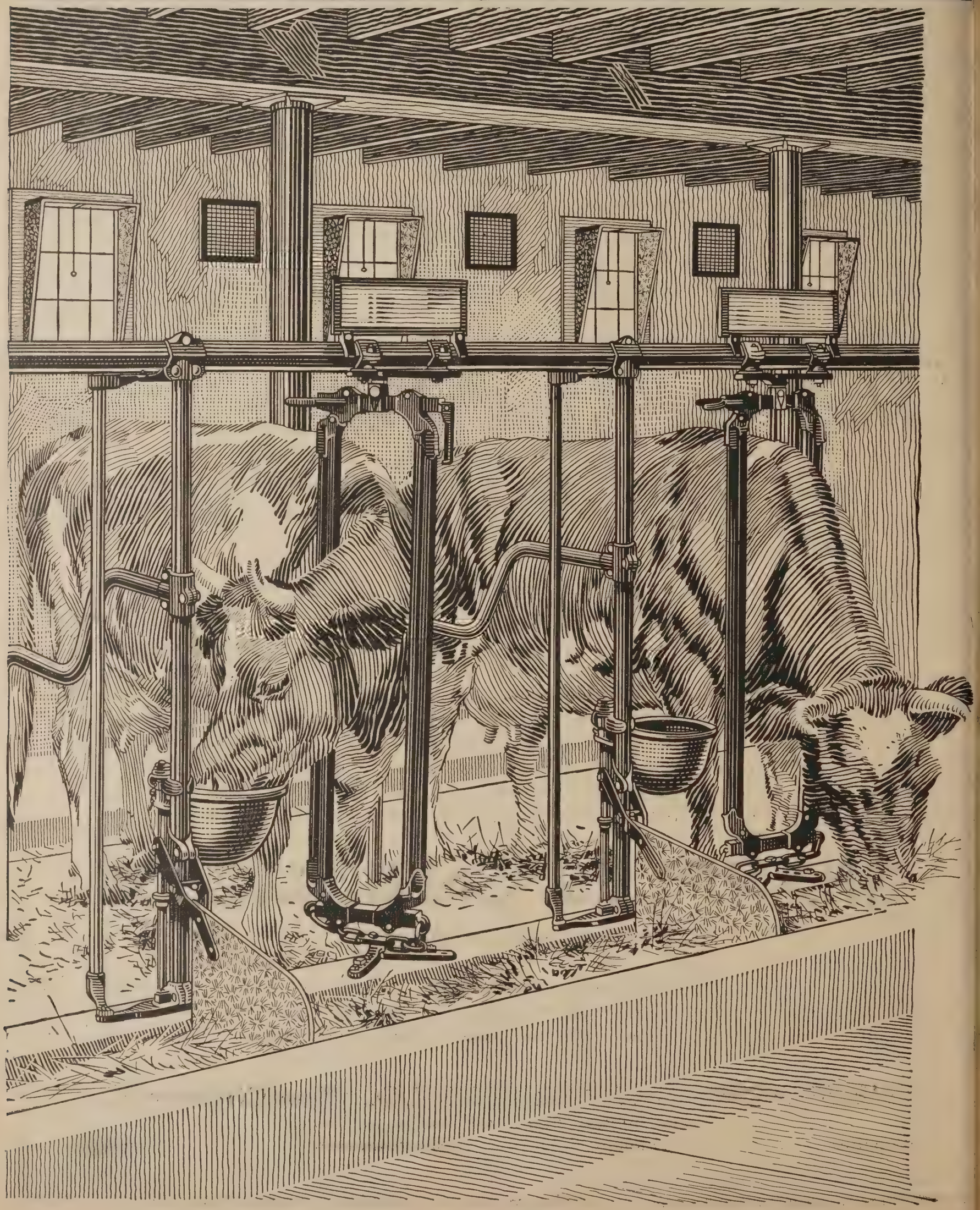
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P-44

James Cups



Make More Milk

The simplest, cheapest means of making more milk is ofttimes disregarded. Many overlook the necessity of water—a milk maker that costs almost nothing.

Milk is 87 per cent water. Most cows need two to three pounds of water for each pound of milk yield. Are you sure your cows are getting enough water?

Those who realize how greatly milk flow is increased by the use of James Cups, permitting cows to drink all the water they want, when they want it, whether day or night, are making ten dollars, fifteen dollars, even twenty dollars and more per cow extra profit this winter.

And they are doing this merely by giving their cows all the water they want. Water costs but little. Feed costs—well it costs a-plenty.

How wonderfully James Cups increase dairy profits is revealed by a recent investigation among farmers using James Cups. They know.

A questionnaire was sent out to which 120 replies giving definite information were received. These replies came from the practical farmers, the average herd was 24. Five herds had less than 10 cows; 61 had 10 to 20 cows; 27 herds had 21 to 30; ten, 40; four 41 to 50; six 51 to 100. 108 said that James Cups increase milk yields; only five said "No".

In response to the question, "Do the cups save you time and labor" ALL said "Yes".

108 claimed the cups saved fuel through not having to use tank heaters. Six said "No".

Answering the question, "Have you observed that your calves grow better and faster by having a constant supply of water before them?" 80 answered "Yes" and seven said "No".

5 claimed that cups help prevent ead of disease with nine taking the negative side of this question.

9 gave definite figures on increased k yields.

8 reports were based on milk recs. Of these, one reported an inase of 5 to 10 lbs. per cow per day; r report an average of 4 lbs.; three te 3 lbs.; five say 2 lbs.; three 1½ lbs.; ¾ lb.; one reports $8.56 increase cow per year; one $5.00; one $10.00; received 3 per cent increase; one 8 cent; two 10 per cent; one 12½ cent; one 20 per cent; one 33⅓ per t; and one exception proves the e by answering "not much".

These 28 reports cover 759 cows. Assuming 16 lbs. daily as an average milk yield, and $3.25 per hundred as the price of milk, the average increase per day for each of the 759 cows is 2.45 lbs.

The 41 reports not based on milk records check out about the same, the average being 2.52 lbs.

The average of 99 reports answering the question, show a daily saving in labor time of 3½ minutes per cow, a total of more than 10 hours labor time in a 200-day season, which at 25c an hour only, makes more than $2.50 saved per cow yearly.

The average of the 61 reports answering the question, show a saving of fuel of 56c per cow per winter.

Assuming only 2 lbs. per cow daily as the average of increased yield, this would total 400 pounds during the season; which at $3.50 per cwt. amounts to $14.00.

The total saving in labor and fuel and the increased milk yield, figured conservatively, thus adds over $17.00 to the profits from each cow.

The above results are confirmed by an investigation of The Farmer, St. Paul, Minn., published in its issue of Nov. 1, 1918—and by the experience of many others.

If you wish more complete details of the James investigation, of the St. Paul Farmer report and of the experiences of dairy farmers as to the increase in milk yield brought about by the use of drinking cups, write us for our Bulletin No. 4.

TURN WATER INTO MILK

Four Pounds Daily Increase
Hoard's Dairyman, April 5, 1918, under the heading "Cow Testing Association" reports from the Chehalis District, Washington: "One man installed individual drinking cups and the daily milk flow immediately increased nearly four pounds per animal."

Four Pounds Per Day
W. H. Martin, Herdsman, Arcady Farms, Lake Forest, Illinois: "According to our milk record James drinking cups increase our milk yield four pounds per cow per day."

Two to Four Pounds
Curtis O. Merrill, Framingham, Massachusetts: "Our milk records show that James cups increase the milk yield from two to four pounds per cow per day."

One Quart Per Milking
Mary Hamlin, Amagansett, N. Y. "My milk yield increased one quart per cow at each milking after starting to use the James cups, due in my opinion to their use. These figures are shown by my milk records."

20 Per Cent More Milk
C. E. Erickson, Rosholt, Wisconsin. "My milk yield increased after using James cups 20% as shown by milk records."

Three Pounds Per Cow
L. S. Duggan, Gainesville, N. Y. "My tenant says the James cups increased the milk yield thirty pounds a day for ten cows, this being shown by the records."

20 Per Cent Increase
D. D. Decker & Son, South Dayton, N. Y. "We find the milk yield increased 20% as a result of using James drinking cups."

Three to Seven Pounds
Wm. P. Wernett. Plymouth, Mich. "Our watering outfit is very satisfactory and since being installed our cows have gained from three to six and seven pounds of milk a day for each cow."

Put in James Cups Now

You are losing money every day without them. You are wasting fuel, during unnecessary disagreeable tasks in watering out of doors and subjecting your cows to danger of spread of disease.

It is during the next few months you will enjoy the cups the most, and it is right now that you have the leisure to put them in. The installation is simple.

Write us today for an estimate of what a James Drinking Cup outfit will cost for your barn; and if you doubt whether the cups will do for you what they have done for others, ask also for our FREE TRIAL OFFER.

320-Page Book FREE

The "Jamesway" shows how to build and equip a practical convenient dairy barn; tells about our barn planning service. Sent free to any dairy farmer; please state how many dairy cows you own, and whether you intend to build or remodel.

James Barn Magazine

Published nine times a year. Contains many pictures of barns from various sections of the country and has interesting and helpful articles on barn building and barn equipment. Sent free on request to dairy farmers, builders and architects.



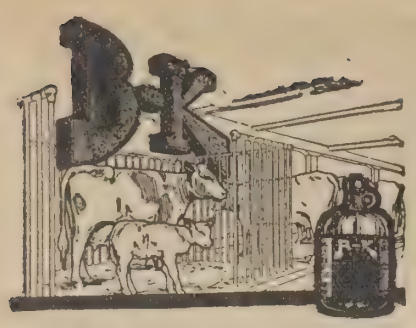
James Mfg. Co.

Ft. Atkinson Wisconsin
Elmira New York
Chicago-Minneapolis

JAMES MFG. CO., Fort Atkinson, Wis. H. D. S-4.

Please tell me what James Cups will cost for my barn.
I have _____ cows. Barn has _____ stalls _____ pens
Shall we send 320-page Jamesway Book? _____
Do you intend to build? _____ Remodel? _____
When? _____

Name _____
R. R. Station _____ P. O. _____
R. F. D. _____ State _____



Flush Cows After Calving

Protect your herd against Contagious Abortion and Barrenness.

Barrenness or Sterility, like Abortion, Retention of After-birth and Premature Birth, is nearly always caused by infection of the reproductive organs by the germs of Contagious Abortion. Unless this infection is promptly overcome by the use of a powerful but safe antiseptic, it may permanently affect the reproductive organs so that the cow will continually fail to stick.

Every time a cow drops a calf—whether alive or dead—by premature birth or aborting, whether the after-birth is retained or not, her reproductive organs should be flushed out, because that is where the infection is developing.

B-K, the powerful non-poisonous antiseptic, is scientifically correct for this work. Used as a douche for the uterus, it quickly brings the after-birth, dissolves the slimy albuminous matter, kills the germs, stops discharges and controls the infection. B-K does not cause straining, but is soothing and heals the tissues.

Send for "evidence" and free Bulletin No. 52 "Contagious Abortion." If your dealer does not have B-K send us his name

GENERAL LABORATORIES
290 S. Dickinson St., Madison, Wis.

B-K · B-K · B-K · B-K · B-K · B-K · B-K · B-K

DON'T KILL YOUR CATTLE

BY DRENCHING

Salts and oil are DANGEROUS. Few cattle die of constipation; many of PARALYSIS of the bowels. Give



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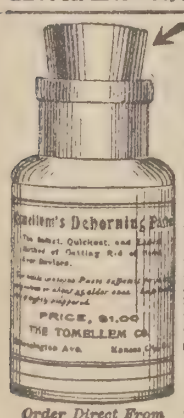
dry on the tongue. Positively prevents and overcomes both. Excellent for loss of appetite.

AT OUR DEALERS or Postpaid 50 Cents.

Send for price list of medicines. Consult DR. DAVID ROBERTS about all animal ailments. Information free. Get a FREE copy of "The Cattle Specialist" with full information on Abortion in Cows.

DR. DAVID ROBERTS VET. CO., 638 Grand Ave., Waukesha, Wis.

Chickens Sick?—Use Germozone
Roup, colds, bowel troubles, sore head, limber neck, etc. At dealers or postpaid 75 cts. with 5 book Poultry Library. GEO. H. LEE CO., Dept. 425, OMAHA, NEB.



Order Direct From This Ad.

Prevent Horn Growth

TOMELLEM'S Paste is the easiest and most humane method of dehorning. Positively prevents horn growth. Adapted for use on calves up to two months old. One application enough. Keeps indefinitely. **Bottle, sufficient for 50 calves, postpaid $1.00.** Endorsed by highest authorities. Send today.

Tomellem Co.
620 Kensington Ave.
Kansas City, Missouri.

"What Will the Baby be Like?"

A question every expectant mother asks a dozen times a day. Does she know that the answer largely depends on her own health, and that her own intestinal system, which is especially liable to constipation, must be kept clean or it will encourage the breeding of serious disease? There is sound medical advice to every prospective mother in a booklet called

"The Days That Go Before"

which will be sent on request, free, to any address. Write today—it may save your baby's future.

Nujol Laboratories
STANDARD OIL CO. (NEW JERSEY)
50 Broadway, New York

When writing advertisers please mention Hoard's Dairyman.

After Calving

Every Cow Should be Treated With

Hood Farm Breeding Powder

It cleanses, disinfects, causes the cow to clean quickly and breed readily. It is a safeguard against Abortion, there is less use of the bull, and calves are stronger.

We quote what Mr. H. F. Weaver, of Millard, Wis., says:

"I have used your Breeding Powder for about four years with very good success. I think if every dairyman made a practice of injecting every cow three or four times after calving there would be very few barren cows."

Treatment of all cows with Hood Farm Breeding Powder is the most profitable and economical thing you can do.

Mail an order today, mentioning this paper.

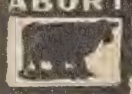
Prices, prepaid, $1.15, $2.75 and $5.00. Flexible Injection Tube, by mail, 90c. Mammoth size Breeding Powder and Tube, prepaid, $5.75.

C. I. HOOD CO., Lowell, Mass.

When writing advertisers please mention Hoard's Dairyman.

ABORTION IN CATTLE

PREVENTED AND CURED PERMANENTLY



STERILOID

Stop Losing Calves

If STERILOID is used at first sign of abortion cow will go full time and have a healthy calf. If cows or heifers do not come in season, or fail to get with calf, use STERILOID. Cows get with calf after only one treatment. Write today for FREE BOOK. It explains causes and symptoms of Abortion and tells how to cure Abortion, and make your cows regular, healthy breeders with STERILOID.

GUARANTEE We will refund money in every case when STERILOID FAILS to make good. Price $1.00. Mailed Postpaid, in plain wrapper.

MARTIN REMEDY COMPANY
Dept. A2, 398-408 Columbus Ave., New York City
Reference Colonial Bank.

This Beats Dehorning

Fleming's Chemical Hornstop, used on very young calves, prevents growth of horns.

A 50 Cent Tube for 25 Calves

Horns never grow if Hornstop is used early enough. Money back if not satisfactory. Our "Veterinary Adviser" Free if asked for.

FLEMING BROS., Chemists
255 Union Stock Yards Chicago, Ill.

ABORTION



Dr. Geo. Hollabush's cure for abortion and general tonic for cows and mares will prevent abortion and make prompt breeders and correct failure to clean. I guarantee and refund money if not satisfactory. Send for circular.

Dr. George Hollabush, Fort Atkinson, Wis.

FOR SALE

20 2-yr.-old, high grade,

Holstein Heifers

part open; part bred to my 30-lb. herd bull. All from my own herd of 50 milch cows. Herd averaged better than 8,000 lbs. last year. These will do better. JOHN B. MARTIN, G. R. Savings Bank Building, Grand Rapids, Michigan.

WARWOOD FARM

Has For Sale

Four Young Holstein Bulls

from 6 to 9 months old, of excellent breeding. Address: FRED C. LANDORF, Foreman, Warwood Farm, - Lisle, Illinois.

For Sale—Pure-bred Brown Swiss Bull

calves from one to twelve months old at farmers' prices. Write for prices.
A. C. BOODY, HUDSON, WISCONSIN.

Clipped Army Horses

Veterinarians of the Allied Armies ordered regular clipping of the horses and mules in all branches of the service. They were clipped with the Stewart No. 1 machine. YOUR horses also will do better work if clipped. Get a Stewart No. 1 Ball Bearing Clipping Machine, $9.75; $2.00 down, balance when received. Or write for 1919 catalog.

CHICAGO FLEXIBLE SHAFT COMPANY
Dept. 156, 12th Street and Central Avenue, Chicago

Impression of the New York Milk Strike

(Continued from page 908)

way to please no one and lose our ass in the bargain.

How can we rid ourselves of the real wolf in sheep's clothing—the unscrupulous and wily receiver? It is him we mainly have to thank for the sorry mess we find ourselves in now and he will always be snapping and biting at our heels, sowing distrust of us and putting us in the wrong with our market.

This war hasn't ended yet, and the longer it continues, the more we are goaded into fighting for dairy justice.

There is a twisting, turning road ahead of the American dairyman and he must needs marshal all his courage and strength of purpose to finally win out. It all takes time, but there is no excuse in letting events or actions take too much time now that we realize freshly that we must fight every inch of the way to secure fair prices and keep them.

Every maker of milk is enlisted and his help and faith in ultimate justice is sorely needed.

Able leaders are vital to lead us safely through—men who are big enough to insure and satisfy the rights of both producer and consumer. As for the dealers and such who have tried to sell and betray us, let them find other pastures in which to prey. Haven't we had almost enough of them? HELEN S. K. WILLCOX.

New York.

DAIRY MARKETS

MILWAUKEE, Jan. 9—Butter—Creamery tubs, 67@67½c; prints, 68½@69c; extra firsts 64@65c; firsts, 61@63c; dairy, fancy, 45@5[illegible] poor, 20@30c.

Eggs—Fresh, firsts, 56@58c; cases, new, included, 59@60c; miscellaneous, 55@57c; [illegible] ties, 38@40c; checks, 34@35c; April recandled, 47@49c.

Cheese—Twins, 35@35½c; Daisies, 3[illegible] 36½c; Longhorns, 36c; fancy, Brick, 33c; Limburger, new, 1 lb., 32c; Limburger, new, lbs., 31c; Young Americas, 36½@37c.

NEW YORK, Jan. 9—Cheese—Quiet; st[illegible] milk, common to specials, 33@37½c; skim, common to specials, 12@29c.

Butter—Firm; receipts, 7,832 lbs.; creamery extras, 70@70½c; state dairy, tubs, 53@6[illegible] imitation creamery, prints, 47@48c.

Eggs—Irregular; receipts, 11,040 cases; nearby white fancy, 70@80c; nearby mixed, fancy, 65@69c; fresh firsts, 64@69c.

CHICAGO, Jan. 9—Butter—Creamery extras, 68c; standards, 65¾@66c; dairy, firsts, 64@67½c; seconds, 59@62c.

Eggs—Ordinary, 58@59c; firsts, 60½c.

Cheese—Twins, 35@37c; Young Americas, 27@38c.

Island Farm

G. G. Hartley, Prop.

Guernseys Bred For Production and Individuality

Home of Bedas May King 11893 and the *premier show herd of 1918. Bull Calves only for sale.*

Address A. N. Hathway, Herdsman, Floodwood, Minn.

GOLD MEDAL.

Grandson Imp. Golden Secret
Sire Golden Secret of Pencoyd
3 yrs. old and a good Bull guaranteed.

For Sale Price $600

JORDAN FARMS, Sauquoit, New York

The Hornless Holstein Farms

are consigning to the

Liverpool Sale about a dozen royally bred naturally hornless Holstein heifers

mostly two-year-olds. Some of them out of dams and grandams with splendid Semi-official Records and by sires whose dam and grandam had high Semi-Official Records. Bred to a son of the world's record senior four-year-old. 1294.7 lbs. of butter in a year. A bull whose 3 nearest dams averaged 20,000 lbs. of 4% milk in a year. Naturally hornless bull calves sired by him are offered at from $100 up. Catalogue of service bulls with prices on application.

We are also consigning the same number equally as well bred, to the Pennsylvania Breeders' Sale to be held at Harrisburg, January 23rd.

George E. Stevenson & Son, Clarks Summit, Pa.

The Pennsylvania Holstein-Friesian Association will hold an auction of

Registered Holstein-Friesian Cattle

At Keiffer's Stables, Middletown, Pa.

THURSDAY, JANUARY 23rd, 1919

All of these cattle are cattle of excellent individuality, breeding and records, and the sale includes daughters and granddaughters of King Segis Pontiac Alcartra, Judge Hengerveld De Kol and Hengerveld De Kol. A large consignment is from the herd of Mr. Geo. E. Stevenson of Clarks Summitt, Pa., who has specialized upon developing his cattle on the year's test. Other consignments are from the herds of Messrs. Miller Bros. and Ressigie and several local consignments. The sale will begin at twelve noon. All cattle in the sale will have been tuberculin tested.

Catalogue mailed on application to any address by

Eugene B. Bennett, Hotel Columbus, Harrisburg, Penn.
Geo. Baxter, Auctioneer. Mr. S. T. Wood in the box.

Catalogues will also be on hand for distribution seven days before the sale at Keiffer's Stables, Middletown, Pa.



Son of a 19000-Lb. Cow For Sale

A grandson of Pontiac Korndyke.

His sire, Prince Korndyke Boy, is one of the good sons of Pontiac Korndyke and a grandson of Dutchland Sir Pontiac Rag Apple.

His dam, see illustration, is a sister of Tie Tietje Queen De Kol. She has a 365-day record of 19,079 lbs. milk and 794.25 lbs. butter.

The calf was born May 12, '18, is a very good individual, well grown, large enough for light service and well marked.

ALEX CHAMBERS, - OWATONNA, MINN.



"Quick delivery on Goodyear Pneumatic Cord Truck Tires has enabled us to get better prices for perishable fruits and vegetables. Other farmers in this section are adopting these tires as a result of our experience with them."—B. and J. D. Park, Fruit Growers, Provo, Utah.

AS this statement indicates, Goodyear Pneumatic Cord Truck Tires have ade it possible for these farmers to re- ize larger profits in the marketing of ily spoilable produce.

Their 160 acres are located in the Wasatch Mountains and the nearest stomers live 40 miles distant, at Park ty, Utah.

Solid-tired trucks frequently stall under ch conditions as are found on the d up-and-down route between farm d town.

Horses require three to four days to ul one load and return.

But, during the 1918 picking season, either of two ¾-ton trucks, shod with Goodyear Pneumatic Cord Truck Tires, made the hard 80-mile round trip almost daily.

Fruit and vegetables gathered in the afternoon were sold the following morning in Park City.

The ground-gripping Goodyear Pneumatics constantly have carried full loads at good speeds over the rock-strewn mountain roads. They have climbed grades ranging to 23 per cent and have traveled through passes 9,000 feet in altitude—sometimes choked with mud or snow.

And these tires have delivered mileages up to 16,000 in this gruelling service.

Naturally records like this point farmers to the advantages of Goodyear Pneumatic Cord Truck Tires for the delivering of other perishables, such as dairy products, especially under changing weather conditions.

The Goodyear Tire & Rubber Co., Akron, O.

GOODYEAR
AKRON



HOARD'S DAIRYMAN JUNIORS



A DEPARTMENT FOR THE DAIRY FARM BOY

Bob Attends a Meeting of His Club

"SAY, mother, I just wish you and dad could have been at our meeting tonight," shouted Bob as he rushed breathlessly into the house. "We had such a good time. Every member was there excepting Slim Taylor, and he couldn't come 'cause he's got an awful cold."

"Bob, I wish you wouldn't call George, Slim. It doesn't sound very nice."

"Ah, that doesn't make any difference, mother! George doesn't mind that, anyway he never says anything to me. Some of the boys even call him Skinny. What's the odds; he's thin as a rail and he knows it. Boys like nicknames, don't they, father?"

"Sure they do," replied Mr. Ramsay."

"Didn't you ever have a nickname, dad?"

"Well, I guess I did. All the boys used to call me Dumpy."

"Oh, how funny to call a lively fellow like you, dad, by that name. Names don't cut any figures, do they, dad? It's the kind of fellow you are that counts. Guess you are beaten, mother. Father and I are against you this time. But you are usually right, mother," and at that Bob slipped over to his mother and planted a boyish kiss upon each cheek. "There, that ends the argument."

"Bill Reed, our club president, is a cracker-jack! He handles one of those meetings better than lots of men could. He isn't at all afraid, and tonight we had two visitors. One was the state club leader and the other, a fellow from Washington who travels all over the North and South helping in this club work. Bill was just as cool, though, all through the meeting. I'm going to try to get elected president of the club some day. It's great experience.

"And the way he put us through parlimentary practice! We just tried to ball him all up, but he straightened us out every time. This club is going to make some record with a fellow like Bill at the head. Roll call was lots of fun. When our names were called we each had to tell something about the progress of our work."

"What did you say, Bob?"

"Oh, I told them that Betsey was getting skimmilk now and that she was starting to eat grain and alfalfa hay. Jimmy Greene tried to get into an argument with me as soon as I mentioned alfalfa. You know Mr. Greene tried to raise alfalfa once and it all died out the first winter. Since then all of the Greene are death against alfalfa, and they say clover hay is better. I didn't argue with Jimmy but some day I'm going to get at him right. Just wait till Mr. Anderson takes up alfalfa in our agricultural class; we'll fix Jimmy once and for all on that subject."

"Oh, they'll try alfalfa again, Bob, don't you worry. Mr. Greene doesn't want anybody to do things he can't do. Why, he told me just last week he was going to try it again next spring and that he had already spoken for some of the highest priced seed. I think he said it was Grimm."

"That's our kind, father."

"Yes, it is, and that is one reason I'm so successful with my alfalfa. Grimm doesn't winterkill as easy as some of the others."

"When we have our alfalfa program, dad, you and mother have got to come. We are going to get a speaker from the agricultural college. Our secretary has already written down there for one. I hope Jimmy brings his father to that meeting. Maybe they'll both learn something they don't know yet about alfalfa growing."

"By taking roll that way, we each learn something about the other fellow's work. We ask questions and sometimes we get into some hot discussions about our calves. I'll bet it took us twenty minutes tonight to get through with that part of our program."

"Mother, you always enjoy singing. You ought to hear us sing our club songs. Clem Johnson leads us and the way he gets away, you'd think he took lessons in directing under Sousa. That singing class that Miss Jennings organized in school helps us a lot, too. Some of the boys are singing bass. The way we sing, I really think we like to hear it ourselves."

"Our regular program was short tonight. Frank Rice read a paper on Winter Dairying. 'Twas pretty good, too. I'll bet his dad helped him with it. He surely said great things about properly caring for dairy cows in the winter and that to do the job right you've got to have a silo. He looked square at Arthur Meyer when he said that. I felt kind of sorry for Arthur, because they don't have a silo."

"Yes, but Jim Meyer knows how to get milk from his cows just the same," replied Mr. Ramsay. "He's a very good feeder."

"What was the agricultural man from Washington there for, Bob?" asked Mr. Ramsay.

"Oh, he and the state club leader just happened to be up here in this section of the state and I guess they found out from Mr. Anderson that our meeting would be tonight. Gee, he is a smart fellow, and you ought to see the boys hang around him after the meeting. That's why I was so late getting home.

"And, oh, he gave us the dandiest talk about boys' and girls' clubs. Remember, dad, you didn't care about my going into this calf club contest. Wish you could have heard that fellow talk. Guess you and mother will open your eyes at some of the things I am going to tell you he said. He started out by saying: 'This is a clubby age we're living in, social clubs, agricultural clubs, and baseball clubs.' He made a hit with us right from the start. How Joe did laugh when he mentioned base-ball clubs. You know Joe would rather play ball than eat. I really believe his Mary Jane Spot would suffer if there were many more ball games played here."

"Well, that Washington fellow said: 'That of all the clubs he knew, these agricultural clubs were the most important,'" at which remark Mr. Ramsay winked slyly at his wife.

"Oh, you needn't wink at mother, dad, because he's got the figures to prove what he said. Now you listen to this," as he took from his vest pocket a small note book which Aunt Ella had given him for his birthday. "Last year there were enrolled 800,000 members in the agricultural clubs of the North and West alone. The results of their work added nearly $20,000,000 to the nation's resources. According to the reports of the members, each one produced $21.89 wor of food among which he mention corn, potatoes, beans, eggs, butte honey, pigs, beef, fruit, and jellies."

"He must have included the girls those figures, Bob," spoke Mr Ramsay."

"Sure he did. What of it? We cou on the girls, too, in this work. Wh they are doing as much as the boy Jennie Meyer, Arthur's sister, to me yesterday that she sold $25 wort of canned fruit which she put up he self.

"Oh, yes, and in the South alo there were 115,000 boys enrolled clubs. They produced about $4,500 000 worth of food. Now does th prove his first statement, dad? We getting stronger every year and we only just started, too. And wh shouldn't we? The only qualificatio we have are youth and energy ar every boy and girl has those. Whe they once get a taste of club wo they will never let go."

"They won't if they are like yo Bob," added his mother. "And I thin they are a splendid thing for the boy and girls. Besides learning a grea deal you get a lot of enjoyment out doing things for yourselves."

"And now, Bob, since you are suc a club enthusiast this will add to you interest," continued his mother. "Th afternoon I organized a sewing clu among the girls of this neighborhoo and I am going to be the local clu leader."

"Hurrah, for you, mother! Won you make a dandy leader? You kno so much about sewing and everybod loves you. I'd say these girls ar pretty lucky to get you, wouldn't yo dad? Say, dad, now you are left in th cold. You've just got to do what th boys asked you to. Yes, and I hear Mr. Anderson teasing you, too."

"What's that, Bob?" asked Mr Ramsay.

"Hasn't dad told you? Why th boys want to form a pig club an they want dad to be their leade What do you say, father?"

"Oh, I may try it, Bob, after think it over a little while longer."

"Won't that be great! The whol Ramsay family doing club work shouted Bob, and with that he scamp ered up to bed.

As soon as Bob had gone, M Ramsay drew from his pocket a shee of printed matter telling how to for a successful club. Spreading it ou on the table before him he began t study it.

"Mother, I suppose you had a pla like this to guide you when you or ganized your sewing club among th girls?"

"Yes, I did, John. The state clu leader for girls furnished me with copy. You'll remember we met her last winter at the Community Clu Picnic."

"Well, I guess I might as well g ahead and help the boys out."

"I would, John. 'Twill mean s much to them, and Bob is so wild ove the idea. He will be greatly disap pointed if you refuse."

"This is the copy of the plan fur nished by the state club leader:"

How to Form a Successful Club

1. THE LEADER
   (1) Conducts first meeting of or ganization and sends in th club enrollment blank to th state leader. The material fo club work is then sent to him.



TWO CALF CLUB ENTHUSIASTS



THE BUENA VISTA COW TESTING ASSOCIATION CALF CLUB


Rosamond L. Gray,
Kansas City, Kansas.

A
Mellin's
Food
Baby

Mellin's Food is a means by which the mother can modify cow's milk to satisfy every food requirement of her baby.

Send today for a Sample Bottle of Mellin's Food and start your baby right

MELLIN'S FOOD COMPANY
BOSTON, MASS.

(2) Attends club meetings.
(3) Helps members with programs, obtaining references, speakers, etc.
(4) Helps arrange for club prizes, Achievement Day exercises, etc.
(5) Acts as "sponser" to club.

2. THE MEMBER
(1) Must be between the ages of 10 and 19 years.
(2) Signs enrollment blank to become National Club Member.
(3) Follows instructions as given under the Club Plan selected.
a. Performs the work to the best of his ability.
b. Keeps a record and submits it as required.
c. Exhibits his knowledge, ability, or product, if asked to by club or club leader.

3. THE CLUB ORGANIZATION
(1) A leader and six or more members from a club.
(2) The officers:
The following are elected for the year:
a. President
1. Presides at all meetings.
2. Appoints committees.
The standing committees are:
1. Program
Arranges program, which is furnished.
Assigns parts to members.
2. Entertainment
Arranges for half hour of fun, with which meeting is closed. Ideas for games, contests, etc., will be furnished.
b. Vice-president
In absence of president, assumes his duties.
c. Secretary-treasurer
1. Has copy of club constitution in the record book.
2. Keeps minutes of the meetings.
3. Keeps records of each member.
4. Reports to the person, in the way and at such time as was agreed to, when club selected its working plan.

(3) The Work
a. Subject
1. Select as to the season and needs of the times, of the community and the members.
2. Outline
Winter—Calf Club, Pig Club.
Summer—Corn Club, Garden Club, Canning Club.
b. Plan of Work
The club work may be carried on by any of the three plans offered. Each project must be finished and the record approved before the club may start a new one. STATE CLUB LEADER.

Junior Letters

Hoard's Dairyman Juniors:—I received the watch fob, button, and creed and think they are fine. I have my creed framed.

I am 12 years old and in the second year junior high school.

We live on a farm of about 1,000 acres. Papa has a tractor. It works fine. He used it to run the ensilage cutter this fall and mother drove it on the hay fork in the summer.

Have any of the junior girls ever done demonstration team work? Two of my friends and I gave a demonstration of packing fruit and vegetables for parcel post shipment at Rutland County fair. We received first prize which was an auto ride to Burlington and a visit to the state college. We wore the blue food conservation uniform.

I must close as my letter is getting long. My address is R. F. D. 4, Brandon, Vermont, if anyone cares to write to me.

Beatrice Seager.

Hoard's Dairyman Juniors:—How are all of you getting along? Papa bought another sow. She had 10 pigs; she killed three and the rest of them are doing fine. The other sow had 12. Papa gave me one but it died one night. Another one got cold. Papa gave it to me and it is doing fine. We have not had any snow yet. I have caught only seven rabbits. My colt is doing fine.

I will close wishing the juniors good luck.

Missouri. Earl Hillhouse.

"BALL Red Ball TRADE MARK BAND"

The Faith of Ten Million People

proclaims "Ball-Band" the greatest footwear in the world. Back of this faith is the supreme quality which only our workmen know how to build into a rubber boot or shoe. We've made it the best that brains and money can produce. Ten million wearers and over sixty thousand dealers year in and year out stick to and believe in "Ball-Band."

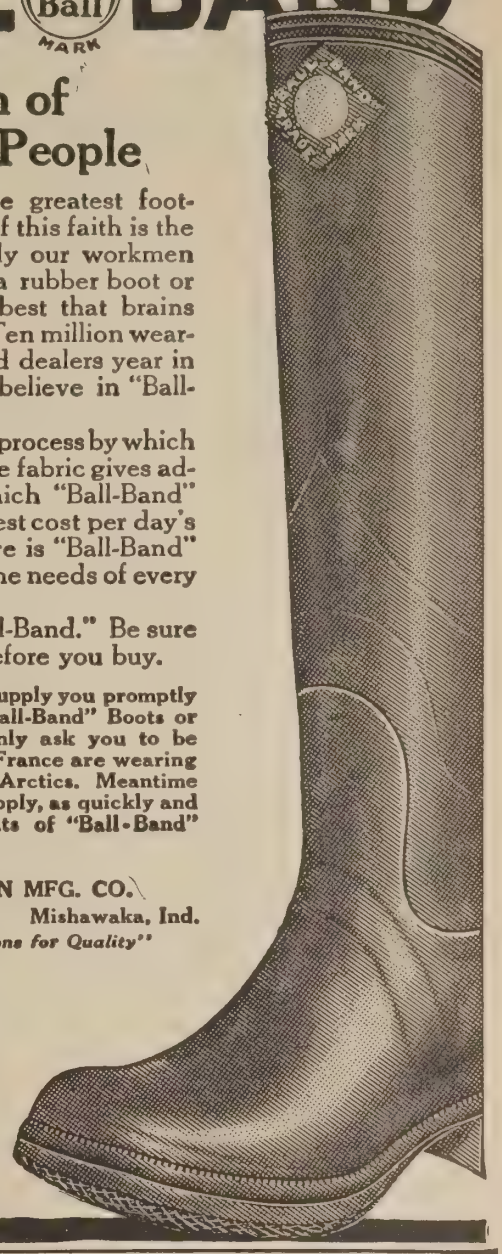
Our own special vacuum process by which the rubber is forced into the fabric gives additional endurance for which "Ball-Band" is noted. You get the lowest cost per day's wear in "Ball-Band." There is "Ball-Band" Rubber Footwear to meet the needs of every member of your family.

Ask your dealer for "Ball-Band." Be sure to look for the Red Ball before you buy.

If your dealer is not able to supply you promptly with the particular type of "Ball-Band" Boots or Arctics you desire, we can only ask you to be patient. Many of our boys in France are wearing "Ball-Band" Rubber Boots and Arctics. Meantime we are doing our utmost to supply, as quickly and as fully as possible, the wants of "Ball-Band" wearers at home.

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313 Water Street Mishawaka, Ind.
"The House That Pays Millions for Quality"

W.S.S.
WAR SAVINGS STAMPS
ISSUED BY THE
UNITED STATES
GOVERNMENT



DON'T CRY!



OVER SPILLED MILK
USE THE CERTIFIED MILK BOTTLE STOPPER. Each one has its own handle attached and can be removed and repeatedly replaced without injuring the cap.
100% EFFICIENT
CONSULT YOUR JOBBER
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64 BREEDS Most Profitable chickens, ducks, geese and turkeys. Choice, pure-bred, northern raised. Fowls, eggs, incubators at low prices. *America's greatest poultry farm.* 26th year. Valuable new 112 page book and catalog free.
R. F. NEUBERT Co., Box 625 Mankato, Minn.

Opossum!



The World looks to us for its supply of Opossum. We need more to supply the demands made on us and **have put the price up to get them.** We are paying as high as $2.50 for extra large, heavy skins shipped to us at once—but whether you ship large or small you will get more money from FUNSTEN.

UP TO $2.50 for extra large skins if shipped immediately.

Ship at Once

We are paying extra prices for Skunk, Raccoon, Mink, Muskrat, Civet, Wolf, Foxes, Etc.

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Bros. & Co. International Fur Exchange 922 FUNSTEN BUILDING ST. LOUIS, MO.

Protect your fur bearing animals. Trap while you can but don't trap out of season. Read your game laws. (3969)

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Afford best protection obtainable from fire, lightning and storms. Durable—rust-resistant.

Made from APOLLO-KEYSTONE Copper Steel Galvanized Sheets—the highest quality Galvanized Sheets manufactured for Culverts, Silos, Tanks, Roofing, Spouting, and all exposed sheet metal work. Look for the Keystone added below regular trade marks—it indicates that Copper Steel is used. Sold by leading dealers. KEYSTONE Copper Steel Roofing Tin Plates are specially adapted for residences and public buildings. Send for free "Better Buildings" booklet.

AMERICAN SHEET AND TIN PLATE COMPANY, General Offices: Frick Building, Pittsburgh, Pa.



The rate for advertising in this department is 8 cents per word. Count address. Remit in advance. Copy must reach us 7 days ahead of date of issue. Farm labor advertising 5c per word.

STOCK FOR SALE

Holstein Baby Bulls—A. R. O. dams, 44-lb. sire. High class cows bred to Ten Thousand Dollar sire. C. S. MULKS, Riceville, Iowa. 3-tf

Choice grade Holstein cattle, fresh and springing, beautifully marked, tuberculin tested, dairy type; sire, thirty-pound bull. C. S. SIMMONS, Belmont, Wisconsin. 4-tf

I have usually 100 head of registered and high grade Holsteins on hand for sale. Also registered and imported Percheron and Belgian horses. RALPH HUDSON, Milton Junction, Wis. 12-tf

Healthy Holsteins—Big producers. Heifers and cows for sale. S. D. SHAMBEAU, Waupaca, Wis. 6-tf

For Sale—Registered Holstein bulls ready for service. Tuberculin tested. Our breeding. S. E. JONES, Watertown, Wis. 19-8

Waukesha County Holstein-Friesian cattle—1,000 head listed for sale. Registered and high grades, milk cows, heifers and calves, also serviceable bulls from tuberculin tested and accredited herds. Buy direct. The Association aims to protect your interests. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 20-13

For Sale—One hundred choice high grade Holstein springing cows and heifers. J. A. KNORR, Blanchardville, Wis. 20-8

High grade Holstein and Guernsey springers, one carload of each. $140 to $150, extra good ones. H. A. KUHTZ, Burlington, Wis. 22-tf

Holstein cows and springing heifers for sale. GEO. F. DERBY, Cameron, Mo. 23-5

Registered Holstein bulls ready for service; heifer and bull calves. 31-lb. sire. PHILIP LEHNER, Princeton, Wis. 23-tf

For Sale—Registered Holstein bull calves $50.00. MAPLE LANE FARM, Cassadaga, N. Y. 23-tf

Registered Holsteins for Sale—Cows at $200; bulls 10 months old, at $100 with good records. ANTHONY ENGEBRETSON, Gratiot, Wis. 24-3

For Sale—80 head of high producing grade Holstein cows; also some registered Holstein cows. F. L. LEHR, R. 1, Hutchinson, Kans. 24-3

For Sale—Registered Holstein bull, four years. Sacrifice. Write for particulars and price. ALFRED PULS, Belvidere, Ill. 25-2

Registered Holstein bull 13 months old. Sire's dam 24¼ lbs. butter 7 days. King Segis breeding. W. R. GATES, Ft. Atkinson, Wis. 25-tf

High grade Holstein calves. I can sell you the finest heifer and bull calves from the best dairy farms in this county $15 to $17 each, f. o. b. Gilberts. EMIL ANDERSON, Calf Buyer, Gilberts, Ill. 25-4

For Sale—Registered Holstein cows, heifers and bulls. WASHINGTON COUNTY HOLSTEIN BREEDERS' ASSOCIATION, J. W. Gehl, Secy., West Bend, Wis. 22-spl

Holstein bulls—30-lb. breeding. $125. LAWRENCE MURPHY, Hartford, Wis. 25-tf

Registered bull calves, 3 weeks to 11 months, having good production records on both dam's and sire's side. WALTER AHLERS, Grafton, Wis. 25-2

Waukesha County Holstein-Friesian bulls—Pure-bred bulls of serviceable age or younger from 20-, 25-, 30- and 34-lb. sires and from good producing dams. We have a list of 400 pure-bred bulls owned by members of the Association. We will help you in getting the most bull for the money. WAUKESHA COUNTY HOLSTEIN-FRIESIAN BREEDERS' ASSOCIATION, Box 222, Waukesha, Wisconsin. 26-13

High grade Holstein heifer calves from Green county best herds, $18 to $22. Registered bull calves from 30-lb. sires $45 to $60. RUDOLPH KUNDERT, New Glarus, Wis. 26-spl

Quality Holsteins for sale. First and second calf, young cows and heifers of all ages. BRANDT BROS., Ramona, Kansas. 26-2

For Sale—A carload of choice heavy springing high grade cows. Also a few registered cows and heifers, and bulls ready for service. Cattle are sold subject to a 60-day retest. N. HOUSLET, Oxford, Wis. 26-11

Choice selection of high grade and pure-bred Holsteins of all ages. Choice springers a specialty. FRICK & HOESLY, New Glarus, Wis. 26-5

Closing Out—Entire herd choice grade Holsteins, young cows and heifers. Some fresh and springing. Twenty-eight-pound sire, heavy producing dams with records up to 107 lbs. milk in one day. H. W. CRAWFORD, Rock, Mich. 26-4

For Sale—Registered Holstein heifer calves $60.00 each. High grade Holstein heifer calves $20.00 crated; also springing cows, carload or less. STRAUSS BROS., R. 5, Watertown, Wis.

Guernseys—If you want grades or pure-breds come and inspect at our expense. Jefferson County Guernsey Breeders' Association, H. A. Main, Secy., Fort Atkinson, Wis. 7-tf

Guernseys—Advanced Registry breeding. HINMAN, Allenville, Wis. 7-tf

Guernseys—Two outstanding bulls dropped in February. Excellent A. R. backing. KEEWAYDIN FARMS, Gates Mills, Ohio. 16-tf

Guernsey bulls. All ages. Dams proven producers. Accredited herd. RICHARD F. KLEMM, Baraboo, Wis. 25-4

STOCK FOR SALE

Hoard's Dairyman Farm offers four splendid young Guernsey bulls all over six months of age for sale. Please bear in mind that this herd is in the Accredited List of exemption from tuberculosis, both of the Wisconsin Sanitary Live Stock Commission and the Bureau of Animal Industry at Washington. This guarantee is much more certain of exemption from the insidious disease than any single tuberculin test can be. Prices made known on application. Send for printed circular showing photos of these bulls. HOARD'S DAIRYMAN FARM, Ft. Atkinson, Wis. 22-tf

25 high grade Yeksa bred, springing, Guernsey cows, three to five years old. Some have records. OAKLAND GUERNSEY FARM, Mukwonago, Wis. 22-tf

Will sell twenty high grade Guernsey heifers of our own raising. These are from high test cows and a nice lot. Also a few cows. GROVE FARM, Deerfield, Illinois. 23-4

Four pure blood Guernsey bull calves for sale, 13 months to 2 weeks. From Daisy Bob Bell's Rilma. Tuberculin tested. OTTO ROGNE, R. 1, Box 47, Cato, Wis. 25-4

Four registered Guernsey bulls for sale—Two sired by Dairymaid's Glenwood of Pinehurst 3rd 26948 and from 529-lb. 3-year-old, 550-lb. daughter of Langwater Frenchman 19226. Four-month-old son sired by Imp. Clara's Sequel, dam will make 650 lbs. fat. One son sired by Langwater Frederick 22268. Sale list. HOMER F. RUNDELL, Livingston, Wis. 25-3

For Sale—Eight registered Guernsey bulls and bull calves, two ready for service. They trace from five to ten times to May Rose 2nd. Six are from A. R. dams or dams now on test. No dark noses, all good individuals. Herd has just passed a government tuberculin test. Prices $75 and up. M. T. PHILLIPS, Pomeroy, Pa. 25-4

Guernsey bulls, soon ready for service, by A. R. dams; grandsons of May King of Ingleside A. R. LOOKWELL GUERNSEY FARM, Wakarusa, Ind. 26-2

For Sale—A splendid 6-year-old Guernsey bull. Inquire for pedigree and price of IRWIN C. BURDICK, R. F. D. 29, Oconomowoc, Wis. 26-4

For Sale—Jersey cattle, yearling bulls, bull calves and young cows for sale. Dams have large butter records. CHAS. TOMLINSON, Rossville, Ill.

Registered Jersey bull calf, born May 1, 1918, from Register of Merit cow. One 4 months old. L. M. KRIPPNER, Rice Lake, Wis. 25-4

For Sale—Jersey bulls. Sons of great producing dams and sired by a son of Tormentress Tenth of Hood's Farm, test 1,353 lbs. in two years. Only daughter of Sophie Nineteenth of Hood's Farm whose record of 6,000.8 lbs. butter in seven years makes her the World's Champion producer of all breeds. Scott's Champion 105387, Oxford Lad top and out of an R. of M. daughter of Golden Maid's Prince. The two sires represent the best of both American and Island breeding. Priced very reasonable for stock of this quality. KINSLEY FARM, McGregor, Iowa.

Registered Ayrshires for sale—Choice bull calves. MICHIGAN SCHOOL FOR THE DEAF, Wm. Hoffman, Steward, Flint, Mich. 26-spl

For Sale—Five high grade Brown Swiss heifers two years old, coming in soon; also two grade cows 3 years old. Address B. E. SKINNER, Beloit, Wis. 26-2

STOCK WANTED

I want six grade Holstein cows that will yield 15,000 lbs. or more milk each, yearly. They must be good, healthy individuals of good type. They will go into a new country as dairy pioneers and they must be the best. I prefer to buy the cows you do not want to sell. STEVENS A. GOLDEN, 2627 Lockridge St., Kansas City, Mo. 26-2

Wanted—Young registered Holstein cows. IRA SHANK, Monticello, Minn.

STOCK BUYER

Dairy Cattle bought on commission. J. D. POWERS, Fort Atkinson, Wis. 1-tf

Dairy Stock bought on commission. BYRON GATES, Ft. Atkinson, Wis. 10-tf

David W. Williams, Lake Forest, Illinois can buy you dairy cows of any breed. 20-tf

Dairy cattle bought on commission. W. A. STRAUSS, Route 5, Watertown, Wis. 23-5

Dairy cattle bought on commission. S. O. GIBSON, Eau Claire, Wisconsin. 26-4

POULTRY

Trapnested, big, strong, Barred Rock cockerels. Rose Comb Reds, both sexes. GEORGE WASHINGTON FARMS, Mankato, Minn. 19-tf

For Sale—Pure-bred Barred Rock cockerels $2 each. JAMES KANE, Avoca, Wis.

Pabst Quality S. C. White Leghorn cockerels. Heavy winter laying strain. $3.00 and $5.00 each. PABST STOCK FARM, Department Y, Oconomowoc, Wis. 26-2

Have a few more very nice S. C. W. Orpington cockerels for sale at $2.50 each. NELS DOCKA, Amherst Jct., Wis.

Big Golden Buff Orpington cockerels. JOS. GORDON & SONS, Mineral Point, Wis. 26-4

SWINE

Durocs all sold. Sows farrowing now. Am booking orders for these pigs to be shipped at three months old. FRED SNYDER, Marion, Iowa. 22-tf

Chester White gilts bred. Choice March and September boars. JOHN HORLAMUS & SON, West Bend, Wis. 25-3

Berkshires, sows and gilts, bred to a grandson of the great Epochal, also good fall pigs. Write THEO. J. KURTZ, Cedarburg, Wis. 25-3

O. I. C. big type gilts, bred and open, boars and September pigs. S. J. HOWARD, Henderson, Ky. 25-5

One big type yearling O. I. C. red boar. Will sell at a bargain if taken at once. AUGUST NEITZEL, R. 5, Box 61, Bloomer, Wis.

Duroc-bred sow sale—65 head of pure-bred sows and gilts sired by the grand champion Pathfinder's Disturber, or bred to him. Will be sold at the White Water Stock Farm, Weaver, Minnesota on January 28. This will be perhaps the greatest offering of bred sows and gilts to be sold in the Northwest this winter. Plan to attend and send for catalogue. AMES BROS., Weaver, Minn. 26-2

Sale—A coming event. 45 bred sows and gilts of outstanding breeding and quality. This is without doubt the greatest offering ever prepared at Parkhurst Farm. Bred to the Grand Champion King Orion by Orion Cherry King Jr., and the first prize Junior King's Rival by Principle 4th. No inferior or trashy lots included. Send for catalogs. Royally bred. Alfalfa fed. All cholera immune. PARKHURST FARM, Janesville, Wis.

DOGS

Airedale Collies and Old English Shepherds. Pups, trained dogs and brood matrons. Large instructive list 5c. W. R. WATSON, Box 520, Oakland, Iowa. 5-tf

HORSES

Percheron mare, sound, bred, imported, weight 1,800; yearling Jack; three bred Jennetts; registered Hampshire swine, bred. J. J. HAUBERT, Bala, Pa. 25-2

MACHINERY

For Sale—We are closing out our line of milkers and offer at a bargain one new, double unit, Empire Milker. Write GREELEY CREAMERY CO., Greeley, Colo. 24-4

Sale or Exchange—Complete dairy outfit for bottling and delivering milk. FARNERHOLM DAIRY FARM, Colfax, Wis. 24-3

For Sale—B-L-K Milker. Used less than a year, two units, in perfect condition. The A. H. Barber Co. authorized agent for the B-L-K Milkers agree to see that it is properly installed and we will give the customary thirty-day trial. This outfit is as good and efficient as new and at a much reduced price. Don't delay your inquiry if interested. THE D. M. F. FARM, Bangor, Mich.

For Sale—3 H. P. Leffel Boiler, 50-gallon Curtis cheese vat, McGray refrigerator, No. 24 DeLaval turbine separator. This equipment used 8 weeks. KINCO FARMS, Monroe, Mich. 26-spl

For Sale Cheap—Cleveland Tractor of recent model used only two months. Price $800.00. Conditions of same guaranteed. Answer A. W. MURPHY, 1360 West Third Street, Cleveland, Ohio. 26-3

For Sale—Three-unit Sharples milking machine complete. Cheap. C. ROVANG, Foley, Minn. 26-2

For Sale—Having discontinued business, offer for sale Empire Milking Machine. Three double-unit milkers, vacuum pump, tank, pails, and piping for 90 cows. Used five months. Cost $650. Price $200. F. A. MILLNER, 521 Penn. Ave., Norfolk, Va. 26-2

For Sale—Four Hinman Milker units like new. $25 each. C. P. BARLOW, Clarendon, Vermont. 26-2

For Sale—Mogul tractor (8-16) with three bottom Emerson plow, Appleton silo filler (with pipe) Milwaukee corn shredder. All in working order. First check of $700 takes them. BELOIT IMPLEMENT CO., Beloit, Wis.

One B-L-K Milking Machine unit, latest model, used only short time. $75.00. G. H. GARDNER, Unionville, Lake County, Ohio.

For Sale—Two-unit "Official" Milker. Have sold cows. J. J. WYNHOFF, Corliss, Wis.

For Sale or Exchange—Spalding Deep Tiling plow. Would accept calves. BOX 32, Greenup, Illinois.

For Sale—Double-unit Universal Milker, first class milker, milks alternately, used six months; sold cows, no use for same; complete outfit $150, cost $250. Address BOX 404, care Hoard's Dairyman.

SEEDS

Black Hills non-irrigated alfalfa seed, very hardy variety. Write for sample and price. FARMERS' ALFALFA SEED CO., Rapid City, South Dakota. 15-tf

Attention Farmers—Buy your Grimm alfalfa seed, Holgrimson and Lyman strains direct from grower. Will furnish affidavits showing its history. Purity test 99.39. Price $42.70 per 100 lbs. Sacks free. Price of Hansen Cossack $80 per 100 lbs. AT TRIANGLE RANCH, Cottonwood, S. Dak. 21-tf

Wisconsin grown Golden Glow and Wisconsin Number Eight Seed corn, a regular frost beater. VAN LOON, La Crosse, Wis. 25-4

FEEDS

Cottonseed meal, oil meal, dairy feed and all other standard feeds for sale at lowest market prices. F. E. MOORE & CO., Union Stock Yards, Chicago. 24-tf

PRINTING

Hoard's Dairyman Art Dept. designs your letter head free. Just tell us your breeds of stock. Book of 5,000 Farm, Ranch and Cottage names 25 cts. Ask for samples of letter heads, envelopes, shipping tags, cards, milk tickets, etc. Poor stationery is more of a damage than a help. Address HOARD'S DAIRYMAN, Art Dept., Fort Atkinson, Wis. 8-tf

HONEY AND CHEESE

Honey of superior quality. Also Green County's Famous Brick cheese. Write for prices. E. B. ROSA, Monroe, Wis. 22-tf

FARMS FOR SALE

Booklet on request presenting facts by Commissioner of Agriculture describin Mazarn Valley in the Ozarks, ideal for ing and stock farming. Address MA VALLEY LAND COMPANY, 847 C Ave., Hot Springs, Arkansas.

For Sale—60,000 acres cutover land in ern Wisconsin. $20 up per acre, $10 do forty and $10 per month or balance pa extended, provided you do required amo work. We have a few eighties with bu ready for use. To purchasers of these rent teams and tools on community bas advance money for cow, pig and c when you can supply feed; also grubsta during farming season providing you p tire time to developing your farm. HAWK LAND CO., Box L, Tomahawk

For Sale—280-acre improved farm, from Dyersville. Price $75 per acre. B gain. JAMES BRUNKAN, Dyersville,

$15.00 to $20.00 buys $30.00 land out new tract of fine, gently sloping, silt cut-over land; good roads; close to ra good neighborhood; good water; good while improving land; price good o March 1st. Write for details. THE E. CO., E-M, Dept. 31, Merrill, Wis.

A great opportunity to secure a sp large farm, located in the suburbs of perous and growing city. Upon the thoroughly up-to-date equipped dairy, with Guernsey cows, and unlimited dem milk at good prices. Modern farm u and good farm buildings. Will be leased. For particulars address P. O. 565, Norfolk, Va.

If you wish a farm in the best grass of the south where alfalfa and all the including Red White, Alsike, Sweet, Crimson and Japan grow to perfectio soy beans, cowpeas, peanuts, velvet corn, oats, wheat, rye, and barley, wh have a creamery making fine butter a ing Elgin for butterfat, and where ther bovine tuberculosis nor cattle ticks; in munity of northern farmers, write to GURLER, Macon, Miss.

Farms in the Mississippi Prairie Belt, and clovers. Corn, hay and live stock sition. Ideal climate, good neighbors, churches, good roads. Main line of r Close to large markets. Write now. HANSEN, Macon, Miss.

For Sale—Fruit and dairy farm, 90 two miles from county seat. Price rig terms easy. Write for details to BO Washburn, Wis.

Landology, a magazine giving the f regard to the land situation. Three subscription free. If for a home or as vestment you are thinking of buyin farm lands, simply write me a letter a "Mail me Landology and all particular Address EDITOR, Landology, Skidmor Co., 47 Skidmore Bldg., Marinette

Farms of all sizes and all prices for this banner dairy section. Largest c in the world right here. Write F. W. Barron, Wis.

Alfalfa land for sale—Farm 107 ac miles southwest Kansas City, main lin Fe. Cottonwood river bottom in hear alfa country 1½ miles from center li with two colleges, ¼ mile from end o car line. 10 acres in cultivation, 25 in 35 in wheat, 6-room house, barn 30x7 shed 30x200, hay shed 30x80, two well dairy opening. Have other business s tling estate. Address EMPORIA LUM COAL CO., Emporia, Kansas.

Buy in the great Southwest. The ne Valley oil field where one crop under tion will pay for the land. Very mild Health resort. Plenty free water. Be soil. Stock, tools, auto, all $50 acre. T. Pecos, Texas.

Farm for Sale—One of the finest st dairy farms on the James River, acres, 200 in cultivation, balance in ti pine and oak. 12 acres oyster ground. 10-room house, furnace heated. Cat horse barns, tool houses, garage, and buildings new with cement floors, feed ter carriers in cattle and horse barn. silo; artesian water piped to all buildi tenant houses, electric lights. Land in state of cultivation, growing corn, oat and alfalfa; Holstein cattle, Duroc Four tenant houses, private wharf an house. Want to retire. Offered for sale. Easy terms. If you want an u farm come see it quick. C. A. S Smithfield, Va.

By resident owner—200-acre dairy, g grass farm. Equal to Kentucky grass. Good market for dairy produc per acre. If interested write F. D Cairo, Mo.

208-acre stock farm, $70. Pair ho cows and 5 heifers, 2 colts, brood so grain binder, mowing machine, roller harrows, cultivators, plows, wagons, long list tools, harvested crops, stov etc., included. On county pike near tw 125 acres dark loam fields, big crop fenced, 40-cow pasture, door-collecte home use wood, fruit. 12-room hous barns, hog, poultry, tool houses, all good condition. Retiring owner's lo $14,560, including everything if take Small amount down. Details page 69 Big Catalogue of this and other corn b farms; copy free. E. A. STROUT AGENCY, Dept. 3001, Marquette Bld cago.

Farms—All sizes improved, fully e tools and stock or without stock, in t ner dairy section. CLARK & WINT erett, Wash.

So little money necessary, to buy farm in Aitkin County where the boys home, can all have farms. Better be around now. First send for our time trated literature, describing this distric the biggest opportunities are and see company can do for you. Its impo describe the many advantages, in a tisement. Write today and read. Th act promptly will get first choice Write ARNOLD, Land Agent, Roch Railway, 154 Wolvin Bldg., Duluth, M

FARMS FOR SALE

stock and dairying are the most profita- anches of agriculture. Grain prices are to decline, but it will take years to re- he cattle and sheep industry. We are g the choicest clay loam lands splendidly d for cattle and sheep ranches between aul and Duluth at reasonable prices. lands are sold in tracts of 40 acres to ousand in solid blocks. We have good telephones and schools and near great centers. Locate near markets and o chances. Send for map. FARMERS' & CATTLE COMPANY, Globe Building, ul, Minn.

DAIRIES

Sale—Dairy of 125 head, high grade and red Holstein cattle, in city of 15,000. l income $40,000. THOS. HAND, Lew- Idaho. 26-3

FARMS WANTED

ld you sell your farm, if you got your Sell direct, no commissions. Particu- ree. CHARLES RENICH, Woodstock, 14-tf

nted—Dairy farm with modern equipment airying and breeding Holstein cattle. ed in central Illinois one mile of town. DAVIES, Shipman, Illinois. 26-2

nted—Unimproved Saskatchewan land to p. Owners only. BOX 16, Yorkton, Sas- wan. 26-11

HAY

alfa hay for sale. Write or wire us for red prices. ALBERT MILLER & COM- 7, 192 North Clark Street, Chicago, Ill. 26-tf

ention Eastern Dairymen—Alsike and clover hay, nice quality. Some alfalfa. timothy and stock hay. Any delivery. or phone. WALTER L. MITCHELL, Haven, Conn. 24-4

othy and Red Clover hay mixed, more y than clover. BROAD RIPPLE FARM, esha, Wis. 26-2

mers Attention—We want three or four oads good alfalfa or clover hay for im- te delivery. Bidders to specify grade utting and the kind of hay upon which bid. Quote us your price on all or part B. North Warren, Pa. STATE HOS- L FOR INSANE, Warren, Pa.

WANT TO RENT

perienced farmer and dairyman wants to an equipped farm. Has children large h to help. MANAGER LAKESIDE Y, Sioux Falls, S. D. 25-2

nted to rent by experienced man, fully ped dairy farm with 15 or more good Give full particulars and terms expect- Address BOX 398, care Hoard's Dairyman.

nted to Rent—A farm of 100 to 200 acres. be near good schools and college, prefera- State Agricultural College, and must be improved and good soil in good condition. ss BOX 402, care Hoard's Dairyman.

FEED BAGS

ond-hand bags and burlap. We pay st prices and pay freight on 200 or more. faction guaranteed. LINCOLN BAG CO., gfield, Illinois. 20-spl

CREAMERIES

amery for Sale—Building and complete ment ready for immediate use. Located ack. No hauling of supplies or product. be sold at once for cash. Will make bar- price. Don't wait to write. Come and t. P. W. YOUNG, Chairman, Prosper,

MISCELLANEOUS

ise Cuinea Pigs for us. We supply stock. ratories need thousands. Big money and and inexpensive to raise. Particulars and ten cents. DR. J. A. ROBERTS' LAB- TORIES, Oconomowoc, Wis. 19-tf

s Sir, we have a special opportunity for during spare time, an opportunity to do good work in your neighborhood, for etterment of dairy farming, that will pay n cash for the effort you put forth. Write our "Special Opportunity Getting To- r" folder. Address HOARD'S DAIRY- , Fort Atkinson, Wis. 2-tf

rm and household accounts easily kept. e for particulars and special offer. OTIS OUNT BOOK CO., 1822 Chadbourne Ave., son, Wis. 23-6

af tobacco, Kentucky's Best, 2 years old, ing or smoking, 3 lbs. $1.50; 7 lbs. $3.00, uid. Special prices on large quantities. OSENBLATT, Hawesville, Ky. 23-4

r Sale—New Trackford, $115.00, worth 00. Don't sell your old Ford for half its Attach this Trackford to it and let it e work of four horses. RAY JOHNSON, d Rapids, Wisconsin.

AGENTS WANTED

Can You Produce? We want salesmen. Exclusive arrangement to sell our paint, roofing and specialties. Earnings in proportion to results. THE PURITAN OIL & PAINT CO., Cleveland, Ohio. 25-2



Advertising in this department is 5c per word. Remit in advance.

HELP WANTED

Reliable single man, to work in dairy barn. Registered Jerseys, modern barn and equipment. Must be clean, industrious and good dry hand milker. Farm located on traction line near city. FINCH FARM, Dayton, Ohio. 22-tf

Wanted—Single herdsman for 50 pure-bred Guernseys. A. R. and test association. Modern equipment. Board and room furnished. State wages wanted and qualifications. FOLLY FARM, Libertyville, Ill. 22-tf

Wanted—Single man on Holstein dairy farm, pure-breds and grain; competent and experienced; good habits; in good home; state wages; come visit farm. L. A. KIMBALL, Lake Geneva, Wis. 23-4

Wanted—Man with dairy experience to care and milk with Sharples machine 30 Guernsey cows; to put entire time with the herd. Must be capable to take entire charge and assume responsibility. Board and room furnished. State experience, reference and salary. ARTHUR A. COOPER, Elizabeth, Ill. 23-4

Wanted—Man and wife to work on farm. Wife to run small boarding house; man to do general work. Good wages paid reliable and industrious people. Enclose references and address BOX 358, care Hoard's Dairyman. 23-tf

Wanted—Man with special experience and training with pure-bred Holstein cattle, to purchase one-half interest in herd and farming equipment (not including farm), and to take entire charge of the enterprise. We to share 50-50. Fully equipped, modern, dairy farm, northern Illinois. Prefer young married man. By March 1st. Address BOX 368, care Hoard's Dairyman. 24-tf

Wanted—Competent married man as superintendent on medium sized modern general farm located in Chicago suburb. Pure-bred Holsteins and Durocs. This is a good opening for an up-to-date and practical man who wants to improve his position and opportunities. Good wages to the right man. Best of living conditions. In answering state age, nationality, and late experience. Address BOX 373, care Hoard's Dairyman. 24-tf

Wanted—Good dry hand milkers. Good home. $60 per month and board. No farm work. INGLESIDE FARM, Mt. Clemens, Mich. 24-3

Wanted—A herdsman, young man, unmarried, good habits, experienced to care for a 30-lb. cow dairy, with modern conveniences. Give references. JAMES D. Mc INTYRE, Newman, Ill. 25-2

Wanted—Married herdsman for 75 head of registered Guernseys. Must have good habits, able to handle help to best advantage, efficient feeder and willing to co-operate with owner in best advancement of herd. Good proposition, steady employment for right party. Give reference and full particulars regarding ability in first letter. Address BOX 387, care Hoard's Dairyman. 25-2

Wanted—Two single, dry hand milkers; not over 12 cows apiece. Modern equipment. Records and winnings prove herd best in state. Chance for advancement. Good board and room. No boozers or uncontrollable tempers. Good wages. Address BOX 386, care Hoard's Dairyman. 25-2

Wanted—Married man to work by year. Must be good with cows and horses. General farm work. CHAS. W. O'NEILL, Bridgeport, Wis. 25-2

Man and wife wanted on farm. Man with experience to look after Holstein cattle, wife for house work. Good permanent position to right couple. Up-to-date barn, house; has all improvements. Board and room furnished. Salary and bonus paid. Give references past three years, salary expected. Farm in Indiana, 2 hours from Chicago. Three other men on farm. No children. Address BOX 400, care Hoard's Dairyman.

Wanted—Competent, experienced farmer, with help, to run 180-acre, fully equipped stock and grain farm on 50-50 basis. Will sell half interest in stock, machinery, etc. Part cash, balance time. Reference wanted. C. C. FLEISCHER, Sioux Falls, S. Dak.

HELP WANTED

Wanted—A single man for general farm work on a farm twenty-two miles west of Chicago. Good buildings and a good opportunity for the right man. Position by the year. Must come recommended. ARTHUR H. CAIE, 20 E. Jackson Blvd., Chicago, Ill.

Wanted—Married man to take charge of a highly improved Illinois dairy farm close to Chicago. Prefer German or Hollander with his own help. Will give the right party a splendid chance, but their ability, reputation, and character must be the best. E. E. BAIN, 36 S. Franklin St., Chicago, Ill.

Wanted—Married man to work as herdsman in up-to-date dairy. Just starting with pure-bred Holsteins. $90.00 per month, house and garden furnished. SANITARY DAIRY, Ft. Smith, Ark.

Wanted—Competent, single, herdsman to handle Durocs and Holsteins on medium sized modern stock farm near Chicago. Must be experienced and willing to work. Good home and best of living conditions. Good opportunity for right man. State age, experience, nationality, and give references in first letter. Address BOX 393, care Hoard's Dairyman. 26-tf

Wanted—Married man who can milk and care for small herd of Jersey cattle and assist with farm work. CHAS. TOMLINSON, Rossville, Ill.

Wanted—Man and wife practical experience as herdsman and dairyman. Private place. Excellent opportunity for reliable, competent people. References required. State age, nationality, number in family, wages wanted, references. GREEN MOUNTAIN FARMS, 407 Citizens' National Bank Bldg., South Bend, Ind.

Wanted—A capable and efficient herdsman to take charge of a herd of Holsteins of about fifty animals maintained for production and breeding purposes; one who is thoroughly honest and reliable and who would appreciate an opportunity of sharing in the profits as soon as he had demonstrated his ability. Single men preferred, although married men would be considered. Write, stating salary to H. M. ROWE, 624 N. Gilmor St., Baltimore, Md. 26-2

Wanted—Dairyman who is a first class milker. Will also be expected to haul the milk to city dairy. Farm is about one mile from street car line, Duluth, Minnesota. Position steady. Wages $65.00 a month to the right party. H. BRIDGEMAN, Duluth, Minn.

Wanted—At once, man and wife with no children to occupy one room in men's house—woman to cook and keep house in proprietor's house. Man to be first class dairyman or general farmer and good teamster. Must have references. One mile from city. Holstein cattle. Concrete buildings. EDWARD A. KUHARSKE, Route 3, Rockford, Ill.

Wanted—Either single or married man for herdsman on modern dairy farm. State wages in first letter. LEONARD M. PEARCE, R. 6, Box 84, Boone, Iowa. 26-4

Wanted—Man and wife without children on general farm; wife to help with general housework; man to understand general farming and be able to look after dairy end of farm, must be good milker, understand feeding pure-bred dairy cows and common dairy veterinary work. Wages $75 per month, rooms and board furnished. Give references in first letter. R. A. PENICK, Chariton, Iowa. 26-2

Wanted—Two reliable single men to work in dairy barn. Jerseys, modern barn and equipment. Must be clean—both in person and habits and good dry hand milkers. Farm located on I. C. R. R., 20 miles north of Memphis. In answering state age, nationality, and wages expected. POPLAR RIDGE FARM, Kerrville, Tenn. 26-2

Wanted—Married couple without children to work on dairy farm and county home. Man to be herdsman where both beef and dairy cattle are kept—Shorthorns and Holsteins. Must be thoroughly experienced in feeding and fitting for milk and show work, also a good hog feeder. Woman to cook for old people in the county home. Must be neat and clean and a good plain cook. Please give age, nationality, and reference in first letter, also wages expected where living is furnished free. No boozer need apply. Address ST. CROIX CO. ASYLUM, New Richmond, Wis.

Wanted—Man and wife to work on dairy farm. PETERS & PROUTY, Route 1, Keokuk, Iowa.

POSITIONS WANTED

Position wanted by married man as farm superintendent or manager on large dairy farm. Holsteins preferred. University of Wisconsin graduate. County agent and farm managing experience. Lifelong experience in farming. At present managing modern, pure-bred Holstein farm. Thorough knowledge of pure-bred cattle and A. R. O. work. Capable of handling men with maximum results. Believe farm can and should be made to pay. Address BOX 381, care Hoard's Dairyman. 25-2

POSITIONS WANTED

General manager is open for position. Lifetime experience. Have thorough knowledge of pure-bred stock, also buying and selling. A. R. O. work, feeding and developing young stock, and can handle help to best advantage. Married, two children, no bad habits. Address BOX 341, care Hoard's Dairyman. 22-tf

Thoroughly experienced farm manager. Crop rotation, machinery, A. R. O. fitting and testing. Good executive, college graduate, age 29, married. Eastern states only. Address BOX 374, care Hoard's Dairyman. 24-3

Position as farm superintendent wanted in a good dairy state by experienced and college trained dairyman, who understands his business thoroughly. Willing to invest $4,000-$5,000 in stock. No extreme north or south state considered. Address particulars to BOX 380, care Hoard's Dairyman. 25-3

Expert dairyman and dairy farm manager open for position. Wide experience and education. Want permanent place. Terms reasonable. No proposition too big. Married. Address BOX 383, care Hoard's Dairyman. 25-2

Wanted—Position as manager of a large dairy farm of pure-bred stock, where Advanced Registry work is important. At present am n anager of one of the largest pure-bred dairy herds in the East. Married, small family, no vices, college trained, life experience in all kinds of farming and construction work. Address BOX 399, care Hoard's Dairyman.

Farm Manager desires position where energy and ability are needed. Reliable, single. Dairying, stock raising, accounting, soil improvement. First rate builder and mechanic. Specialist in field crops. Agricultural graduate. Satisfaction given anywhere. Reference. Address BOX 405, care Hoard's Dairyman. 26-2

Wanted—First class managership; years of practical, scientific, successful experience; tillage, dairying, live stock. Eminent credentials. Address BOX 406, care Hoard's Dairyman. 26-2

Wanted—Position as working farm manager. College graduate, married, 28, experienced in all kinds of live stock, crops, implements, gas engines, Sharples Milkers, A. R. O. work. Production and distribution of milk, retail and wholesale. Prefer salary and per cent of profits. Best of references. ERIC MORTZ, Pitcairn, Pa. 26-2

Farm superintendent desires situation; thoroughly understands modern farming, dairying, swine, orcharding, wide awake, hustling man with constructive mind and executive ability to handle a proposition of any size. BOX 392, care Hoard's Dairyman.

Wanted—Position as farm manager. Long, successful experience with big propositions. I understand the business thoroughly. Best reference. Try me. Address BOX 395, care Hoard's Dairyman.

Farm superintendent, twelve years' practical experience handling large farms, wants position. College and business training. Have proved my ability and will prove same to next employer at moderate salary. Thorough investigation solicited. Address BOX 394, care Hoard's Dairyman.

Wanted—Position as manager of large dairy farm operated for profit. Graduate Cornell Agricultural College. Years of practical experience. Familiar with official testing and modern farm machinery. Married, no children. Salary, commission basis. References. Address BOX 397, care Hoard's Dairyman. 26-4

We wish to recommend our farm manager to some one who is looking for an honest, systematic manager capable of successfully managing large farm or estate. We have 800 acres general farm and dairy. He is a good worker and business manager, up-to-date and practical. Address BOX 396, care Hoard's Dairyman.

Ensign being released from active duty in the navy desires position as farm manager or assistant manager of a dairy farm. Agricultural college graduate, married and of very best habits. ENSIGN R. B. SLADEK, 1527 So. Central Park Ave., Chicago, Ill.

Wanted—Position as herdsman on up-to-date farm. Married, one child. American, age 26. Short course graduate of Michigan Agricultural College. Have had successful experience with A. R. work both Guernseys and Holsteins. Wife willing to do housekeeping in private house or board help in furnished apartments. Wages $100.00 per month. Would come on month trial before moving. Address BOX 403, care of Hoard's Dairyman. 26-2

Position wanted on dairy and hog farm by single man with experience and ability. No bad habits. Write me at once. R. CECIL SMITH, Cantril, Iowa.

Looking For Quality Holsteins?

If You Are Come to the Liverpool Sale and Pedigree Company's Fourteenth Consignment Sale

Liverpool, New York, January 20-21, 1919

The son of a 31-lb. 2-year-old is consigned. There will be cows and heifers in calf to **King of the Rag Apples,** a 39-lb. son of the Rag Apple Korndyke 8th; **King Korndyke Winona,** a 42-lb. grandson of Pontiac Korndyke; **Spring Farm King Pontiac 14th,** a 31-lb. son of Spring Farm King Pontiac; **Sir Pontiac Waldorf Pietje,** a 36-lb. son of King Pontiac Artis Canada; **Rex Wanderbelle Ormsby,** the highest record bull in the world; **Maplecrest Pontiac De Kol King,** a proven son of Friend Hengerveld De Kol Butter Boy; **Wandaga,** son of a 42-lb. 4-year-old; and **King Concordia Pontiac,** a 31-lb. son of King Pontiac Konigen. 150 head. Guaranteed 60-day retest.

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HOLDFAST
ALL RUBBER
PATCH STOCK

Repairs all injuries to inner tubes large or small. Sold in two sizes:

No. 1—30 square inches
No. 2—72 square inches

Each complete with tube of cement and Firestone metal buffer. This is but one item in the line of Firestone Accessories—a valuable branch of the Firestone "Most Miles per Dollar" policy which has built Firestone leadership in tire service.

Firestone Cementless Tube Patches, Firestone Cure Cut, Firestone Hook-On and Lace-On Boots and the Firestone Blow-Out Patches are other Firestone Tire Accessories which every motorist should carry as travel insurance.

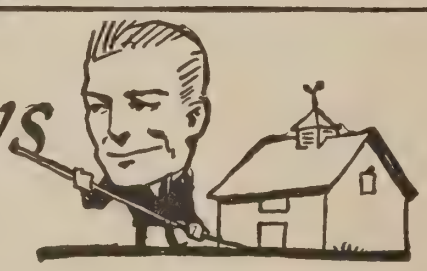


These big helps in little troubles save expense and unnecessary road delays.

If your dealer is not supplied ask him to order direct or through his jobber.

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FIRESTONE PARK AKRON, OHIO
World's Largest Manufacturers of Tire Accessories and Repair Materials.

Jeff Says



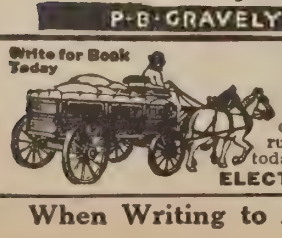
—that he used to think he was getting more for his money by buying a big plug of ordinary tobacco, until he ran across Real Gravely. Now you couldn't make him switch back to the ordinary plug again. Gravely has that good taste that every man wants. It lasts so much longer that you get the tobacco satisfaction you are looking for without extra cost.

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It goes further—that's why you can get the good taste of this class of tobacco without extra cost.

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Real Gravely Chewing Plug
each piece packed in a pouch
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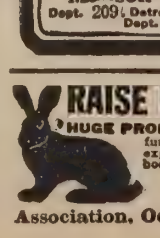
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Over 500,000 in use. Runs by gas engine power. Cleans, grades, separates rankest mixtures of any grain or grass seed—**1000 bushels per day!** Or it turns easy by hand. Cleans out dust, trash, wicked weed seed—separates poor, sickly grains that never grow—sacks the plump, clean grain for seed or market. Sold on 30 days' free trial. Take until next Fall to pay. Or 10% off for cash. Write for FREE Book—and special proposition. Manson Campbell, Pres.

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HUGE PROFITS easily and pleasantly made. We furnish stock and pay you $6.00 a pair and express charges for all you raise. Contract and book "Fortunes in Hares," 10c. Nothing free.

American Food and Fur Association, Oconomowoc, Wisconsin.

When Writing to Advertisers, Mention Hoard's Dairyman

Mange of Hogs

HOARD'S DAIRYMAN:—Despite thick and rather tough skin the l bothered by a number of skin eases, some of them being of a ous nature. Any one who has h hogs attacked by true mange agree that it is hard to cure and ries the animals to such an exten they can hardly make any There are two skin diseases diff considerably that are both kno mange. One of them is the mange caused by a burrowing site and the other is known as mange.

Pitch mange is caused by ge uncleanliness around the pens lots. It attacks hogs that are no ticularly vigorous and thrifty such animals are kept in bad roundings. Damp floors covered filthy bedding and wet pens there is never a clean-up of the and dirt will help much in startin trouble. Some of the lighter sk breeds seem very liable to co the pitch mange. It is really a s an eczema rather than a mang tender skinned hogs of the breeds are very susceptible to first the skin will become reddene sometimes a slightly swollen ap ance will be noticed in places. next thing that will be noticed great number of little red spots a a little while these will turn into ters. For the pitch mange abou best treatment is to give the hog and surroundings a thorough cle After the clean-up follow the of simple cleanliness and fee hogs with the idea of making thrifty and vigorous. The right of treatment usually means a c plete change of surroundings plenty of good feed.

True mange is a different tr altogether. It is caused by a m animal parasite that digs down the skin. It is somewhat like th mite that attacks humans and c a very severe inflammation a scratching. Hogs that are in with these parasites will scratc rub the irritated parts so vigo that the hair will disappear an affected parts will become rav red. This kind of mange is very to cure because of the burrowi the parasites beneath the skin they cannot be reached by any nary treatments. True mange h usually somewhere on the he neck and moves slowly backwar the body of the hog until the surface is affected. The hams ar ally about the last parts of the to be attacked by the spreading sites. Hog mange is peculiar be of the powder-like surface o crust that forms over the irr parts. As it spreads and be more serious the bristles fall ou the body surface becomes bare. Sometimes the skin is thic to an astonishing extent becau the continued irritation and infla tion. It always becomes very h and has a wrinkled look that is that caused by any other skin di When hogs are attacked by this dy it is better to call in a veteri than to rely upon home treatm

Illinois. A. O. CHO

A county agricultural agent diana recently enlisted the servi members of the United States Working Reserve in the extermin of rats and mice previous to s grain. One boy reported 97 rat 393 mice killed. The number o and mice has been greatly re and consequently a large amou grain will be saved.

The winter is the time f farmer to plan his spring off against the enemies of agricu One of the enemies is unprepare



Things We Like To Talk About

We like to call attention to the fact that the Samson is so simple that the tool it contains three box wrenches—and nothing else.

We like to talk about the safety of the Samson—safety absolutely assured by uniform distribution of weight.

We like to call attention to the fact that you can throw away your oil can—that you don't need it with the Samson because the oil is applied at only two points, and distributed from these points to all moving parts.

We like to talk about the fact that the Samson (Model M) will pull two 14-inch plows at all times—and three 14-inch plows under favorable conditions.

We like to talk about the fact that all moving parts on the Samson are enclosed and self-oiling, waterproof and dustproof. No moving parts exposed except the four wheels.

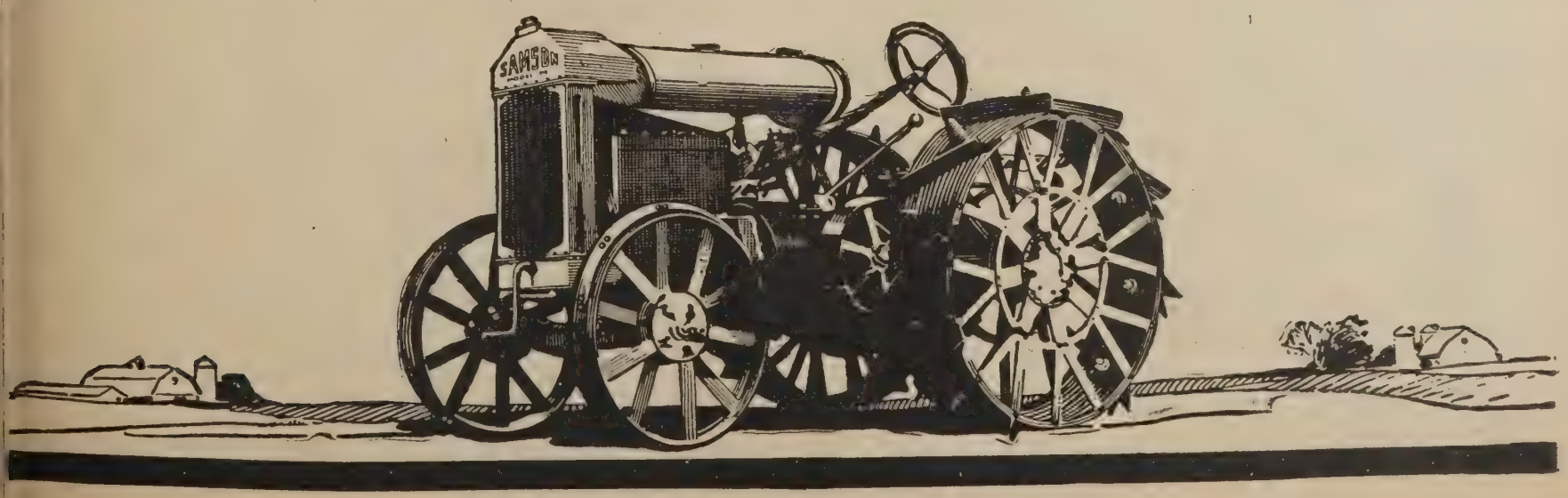
We like to talk about these things because they help to make the Samson (Model M) the biggest money's worth in the world today.

SAMSON TRACTOR COMPANY, JANESVILLE, WISCONSIN

SAMSON *MODEL M* $650

Capable of pulling two 14-inch plows at all times; three 14-inch plows under favorable conditions

F. O. B. Janesville, Wis.
Complete with automatic power take-off and automatic control





Feeding Time

It's a pleasure to see the way cows relish and eat

UNICORN DAIRY RATION

It's just what they need and they know it. You can utilize your home grown grain to best advantage by balancing it with Unicorn.

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CHAPIN & COMPANY
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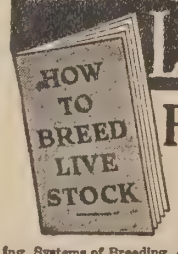

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Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address today.
Brooks Appliance Co., 467 State St., Marshall, Mich.

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Free Book write a today. A post card will do. Get our wonderful free booklet, "How to Breed Live Stock". Reveals valuable information on the breeding and feeding of horses, cattle, swine and sheep. Shows pictures of breeding organs. Also describes our wonderful home-study course in Animal Breeding, Sterility, Disease - Prevention, Contagious Abortion, Artificial Breeding, Systems of Breeding, etc.—all taught in detail. Write today for free booklet and learn how to master scientific breeding at home. We have brought the school to the breeder. Get our free booklet. Write today. Just mail a postcard.
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One acre cleared of 81 PINE STUMPS IN 2 HOURS AND 53 MINUTES is the world's record held by the LaPlant-Choate puller demonstrated before Wisconsin University authorities. Winner also in all tests made on LOW COST PER STUMP. Guaranteed to be the speediest, easiest to operate and to pull stumps at lowest cost per acre of ANY stump puller on earth. We prove it. You have 30 days to prove it for YOURSELF on your own farm FREE. Our Free Land Clearing Book tells all about this wonderful puller. Triple power from machine or stump. Best patented Scab Take-up ever made. Has the greatest features ever found on a Stump Puller.

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VALUABLE. Tells all about our STUMP SERVICE DEPARTMENT which will save you time and money with your stump problems. Let us help you FREE of charge. Send for FREE BLUE PRINTS showing how to pull stumps easily and quickly. LaPlant-Choate puller endorsed by government experts and land clearing engineers

SERVICE DEPT. R. E. Choate, our land-clearing expert will help solve your stump problems. Write him today.

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Seeing your friends and having them join in for a club of subscribers.

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Timothy, Clover, Alfalfa and Other Field Seeds

If Your Local Dealer Cannot Furnish This Brand WRITE

THE ALBERT DICKINSON CO.
MINNEAPOLIS CHICAGO

Kansas Extension Director Appointed Washington Dean

Edward C. Johnson, three yea dean of the division of extension the Kansas State Agricultural C lege, has been appointed Dean of A riculture and Director of the Expe ment Station at the State College Washington.

Mr. Johnson started his work Kansas as superintendent of ins tutes and demonstrations and coun agent leader, in which capacity served the state for three years, un he was made dean of the divisi The corps of extension workers h grown in number from forty-three one hundred forty under his lead ship. The special features that ha been emphasized are the need for versified farming as a permanent s tem of agriculture; the introducti of more live stock into the state; t growing of legume crops; the co struction of silos; and commun building from the standpoint of a round community development. M Johnson's special interests are ag cultural economics and farm mana ment, in addition to his administrati work.

Kansas. JANET LONG.

Illinois Agricultural Meeting Called off

In the interest of public health, t Corn Growers' and Stockmen's co vention or two-week-course in ag culture has been cancelled.

Owing to the widespread pre lence of influenza-pneumonia it s thought inadvisable to hold the ei teenth annual Corn Growers' a Stockmen's convention scheduled meet at the College of Agricultu University of Illinois, January 20 31, 1919. Realizing that a large ga ering of people coming from differ localities might result in spreadi the evils of influenza, the Univers officials and several prominent c zens of the state have decided, af careful consideration, to abandon t convention until next winter.

FRED H. RANKIN, Agr'l Extensi

Farm Fire Don'ts

Fire prevention is quite as imp tant as insurance against loss fr fire, and the state fire marshal Pennsylvania urges farmers to use t same precaution to prevent a fire they would if they expected one t next day. The fire marshal's adv is:

"Don't go to barns or other bui ings with an open light.

"Don't keep gasoline engines gasoline in barns, put them in s arate buildings made of galvani iron, brick, or stone.

"Don't fail to burn rubbish. Do do it near buildings. Watch it wh burning.

"Keep at least six (6) buckets water in passageway of barn. Ma them "For fire purposes only", a see that they are kept filled.

"Keep ladder of sufficient length side of barn for emergencies, a have footholds placed on roof of ba

"Build a cistern near barn with good pump and hose attached.

"Don't neglect to put lightni rods on your building; they prev fire."

To the above suggestions for f prevention and control we would a the purchase of fire extinguishe There are many and various types these, and they are thoroughly pra cal and relatively inexpensive. Th are particularly valuable in contr ing a fire at its start and the one m on the farm can accomplish wonde



You Can Now Get a Pair!

The trenches in Flanders are now empty and it is no longer necessary to keep supplying the boys "over there" with U. S. "Protected" rubber boots.

So, instead of making trench boots almost exclusively as we have been doing, we have reverted to our before-the-war manufacturing program, and will soon make up the shortage that exists in the supply of heavy service, double-duty U. S. "Protected" rubber footwear.

Uncle Sam has furnished "our boys" with the best rubber boots that money can buy, and, in both the Army and Navy, there probably are as many U. S. "Protected" rubber boots as all other brands combined.

Outdoor workers everywhere recognize the dollar-for-dollar value of "U. S." quality. It means rubber boots of the sturdiest construction, reinforced where the wear is greatest, yet entirely comfortable. Longer wear insures saving of money.



Every pair of U. S. "Protected" rubber boots bears the "U. S. Seal"—trade mark of the largest rubber manufacturer in the world. Look for it. It is your protection.

United States Rubber Company
New York

U. S. Rubber Footwear

Cow Waters Herself



and Increases Milk Yield 15% to 20%

That's what happens when the cow has a Libbey Automatic WATER BOWL within reach.

Milk is 87% water and milch cows must have an abundance of water—whenever they want it, day and night—if they are to yield as much milk as they are capable of yielding. Cows that are watered at a trough two or three times a day never drink as much as they need, and the lack of water cuts down the milk supply. This is especially true in the winter, when a supply of water outdoors is so cold that the cows will not drink nearly as much as they need. In many herds, the cows produce only a small quantity of milk because they do not drink enough water.

Every farmer who has installed Libbey Automatic Water Bowls in his stable, and reported accurate comparisons, before and afterward, has proven that they actually increase the milk supply from 15% to 20%. Some cows have shown an increase of as much as 4 pounds of milk per day.

LIBBEY AUTOMATIC WATER BOWLS

The Libbey Bowl is a wonderful improvement over all float tank systems. It is a new invention, having been on the market only three years, but in that time 50,000 Libbey Bowls have been sold.

Each Libbey Bowl is automatic — that is, it controls its own water supply and is operated entirely by the cow.
No float tank is required and bowl operates perfectly under any pressure.
Bowls may be placed at different heights and in any kind of stall or pen.
They cannot overflow and cannot get out of order.
No water is left in bowl to become stagnant or for animal to splash out and wet the stall.
No water can pass from one bowl to another, preventing the spread of contagious diseases.
It is the **only** automatic bowl that has a **dirt strainer protection for its valve,** which absolutely prevents any dirt in the water from hindering operation of valve.

It is the easiest to install, and costs the least of any bowl made.



WHAT THE FARMERS SAY:

11 Cows Gain 40 Pounds of Milk

Robert J. Plenty, Rice Lake, Wisconsin, wrote: "The Libbey Automatic Water Bowls are a money-maker and time and labor-saver. My 11 cows gained 40 pounds of milk in one day, after installing bowls. I would not be without the bowls for a good deal."

Libbey Bowl is Very Superior

Guy D. Power & Son, Pankhurst Farm, Auburn, N. Y., wrote: "The water bowls purchased of you in January are giving good satisfaction watering our herd of 54 milk Ayrshires and Holsteins. The Libbey Automatic Water Bowl is a very superior one and is of valuable aid to dairy farmers in increasing their milk yield."

Best He Has Ever Seen.

Alphonse LaBelle, Harris, Michigan, wrote: "I have been using the Libbey Bowls and the Libbey Stanchions for some time, and they are the best that I have seen. The Water bowls keep up the milk yield of the cows and the Stanchions are mighty comfortable on the cow's neck and handy for us to use, so I consider them both good, valuable equipments for any barn, and would not sell them for twice what I paid for them if I could not get more like them."

How the Cow Operates

A little water always remains in bottom of bowl. When the animal is thirsty, it attempts to reach this water and pushes lever to one side, which opens the valve and lets in fresh water about as fast as the animal can drink. When the animal has had enough, it will raise its head, and this lever will swing back to its mid-position in the bowl and the valve will close, shutting off the water.

Mighty Well Pleased With Them

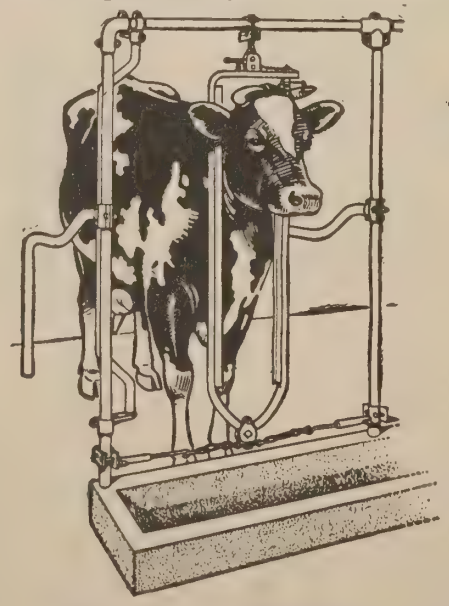
C. S. Shoemaker, Pontiac, Mich., wrote: "The Libbey Automatic Water Bowls which I purchased of you this winter are working splendidly, and I am mighty well pleased with them."

LIBBEY STALLS, STANCHIONS AND CARRIERS

Comfortable cows are contented cows, and the best money-makers. Libbey Stanchions are designed to make cows comfortable.

The Libbey Shock-Absorber is one of our latest improvements. It is a Cushion Spring Stanchion Fastener designed to relieve the cow of jolts, jars, and strains, particularly when getting up and lying down. Dairymen say it is a great feature and you will want to investigate it before you buy your barn equipment.

The Libbey line comprises a variety of steel stalls and both steel and wood Stanchions at various prices—from the simplest up to the most improved with all labor-saving attachments.



TRADE MARK LIBBEY

Libbey Litter Carriers are built in four track systems:

Rod or Cable.

Rigid Track.

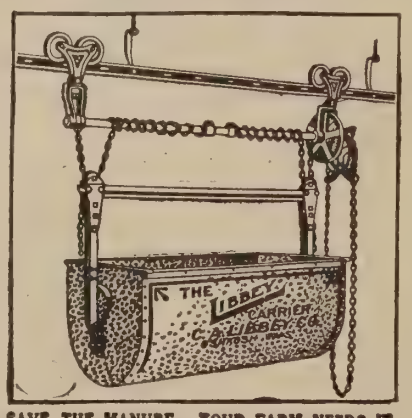
Rigid Track and Swinging Boom.

Combination Rod and Rigid Track.

Simple and strong. Do not get out of order. Simple locking and tripping device is "always on the job". Tubs dump from either side. Easy to raise and lower. Hoist is powerful and quick-acting—a boy can easily raise a heavy load. Tub may be lowered as fast or slow as desired and stopped at any point.

If interested in Carriers or Sanitary Stanchions or Stalls, ask for General Catalog.

If interested in Water Bowls, ask for Water Bowl Book, also **free Daily Milk and Feed Record.**



SAVE THE MANURE—YOUR FARM NEEDS IT.

Eighty per cent of the fertility in feed consumed by animals is not stored in their bodies, but becomes manure, and should be returned to the soil to produce new crops.

Stable manure is worth too much to neglect or waste. It should be hauled direct to the fields or stored in compact piles, or under a shed. A. Libbey Litter Carrier makes it possible to save all of it, with the least trouble and work.

C. A. LIBBEY CO.,
195 Marion St., Oshkosh, Wis.

Please send me full information on subjects checked below:

Water Bowls.. Carriers.. Stanchions..

Name .....

Town .....State .....

C. A. LIBBEY COMPANY

195 Marion Street Oshkosh, Wisconsin

What About This?

HOARD'S DAIRYMAN:—I have fcre me a report from the Treasu Department, at Washington, setti forth the "estimated consumption a cost of the various articles of fo furnished the army during one ye Among the list of articles are incl ed the following:

Butter, 15,330,000 lbs.; cost $ 516,783.

Oleomargarine, 7,665,000 lbs.; c $2,064,184.50.

In other words, there are just exa ly half as many pounds of oleom garine used as butter. This seem incredible to me at first and set wondering as to the cause of it, a whether our boys were partial to s stitutes for good, wholesome butt I do not recall that there was any ficial order requesting the gene public of the country to cut down the use of butter and use substitut and yet our soldiers, the men ab all others we tried to supply with best food to be had, had no choice to use one-third of butter substitut

Is it possible there was a short of butter? When the dairymen w asked to put their business on a basis there was a gratifying respon Many pounds of milk and butter w produced at a loss to the dairym but the dairyman stuck to his job iantly. When butter and other products began to rise, but it must remembered not in proportion to rise in cost of feeds and most ot articles, many people, hotels, restaurants began using more sub tutes; this cut the demand for but but still the dairyman stuck to job. He had to take what he co get; he could not set a price; he investigated, called a war profit He kept on with a losing proposit for some time, and at no time, d recall, was there any suggestion f the food administration that th was a shortage of butter. The da man saw that there wasn't.

And yet seven and one-half milli of pounds of substitutes are neede year! That is not a very pleas thing for the dairyman to cont plate, while during the beginning the war he was fighting for his istence. Certainly the substitu were neither more easily obtai ble nor more nutritious and sa fying than the real article. Shipp facilities for butter were apparen just as good as for the substitu Our camps were scattered through country so as to make it possible supply each one of them with a ple ful supply of butter.

But, you say, this is all past done. So it is; but it has a fut significance. From all reports, we to have after the war a limited u versal training plan to put into fo Every year we shall have young r training in some of these camps wh have grown out of the war. It be, perhaps, a year yet before m of our troops are demobilized, and seems to me that these men are j as deserving of the best in our lar as when they were on the firing l

Good butter is an article which men want and like and need. dairymen of this country can furn all of it that is needed. There nothing "just as good". I have to meet a soldier who prefers the s stitutes.

Perhaps it is through a lack of fluence in the proper circles tha ration of only two-thirds butter supplied to our men. Certainly it not a fair attitude toward the earn dairyman; but it emphasizes the f that our interests must be represen in all branches of the government that milk and milk products are a cles of food that do not lend the selves to substitutes no matter h skilfully the latter are concocted

Indiana. J. L. JUSTICE

A Campaign to Protect You in Buying Your Watch

RALPH WALDO EMERSON, speaking in one of his essays of a distinguished man, said: "He is put together like a Waltham Watch."

This remarkable tribute to Waltham greatness is the result of the genius of many men whose inventive faculties have been concentrated for nearly three-quarters of a century to make it the wonderful time-keeping device it is.

The buying of a watch is an investment in time-keeping. And time is the most valuable possession of man.

You purchase a watch for one thing—to keep correct time for you—to tell it to you with dependability at any moment of the day or night.

A good watch, therefore, must have something more than good looks—it must have good "works."

Millions of people imagine that the "best" watch is made abroad—or, at any rate, that its works are imported from there.

Yet, in competitive horological tests at the world's great Expositions, Waltham has not only defeated these watches of foreign origin, but all other watches as well.

In a series of advertisements we are going to show Americans that there is a watch built in the United States whose time-keeping mechanism is more trustworthy than those of foreign make,—

A watch that is easily and reasonably repaired because its parts are standardized,—



Duane H. Church, famous inventor who filled the great shops at Waltham, Massachusetts, with exclusive watch-making machinery that performs miracles of accurate and delicate work which the human hand could never equal.

A watch that represents American leadership in mechanical skill,—

A watch that has revolutionized the art of watch making and assured accurate and dependable time-keeping.

We are going to take you through the "works" of a Waltham—lay bare those hidden superiorities which have led the horological experts of the greatest nations to choose Waltham as *the* watch for the use of their government railroads.

When you have finished reading these advertisements, which will appear regularly in the leading magazines, you will walk up to your jeweler's counter and demand the watch you want—because you will know how it is built and why it is superior to the foreign watch.

Look for these advertisements. Read them.

WALTHAM

THE WORLD'S WATCH OVER TIME

Sanders-Bradshaw Great
HOLSTEIN SALE

Salt River Valley, Phoenix, Arizona
State Fair Grounds

February 5, 6, and 7th, '19

175 Registered Holsteins
100 Grade Holsteins

SALE FEATURES

Unexcelled Healthy Cattle. Splendid Individuality. Show Ring Winners.
Splendid A. R. O. Records. Cattle Raised in the Open.
Maximum Cows of Milking Age. Pasture Fed 12 Months Each Year.
Cattle Strong in Blood of Pontiac, Korndyke, King Segis, King Segis Pontiac.

THERE WILL BE SOLD

A bull whose three nearest dams average 33.02. A bull whose seven nearest dams average 32.26. Many daughters of the 36-lb. bull, Dichter Spofford Korndyke Lad. Many daughters of the 32-lb. bull, Lieuwkje Korndyke Lad. Many daughters of the bull Roderick Lincoln who has 43 A. R. O. daughters. Numerous daughters of 30-pound sons of King Segis Pontiac. Many A. R. O. Cows.

BEAR IN MIND—***Females from the Bradshaw Herd*** are in calf to a ***Full Brother to King Segis Pontiac Count*** one of the very greatest bulls of this or any age.

Great Buying Opportunity

For Holstein Men

in Southwest, Rocky Mountain States, and Pacific Coast

BECAUSE

Cattle are acclimated.



Frontier Mona Korndyke Grand Champion Show Cow. A. R. O. 22.78 butter 7 days, to be sold at this sale.

Splendid Opportunity

For the Big Eastern Breeder

BECAUSE

Cattle prime to make big records. Due to life time in the open. Grass Fed. Extremely well bred.

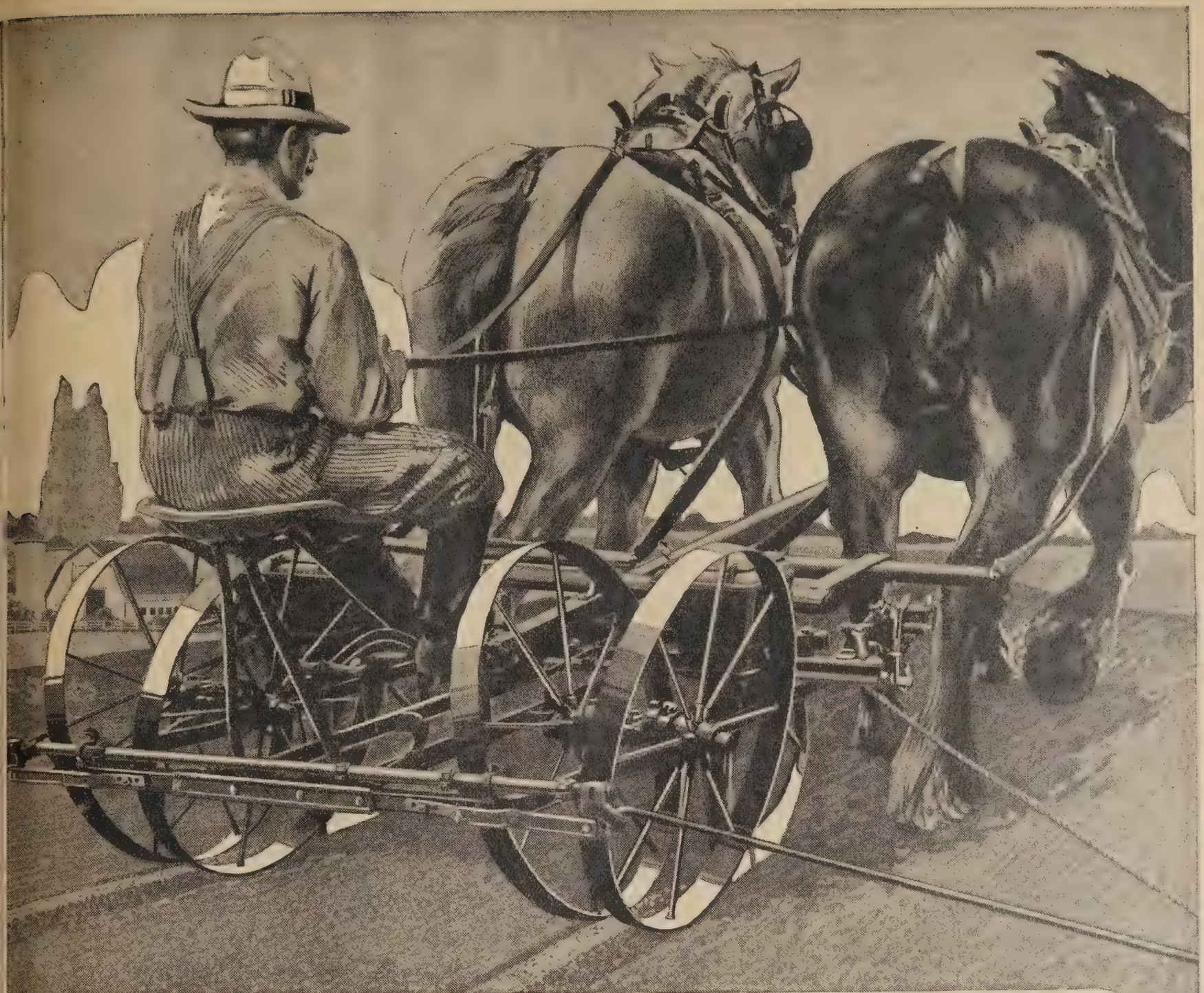
To breeders everywhere we invite you to come to this great sale. See the green fields in February, bask in Arizona sunshine. Cotton growing has made registered cattle cheaper than anywhere else, and this is your opportunity to buy cattle of the finest breeding, well grown, and heavy producers.

SPECIAL INDUCEMENT: To buyers from other states. Individuals whose purchases exceed 15 head will have freight paid to their shipping point by the sellers.

For illustrated circular and catalogues address sales manager.

Auctioneers: R. E. Haeger, Algonquin, Ill. S. T. Wood, Syracuse, N. Y., Pedigree Expert.

Frank Reed Sanders, Sales Manager, Mesa, Arizona.



Big Yields Prove Hayes Accuracy

FIND the planter that consistently produces the biggest yields per acre and you find the most *accurate* planter. It's the test in the field that counts—that's the only test that means anything to you.

Knowing that "accuracy of drop" is only one of 7 necessary preventatives of "bare spots", the insidious pests that rob American farmers of millions of bushels every year, we make no special demonstrations of Hayes accuracy. We point to its unmatchable record as "champion of mighty yields for over 30 years".

HAYES Four-Wheel PLANTER

"Plants Like Human Hands"

For a maximum yield you must overcome *all* 7 causes of "bare spots". These are (1) Seed planted too deep! (2) Seed planted too shallow! (3) Seed left uncovered! (4) Seed killed in the hopper! (5) Hills missed by the drop! (6) Hills "washed out!" (7) Hills destroyed in cultivation!

"Accuracy of drop," no matter how faultless, cannot alone assure a maximum yield. There are six other menaces to overcome; and over 200,000 American corn growers know that the Hayes Four Wheel System of Human Hand Planting is the only system in the world that will positively and unfailingly overcome them all.

Due to fourwheel principle the Hayes plants to an even depth. The runners set back between the wheels close to the covering point. Shoe rises and falls with the wheels, planting each kernel the exact depth on level or most uneven ground. Dangers (1) and (2) are thus eliminated.

Due to the fourwheel construction the Hayes *covers where all others fail.* The wheels "gather" the earth over the corn like a pair of hands, packing it down firmly so "wash outs" will not occur. Thus dangers (3) and (6) are overcome.

The Hayes "Never-Fail" Drop positively *never misses a hill.* It will drop all sizes and shapes of kernels accurately, including "Butts and tips". Has no clutch to slip, wear and give trouble. Has fewer parts than any other and positively will not cut or grind the seed. Thus dangers (4) and (5) are eliminated.

It is often remarked that the Hayes "checks straighter than the way you drive", regardless of the team's speed. This means accurate cultivation with no chance of "dug up" hills. Thus menace (7) is eliminated.

This is the planting service today responsible for mighty yields on thousands of farms. It is the safest big crop insurance you can buy. Add to this the fact that many Hayes Four Wheel Planters give 18, 20 and 25 years of service with practically no repair expense and you have the reason why this planter is being selected by thousands of new users each year.

Go to the Local Hayes Dealer

See the Hayes. Investigate its record. Insure your 1919 crop against "bare spots" by using the Hayes Human Hand System. Also write for our Million Dollar Corn Planter Book—the most amazing book on corn planting ever written. No farmer who grows corn should fail to read it. Mail a postal and we will send a copy free.

Hayes Pump & Planter Co.

for Bigger Corn Crops
HAYES
NATIONAL SALES WEEKS
Feb. 15th to March 1st
1919

Dept. 51 - Galva, Illinois

Concrete Roads and Roast Beef



THIS load of roast beef, live stock from farms in the vicinity of Indianapolis, Ind., is on its way over one of the **concrete roads** of Marion County to the Indianapolis stockyards.

Before the combination of motor trucks and **concrete roads** existed in Marion County, farmers in the vicinity of Indianapolis had to sell live stock to dealers, who bought enough cattle in the neighborhood to make a carload for shipment to Indianapolis.

What the **concrete roads** leading to Indianapolis have done for stock raisers is best told by Joseph Jackson, one of the prominent farmers of Lebanon, Indiana.

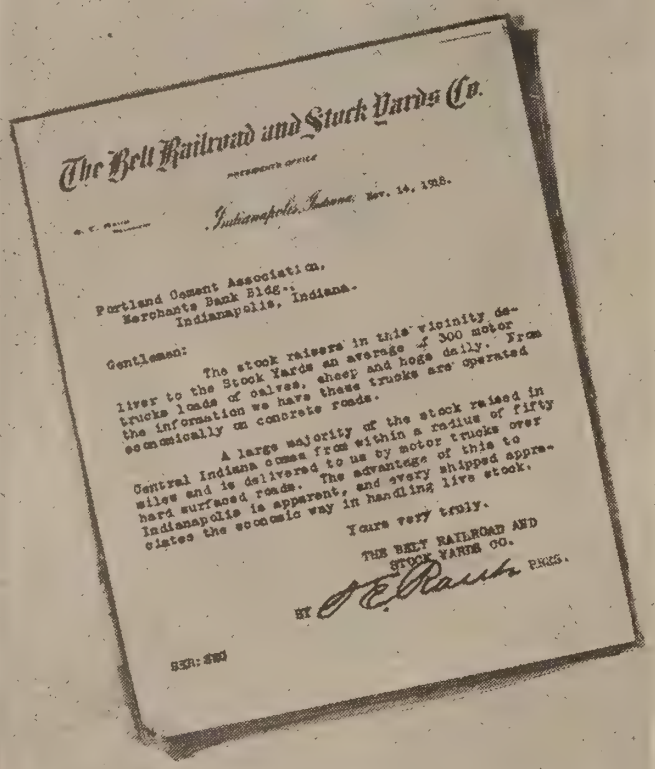
Read What He Says:

"During the past few months **concrete roads** have enabled me to ship live stock direct to the yards by motor truck, eliminating the middle man and saving me his profit.

"It also saves shrinkage in weight of the cattle, caused by loading, shipping and unloading from freight cars, and I can ship as often as I have stock ready for the market, without waiting to get together a carload: which often makes it necessary to include animals still under full weight.

"Shipping by truck would be expensive over poor roads and often impossible. Over concrete you can keep your trucks going the year round, with the least wear and tear and with a minimum of gasoline.

"**Concrete roads** and motor trucks are and will be hereafter a great aid to the farmer shipping produce and live stock to market."



The Belt Railroad and Stock Yards Co.

Indianapolis, Indiana, Nov. 14, 1918.

Portland Cement Association,
Merchants Bank Bldg.,
Indianapolis, Indiana.

Gentlemen:

The stock raisers in this vicinity deliver to the Stock Yards an average of 300 motor trucks loads of calves, sheep and hogs daily. From the information we have these trucks are operated economically on concrete roads.

A large majority of the stock raised in Central Indiana comes from within a radius of fifty miles and is delivered to us by motor trucks over hard surfaced roads. The advantage of this to Indianapolis is apparent, and every shipper appreciates the economic way in handling live stock.

Yours very truly,

THE BELT RAILROAD AND STOCK YARDS CO.

BY S. E. Rauh PRES.

S. E. Rauh, President of the Belt Railroad & Stockyards Co., Indianapolis, also has something to say about shipment of live stock by motor truck into Indianapolis. ***Read his letter, too.***

You see that roast beef may depend on concrete roads, that roads are a great factor in regular distribution of food products.

Read again the second paragraph of Mr. Jackson's letter above. It gives some of the reasons why

Concrete Roads PAY

PORTLAND CEMENT ASSOCIATION

ATLANTA CHICAGO DENVER DALLAS HELENA SEATTLE INDIANAPOLIS DETROIT KANSAS CITY MILWAUKEE PARKERSBURG MINNEAPOLIS NEW YORK WASHINGTON PITTSBURGH SALT LAKE CITY

CONCRETE FOR PERMANENCE



One JER$EY Starts a PROFIT HERD

One Jersey will prove the profit of the breed. She will prove her economy in feed. She will show a return in milk richness truly astonishing. (Vigorous in the hot South; Hardy in the cold North.) Get one Jersey and you will never be satisfied until you have more. Ask breeders for prices and pedigrees. Write us for Jersey information worth having. We have gathered it from men who know from experience. It's free to you.

THE AMERICAN JERSEY CATTLE CLUB 351 WEST 23rd STREET, NEW YORK CITY

earling Heifers

1 White Rosebud 418923. Dropped April 24, 1917. color. Sire: Gamboge's Oxford Lad 2nd, a son oge's Oxford Lad and his dam a R. of M. daughter oge's Knight. Dam: Golden Maid's White Rose, daughter of Golden Maid's Prince. Bred June 21, ossacks, Noble Sally 411961. Dropped Oct. 13th, lid color. Sire: Golden Fern's Noble Cossack, a olden Fern's Noble. Dam: Lancy Sally Noble, rted grand-daughter of Noble of Oaklands. Bred h, 1918. Majesty's Princess Virginia 418924, June 5th, 1917. Solid color. Sire: The Virginian, Stockwell, and his dam, Golden Fern's Tulp's, ghest testing daughter of Golden Fern's Lad. ajesty's Melia Star, R. of M. 8062.8 lbs. milk 449 . 85 per cent butter at 1 year 11 months of age. y Majesty's Star and her dam is a grandaughter ested Prince. Bred Nov. 1st, 1918. Hilda Oxford 415715. Dropped May 24th, 1917. Solid color. mboge's Oxford Lad, sire of 23 R. of M. daugh- 2 proven sons. He is by Oxford Lad and his a daughter of Houpla. Dam: Pauline Hilda's R. of M. 7953.1 lbs. milk, 461 lbs. 12 oz. 85% s a 3-year-old. She is by Sir Stockwell, a grand- tockwell. Bred Nov. 14th, 1918. Heifer (regis- pplied for); Dropped Nov. 13, 1917. Solid color. oneer Fox 140240. His sire is by a son of Cham- ring Fox and his dam is a R. of M. daughter of Shy Fox. Dam: Ella Lillian 321616 R. of M. bs. milk 540 lbs. 8 oz. 85 per cent butter as a 4-yr.- er sire is Gamboge's Oxford Lad and her dam is daughter of Gamboge's Oxford Lad. Not bred. heifers are good individuals, well grown and in sh. The pregnant heifers are bred to Majesty's son of Royal Majesty, and his dam, a 641-lb. r of Fancy's Pioneer. He has a paternal and a al half sister whose records average 15156.5 lbs. 5 lbs. 85 per cent butter. Our prices, crated F. rs Dayton is $150 each.

ss, FINCH FARMS, - DAYTON, OHIO.

OLLED JERSEYS

ders' names and Spillman's "Inheritance Poll Character in Cattle" mailed free.

S. HATFIELD, Secy, R4, Box 5, Springfield, Ohio.

MERIDALE JERSEYS

For Sale: Five grandsons of Spermfield Owl 57088. Two 1000-lb. cows close up in their pedigrees. Address

AYER & McKINNEY

300 Chestnut St., Philadelphia, Pa.

HIE'S TORMENTOR JERSEYS

Production" Our Watchword

ILL CALF FOR SALE

r No. 252, dropped April 29, 1918; solid n fawn with black tongue and switch; grown for his age and an excellent indi- l in every respect.

—Lou's Torono 106614, whose first four ters on test averaged 602.71 lbs. 85% r, from 9,450.9 lbs. milk, at 1 yr. 11 mos. e; all four finished in Class AA, having d calf an average of 183 days.

—Van's Warden Lady 336390, an excel- individual of extremely good dairy type. e for particulars.

FAIRVIEW FARMS, INC.,

PIKE, Genl. Mgr. P.O. Box 1404

ATLANTA, GA.

olden Sunset JERSEYS

have a few elegant young bulls nearly for service at $100.00 each. The famous Belle-Golden Rosebays.

Ennis Stock and Dairy Farm, Horine, Mo. (Just south of St. Louis.)

Wineland Farm Jerseys

Big Milkers—Prize Winners.

Head - - 100 Head

A few for sale.

YOUNG, 33 and O Sts., Lincoln, Neb.

The Hermitage" near Centreville, Maryland

Purebred Jerseys For Sale

h in blood of Raleighs, Eminents, Golden , Flying Fox, Mohican and Noble Oaklands.

Williams, Owner. Address Edw. A. Nelker, Herdsman.

Burn Brae Jerseys

Ibsen's Chief

HERD SIRE

High class bulls for sale—all ages.

CHAS. A. PETERSON, ROSENDALE, Wis.

BULL FOR SALE

Island bred and ready for service. Dropped April 26th, 1918. Solid orange fawn color, straight top line, deep body, short muzzle, dished face, an all round good individual. Sired by an imported son of Noble of Oakland, and out of an Island bred cow with a record of 652,768 lbs. butter. Write for particulars or come and see him.

OAK GROVE JERSEY FARM,

W. M. KNIGHT, EAGLE, WISCONSIN.

Ceylon Court Jerseys

Choice solid color bull calf, dropped September 3, 1918. *Sire*—Majesty's Golden Renown 134991. A double grandson of Royal Majesty, with Register of Merit dam. *Dam*—Princess Jayne 213499 Imp. A Register of Merit cow in Class AA. 479.27 lbs. butter at 14 yrs. old. She sired by a grandson of the Owl. Write

G. D. Gilbert, - Lake Geneva, Wis.

Registered Jerseys

We raise 15 to 20 calves yearly, consequently have an equal number to dispose of from the herd.

Now for sale—six bulls, 2 to 9 months old; two heifers, 10 and 11 months old; all sired by Imported Grandson of Noble of Oaklands. Also four or five fine 3-year-old cows, now milking. E. G. Roberts, Proprietor.

Roberts Poultry Farm, Ft. Atkinson, Wis.

HILLCREST JERSEYS

Write me for descriptions and prices on several head of officially tested cows. Also bull calves out of tested dams. Address

ROLLIE VANDERVORT, Tomah, Wis.

Register of Merit Jerseys

We bred the highest record Jersey Cow in Wisconsin. Our cows won prizes in the Wisconsin Dairy Cow Competition. Our sires are well known. We have the best of breeding. Our herd bred for type and production. Send for pedigrees, etc.

J. Q. EMERY AND SON, - Edgerton, Wis.

Meadside Farms

Meadville, Pa.

Jerseys that produce. This is the farm where Jimp, test 31 lbs. 1¾ butter, 471 lbs. milk, 7 days, made record and spent her last days, and her son was in service 11 years.

Where Eminent Jimp's Owl, owned in Washington, was raised and bred, test 803 lbs. butter, 16,937 lbs. milk.

Where Eminent's Bell of T. was raised and bred. Champion 4-year-old of Ohio.

Where Raleigh's Foxlett was raised and bred; nearly 12,000 lbs. milk, 535 lbs. butter at 1 year, 11 months old.

We have bull calves rich in this blood sired by our high producing sons of Oxford You'll Do and Gamboga Knight with little Hood breeding. Prices $100 to $200. Write us.

We are now offering sons and daughters of our great FINANCIAL-ROCHETTE Butter Bred Bull. Prices, $75, $100, $125, express prepaid. Checks must accompany each order. Ashland Farm Dairy, Inc.

ALTON PARK, TENN.

JERSEYS

FOR SALE

Six choice young bulls, nearly ready for service; eight yearling heifers and heifer calves. All from R. of M. dams.

Glenwood Farms, Mrs. Josiah Letchworth, Prop.

Address: Thos. Rose, Mgr., Ensenore, Cayuga Co., N. Y.

Jersey Bull Calf Dropped November 11th, 1918

Grandson of Majesty's Oxford King. Butter Bred and priced to sell. Herd State Tuberculin tested. Pedigree and description on application. Illinda Stock Farm, Leeds, Ill.

AM OFFERING IRENE'S VICTOR

14 mo. old. Sire, Pansy's Perfection, 7 fairs, 7 blue ribbons, whose dam has 438 lbs. fat, also 7 blue, 2 purple ribbons, at 7 fairs. Torono's Irene, (dam of Irene's Victor), is daughter of Hood Farm Torono 16th., (he a half brother of Lass 66th of Hood Farm, World's champion senior 3-year-old. Irene is also granddaughter of Hood Farm Torono, (sire of 72 in R. of M.)

ED. A. McGILVRA, BARABOO, WISCONSIN.

JERSEY BULLS

Valley Farm is offering young bulls from 2 mos. to 18 mos. old, sired by Noble of Avranche 92571 and Golden Maid's Viscount 113344, both Imported sires. Will sell cheap to make room. Write

FRED STUBLEY, BLACK EARTH, WIS.

REGISTER MERIT JERSEY HERD

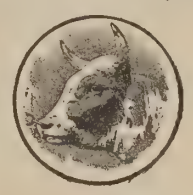
At Head, *Mona's Jacoba Premier* grandson: *Pogis 99th of Hood Farm*. Dam, *Mona's Jacoba*, record 806 lbs. butter; Granddaughter, *Jacoba Irene*, young stock; *St. Lambert* breeding for sale.

R. C. GREEN & SON, ALBION, WIS.

AYRSHIRES

Vesta Robin Hood

World's Record Price Ayrshire Bull



A son of WILLOWMOOR VESTA 4TH, world's record junior 4-year-old for milk, and Grand Champion all over a 1000-mile show circuit while making the record.

Sired by a son of WILLOWMOOR ROBIN HOOD, out of a daughter of HOLEHOUSE WHITE KING.

VESTA ROBIN HOOD IS THE COMING AYRSHIRE SIRE OF THE WORLD.

GOSSARD BREEDING ESTATES

Martinsville, Ind. Preston, Kans. Axial, Colo.

Address all correspondence to the General Offices, 1007 So. Michigan Ave., Chicago.



ALTA CREST FARM AYRSHIRES

CHOICE BULL CALVES AT FARMERS PRICES

ARTHUR H. SAGENDORPH

SPENCER, MASSACHUSETTS

Registered Ayrshires

Four choice young bulls for sale. Also cows and heifers. E. R. McCONNELL, Wellington, Ohio.

Edelweiss Farms—Ayrshires

Stock of all ages for sale. Seven yearling bulls ready for service.

FRED TSCHUDY & SONS, MONROE, WIS.

Willowmoor Ayrshires!

6 World's records. 300 head. Write for circular.

J. W. CLISE, Redmond, Wash. (Near Seattle

World's Champion Ayrshires

25,329 Lbs. MILK, 1,053 Lbs. BUTTER, WORLD'S RECORD FOR ONE YEAR.

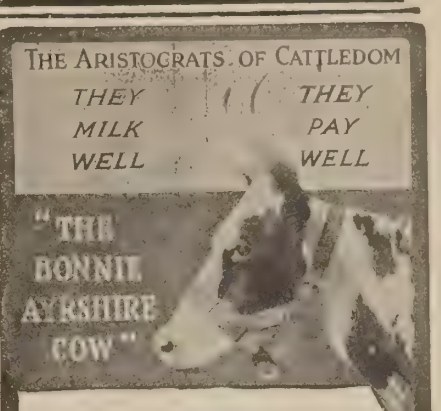
17,759 Lbs. MILK, average for three official records.

93,128 Lbs. MILK and 7 calves in 7 years are some of the records of Garclaugh May Mischief. We offer her grandson, an excellent individual born Sept. 11, 1918. His sire is a splendid son of the Champion bull of Scotland. Special Price $300.00. Penshurst Farm, Narberth, Pa.

THE ARISTOCRATS OF CATTLEDOM

THEY MILK WELL

THEY PAY WELL



For Literature Write

Ayrshire Breeders' Association

24 Park Street, Brandon, Vermont.

Cresmont Farm AYRSHIRES

Are offered in choice bull calves, cows, and heifers. "Finlayston", and "Baron's Best of Bargenoch" breeding. We have what you want at reasonable prices.

W. H. DRUCKEMILLER, Sunbury, Pa.

BROWN SWISS



Productiveness in age makes the Brown Swiss Supreme.

Send postal for free information. Address

IRA INMAN, Sec'y Brown Swiss Breeders' Association, Beloit, Wis.

William B. Hale, Pres., Aqueduct Bldg., Rochester, N. Y.

Walhalla Farms

Pure-Bred Brown Swiss Cattle

Only high class, well bred animals from a clean and healthy herd offered for sale. More than 100 head to choose from and our 20 years' experience is back of every one. Write us now.

F. FREEMYER, WALHALLA FARMS, Middleburgh, N. Y.

Pleasant View Herd

Brown Swiss Cattle

FOR SALE:—A 14-month-old bull, well-grown, good individual. *By sire* out of an A. R. dam with 16,500 lbs. milk, 650 lbs. fat. *Out of* a dam weighing 1,600 lbs., which has milked 75 lbs. a day. Priced for sale.

VISITORS WELCOME.

H. W. AYERS, HONEY CREEK, WIS.

3,036 lbs. MILK—720 lbs. FAT

e average production of the grandams of our Owl-Interest bull calf No. B. 68, dropped l 20, 1918.

s sire is Sibley's Interested Prince, R. of M., who is transmitting the production and rich- of his dam, 15,147 lbs. milk, 875 lbs. fat.

s dam is Mertha's Temisia, now on test, 3,128 lbs. milk, 163.8 lbs. fat in 3¼ months to date. dam made 10,925 lbs. milk, 565 lbs. fat at 11 years, 10 months old.

MOOSE HILL FARMS, Spencer, Massachusetts

IROQUOIS FARM

AYRSHIRES

High production animals of the best milking and prize winning strains of Scotland, Canada and the United States. A few bull Calves for sale.

F. A. CLARK, Proprietor. - WALDO C. JOHNSTON, Agent.

Cooperstown, New York.

Wisconsin Ayrshire Breeders' Association

Buy Ayrshires of the breeders listed below or write the Secretary for complete list of pure-breds and grades.

Jas. Van Etta, Lima Center, Wis.
Fred Tschudy & Sons, Monroe, Wis.
Bollig Bros., Black Earth, Wis.
Adam Seitz, Waukesha, Wis.
Stephen Bull, Racine, Wis.
John DeMaster, Cedar Grove, Wis.

A. J. McNab, Secretary, Black River Falls, Wis.

JERSEYS

EFFICIENCY JERSEYS for the BUSINESS FARMER

We are offering for sale Northern Grown Young Bulls out of cows with authenticated records of over

700 Pounds of Butter in One Year

These bulls are sired by THE KING OF CLOVERLAND whose dam has an authenticated record of

1132 Pounds of Butter in One Year

If you are in the milk, cream or butter business for profit—for all there is in it—you should have one of these bulls at the head of your herd. Write to-day for description and delivered prices.

ROYCROFT FARM, SIDNAW, MICH.

GUERNSEYS

GUERNSEYS

If you want to increase your dairy profits you need to know about the cows whose average production, under tests supervised by State Agricultural Colleges, is three times as great as the average of all dairy cows in the United States. Ask for the "Story of the Guernsey".

The American Guernsey Cattle Club
Box H Peterboro, N. H.

622 POUNDS FAT

is the average of ten Advanced Register records completed in our first two years of testing. One of the present cows on test is the dam of

Falcon's Dictator

dropped July 24, 1918, a superb show youngster, especially well grown and with most attractive markings; clear buff nose. His five nearest dams average 561 pounds fat, A. R.; a sixth is now on test. Price $200.00.

Full particulars on application to

Falcon's Flight Farms, Litchfield, Conn.

GRASSLAND FARMS

Offers several exceptionally choice

Young Bulls For Sale

Send For Price List.

Taconic, Litchfield Co., Conn. (C.N.E.R.R.

May King of Columbia No. 34549

Our head sire is a double grandson of Barrington's May King No. 19312, purchased by U. S. Government. The average records of his daughters with first calf not only exceed the average first calf records of daughters of his grandsire, Imp. May Rose King but also the average first calf records of daughters of sons and other grandsons of Imp. May Rose King. (See page 4 of Guernsey Breeders' Journal July 1, 1918.) For Sale—young cows in calf to Columbia, also an occasional bull calf by him. Tuberculin tested, abortion free herd.

Kathergay Farms, L. W. Sheldon, Manager, Fulton, New York.

Edgewater Farms

Has been the home of such noted Guernseys, as Cherry of Edgewater, Miranda of Edgewater, White Wing of Edgewater, Imp. Queen Regent 4th, Imp. Topsey de Carteret, Miranda of Mapleton, Nellie Tostevin of Mapleton 3rd, The Great Bull Imp. Holden 4th and many other noted animals. We are offering a few choice Bull Calves. **F. G. Benham & Son, Canandaigua, N. Y.**

Harbor Hill Guernseys

We Bred and Developed

The Breed's Champion Roll of Honor Cow

Linden Girl of Harbor Hill 3rd A. R. 4651, 15,032.9 lbs. milk 785.89 lbs. fat Class CC. We offer a few bull calves carrying similar blood lines.

C. H. HECHLER, Superintendent, Box 30, Roslyn, New York.

GUERNSEYS

Choice young bulls of exceptionally good Adv. Reg. breeding for sale. Strong individuals and just as represented. Dams milking from 40 to 55 pounds daily. Could spare a few young cows. Write for pedigrees and prices.

OTTO W. POST, R. R. Station Owasco Lake, Ensenore, New York.

For Sale—Two Distinguished Guernsey Cows

Glen Gable Gold Leaf 52281 A. R., dropped February 15, 1914—A. R. record 10,985.8 pounds milk, 520.73 pounds fat, Class D—due to calve February 24, 1919, to May Rose bull, Madge's May King O. D. 42419.

As an individual this cow is remarkable; in pedigree, she is backed up by only high class ancestry for three generations.

Red Clover O. D. 43697 A. R. 4166, dropped August 29, 1912—A. R. record 8,817.5 pounds milk, 476.32 pounds fat, Class G—due to calve February 6, 1919, to May Rose bull, Golden Rose May King 35264.

This is a cow with size and ruggedness and she is a daughter of one of the greatest living May Rose bulls. *Call or write to the*

Animal Husbandry Department, Delaware College, Newark, Delaware.

GUERNSEYS

Green Meadow Farm

offers several choice young bulls for sale, ages from one to eight months, sired by Pencoyd's Golden Secret 16550, whose sire was Imp. Golden Secret 12599 and out of that great cow, Rose of Gold, a daughter of May Rose 11 8251 P. S. Breeders wishing to get the blood of these great sires will do well to obtain prices and particulars at once, as we have priced them to sell.

Address:

Walter Jauncey, Supt.
Williamstown, - . Mass.

Albamont Guernseys

Headed by

Don Diavolo of Linda Vista the Great $10,000 Bull

Choicest young bulls and several heifers for sale at reasonable prices.

U. S. Bureau Animal Industry Health certificate with all animals over 6 mos. old.

J. C. HAARTZ, 10 High St., Boston, Mass.

Greenway Farm Guernseys

WARE, MASS.

Young bulls of May Rose breeding out of A. R. cows and cows now on test. Herd tuberculin tested. Prices low.

GEORGE H. TIMMINS, Prop.

The Mixter Farm

325 GUERNSEYS 325

Excellent bull calves for sale at exceptionally low rates. It will pay you to visit our herd.

HARDWICK, MASSACHUSETTS.

HILLSWOLD FARM

Shrewsbury, Mass.

Registered Guernsey bull calves for sale. Dams in Advanced Registry and tuberculin tested. Prices right and animals guaranteed to suit. **W. A. Cloues, Mgr.**

ISLAND **GUERNSEYS** FARM

Herd Sires—Bedas May King 11893
Maxim of Linda Vista 42270

24 completed records, all ages, average 516.09 lbs. fat.

17 of above 24, all ages, every record over 500 lbs. fat, 553.78 lbs.

10 first calf heifers included in above 24 average 10025.2 lbs. milk and 502.33 lbs. fat.

Bull Calves of this breeding for sale, out of cows of correct type and proven production. Correspondence solicited. Inspection invited. Address

ISLAND **A. N. HATHWAY, Herdsman, Floodwood, Minn.** MINN.

SWEET SPRINGS GUERNSEYS

Herd Bull—Jacqueminot of Linda Vista.
Sire—Langwater May King.
Dam—Langwater Rosie .724.33 lbs. fat.

A number of bull calves six weeks to one year old, sired by this fine bull for sale at reasonable prices; also a few cows and heifers each year.

Herd Regularly Tested For Tuberculosis.

SWEET SPRINGS FARM
TROY, OHIO.

RAEMELTON FARM — QUALITY BREEDING VALUE — GUERNSEYS

Choice Young BULLS

Backed by Production at reasonable prices.

Raemelton Farm, Mansfield, Ohio.

For Sale: Bull Calves

6 to 7 months old. A. R. Dams. Sire a grandson of Dolly Dimple's May King of Langwater.

Jericho Guernsey Farm, N. C. Dahl, Owner, South Haven, Mich.

EDGEMOOR FARM

Santee, San Diego Co., Calif.
Offers at moderate prices choicely bred

May Rose, Gov. of Chene and Glenwood Bull Calves

Also a few heifers bred to Edgemoor Herd Bulls. Stock guaranteed sound.

On Two Accredited Lists

The Hoard's Dairyman Guernsey Herd Has Been Admitted to the

WISCONSIN ACCREDITED LIST

by the State Live Stock Sanitary Board and to the

NATIONAL ACCREDITED LIST

by the Department of Agriculture at Washington. This means that the herd has been found by annual test for the last eighteen years

FREE OF TUBERCULOSIS

To parties desirous of purchasing Pure-bred Stock free of this insidious disease this is an important matter and means more than any single tuberculin test can mean. Every animal guaranteed to be free of the disease when it leaves the farm.

HOARD'S DAIRYMAN FARM, Fort Atkinson, Wis

Thorn Hill Guernseys



If you want a well bred young Guernsey Bull at reasonable price—May Rose and Glenwood strains—write me. I have always several on hand, all my own breeding, out of A. R. Cows with records up to 650 pounds of fat. Also a few heifer calves each year. Herd regularly tested for tuberculosis. **August Ziesing, Deerfield, Ill.**

PERGUE FARM GUERNSEYS

We are offering now several choice young bulls whose dams are extra good producers. Our stock combines breeding and individuality. Also a few females for sale. Prices exceedingly low. New list ready. Farm located in Livingston Co. Sass Bros., Streator, Ill.

Guernsey Bulls With A. R. Backing

No. 41. Dropped April 22, 1918. Sire:—Allenwood King Regent 23641—3 A. R. daughters. Governor Chene breeding. Price $300.

No. 42. Dropped Aug. 20, 1918. Sire:—Golden Noble of Craigamoor 29215. Sold for $1,500 at auction. May Rose blood. Price $250.

No. 46. Dropped Sept. 29, 1918. Sire:—Victor of Pencoyd 18901, a son of Imp. Golden Secret. Price $200.

All from dams in A. R. or now on test. For description and pedigree, write.

FOLLY FARM, LIBERTYVILLE, ILL.

BUY NOW FOR SALE

Two registered Guernsey bulls, ready for service. Excellently bred. Exceptionally good individuals. **Rock River Farms, Byron, Ill.**
Medill McCormick, Owner. R. S. Hulce, Supt.

IOWANOLA GUERNSEYS

Serviceable Bull For Sale

His Sire is Cherub's Winner, a first prize winner at 1915 Iowa and Minnesota State fairs and Waterloo Dairy Cattle Congress, also 1917 Cattle Congress. He is sired by Imp. Hayes Cherub, one of the best show bulls of the breed and a consistent winner in 1914, 1915, 1916.

Dam:—Florinda of Piedmont 39418, A. R. 3844. Record: 9,910.8 lbs. of milk and 458.9 lbs. of fat in class F. Now beginning retest in Class A.

This bull was born Aug. 1, 1917. He is large, bright and attractive, an excellent individual.

Write us for further information.

Mountain Bros., R. 5, Des Moines, Iowa.

Pinehurst Guernseys Produce

with *farm care. 70 A. R. records* average *465 lbs. fat.* The former home of *Glenwood Boy of Haddon, 4605,* where *26 of his daughters* were bred, whose *A. R. records* average *554 lbs. fat.* His daughter *Dairymaid of Pinehurst* made *860* and *910 lbs. fat.* Present herd bulls, *a line bred Glenwood,* and *a line bred May Rose.*

E. W. Strawbridge, Moorestown, Burl. Co. New Jersey.

HOMESTEAD FARM

Offers a bunch of choice young Guernsey bulls sired by *Pencoyd's Golden May Secret 39626,* all from A. R. cows. Write for particulars. Herd on the Accredited List.

W. G. Jamison & Sons, - Appleton, Wis.

Guernsey Bulls For Sale

I offer for sale two excellent sons of Dairymaid's Glenwood of Pinehurst 3rd 26948. One 10 months old from a 529-lb. 3-year-old. One 9 months old from a daughter of Langwater Frenchman 1922 that is now on test and will make 550 lbs. fat. One 8 months old son sired by Langwater Frederick 22268, and from a May Rose Grandam with 510 lbs. fat 2-year-old record. One 4 months old son of Imp. Clara's Sequel 29414 from a splendid dam that will make 650 lbs. fat. Also several other sons sired by Imp. Clara's Sequel 29414, who has 25 A. R. daughters—10 average 513 lbs. fat as heifers. Sale list.

HOMER F. RUNDELL, - LIVINGSTON, WIS.

A Bargain in Guernseys

I am offering for sale several excellent young bulls up to 9 months old, sons of Hilda's Pride of Riverside, he an A. R. son of Lord Waukesha. All of these youngsters are from A. R. dams. They are well grown and good straight individuals. I am also offering 4 heifers by the same sire; 3 are 15 months old, one 4 months old. My herd is accredited. These animals are priced to sell. Write at once for pedigrees and prices. **Maple Heights Guernsey Farm, Frank E. Swan, Wauwatosa, Wisconsin.**

Tratt Guernsey Her

Herd headed by Bob Rilma's Mono whose dam and grandam have A. R. re averaging 887.5 lbs. fat.

Bull calves for sale by him out of cows i good A. R. records.

Write for pedigrees and prices.

RALPH TRATT, WHITEWATER,

BIRCHWOOD GUERNSEYS

Young bulls for sale sired by May King's Vran Ingleside No. 15430 who has ten A. R. daughter have A. R. records that average about 600 lbs. fa all but one of these were 2 and 3 year olds wh records were made. The dams of these bulls ar cially tested. Herd on the state accredited list. for sale list. **M. L. WELLES, Rosendale, Wis**

MAPLE HIL Guernsey Farm

Guernsey bulls for sale of serviceable age i A. R. backing.

FRUIT BROTHERS, WAUKESHA,

SARNIA

Imported and Home Bred Guern

No more to spare from 1918 importa Place your order early for heifers from 9 importations.

Several high class bulls for sale from cows, and sired by best bulls money can Send for sale list.

Charles L. Hill & Son, - Rosendale,

TILDEN FARM GUERNSEYS

For Sale:—Several yearling sons of Invi of Walter Maple 36398, whose sire was brother to the World's Champion May I and whose dam has an A. R. Record pounds of butterfat. These bulls out of of our best cows. We are also offering very choice yearling and two-year-old H both pure-bred and grade. Herd tube tested and free from disease.

Tilden Farms, James H. Murphy, Mgr., Delavan, Wis

KOSHKONONG PLA GUERNSEYS

Herd Bull: Jury of Koshkonong a
Sire: Jewel of Koshkonong Place .
Dam: Blossom of Koshkonong 714 lbs. fat.

Seven Bulls six to fifteen months Satisfaction guaranteed with every **A. R. HOARD, Fort Atkinson,**

MOUND CITY FAR GUERNSEYS

FOR SALE—An outstanding good individual bu born Feb. 7th, 1918. Sired by Imp. Clara's Sequel Alma Ethel 495 lbs. butterfat at 2 years, 621 lbs. f years in Double A. A. class, 7th in this class.

Another good bull calf born July 7th, 1918. Sire maid's Glenwood of Pinehurst III. Dam: "Imp of Mound City" a daughter of "Imp. Clara Seque has an A. R. record of 580 lbs. fat at 2½ years. Sold sale list of these and other bulls.

CHAS. A. WILKINS, - PLATTEVILLE,

PARK FAR May Rose Bulls For Sal

Guernsey bulls from 1 month to 1 yea from A. R. dams with records up to 6 fat. Sired by Lura's King of Maple Hi 35525 whose half sister sold at Public Sa $5,025 and whose sire sold at Public Sa $2,100. Write for Pedigrees.

John H. Williams, Park Farm, Waukesha, Wi

56 Hereford,

Angus and Shorthorn Steers For Sale

ght 600 to 1050 lbs. Choice quality. If in- ed write your wants.
RY I. BALL, FAIRFIELD, IOWA.

r An Auctioneer

and one that knows values of both

-bred and Ordinary Live Stock

me for dates as I have 95 per cent of all this section of country. Also sell Real at Auction.
HEMBROOK. - Chetek, Wisconsin.

cket Herd Register loose leaf

he pocket—very complete—durable. Five- eather cover and 100 sheets. Order today. $4
tock Printing Company, La Grange, Illinois.

SWINE

UBLIC SALE

of Big Type

Hland China Bred Gilts and Tried Sows

Friday, Feb. 14th, '19

At Lancaster, Wis.

Conducted by the Grant County Hland China Breeders' Associa- n. Write secretary for catalog.
A. Morehouse, Sec'y, Lancaster, Wis.

OLAND CHINAS

H. WEIGH AND WIN. We bred and e Wis. 1918 Grand Champion Boar, Double Hadley rd boars and farm boars, open gilts, or ed when bred, sired by 3 Grand Cham- boars. Boars and gilts not related. d without corn, and IMMUNE. Tell us you want. We can please you. March weigh up to 275.
on, Eastman & Rech, Lancaster, Wis.

dar Crest Farm Berkshires

Cholera Immune

wonderful bargains we offered in Berkshires so quickly taken advantage of that we have not a boar of serviceable age for sale and only a few sows, weighing 250 to 300 lbs. bred for their first cond litter and a limited number of unbred fall Our stock is right and our price is right. Write ay for complete information. Remember—first first served—the quicker your order is placed the the selection to choose from.
R CREST FARM, J. K. Dering, Prop., Lake Villa, Ill.

Albamont Registered Berkshires

tra fine animals of both sexes, spring and ner farrow offered at attractive prices. oicest line of breeding. For pedigrees and list address
Haartz, 10 High Street, Boston, Mass.

Kilehurst Farm

DUROCS OF QUALITY

have a limited number of choice Spring Boars any eft. Order now. Prices right. We will satisfd
Kilehurst Farm, Elwyn F. Bradley, Manager, Momence, Illinois.

HOLSTEINS

Herd Bull For $50.00

his young bull is three months old, well rn, a perfect individual—a little more than white. His dam is a daughter of greatest sire that ever lived, Pontiac Korn- , while his own sire is from a 29-lb. three- -old, her dam a 28-lb. cow. Write for a gree of him. Also the reason Why a pure- Holstein bull pays.
. Backus & Sons, Maple View, N. Y.

A Pure-bred Heifer Calf For $75.00

he is very well grown, about two months very light in color, and well bred. Her is from a 36-lb. cow, that twice made 32 lbs. and her dam is a 16-lb. three-year- that is a great producer.
irst come, first served. Write for further iculars.
V. Backus & Sons, Maple View, N. Y.

PUBLIC SALE

Registered Holsteins
100 - HEAD - 100

Cuba, Ohio, February 25th, 1919

50 fresh cows with calves by their side.
50 cows and heifers bred to my 36-pound Herd Sire.
The best lot of cattle you ever saw in a sale ring.
Send for catalog.

Dr. A. D. Blackburn, Cuba, Ohio.

A SON OF KING OF THE PONTIACS

The World's Greatest Proven Sire

For $350

This is half his value—but his color is against him, as he is nearly all black. He was born in August, is a splendid individual, and is out of a 19-lb. 3-yr.-old. Don't miss this chance of a life time.

Geoffrey G. Burlingame, Cazenovia, N. Y.

$300.00

Buys a Son of the Great Sir Veeman Hengerveld

Bull calf born Oct. 20, 1918, a large growthy fellow, and a fine individual.

Sire:—Sir Veeman Hengerveld, the latest century sire, and the only living sire with sixteen 30-lb. daughters. His daughters average the highest for butter and third highest for milk of any sire having 60 or more A. R. O. daughters.

Dam—Blanche DeKol Segis, a granddaughter of King Segis, and has the following A. R. O. record: Butter, 7 days, 28.48; 30 days, 109.86. Milk, 7 days, 617.9; 30 days, 2,604.

This young bull is offered at less than half his value, on account of his being dark in color.

W. D. ROBENS, POLAND, NEW YORK.

Owing to Long Continued Illness—

I have decided to sell immediately part or all of the Lakeside Herd, including heifer calves, yearling heifers, bred heifers, cows and bulls of various ages, several of them from dams with records of 30 to 35 lbs. butter in a week. A rare chance for parties who wish to breed a high class, embracing individuality, breeding and production. E. A. POWELL,

904 W. Genesee St., Syracuse, New York.

HOLSTEIN BULLS

GRANDSONS OF THE

World's Champion Milk Cow

Out of dams milking over 20,000 pounds of milk per year. $250.00 each delivered your station.

ANTRIM FARMS, SYRACUSE, N. Y.

Only 3 Bulls Left For Sale

They are sons of Sir Johanna Piebe White whose dam and full sister average 1030 lbs. butter for 1 year and his 1st 3 daughters to freshen, as Jr. 2-year-olds, made 19, 20, and 23 lbs. butter 7 days. These are Dec. and Feb. calves and their dams are good yearly record daughters of count of the Pontiacs. Herd on Fed. Accredited List.

RAY MEEKER, MUNCIE, INDIANA.

P. S. Meet me at the National Dairymen Sale.

Service Bulls

5 bulls from 1 to 2 years old. One a son of Pontiac Korndyke. One a son of King Segis Pontiac. The others and several not of service age are grandsons of these two great sires. Also a fine daughter of King of the Pontiacs and one by Pontiac Korndyke. Priced to sell. Write for full information.

WM. N. OSBORNE, WANATAH, IND.

FOR SALE—A YEARLING BULL

of 5/8 breeding, whose dam's 3-yr.-old record with two of her three nearest dams and his sire's three nearest dams, average 29.62 lbs. butter in 7 days. His sire from a daughter of Hengerveld De Kol, and sired by a son of K.P. Pontiac Lass. His dam by a 27-lb. son of Colantha Johanna Lad. Also, bull calves sired by a son of King Segis Pontiac, and whose dam is a daughter of Pontiac Korndyke. Priced for quick sale. For further information write, **GLENN WILSON, Wanatah, Ind.**

FOR SALE

Heifer Calves

Registered Holstein-Friesians, also a few choice bull calves all sired by my Senior 30-lb. bull and Junior sire from 21½-lb. 2-yr.-old. These calves are of the best Pontiac and Korndyke breeding, nicely marked, good individuals, from dams with A. R. O. records and milking as high as 90 lbs. per day on dairy rations.

WM. WICKERSHAM, Embreeville, Pa.

The Greatest Bull on Earth

SIR ORMSBY SKYLARK

He Sired the Champion Record Cow of the World, Duchess Skylark Ormsby

Sons of Sir Ormsby Skylark from high testing dams for sale. I can't raise sons of Sir Ormsby Skylark fast enough to take care of the inquiries which we are receiving.

MAXWELL FARMS, WATERLOO, IOWA

A White One Ready for Service

His dam has a 26-lb. 7-day record, and as a 2-yr.-old made S. O. yearly record of 644 lbs. butter, 13,860 lbs. milk. He is a son of King Korndyke Sadie Vale 24th and was born November, 1918—individually as great as his sire. Mail a card for photo and pedigree.

W. B. BARNEY & SONS, CHAPIN, IOWA.

Pure-bred Holstein Cows and Heifers

Good young A. R. O. cows, to freshen in January and heifer calves of superb breeding and individuality for sale at prices that will move them quickly. Herd bull also for sale.

THOS. STEWART, BIGGSVILLE, ILLINOIS.

A Rare Chance

To secure a few choice

Grade Holstein Cows

Just fresh and due within a few weeks. These cows were selected to furnish milk for a famous summer hotel which is soon to be turned into a Government Hospital. They are a very fine lot and will be sold in numbers to suit the buyer. There are only a few of this kind in New York State. Wire your arrival. Don't wait to correspond.

River Meadow Farms, Portlandville, N. Y.

Holstein Heifers

325 High grade heifers 1½ to 2½ years old, bred to freshen this fall and early winter, large, well marked, fine condition.

50 Registered yearling heifers, beautifully marked, very well bred, good size, nice condition, extra fine lot.

35 Registered heifers, bred to freshen early this fall, practically all springing now, fine individuals, bred to good bulls.

Positively the best lot of registered and high grade heifers ever offered for sale in New York State. Buy now before the price advances.

J. A. Leach, 203-205 Savings Bank Bldg., Cortland, N. Y.

Soon Ready for Service

Young Holstein bulls from good Official Record dams and sired by SPRING FARM KING PONTIAC 6TH. Fourteen of his first sixteen two-year-old daughters last winter each made better than 20 lbs. of butter in seven days; a showing never before equaled by the first two-year-old daughters of any other sire. These young bulls are nice straight, thrifty, desirable animals. We would be glad to write you full particulars. You will be surprised that our prices are so low for so much quality.

Henry Stevens and Son, - Lacona, N. Y.

Springdale Farms

Grade Holsteins

Our herd consists of nearly five hundred head and they are all FOR SALE. We are prepared to furnish carload lots of fresh cows, springers or cows due to freshen this fall, also two and three-year-old heifers. If you want large, heavy producing cows it will pay you to see our stock. You will find our prices right. F. P. SAUNDERS & SON,

Cortland, New York. Office 50 Clinton Ave. Telephone 116 or 1476M.

You Can Still Get One But Act Quickly

Nearly all of our sons and grandsons of Pietertje Hengerveld Segis are sold. A few up to 11 months old from high record dams can be bought yet. Pietertje is the only bull living with 100 A. R. O. daughters and 55 sons. He is the best Segis sire living. Prices to suit you.

Susquehanna Farms, Hartwick Seminary, N. Y.

A Grandson of the Famous $50,000 Bull

Here is a show bull, about three-quarters white, born Sept. 27, 1918. His sire is one of the best bred sons of the World's Greatest Sire,

KING SEGIS PONTIAC ALCARTRA

His dam has a junior three-year-old record of 22 lbs. butter and 482 lbs. milk. His ten nearest tested dams average 28 lbs. butter. Price $135. G. G. BURLINGAME, Cazenovia, N. Y.

BULL CALF

Dams Record (4 yr.) 25.79 lbs.
Sire's Dam's Record (3 yr.) 31.18 lbs.
Dam is Granddaughter of Pontiac Korndyke.

Calf born Sept, 29th, 1918. Beautifully marked, fine individual. Write for full pedigree and photo. Delivered express prepaid any point in U. S. A. Price $225.00.

Harry L. Benedict, R. D. No. 2, East Syracuse, New York.

Holstein Breeders, Attention! Buy your bull calves young, 2 to 6 mos. old, good individuals, nicely marked from A. R. O. dams. Sire: King Segis De Kol Fayne 8th, whose dam has 7-day A. R. O. butter record of 25.63 lbs. His grandsire is the sire of Segis Fayne Johanna, the world's record butter cow for 7 days. 1 service bull for sale. C. I. Reamer, North Liberty, Indiana.

Lisle Farms Co.

Offer High Class

Holstein Bulls

Every dam with an A. R. O. or C. T. A. record. Herd tuberculin tested. Prices right.

Send Today for Bull Sale List.

H. C. Barker, Herd Mgr., Lisle, Illinois.

Farm 25 miles West Chicago, on C. B. & Q. R. R.

Whitehurst Farm

Offer Two Bulls Just Ready For Service

Both have Semi-Official dams. They are sired by M. M. Mercedes Mechthilde Homestead who carries the blood of Jessie Fobes Bessie Homestead and is closely related to Duchess Skylark Ormsby. No. 1 Dam has a record of 710 lbs. butter in 365 days at five years old. No. 2 Dam has record of 527 lbs. butter in 365 days at 2 years of age. These calves are fine individuals and are good enough to head any herd. Write for prices and pedigrees.

WHITEHURST FARM, Canton, Ill. A. F. Randolph, Prop.

Buffalo Creek Farm

HOLSTEINS

We have a number of well bred bulls nearly ready for service, from dams with yearly records. Write for pedigree and price.

H. L. BINGHAM, Arlington Heights, Ill.

MILLIONS

Of dairy cows have been slaughtered in the old world. When this war is over dairy cows and products will command unheard of prices. Now is the time to get in. Send for our free price list of 100 head of choice females or if interested in a bull ask for bull list.

WOODLAWN FARM, Sterling, Illinois.

Never mind the 7-day records, it is

The Other 358 Days

that show a cow's producing ability. We are offering young bulls with

Yearly Record Backing

at very moderate prices.

IOWANA FARMS, Davenport, Iowa.

Write For Catalog

SERVICE BULLS

Sired by 2,400-lb. proven bulls, from large yearly and seven-day record dams. We can offer you best of blood lines, great size, individuality and a price to meet your requirements. No females for sale. Visit Rival Stock Farm or write,

L. E. Ferguson, Laurens, Pocahontas Co., Ia.

Here's An Opportunity to Buy a Yearly Record Bull

Our entire herd has been bred for yearly production and a fairly high fat test—4% or better. Get a bull that is individually right, bred right, and backed by yearly records. We have a few good ones for sale.

Hargreve & Arnold Holstein Co., Norwalk, Ia.

VERY HIGHLY BRED YOUNG Holstein-Friesian BULLS

and two heifer calves are offered for sale cheap. All are registered, tuberculin tested and sound. Write or see "LIVE FAIR" VIEW, Waverly, Iowa. Otto Bradenburg, Mgr.

Tri-County Holstein Breeders

SECOND

ANNUAL SALE

Evansville, Wisconsin

(Two blocks from the depot.)

January 29th, 1919

85 REGISTERED HOLSTEINS 85

Sold Under 60-Day Retest Guarantee

A Quality Sale

Eight of the cows listed are bred to a 42-lb. bull.

A still larger number are in calf to a 35-lb. sire.

Many more are bred to such bulls as Finderne Pride Johanna Korndyke, a son of the highest living yearly butter cow—Finderne Pride Johanna Rue.

Many of the cows listed have creditable A. R. O. records as high as 31.82 lbs. The cow holding this record is in calf to a 35-lb. bull and is insured in the Hartford Life for $1,000.00.

Young Bulls Listed

A 30.32-lb. son of Diamo Pontiac Korndyke through whom he traces to Fairview Korndyke Mata, 47.11 lbs., and Korndyke Wiona, 42.16 lbs.

Sir Pontiac Artis Gelsche, out of a 20.22-lb. Jr. 2-yr.-old daughter of a 30-lb. cow; and a grandson of King of the Black and Whites.

Two sons of Finderne Pride Johanna Korndyke. Their dams will soon be tested in Cabana's herd.

Also a splendid young son of King Model.

Granddaughters Listed

There are granddaughters of Pontiac Korndyke, King of the Pontiacs, Spring Farm King Pontiac, King Segis Pontiac, King of the Black and Whites, King Segis DeKol Korndyke, Admiral Walker Prilly, King Segis Pontiac Alcartra, and Aaggie Cornucopia Johanna Lad.

Don't only plan to attend the sale but come prepared to be present at the big banquet at the Central Hotel the evening of the sale. Good speakers have been selected and a good time is assured.

F. B. Green, Sec'y and Sale Manager, Evansville, Wis.

Auctioneers: Mack, Haeger and Finnane.

30-Lb. Cows—30-Lb. Bulls

Michigan Agricultural College East Lansing, Michigan

Thursday Forenoon, February 6th, '19

40 Head of Extras At Auction

From Central Michigan Breeders Including

A 32-lb. cow, a 31-lb. cow, a 27.3-lb. cow, her daughter and granddaughter, a 25.6-lb. cow and her 22-lb. and 26.95-lb. daughters. A 25-lb. jr. 3-yr.-old and a 20-lb. two-yr.-old and her daughter, a daughter of a 30-lb. cow, 4 daughters of 25-lb. cows, a daughter of a 21-lb. 2-yr.-old and others with good records. Several yet to be tested before the sale. The most of these records were made by inexperienced men. These cows are bred to bulls from cows up to 35 lbs. There are 39 females of which 32 are cows.

Two bulls—One from a 29.91 jr. 4-yr. granddaughter of Sir Korndyke Pontiac Artis sired by a 32-lb. son of King Segis Pontiac Alcartra. This bull's dam looks like a sure 30-pound cow at maturity. The other is from a cow now on test with 31.53 lbs. butter from 734.0 lbs. milk in seven days. She will be run 30 days and make very nearly 3,000 lbs. milk. He is sired by a bull from a 32-lb. son of King Segis Pontiac Alcartra out of a 31-lb. daughter of a 31-lb. cow.

All are positively guaranteed and sold subject to 60-day retest. Watch this space next week. For catalog address

Chas. A. Daniels, Sale Mgr., Okemos, Mich.

Dispersal of A. R. O. Herd of Holstein-Friesian Cattle

Free From Tuberculosis. Under Supervision Bureau of Animal Industry.

Peaceland Elzevere No. 217291: 6 years old. 25.58 lbs. butter at 3 years 11 months.
Peaceland Pietertje No. 218039: 6 years old. 19.237 lbs. butter at 4 years.
Peaceland Calamity No. 218038: 6 years old. 10.99 lbs. butter at 2 years.
Peaceland Segis No. 243872: 5 years old. 17.73 lbs. butter at 3 years.
Peaceland Queen No. 243871: 5 years old. 16.57 lbs. butter at 3 years.
Peaceland Bonheur No. 238271: 5 years old. 18.38 lbs. butter at 2 years, 9 months.
Peaceland Pride No. 243873: 4 years old. 19.78 lbs. butter at 2 years, 9 months.
Peaceland Korndyke Pietertje No. 273955: 4 years old. 14.28 lbs. butter at 2 years.
Peaceland Korndyke Calamity No. 273956: 4 years old. 11.69 lbs. butter at 2 years.
Peaceland Korndyke Elzevere No. 273957: 4 years old. 14.84 lbs. butter at 2 years.

Three heifers, 2 to 3 years of age; 4 yearling heifers; 5 heifer calves.

All records given above are A. R. O. for 7 days. All cows in excellent condition and fresh since October save one, due this winter.

Herd located at Fabius Station near Three Rivers, Michigan. For breeding and prices, write.

C. L. BRODY, Port Huron, Michigan.

Bull Calf Born November 22nd, 1917

Sire, Sir Ormsby Banostine Champion No. 166276. A son of the World's Champion Dairy Cow over all ages and breeds, Duchess Skylark Ormsby No. 124514 who has a record of over 1500 lbs. butter and 27761.07 lbs. milk at 5 years. Dam, Emblagaard Pontiac Dot, No. 279877—7 day record as a 2-year-old—butter 21.38 lbs., milk 451.50 lbs. Dam's Dam, Junior De Kol Dot No. 107665, 7 days at 9 yrs., butter 36.54 lbs. milk 633.50 lbs. butter for 365 days 874.53 lbs., milk 19463.10 lbs. This calf is a good individual, little more black than white, weight 850 lbs. at 1 year. Send for detailed pedigree.

Emblagaard Dairy, - Marquette, Michigan.

THE TRAVERSE HERD

We have what you want in

BULL CALVES

the large, fine growthy type, guaranteed right in every way. They are from high producing A. R. O. ancestors. Dams' records up to 30 lbs. Write for pedigrees and quotations, stating about age desired.

Traverse City State Hospital, - Traverse City, Michigan.

When writing advertisers please mention Hoard's Dairyman.

Winterthur Farms

OFFER FOR SALE

King Sadie Vale Urma 23535

Born March 30, 1918

Here are the records of his nearest dam

DAM (two-year-old)	*20.04 lb*
ONE GRANDAM	*38.46 lb*
THE OTHER GRANDAM	*25.50 lb*
ONE GREAT GRANDAM	*41.06 lb*
ANOTHER GREAT GRANDAM	*41.06 lb*
The five average	*33.22 lb*
His 7 nearest Dams average	*31.27 lb*

Like his sire, he is dark in color, lon straight and deep-bodied.

The sire, King of the Sadie Vales, is o of a 38.46-lb. cow. His dam's dam is al his sire's dam, namely: Sadie Vale Co cordia 4th (41.06 lbs. butter). His da and grandam have the highest 30-day a erages in the World, 157.71 lbs. butter. N other bull in the World can equal his thr to nine nearest dams for 30-day butt production. The sire of King of the Sad Vales is the only bull in the World with 40-lb. dam, a 40-lb. sister and a 40-l daughter.

The dam of King Sadie Vale Urma r cently made as a two-year-old: 20.04 lb butter, 399.20 lbs. milk (7 days); 73. lbs. butter, 1,571.30 lbs. milk (30 days Her dam has a 25.50-lb. record, and h maternal grandam has a 26.38-lb. recor She is a granddaughter of Sir Urma Burke (three 30-lb. daughters), and great granddaughter of Pontiac Korndy (two 40-lb. daughters).

We have put the price on th bull that will put him well with reach of the small breeder. For fu ther particulars, write, wire or con to

WINTERTHUR FARM

WINTERTHUR, DELAWARE

The Pontiac Her

"Where the Champions come from"

Offer Bull Calves sired by sons of *Pon Korndyke, Hengerveld DeKol, Pontiac Du land, or Admiral Walker Pietertje.*

Do you want a Pontiac in your herd?

PONTIAC STATE HOSPITAL. Pontiac, M

"NO HORNS"

Naturally Polled Holstein-Friesian bull ca sired by a son of the World's Record senior 4-yr 1294.7 lbs. butter in 365 days, at $100 and up. Descri catalogue for stamp.

GEO. E. STEVENSON & SONS, Clarks Summit

How About a Herd Sire?



MUTUAL FOBES LONGFIELD DEKOL 82959
A Splendid Son of His For Sale.

The Calf—M. M. Tritomia Fobes Longfield was born Feb. 2, 1918. He is nearly white, as straight as a line, and very well grown.

His Sire—Mutual Fobes Longfield DeKol already has 22 A. R. O. daughters and a large number of younger ones coming on that will be retained in our herd. His sire is one of the good sons of Mooie Mutual DeKol and his dam, a daughter of Homestead Jr. DeKol, made 30.04 lbs. butter, 630.80 lbs. milk in 7 days as a jr. 3-yr.-old; 124.42 lbs. butter and 2,651.60 lbs. milk in 30 days. (World's record when made).

The Dam, Milford Tritomia Fobes Homestead, a daughter of Canary Fobes Bessie Homestead, made 17.35 lbs. butter, 358.2 lbs. milk as a jr. 3-yr.-old; the second dam 17.38 lbs. butter, 408.3 lbs. milk; third dam 22.19 lbs. butter, 488.40 lbs. milk.

This is an excellent combination of breeding, the sire of this youngster and his dam's sire both being from daughters of Homestead Jr. DeKol, both with records above 30 lbs. butter and 600 lbs. milk.

The calf is priced within reach of any small breeder. Write us today for complete information about him.

MILFORD MEADOW'S STOCK FARM, Lake Mills, Wis.

A 1919 Proposition

30-Lb. Ready for Service 30-Lb.

Dam: A 30.36-lb. 4-year-old daughter of Colantha Johanna Champion with his nice list of 30—35-lb. daughters.

Sire: A 35-son of Sir Pietertje Ormsby Mercedes with his great World's record producers.

He is about one-half white and when you see his pedigree you'll want to breed him on the best daughters of your old bull.

His pedigree is waiting for you. *"Home of the Johannas."*

W. J. GILLETT & SONS, - ROSENDALE, WISCONSIN.

OLSTEINS Registered and Grade Holsteins of all ages and both sexes for sale. Can furnish several car-loads of excellent females due to freshen this fall, y for immediate shipment. Several bulls ready for service.

JERNSEYS We have an excellent lot of grade and pure-bred Guernsey females. Can supply a carload of cows and heifers due to freshen before winter. All in calf to good sires.

RCHERON HORSES We have several registered fillies and young stallions; also two aged stallions that we will sell for less than their real value if taken at once.

ROC JERSEYS Anything you want in Duroc Jersey Swine.
cattle sold on a 60-day retest guarantee. Write us at once before the best ones go.

DGEWATER STOCK FARM, Fort Atkinson, Wis.

A Bull Born March 11th, 1918

Sired by King Superba No. 176125, whose dam produced 26,433 po nds of milk in a year and r 1,200 pounds of butter as a four-year-old. She also made the world's record by producing 2 pounds of butter 9 months after calving.

The dam of this young bull is one of the good daughters of King Segis 11th who is a son of g Segis and Blanche Lyons Netherland, the wonderful cow who has a 34-pound record, a 34- nd daughter, and 3 other daughters above 27 pounds. Price $300.

J. MANN & SONS, WAUKESHA COUNTY, WAUKESHA, WISCONSIN



Cloverlawn Johanna Piebe

His five nearest dams average 1,070 lbs. of butter, 23,809 lbs. of milk a year. Highest yearly record bull of the world 2 years old or over. Choice young bulls from our large yearly record cows for sale. 125 head. 29 yearly record cows. State exactly what you want.

JOHN PULS, - HARTFORD, WISCONSIN

A Bull That Will Suit You

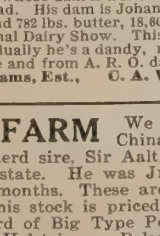
He's sired by Dutchland Colantha Belle Boy whose dam is a 27.5-lb. 3-year-old daughter of Hengerveld De Kol, whose sire is the great Colantha Johanna Lad. His dam is Johanna Theresa 2d, a granddaughter of Sir Johanna Kol. She made 21.68 lbs. butter in 7 days, and 782 lbs. butter, 18,600 lbs. milk in 1 year. Moreover she's a show —took first as a 4-year-old at the 1911 National Dairy Show. This youngster, just a little over 6 months old, is ed by short and long time records. Individually he's a dandy, nearly half white, just the kind you've been ng for. Other young bulls by the same sire and from A. R. O. dams for sale. Write

YSIDE STOCK FARMS, A. L. Williams, Est., C. A. Williams, Exec. Fond du Lac, Wisconsin.

EST SALEM STOCK FARM We offer Registered Holsteins and Poland Chinas for sale; 30 choice milk cows, three to nt years old, in calf to our Junior herd sire, Sir Aaltje Pontiac Hengerveld, a 33.68-lb. bull, one of the best individuals in the state. He was Jr. Champion at our Interstate fair. 25 fers and 12 bulls, three to eighteen months. These are sired by King Segis Pontiac Polkadot Well grown and nicely marked. This stock is priced to sell in single or car lots. Also offer ding stock, Wisconsin's greatest herd of Big Type Poland Chinas. Come and see our stock, write us for just what you want in Holsteins or Polands. We can please you. Farm located nt in City Limits.

J. D. McDONALD, WEST SALEM, WISCONSIN.

. R. O. Holstein



Cows and Heifers

order to make room in our barns we st sell a number of cows and heifers t are backed by large official milk butter records. They are bred to SCONSIN STAR STOCK FARMS,

our great herd sire, King Korndyke Veeman, whose two nearest dams average over 37 lbs. butter in 7 days. Write for particulars or come to

ED. M. SCHULTZ, Hartford, Wis.

CREATOR

Pabst's New Herd Bull

Sire: Sir Pietertje Ormsby Mercedes, the greatest sire of Association and Show Ring prize winners of the breed. He has three daughters with yearly records from 1,140 lbs. to 1,389.45 lbs. butter and eight with 7-day records from 30.66 lbs. to 42.31 lbs. butter.

Dam: Spring Brook Bess Burke 2d, the greatest living cow of the breed in many respects. She possesses a combination of size, individuality, short, and long distance records that cannot be equalled by any cow, past or present. She is a superb individual, weighs 2,225 lbs., has three 7-day records above 35 lbs., and three yearly records above 1,000 lbs. butter.

PABST STOCK FARM
Dept. A, Oconomowoc, Wis.



Yearly Record Bull Calf

Born August 8th, 1918

Sire—Iowana Sir Ollie, 2 A. R. O. daughters including state record jr. 2-yr.-old for 7 and 30 days. He is a son of the famous 31-lb. cow, Ollie Watson Prima Donna, and sired by a son of Jessie Fobes Bessie Homestead, 34.96 in 7 days and 932.73 in a year.

Dam—Groveland Inka Netherland. Butter, 1 yr., 832.75; milk, 19,640.4 lbs. Butter, 7 days, 24.87; milk, 556.20. Her sire is the old time show bull, Groveland Inka Hijlaard, and her dam a granddaughter of DeKol 2d's Butter Boy 3d. Calf is ¾ white and an outstanding individual. Write now for price, pedigree and photo.

WALCOWIS FARMS,
Lake Geneva, Wis. N. Dickinson & Son.

Your Breeding Problem Solved if You Buy a Son of Beauty Pietertje Prince (56435)

His fine list of daughters will then begin working for you.

Our feeders will then begin working for you.

Buy one of these:—

BEAUTY PIETERTJE PRINCE 23RD (239999) born March 7th, 1918, out of 17.3-lb. 2-yr.-old daughter of JOHANNA McKINLEY SEGIS now on yearly test making a large record.

BEAUTY PIETERTJE PRINCE 19TH (239995) born Feb. 24th, 1918, out of 21-lb. 3-yr.-old daughter of Canary Paul Fobes Homestead from a 28-lb. daughter of Fobes Tritomia Mutual DeKol.

Carnation Stock Farms

On Oconomowoc Farm,
Oconomowoc, Wis. Seattle, Wash.

TWO DANDY ORMSBY BULLS

No. 1 born Feb. 25, 1918. Dam a 16.85-lb. 2-yr.-old daughter of a 35.43-lb. sire. Second dam 21.80 lbs. butter. Bull marked about ⅔ white. Extra good individual. Price $200, delivered. No. 2 born Mar. 2, 1918. Dam has a 4-yr.-old record of 21.80 lbs. butter, one of the best yearly producers in the herd. Bull is about evenly marked, a good individual. Price $150, delivered. Both of these bulls are sired by my 29-lb. Ormsby bull. For further particulars address. **A. M. Anderson, Whitewater, Wis.**

Six Bulls 10 to 13 Months Old

Sired by bull whose dam is full sister to Pietertje Maid Ormsby out of A. R. O. dams. Also 15 females from 1 year to 8 years old. Write your wants. Satisfaction guaranteed. **FAIRVIEW STOCK FARM,**
W. G. Marshall, Proprietor, Whitewater, Wis.



BUTTER TESTS

by Agricultural Societies begun in 1886.

At the close of the year 1897, competitive tests between Holsteins and Jerseys were made on 73 different occasions, resulting in an excess of production of the Holsteins of 23% over the Jerseys; an average per day of 1.992 lbs. for the Holstein and 1.614 for the Jersey.

If interested in **HOLSTEIN CATTLE** Send for our booklets—they contain much valuable information.

HOLSTEIN-FRIESIAN ASSOCIATION OF AMERICA, Box 101, Brattleboro, Vt.

HOLSTEINS AT AUCTION



Send for information about the sales of healthy, reliable, registered cattle, held at **Brattleboro, Vermont**, the **First Tuesday and Wednesday of every other month, Feb. 5-6; Apr. 2-3; June 4-5; Aug. 6-7; Oct. 1-2; Dec. 3-4, 1918.** *Come to Brattleboro, the Holstein-Friesian Capitol of America.*

Address The Purebred Live Stock Sales Company.

Rock River Valley Farm

Awarded

FIRST PRIZE

In Wisconsin Dairy Cow Competition

The *Winner, Queen Juliana Dirkje,* produced in one year as a 3-year-old 1,021.72 lbs. butter, (80% fat.) Over 30 yearly record cows in herd headed by Mutual Piebe DeKol.

A few young bull calves from these cows sired by this bull for sale. (Herd tuberculin tested.)

JOHN HETTS, FORT ATKINSON, WIS.

FOR SALE—REGISTERED HOLSTEIN BULL

We still have one dark colored bull about eleven months old, well grown and a splendid individual, show ring type. His two nearest dams average 25 lbs. of butter for seven days, and 700 lbs. for the year, one of them as a two-yr.-old who gave 16,000, lbs. of milk in a year. They will be tested again at their next freshening and we feel very sure that both dams will make at least 30 lbs. He is sired by a grandson of the great King of the Black And Whites. Will make a great bull for somebody. Price $250.00—decidedly reasonable quality, breeding and records considered. Address:

Elm Leaf Stock Farm, Bear Creek, Wisconsin.
James McKone, Proprietor, William Lucia, Mgr.

$25 Holsteins $25

We have thousands of satisfied customers and we want you as one. Buy the best. Five weeks old, 15-16 pure, $25 crated. Express paid. C. O. D. Write us for anything in cattle.

Dr. J. A. Roberts Stock Farms, Oconomowoc, Wisconsin.

HIGH GRADE HOLSTEIN

Calves, either sex, from heavy producers, well marked, 4 to 6 weeks olds, 15-16ths pure. $25 each, crated and shipped to your station. Express and all charges paid here.

Highland View Place, - Whitewater, Wis.

READY FOR SERVICE

We have for sale a bull born February 1918. Mostly white. Good individual. Sire has good yearly record backing. Dam an A. R. O. cow from good breeding.

AITKEN BROS., - WAUKESHA, WIS.

HOLSTEINS

Holstein cows, heifers of all ages. If we haven't what you want will help locate. Three weeks old high grade Holstein heifer calves at $20 each. We are in a position to handle any limited sized order. We guarantee high grade satisfaction and safe arrival. Pure-bred bull calves by 30-lb. sires or better at $40.00. We also have a few service aged bulls, at $150 and up.

YOHN'S STOCK FARM, Watertown, Wis.

Grade Holstein Calves

From the Dairy Center of the World selling at $25 express prepaid. On account high price whole milk. *Order now.* Also pure-breds.

R. B. Hellen, Sec'y Milk Producers Assn., Jefferson, Wis.

OLD DEERFIELD HERD

FOR SALE—Young Holstein Bulls, 2 to 4 mo. old. Sired by King Piebe Korndyke Johanna No. 210876. Price $45 to $50 Registered, transferred F. O. B. cars my station. Herd tuberculin tested.

CARL FOLL, R. F. D. DEERFIELD, WIS.

Holstein Pedigrees

To Holstein breeders who appreciate promptness and accuracy in pedigree work, the *Wisconsin Live Stock Advertising Co.* will render a genuine service.

We make a specialty of *sale catalogs.* Our price is $2.50 a page including pedigree for lots of 500. Write for particulars.

WISCONSIN LIVE STOCK ADV. CO.
413-14-15-16 Pioneer Bldg., Madison, Wis.

Registered Holstein Cows, Heifers and Calves For Sale



OUR herd is reaching such proportions that we find it necessary to offer for sale at this time thirty-five or more cows, heifers and calves.

This is a strictly high-class offering and not a "cull" sale. Among them are cows with records from 20 to 25 lbs. and heifers from high producing dams.

Every animal is guaranteed sound in every respect. Will furnish Federal certificate of health and if purchaser desires we will sell subject to sixty-day retest.

Come up and see us if possible. We will be glad to give you particulars by mail but this is not as satisfactory for either party.

The E. C. Schroeder Farms,
Moorhead, Minn.

To Avoid Inbreeding We Offer For Sale Our Senior Herd Sire.



AAGGIE PONTIAC GRAHAMHOLM LAD
160480. Born Jan. 11th, 1915.
A SHOW BULL That Will Look Mighty Good in Any State Fair Ring.
Sire. Aaggie Cornucopia Johanna Lad Jr., 56 A. R. O. daughters.
Dam. Arcady Pontiac Pietertje Beets. Butter, 7 days, 28.53 lbs. Butter, 365 days, 683.8 lbs.
We are raising all his daughters, none are for sale—and we will officially test them as fast as they freshen. Fine, straight individuals, all of them—no sloping rumps—and all show uniform good udder development.
He is a quick, sure breeder and a gentle bull to handle. Weight 2,200 lbs. Buy him and you will soon have a sire with a number of A. R. O. daughters, and a show bull as well.
Send for extended pedigree and full particulars. **ELMWOOD FARM HERD, U. L. Lashbrook & Son, Northfield, Minn.**

FOR SALE
A BULL CALF
Born Feb. 11th, 1918

He is a little more black than white. He is a good individual, being straight over back. His sire is a 25-lb. bull. Write for information and photo. Price $75. **E. R. Emery, Stanton, Minn.**

GRANDSONS OF KING SEGIS
Grahamholm Farm has a choice lot all ages up to 10 months. Sired by Sir Winana Beets Segis. He has a 35-lb. daughter, a 30-lb. daughter, and a good number of other great producers.
We also have sons of Dutchland Creamelle Colantha Lad, one of the best bred bulls for yearly production.
Every cow in the herd has an A. R. O. butter record. Come or state your wants. Address **W. J. BOYNTON, Mgr., Rochester, Minn.**

Buy Them Young

Buy your herd sire young and save money. You can raise it as cheaply as we can.
We are offering for sale some excellent young sons of Buffalo Skylark Ames, a champion at two National Dairy Shows with a fine list of A. R. O. daughters, and out of A. R. O. dams. Write for full information.
E. H. Kuchenbecker, R. 1, Owatonna, Minn.

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3 BULLS — HOLSTEINS — 3 BULLS

No. 2 born Feb. 17 almost white, his dam has A. R. O. rcd. of 23.28 lbs.	All by a 23.3-lb. SIRE	No. 3 ready for service. his grandam has A. R. O. record of 20 lbs. at 3 yrs.

No. 1 born Feb. 17 almost white, his dam has A. R. O. rcd. of 20 lbs. at 3 yrs.

HENRY B. DANIELS, STANTON, MINN.

Grandsons of Sir Pietertje Ormsby Mercedes

The sire is Sir Pietertje Ormsby Mercedes 22d, a son of Minnesota's first 1000-lb. cow. These bulls are all nicely marked, straight top lines. Very good individuals from good A. R. O. dams.
For pedigrees and prices, write
O. J. GROVER, - GLYNDON, MINN.

HE IS SIRED BY A SON OF
Sir Pietertje Ormsby Mercedes
that is out of a 30-lb. sister of Pietertje Maid Ormsby. His dam is a 17-lb. three-year-old daughter of a 28-lb. grandson of Sir Ormsby Hengerveld DeKol. He is mighty good to look at. Dropped last August. $300. We have some for more; a few for less.
POPLAR HOLLOW STOCK FARM,
Bertram D. Scott, Prop. P. O. Station F. Minneapolis.

Here's Your Chance to Get a
Choice Bull
From a sire whose 4 nearest dams averaged 29 lbs.
Born November 1916 Black and white
Born February 1917 Black and White
Born May 1917 Black and White
3 Choice Bargains
L. H. HUNTER, RANDOLPH, MINN.

Registered Holstein Bull Calves

from three weeks to one year old. Several now ready for light service. Present herd sire is a 30-lb. son of **Colantha Johanna Lad**—"The greatest producing bull in the world." Herd is absolutely clean and on the accredited list.
GEO. H. ELWELL, Minneapolis, Minn.

ARDEN FARMS

OFFER FOR SALE

Two Sons of King Segis Pontiac Count

whose daughters have broken more than 100 World's Records.

One from a 24-lb. daughter of *Oak DeKol Ollie Homestead*, the famous show bull, and the other from a 21-lb. three-year-old granddaughter of *King Walker*.

The dams of both of these bulls are magnificent cows, and will increase their records without doubt.

Both of these bulls beautifully marked, one about half and half in color, and the other nearly all white.

Both are wonderful individuals, straight, vigorous, healthy and absolutely guaranteed. *They are good enough to head any herd in the world.*

Write us for Prices and Pedigrees.

J. M. Hackney, Owner 601 Merchants Bank Bldg.
ST. PAUL, MINNESOTA

A Show Bull For Sale Out of the Grand Champi Holstein Cow at the Steele County Fair 1918



ROXIE JOHANNA SPOFFORD 3RD

Sired by Johanna Bonheur Champion, of Colantha Johanna Champion, 45 A. R daughters, and Johanna Bonheur 890 butter in a year. Champion Roxie Joha Bonheur is very straight, deep and wide, ready for light service. His dam, Roxie hanna Spofford 3rd, has a record 20.77 b in 7 days and making a good year record is a brother to the Grand Champion mal the National this year and to a two-yea that made 780 lbs. in a year. 4 dams in pedigree average 983 lbs. of butter. He little dark but his sire and dam are li Stop and put this together; a son of a G Champion that gave 80 lbs. milk per da brother to the Grand Champion at the tional and sired by a great bull with g pedigree. For sale for $400.

SLOAN BROS., - ELLENDALE, MINNESO

HEAD YOUR HERD WITH
A Young Bull of Ormsby Qualit
One that has been bred for both production and individuality. A son of
Sir Ormsby Banostine Champion
will exactly fill the requirements. We have a few excellent youngsters by royally bred sire. Write today for full information.
JOHN B. IRWIN, WOODLAKE AND CLOVER FARMS, Sta. F, Minneapolis, M

Prize Winning Yearling Bull For Sale.
Sire, Sir Korndyke Wren, who is sired by Sir Korndyke Hengerveld De Kol 36th, and from a high producing and Grand Champion daughter of Sir Pietertje Ormsby Mercedes. Dam, just made 27.16 pounds butter from 588 pounds milk and we are expecting wonders from her on semi-work. A bargain at $400. His value will have doubled when dam finishes year's work. We also have 5 young bull calves whose 2 nearest dams average from 29 to 31 pounds butter with milk records running as high as 706 pounds milk in 7 days. We breed for type, size, health, and production. Our herd must be seen to be appreciated. Herd on State Accredited List.
STEIDL BROS., - WHEATON, MINNESOTA.

Three Dandy
Holstein Bulls
FOR SALE
Born Jan. 4, Jan. 22, Feb. 11, 1918. Sired by 32, 25, 19-lb. bulls and from tested cows. Price $100 and up. **G. A. Uitdenbogerd, Rosemount, Minn.**

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A Few Ready for Light Service
We have a few choice young bulls for sale. They are nearly ready for service, are from A. R. O. dams and by one of Minnesota's good Holstein sires. We are short of room and so are pricing them to sell rapidly.
Write today for further information. They won't stay here long.
Fleck's Registered Holstein Farm,
Ed. Fleckenstein, Mgr. Faribault, Minn.

Do You Need a Bull?

I am offering a splendid yearling for sale. He is growthy, well marked, and as straight as a line. His dam is a 24-lb. 4-year-old daughter of Sir Veeman Hengerveld and his sire a 28-lb. son of King of the Black and Whites. His 11 nearest dams average 28.34 lbs. in 7 days. Several younger bulls for sale.
E. J. BROSIOUS, STILLWATER, MINN.

Lake Shore Holstei
Health accredited by state and federal governr Stock of both sexes and all ages for sale at reaso prices. **E. J. Oppliger, Box 20, Forest Lake, M**

SPECIAL BARGAINS ON ALL O HOLSTEIN BULLS
Sons of Judge Lyons and King Record f A. R. O. dams for sale. Four weeks to months old. The kind that are fit to hea breeder's herd. **F. H. Sohre & Son, Good Thunder, M**

A Grandson of
Sir Pietertje Ormsby Mercede
FOR SALE
He is dark in color like his famou Grandsire. A choice individual. years old. Dam, an A. R. O. daught of a bull who was *Grand Champi* of a *National Dairy Show*. A ra bargain. **V. S. Culver, Stillwater, Min**

New Year Bargai
In Registered Holstein Bull Calves.
We have a number of bull calves up to months of age. They represent the very bes breeding and individuality. For thirty only, we are offering these high class ani for less than half their value. Prices $40 up.
RED CLIFF DAIRY, - Blackville, S

Frank White & Son Will Sell Their

GROVELAND HERD

of Registered Holsteins

Tuesday, January 28th, 1919

At Woodstock, Illinois

This Is An Absolute Dispersion

60 Holsteins to Be Sold

Including 20 cows of milking age all but two of them with creditable A. R. O. records up to 28.45 in 7 days. This includes a daughter of Tidy Abbekerk Prince, 2 daughters of Spring Farm King Pontiac 5th, now on semi-official test, a 21-lb. granddaughter of King of the Pontiacs from a sister to Belle Model Johanna 2nd, and others equally well bred.

Most of these cows are bred to a 28.45-lb. son of King Korndyke Hengerveld Ormsby or to a son of King of the Pontiacs. Some will be fresh at time of sale and others heavy springers.

14 daughters of King Pontiac Maplecroft (see below), 7 of them splendid 2-yr.-olds safe in calf to Groveland Ormsby Korndyke—due to freshen this spring—7 short yearling heifers. 3 two-year-old daughters of Groveland Pontiac Segis, he a grandson of King of the Pontiacs.

Bulls: A 3-year-old Son of King of the Pontiacs

His dam—Princess Maplecroft Pauline made 26.04 lbs. butter and 613.9 lbs. of milk in 7 days. This bull is one that would show well in any ring and his 14 daughters, to be sold, prove him a sire of excellent individuals.

Groveland Ormsby Korndyke, a 28.45-lb 2-year-old son of King Hengerveld Ormsby (51 A. R. O. daughters), he a son of Sir Korndyke Hengerveld De Kol and Pietertje Maid Ormsby.

6 young bulls, 3 of them ready for service. All from A. R. O. dams—one of them by Groveland Pontiac Segis and from Lady Ona Kejlaard, an A. R. O. cow that was for years a consistent show ring winner.

Every animal to be tested by state approved Veterinarian.

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Remember: Our cattle have not only proven themselves as producers but in the show ring as well.

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This is a Harris Home No. J. R. 1001 but one of more than a hundred beautiful designs in the new free edition of the Harris Book of Plans. Excellent arrangement, five rooms and a big attic.

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Size 18x30 Inches **$15.95**

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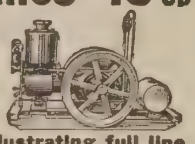


White Porcelain Enameled one-piece roll rim sink and back; two nickel plated faucets and strainer; lead "P" trap. **No. J.R.6520**—20x36 in. **$16.95. No. J.R.6530**—18x30 in. **$15.95.**

Complete With Fittings

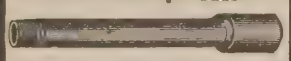
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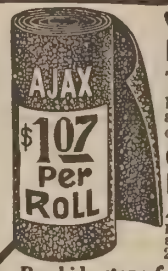
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Complete cobbler outfit consisting of reversible iron stand, lasts, hammer, knife, sewing awls, hafts, needles, rivets, heel plates, leather and rubber cement, clamp, punch, soldering copper, thread and wax. **Order No. J.R. 54.**

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Ajax high grade rubber surfaced roofing; put up 108 sq. ft. to the roll. Complete with nails and cement. **No. J.R. 302,** 3-ply, per roll **$1.27.** 2-ply, per roll **$1.17.** 1-ply, per roll **$1.07.**

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28 gauge painted 2½ in. corrugated, overhauled siding sheets; 6½ ft. long. **No. J.R. 306,** per 100 sq. ft. **$2.00.**

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Consists of porcelain enameled 5 ft. bath tub, half circle lavatory size 18x21 inches, and low down closet outfit with golden oak, heavy copper lined tank and syphon wash down vitreous china closet bowl; seat and cover of closet finished to match the tank. The outfit is furnished complete with all nickel-plated fittings above the floor line, bath cock, faucets, supply pipes, etc., ready to install.

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J. R. 20	2	300	$42.50
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SPECIAL Discount of 3 If Cash Accompanies Order!

HOG TROUGHS



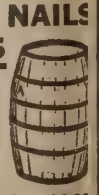
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In Stock now. Common, Fence, Casing, Finishing, Box, Flooring, Roofing Nails and Spikes. Sizes from 2 to 60d. Common Nails from 20d to 60d, per 100 lb. keg, **$4.95. Other kinds and sizes proportionately low.**

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$2.17 Gal.

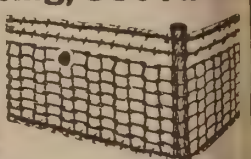


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Special barbed bottom galvanized fencing. Made of No. 11 top wire and No. 14 intermediate line and stay wires. Stays spread 6 in. apart. **J.R. 209,** 26 in. per rod **33c. J.R. 210,** 32 in. per rod **39c.**



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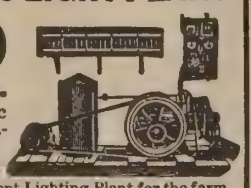
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